

# ESI Call Accounting Application

eSIPx, Communications Servers and IP Server 900

User's Guide



We make it easy to communicate

# ESI Call Accounting Application User's Guide

## About

ESI (Estech Systems, Inc.) is a privately held corporation based in Plano, Texas. Founded in 1987, ESI designs and builds innovative telecommunications products for businesses like yours. Because of their powerful combination of value and features, ESI products are consistently recognized by industry publications and leaders.

## Support

Thank you for choosing ESI.

For product updates and web support, visit <http://support.esi-estech.com/>

## Estech Systems, Inc. (ESI)

3701 E. Plano Parkway, Ste. 100  
Plano, TX 75074-1819  
Phone: 972 422-9700 | Fax: 972 422-9705

For more information about ESI visit <http://www.esi-estech.com/>.

# ESI Call Accounting Application User's Guide

## Table of Contents

<b>Introduction .....</b>	<b>6</b>
FEATURES .....	6
SYSTEM REQUIREMENTS .....	6
<i>ESI System Requirements.....</i>	<i>6</i>
<i>PC Requirements.....</i>	<i>8</i>
PRE-INSTALLATION CHECKLIST .....	8
<b>ESI Call Accounting Pro vs. ESI Call Accounting Lite.....</b>	<b>8</b>
LICENSE TYPES FOR ESI CALL ACCOUNTING .....	8
<i>ESI Call Accounting Pro.....</i>	<i>8</i>
<i>ESI Call Accounting Reports-Only.....</i>	<i>8</i>
<i>ESI Call Accounting Lite.....</i>	<i>8</i>
ESI CALL ACCOUNTING PRO VS. ESI CALL ACCOUNTING LITE CHART .....	9
<b>ESI Call Accounting Pro with ESI VIP 7 ACD Supervisor Advantages.....</b>	<b>11</b>
FEATURE ENHANCEMENTS .....	11
<b>Installation .....</b>	<b>11</b>
<b>Configuration .....</b>	<b>14</b>
ACCESSING SETTINGS .....	14
ACCOUNT CODES SETTINGS .....	16
<i>Add New Account Code.....</i>	<i>17</i>
CALL COSTING SETTINGS .....	18
<i>Scenario 1: Outbound, intra-state calls.....</i>	<i>19</i>
<i>Scenario 2: Local calls and toll free calls do not have a charge associated with them.....</i>	<i>20</i>
<i>Scenario 3: Charge international calls per minute.....</i>	<i>21</i>
<i>Scenario 4: Charge Int. calls per min., while charging specified Countries different rates per min.....</i>	<i>22</i>
<i>Scenario 5: Charge a flat rate for certain calls.....</i>	<i>22</i>
<i>Scenario 6: Charge interstate long distance per minute.....</i>	<i>23</i>
<i>Scenario 7: Charging inbound calls per minute.....</i>	<i>24</i>
<i>Modifying Costing Patterns.....</i>	<i>25</i>
DATABASE SETTINGS .....	25
DID/DNIS NUMBERS SETTINGS .....	27
EMAIL SETTINGS.....	30

# ESI Call Accounting Application User's Guide

EMAIL ALERTS .....	32
MISCELLANEOUS SETTINGS .....	36
NETWORKED SITES SETTINGS .....	38
LICENSE SETTINGS.....	39
PHONE SYSTEM SETTINGS.....	40
SCHEDULED REPORTS SETTINGS.....	43
USERS SETTINGS .....	47
<i>How to add users</i> .....	48
USER GROUPS SETTINGS.....	49
<i>How to add a new user group</i> .....	50
WORKING HOURS SETTINGS .....	52
<b>Using ESI Call Accounting .....</b>	<b>54</b>
RETRIEVING CALL DATA.....	54
REFRESHING CALL DATA .....	60
REPORTING.....	61
<i>Running A Report</i> .....	61
<i>Report Preview Options</i> .....	63
<i>Scheduling A Report</i> .....	66
PIVOT TABLES .....	69
<i>Getting Started With Pivot Tables</i> .....	69
<i>Pivot Table Screen Navigation</i> .....	73
<i>Creating/Modifying A Pivot Table</i> .....	79
<i>Drilling Down Into Pivot Table Data</i> .....	83
<i>Conditional Formatting</i> .....	86
CHARTING .....	89
<i>Creating A Chart</i> .....	89
<i>Chart Tools - Design</i> .....	95
<i>Chart Tools - Other</i> .....	96
MAPS.....	97
<b>Configuration for Demo Call Data .....</b>	<b>102</b>
INTRODUCTION.....	102
DEMO CALL DATA SETUP .....	102
<b>Index .....</b>	<b>103</b>

# ESI Call Accounting Application User's Guide

# ESI Call Accounting Application User's Guide

## Introduction

*ESI Call Accounting* is a robust yet intuitive PC application that tracks a wealth of call data supplied by your ESI phone system. Inbound and outbound calls can be analyzed and visualized via a wide variety of easy-to-use yet powerful reports, charts, and Pivot Tables. *ESI Call Accounting* offers functionality featured by other call accounting products, at a fraction of the price – and with several licensing options, enabling customers to select the application type that best fits the specific needs of each site and user.

The 3 license types will be discussed in greater detail, but in a nutshell they are as follows:

**Pro:** The full-featured application which includes all functions and capabilities. Max of one copy per site.

**Reports-Only:** An add-on to the *ESI Call Accounting Pro* Application allowing an unlimited number of additional users to view reports; design and view Pivot Tables and charts; and view the U.S. Map.

**Lite:** A feature-limited edition providing basic call detail reporting at an economical price for one user.

For a comparison, please reference [ESI Call Accounting Pro vs. ESI Call Accounting Lite](#).

## Features

- Collects detailed call information on inbound and outbound calls from your ESI eSIPx, Communications Server or IP Server 900 phone system.
- Generates an array of summary, detail, and analysis level reports.
- Automatically emails reports per user specifications.
- Offers an unlimited variety of charts, with customizable parameters.
- Provides Excel-style Pivot Table capability, to summarize and quickly target specific calls.
- Creates a visual geographical analysis of call activity through the Maps function.
- Tracks telecommunications costs with Flexible Call Costing.
- Notifies of calls matching user-specified criteria with Call Alerting.
- Advanced reporting available for ACD/call queuing (on the Communications Server and IP Server 900 systems, *VIP 7 ACD Supervisor* is required, which is sold separately).

## System Requirements

In order to ensure a successful installation, please make sure your ESI System and PC meets the following requirements.

### *ESI System Requirements*

ESI Call Accounting Pro/Lite is compatible with:

- **eSIPx Evolution Series:** (eSIP 50x, eSIP 100x, eSIP 200x, eSIP 500x)
- **Communications Servers:** (ESI-50L, ESI-50, ESI-100, ESI-200, ESI-600, ESI-1000)

# ESI Call Accounting Application User's Guide

- **IP Server 900**
- **Call Processing software:** (for eSIPx and IP Server 900, all releases; For ESI Communications Servers, versions xx.5.13.0 or Higher)

In order to use ESI Call Accounting, systems must be setup as follows:

## eSIPx Evolution Series:

- Create an AMI user in the phone system programming:
- Log into the eSIPx system via a web browser.
- Click the "Settings" icon.
- Click the "Security" icon in the "System" group.
- Select the "Service" tab at the top of the window that appears.
- Scroll down to the bottom and check the "Enable AMI" box.
- Enter a Username and Password (you will need to also enter the Username and Password in the ESI Call Accounting software later).
- Under Permitted IP/Subnet Mask, enter the IP address and the subnet mask of the PC on which you will be installing the ESI Call Accounting software. Note that if the PC does not have a fixed IP address, you can specify all IP addresses on the LAN by entering 0 as the last octet in the IP address (for example, 192.168.0.0). The subnet mask is usually 255.255.255.0 for small businesses.
- Click "Save".
- At the top of the screen, click the "Apply" button.
- In ESI Call Accounting, in the Phone System settings, enter the IP address of the eSIPx system, the port number (usually 5038), and the user name and password you chose earlier.

## ESI Communications Servers and IP Server 900:

- **Capturing SMDR data over Ethernet:** The NSP must be setup to output SMDR data over an IP network in Function 18 of your ESI phone system. Specific setup instructions will depend upon whether you wish to use the "standard" or the "Extended" format; these details can be found by going into the ESI Call Accounting Settings ("Phone System" tab) and choosing your desired format.
- **(Optional Setup) for additional capabilities:**
- Neither ASC card nor external HDD is required, but if used these devices will store SMDR information as a backup if the PC running call accounting is powered down or power cycled. Also, if *ESI VIP 7 ACD Supervisor* is added, you will have access to enhanced ACD reporting, charting, and other capabilities. For more detail, please reference section [ESI Call Accounting Pro with ESI VIP 7 ACD Supervisor Advantages](#) or FAQs documents.

# ESI Call Accounting Application User's Guide

## PC Requirements

The following are the minimum PC requirements in order to install and run ESI Call Accounting Pro/Lite:

	Windows Operating Systems				PC Hardware			
	Win 10 Pro	Win 8, 8.1 Pro	Win 7 Pro	Vista Pro	Processor	Ram	Free HDD Space	LAN
<b>ESI Call Accounting</b>	Yes (64-bit)	Yes (64-bit)	Yes (32/64-bit)	Yes (32/64-bit)	Intel i3 (or Equivalent)	2 GB	1 GB (Minimal)	YES

## Pre-Installation Checklist

Before attempting to install *ESI Call Accounting*, perform the following steps:

1. Update your PC with all recommended Microsoft Windows updates. You can begin this process by going to [www.microsoftupdate.com](http://www.microsoftupdate.com).
2. Ensure that you have Administrator privileges on the local PC where you will install the software.

## ESI Call Accounting Pro vs. ESI Call Accounting Lite

To ensure we provide the best solution to fit your sites' needs, ESI has created 3 license types for *ESI Call Accounting*. For a full description of what each license offers, please read the license type descriptions below. For a comparison, please reference [ESI Call Accounting Pro vs. ESI Call Accounting Lite Chart](#).

## License types for ESI Call Accounting

### ESI Call Accounting Pro

*ESI Call Accounting Pro* license: the full-featured version of *ESI Call Accounting*. This version includes all of the capabilities designed into the product. Only a single copy of *ESI Call Accounting Pro* can be installed at a site; but if multiple users are needed, you can purchase additional "Reports-Only" licenses, which can be allocated to additional users on the LAN.

### ESI Call Accounting Reports-Only

*ESI Call Accounting Reports-Only* license: a read-only, add-on client for multi-users on the *ESI Call Accounting Pro* license. If a copy of *ESI Call Accounting Pro* is installed at a site, you can add an unlimited number of additional *Reports-Only* users on the LAN. This is perfect for a site with multiple managers.

With this application, the *ESI Call Accounting Pro* user will be setup as the admin and has the privileges to configure program settings. The *Reports-Only* users will be allowed to run all of the reports, design and view pivot tables and charts, and view the U.S. Map, but will not have access to configure program settings.

### ESI Call Accounting Lite



## ESI Call Accounting Application User's Guide

*ESI Call Accounting Lite license:* a feature-limited version of ESI Call Accounting, at an economic price. This is for companies that only need basic call reporting, for one user only. The Lite version allows for all of the detail reports to be generated (with the exception of the DID/DNIS Report).

The Lite version **does not** support:

- Viewing of Summary or Analysis reports
- DID/DNIS Reports
- Generating/viewing Charts
- Generating/viewing Pivot tables
- U.S. Map
- Report scheduling via email
- Email alerts
- ACD (Automatic Call Distribution)/call queuing reports

### ESI Call Accounting Pro vs. ESI Call Accounting Lite Chart

Feature	ESI Call Accounting Pro	ESI Call Accounting Lite
Detail reports*	Yes (10+)	Yes, except for DID/DNIS report
Summary reports*	Yes	N/A
Analysis reports*	Yes	N/A
Report output format(s)	Adobe PDF, HTML, MHT (Single File Web Page), RTF (Rich Text), XLS/XLSX (Excel), CSV (Comma Delimited), TXT (Plain Text)	Same
Call data tracked/reported*	Timestamp, Direction, Duration, Line, Extension, Caller ID Name, Number, DID/DNIS Number, DID/DNIS Name, Hold Time (Non-ACD), Cost, Is Transferred Call, Transferred To/From, Is Voice Mail Call, Is Site To Site Call, Site Designation, Account Code (non-forced), Account Name, Account Fee, Department, User, User Group, Rate Center City/State/Zip/County, Hour of Day, Half Hour of Day, Day of Week, Day of Month, Month of Year, Week of Year. eSIPx only: Ring Time, PIN Codes (non-forced account codes)	Same, except for DID/DNIS information

## ESI Call Accounting Application User's Guide

<b>ACD (Automatic Call Distribution)/call queuing support</b>	eSIPx: Yes. Communications Servers and IP Server 900: Optional (requires ESI VIP 7 ACD Supervisor license, sold separately)	N/A
<b>Automatic report scheduling/emailing</b>	Yes	N/A
<b>Email alerts based on flexible call criteria</b>	Yes	N/A
<b>Tracking of unique calls**</b>	Yes	Yes
<b>Charting</b>	Yes	N/A
<b>Customizable charts</b>	Yes	N/A
<b>Chart export formats</b>	BMP, GIF, JPEG, PNG, TIFF, Adobe PDF, HTML, MHT (Single File Web Page), RTF (Rich Text), XLS/XLSX (Excel)	N/A
<b>Pivot Tables</b>	Yes	N/A
<b>U.S. Map</b>	Yes	N/A
<b>Call data collector runs as a Windows service</b>	Yes	Yes
<b>Database/inactivity alarms to email</b>	Yes	Yes
<b>SMDR formats supported</b>	eSIPx: via AMI. Communications Servers and IP Server 900: NSP (Standard or Extended format), ASC (hard drive)	Same
<b>Multi-user licensing</b>	Yes (can add additional, Reports-Only license(s) for as many PCs on the LAN as desired)	N/A

\*Call data tracked and report types available are also dependent upon your ESI phone system model and SMDR configuration.

\*\*In most call reporting software, when a call is placed on hold or transferred, it is counted as two separate calls. *ESI Call Accounting* also keeps track of the total number of unique calls (so that a single call is only counted once, regardless of the number of times it was put on hold or transferred).

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 Technical Support: (800) 491-3609 • Fax: (972) 422-9705 • Website: [www.esi-estech.com](http://www.esi-estech.com) • Support Website: [support.esi-estech.com](http://support.esi-estech.com)

pg. 10

# ESI Call Accounting Pro with ESI VIP 7 ACD Supervisor Advantages

ESI Call Accounting Pro supports the collection and reporting of ACD (Automatic Call Distribution) data. This support is provided natively on the eSIPx platform. On the Communications Servers and IP Server 900, ACD reports are available when an installation of *ESI VIP 7 ACD Supervisor* is present (licensed separately). It is recommended that both Call Accounting Pro and *ESI VIP 7 ACD Supervisor* be installed and running on the same PC.

## Feature Enhancements

The additional benefits when adding Call Accounting Pro with *ESI VIP 7 ACD Supervisor* are:

- Ability to view ACD hold time for individual calls
- Ability to view information for multiple ACD departments in a single report
- 4-department restriction lifted
- Can limit agent call detail to ACD calls only
- View both ACD hold duration as well as non-ACD (manually-held call) hold duration
- Additional information for ACD calls, such as whether a call was transferred to/from another extension, city/state information, call costing, and more
- Report on number of unique calls, to get a true call count (i.e. count each call singly, regardless of the number of times it was put on hold or transferred)
- Flexible email alerts, including ability to get an email whenever a call in queue is abandoned
- For abandoned call report, see how long caller waited in queue before hanging up
- Can report on all calls to/from outside lines in system, including for extensions that are not part of an ACD group
- Can schedule reports to be automatically generated and emailed
- Create Charts and Pivot Tables that include ACD call information
- View U.S. Map of where ACD calls are coming from

As previously indicated, ACD information is provided by eSIPx phone systems automatically, and the capabilities above are all supported. *ESI VIP 7 ACD Supervisor* is not needed for, or supported by, the eSIPx platform.



## Installation

As of this writing, the latest version of *ESI Call Accounting* can be obtained from the ESI Reseller web site by authorized ESI resellers.

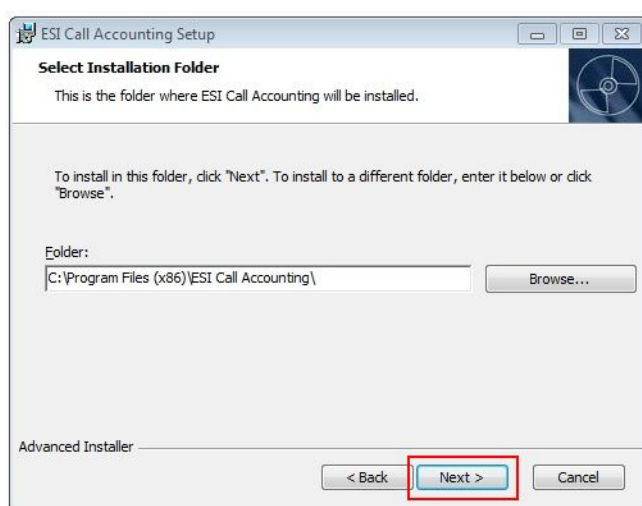
# ESI Call Accounting Application User's Guide

After extracting all the files in the installation archive to their own folder, double-click on the file "Setup.exe" to launch it.

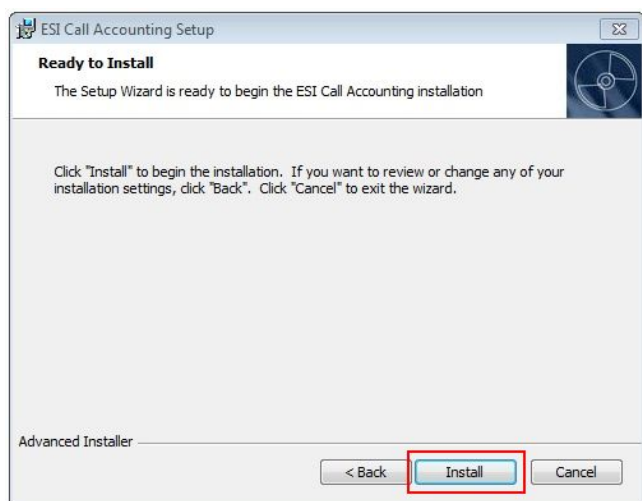
**NOTE:** If there are any additional Microsoft components that need to be present on your PC in order for ESI Call Accounting to run correctly, you will be prompted to install them. If you are, please allow those components to be downloaded and installed (for example, the Microsoft .NET Framework 4.0, or SQL Server Compact 4.0).

Setup Screen	Steps
	1. After any prerequisites are installed on the PC, you will see the following screen:
	2. Click on the "Next" button to proceed. The following screen shows:  3. This is the End User License Agreement for the <i>ESI Call Accounting</i> software. Please read through it carefully to ensure that you agree with the terms of your use of this software.  4. Once completed, select the "I Agree" selection then click the "Next" button to proceed with the installation. Next, you will be asked to specify where you would like <i>ESI Call Accounting</i> to be installed:

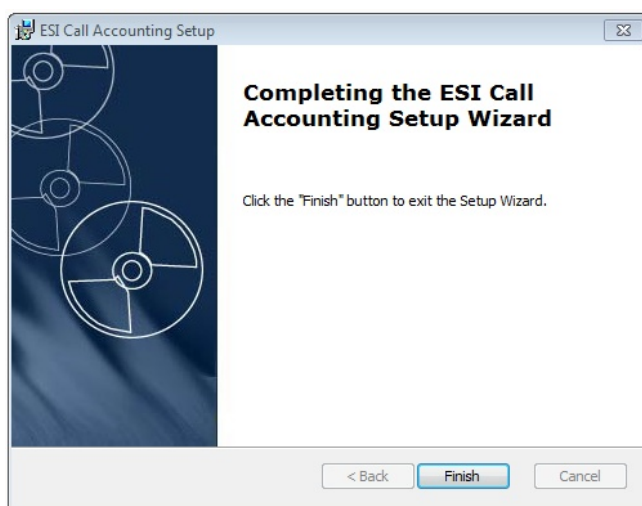
## ESI Call Accounting Application User's Guide



5. You may choose the default location and click the **"Next"** button.



6. On the following screen, click **"Install"** to begin the installation:



7. After a few moments, the installation will complete and you will see the following screen:
8. Click **"Finish"**. The installation is complete!

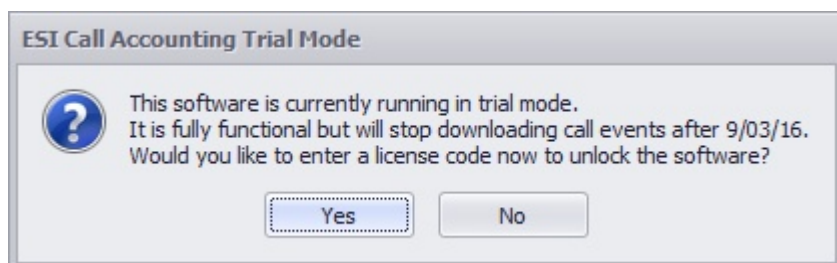
# ESI Call Accounting Application User's Guide

## Configuration

### Accessing Settings

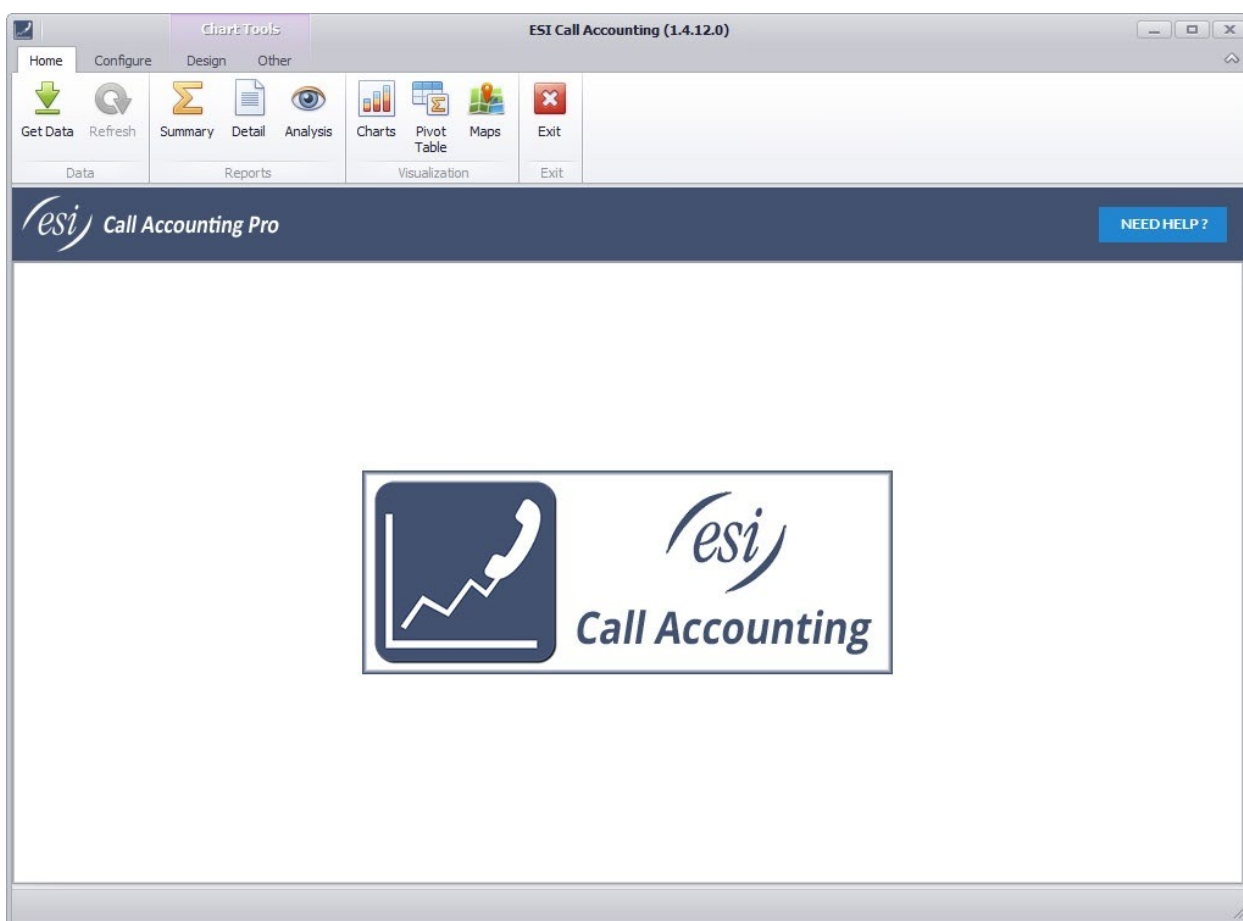
To access the Settings screens of *ESI Call Accounting*, you must first launch the program. You can do this either by double-clicking on the desktop icon, or you can locate it by clicking on the Windows Start button and locating and clicking on the shortcut to the application.

When you first run *ESI Call Accounting*, you will see a box similar to the following:

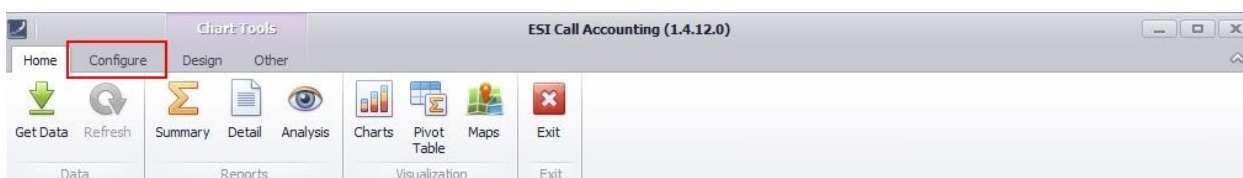


If you click the **"Yes"** button, you will automatically be taken to the Settings window so that you can enter a license code. If you select the **"No"** button, you will be brought to the main screen:

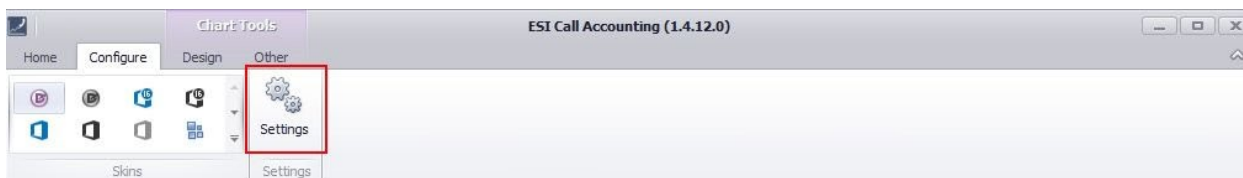
# ESI Call Accounting Application User's Guide



Click on the "**Configure**" tab at the top left of the window, and you will see the ribbon change to the following:



Here, you can either choose an option from the Skins section of the ribbon (in which case you can change the visual appearance of the software to suit your taste), or you can click on the Settings button to access all of the other program settings:



# ESI Call Accounting Application User's Guide

By clicking on a specific tab in the Settings window, you can access and change the settings for that section. In the following help sections, each settings tab will be covered in detail.

## Account Codes Settings

For some businesses, it is helpful to be able to track calls made to or from specific clients for billing purposes (for example, an attorney's office that wants to track calls made to or received from its clients). In this scenario, while they are on the call they will enter an account code for that client through their business telephone. This information is then sent from the phone system to *ESI Call Accounting* as part of the call data so that it can be tracked. Account Codes in *ESI Call Accounting* are considered "non-forced". Note that non-forced account codes are not supported on the eSIPx platform.

The Account Codes Settings screen appears as follows:

The screenshot shows the 'Settings' window with the 'Account Codes' tab selected. The window has a menu bar with the following options: Phone System, Database, Users, User Groups, DID/DNIS Numbers, Call Costing, Working Hours, Account Codes (selected), Email, License, Scheduled Reports, Miscellaneous, and Alerts. The main content area is divided into two sections: 'Add Account Code' and 'Edit Account Codes'. The 'Add Account Code' section contains three input fields: 'Account Code:', 'Account Name:', and 'Fee Per Minute: \$' (with a dropdown arrow). Below these fields is an 'Add' button with a plus icon. The 'Edit Account Codes' section contains a table with three columns: 'Account Code', 'Account Name', and 'Fee Per Minute (\$)'. The table is currently empty. To the right of the table is a 'Remove Selected' button with a red X icon. At the bottom right of the window are 'Save' and 'Cancel' buttons.

Account Code	Account Name	Fee Per Minute (\$)
--------------	--------------	---------------------

In this section, there are two boxes:

- **Add Account Code** box is to add a new account code;

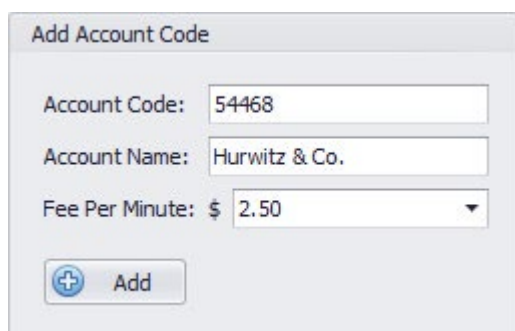


## ESI Call Accounting Application User's Guide

- **Edit Account Codes box** is used to change the parameters for a specific account code, or to delete the account code.

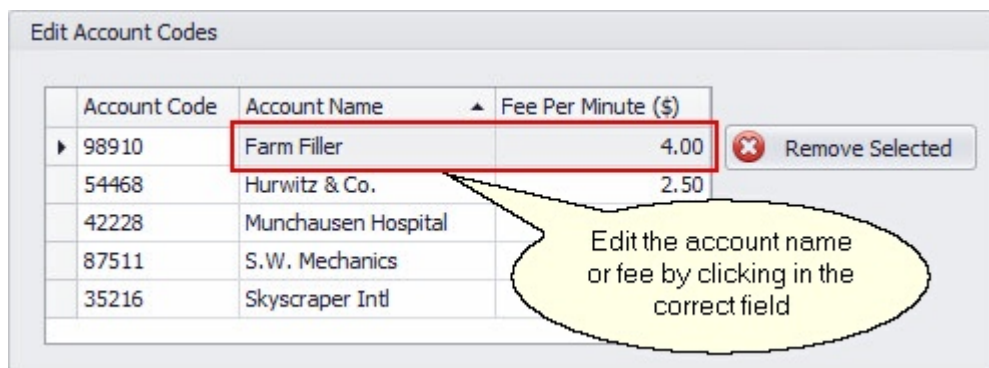
### Add New Account Code

To add a new account code, enter: the account code number; a name you would like to associate with the account code (such as a client name); and a fee per minute that you will be charging to the client. Then click the **"Add"** button. For example:



The 'Add Account Code' form contains three input fields and an 'Add' button. The 'Account Code' field has the value '54468'. The 'Account Name' field has the value 'Hurwitz & Co.'. The 'Fee Per Minute' field is a dropdown menu with '\$ 2.50' selected. The 'Add' button is located at the bottom left of the form.

You can edit the settings for a particular account code as follows:

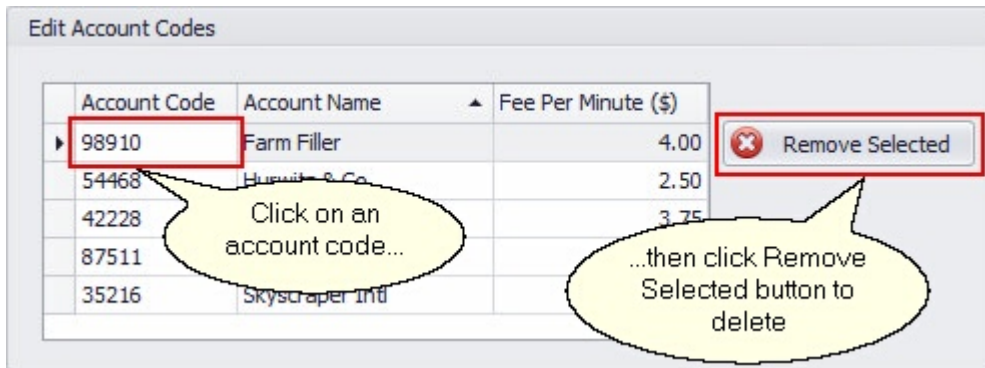


The 'Edit Account Codes' window displays a table with three columns: 'Account Code', 'Account Name', and 'Fee Per Minute (\$)'. The first row is selected, with a red box around the 'Account Name' field 'Farm Filler'. A yellow callout bubble points to this field with the text 'Edit the account name or fee by clicking in the correct field'. To the right of the table is a 'Remove Selected' button.

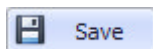
Account Code	Account Name	Fee Per Minute (\$)
98910	Farm Filler	4.00
54468	Hurwitz & Co.	2.50
42228	Munchausen Hospital	
87511	S.W. Mechanics	
35216	Skyscraper Intl	

Or, you can delete an account code as follows:

## ESI Call Accounting Application User's Guide



Remember that when you are finished making your changes, you must click the **“Save”** button to save your changes.



### Call Costing Settings

Many businesses find it helpful to be able to estimate the costs of their calls without having to wait for their monthly phone bill. Other businesses, following the old "time is money" adage, wish to cost their calls based upon average labor costs rather than what was spent on the phone call itself. Still other businesses may have multiple tenants sharing a phone system and need to be able to divide expenses. In all of these scenarios (and more), it is helpful to be able to assign a cost to calls. The Call Costing Settings screen appears as follows:

## ESI Call Accounting Application User's Guide

**Settings**

Working Hours | Account Codes | Email | License | Scheduled Reports | Miscellaneous | Alerts

Phone System | Database | Users | User Groups | DID/DNIS Numbers | **Call Costing**

**Add New Pattern**

Pattern:

Charge \$  for the first  seconds  
and charge \$  for every  seconds thereafter

**Edit Patterns**

Pattern	Initial Cost (\$)	Initial seconds	Subsequent cost (\$)	Subsequent seconds
---------	-------------------	-----------------	----------------------	--------------------

In *ESI Call Accounting*, costs are assigned to calls based upon patterns you specify, which can be very flexible. When a call is made or received, it is compared against the patterns you have specified, and if there is a pattern that matches the beginning of the call's phone number, the costing you have specified is applied.

**Let's look at some scenarios to get a feel for how costing works:**

### *Scenario 1: Outbound, intra-state calls.*

"I would like for outbound, intra-state calls (calls within my own state) to be charged at 10 cents per minute, with 6-second billing."

In this scenario, we need to find out which area codes would be associated with intra-state calls for my organization. Let's say that the 928 and 520 area codes would fit the bill here. Here, we would create two entries in the call costing table:

## ESI Call Accounting Application User's Guide



The screenshot shows a web form titled "Add New Pattern". The "Pattern:" field contains the text "928". Below this, there are two rows of input fields. The first row is "Charge \$ 0.01 for the first 6 seconds", where "0.01" and "6" are in input boxes. The second row is "and charge \$ 0.01 for every 6 seconds thereafter", where "0.01" and "6" are in input boxes. At the bottom left is a button with a plus icon and the text "Add".

This would cover the 928 area code, and the following illustration would cover the 520 area code. Note that, in order to get a figure of 1 cent per each 6 seconds, I had to do a little math (10 cents every minute, or 60 seconds, equals 1 cent every 6 seconds).



This screenshot is identical to the previous one, but the "Pattern:" field contains the text "520".

Also note that there is a shortcut we can take when multiple area codes have the same costs associated with them. Instead of creating two separate costing entries, I could also have created a single entry that looks like this:



The screenshot shows the "Add New Pattern" form with the "Pattern:" field containing the text "(928|520)". The rest of the form, including the charge rates and the "Add" button, is identical to the previous screenshots.

The above notation may seem a little strange (it follows a notation called Regular Expressions, which is a whole separate topic all by itself!). But it does give us a way to combine patterns so that we can minimize the amount of work we have to do.

*Scenario 2: Local calls and toll free calls do not have a charge associated with them.*

## ESI Call Accounting Application User's Guide

"I would like for local calls and toll free calls to not have a charge associated with them. In this example, let's say that local calls are anything in the 480, 602, or 623 area codes. Toll free calls are anything in the 800, 888, 877, 866, 855, 844, 833, and 822 area codes."

Because we know that we will be applying the same cost to all of these area codes (a cost of zero), we can take care of all of this with a single entry. But, to minimize confusion if I come back to it later, I'll do two entries, one for the local area codes and one for the toll free area codes:

The screenshot shows the 'Add New Pattern' form. The 'Pattern' field contains '(480|602|623)'. Below it, the 'Charge' is set to '\$ 0' for the first '60' seconds, and 'and charge \$ 0' for every '60' seconds thereafter. An 'Add' button is at the bottom left.

and:

The screenshot shows the 'Add New Pattern' form. The 'Pattern' field contains '(800|888|877|866|855|844|833|822)'. Below it, the 'Charge' is set to '\$ 0' for the first '60' seconds, and 'and charge \$ 0' for every '60' seconds thereafter. An 'Add' button is at the bottom left.

### *Scenario 3: Charge international calls per minute.*

"I would like to charge international calls at \$1 per minute, with one minute billing."

In the scenario, we will need to input the international prefix and the charge per seconds:

The screenshot shows the 'Add New Pattern' form. The 'Pattern' field contains '011'. Below it, the 'Charge' is set to '\$ 1' for the first '60' seconds, and 'and charge \$ 1' for every '60' seconds thereafter. An 'Add' button is at the bottom left.

## ESI Call Accounting Application User's Guide

Or, there is also a special shortcut you could take. In *ESI Call Accounting*, the letter "i" stands for the International prefix, which by default is 011 (this can be changed in settings under the "Miscellaneous" tab, in the Local & Long Distance box). So I could also have done this:



Add New Pattern

Pattern: i

Charge \$ 1 for the first 60 seconds

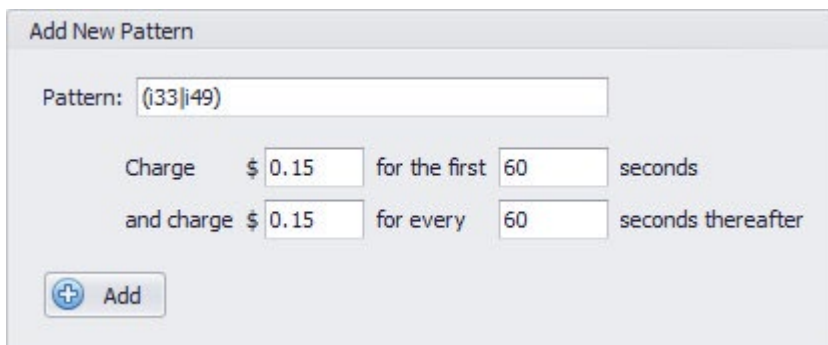
and charge \$ 1 for every 60 seconds thereafter

+ Add

### *Scenario 4: Charge Int. calls per min., while charging specified Countries different rates per min.*

"I want to charge \$1 per minute for international calls in general, but for calls to certain countries, like France and Germany, I only want to charge 15 cents per minute."

In this case, you would keep the "i" pattern intact as in the last example; this will be a catch-all for all international calls that you don't get more specific about. Then, France (whose country code is 33) and Germany (whose country code is 49) can get a separate entry:



Add New Pattern

Pattern: (i33|i49)

Charge \$ 0.15 for the first 60 seconds

and charge \$ 0.15 for every 60 seconds thereafter

+ Add

### *Scenario 5: Charge a flat rate for certain calls.*

"I would like to charge a flat rate for certain calls, such as \$5 to directory assistance."

In this scenario you will input your New Pattern to look like the picture below:

## ESI Call Accounting Application User's Guide



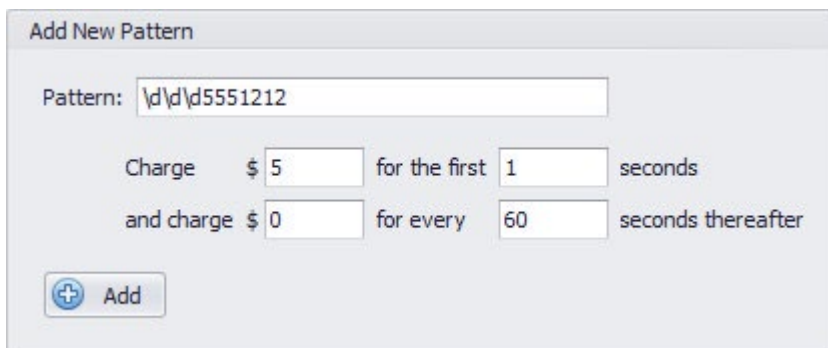
Add New Pattern

Pattern: 1411

Charge \$ 5 for the first 1 seconds  
and charge \$ 0 for every 60 seconds thereafter

+ Add

But there is another way to make directory assistance calls, isn't there? At least in some areas, directory assistance is any area code, plus 555-1212. Here, the area code can be any three digits, and configuration can be tricky. So how do we do this? Well, in the Regular Expression world (which patterns are based off of in *ESI Call Accounting*), you can represent a single digit with the characters "`\d`". This is how we would accomplish what we are trying to do:



Add New Pattern

Pattern: \d\d\d5551212

Charge \$ 5 for the first 1 seconds  
and charge \$ 0 for every 60 seconds thereafter

+ Add

### *Scenario 6: Charge interstate long distance per minute.*

"I would like to charge 6 cents per minute for interstate long distance calls, 6 second billing."

We have reached the point where we can basically say, "Any outbound calls that don't match what we've already put patterns for, are long distance (interstate) calls." How do we match that pattern? The answer is, no pattern. It would look like this:



Add New Pattern

Pattern:

Charge \$ 0.006 for the first 6 seconds  
and charge \$ 0.006 for every 6 seconds thereafter

+ Add



## ESI Call Accounting Application User's Guide

Notice that we have left the Pattern box blank. This is our way of providing a catch-all for outbound calls that haven't matched any of the other patterns. Also notice that we are charging 6/10 of a cent for the first 6 seconds, and 6/10 of a cent for every 6 seconds thereafter. Yes, this is allowable!

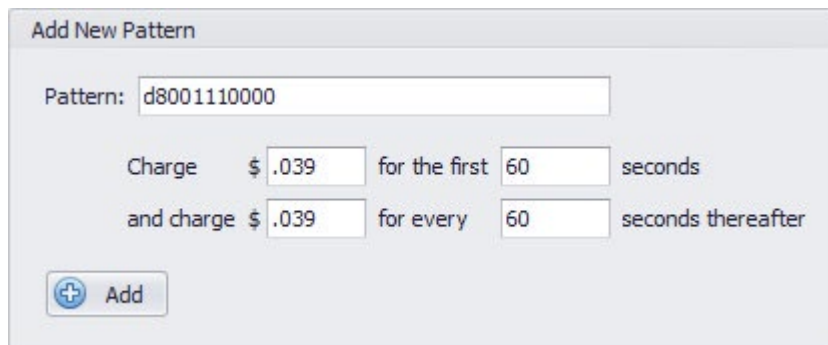
### *Scenario 7: Charging inbound calls per minute.*

"I have a toll free number, 800-111-0000, and I would like to charge 3.9 cents per minute (1 minute billing)."

The only thing left that we haven't covered is inbound calls. Why would we want to assign a cost to inbound calls? There are multiple reasons. One example is that, if my business has a toll-free phone number that clients can call into, my business would be charged a per-minute rate on that number for inbound calls. Another reason is that, maybe my business is using phone service where all inbound calls (even local ones) are charged a per-minute rate (yes, some providers out there do this). Lastly, perhaps I am not being charged for inbound calls from the phone company, but I would still like to reflect that there are labor costs involved with paying my employees for time spent on the phone (remember, "time is money"?).

In *ESI Call Accounting*, inbound call patterns begin with a "d". When you start a pattern with a "d", you are telling *ESI Call Accounting* that you would like to match the incoming DID or DNIS number provided by the phone company. Note that this is NOT the same thing as the Caller ID number, which is what number the caller is calling from; rather, it is the phone number that the caller dialed. DID/DNIS digits are only provided with T1, PRI, and SIP trunk technology, so inbound costing will only work with these line types.

**Based on the Scenario 7:** "I have a toll free number, 800-111-0000, and I would like to charge 3.9 cents per minute (1 minute billing)", my pattern would look like this:



Add New Pattern

Pattern: d8001110000

Charge \$ .039 for the first 60 seconds

and charge \$ .039 for every 60 seconds thereafter

+ Add

Remember that you need to match the DID or DNIS digits as they are actually provided by your phone system. If only the last 4 digits are provided, for example, the pattern would be "d0000" instead (without the quotes).

If we had several 800 numbers, all of which we wanted to cost at 3.9 cents per minute, we could do the following, which would match them all (assuming the phone system provides all 10 DID digits in its output):



# ESI Call Accounting Application User's Guide

Add New Pattern

Pattern:

Charge \$  for the first  seconds  
and charge \$  for every  seconds thereafter

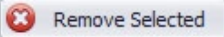
 Add

## Modifying Costing Patterns

You can go back and modify the costing on each pattern you have previously created, which would be done as follows:

Edit Patterns

Pattern	Initial Cost (\$)	Initial seco...	Subsequent cost ...	Subsequent seco...
i	1	60	1	60
1411	5	1	0	60
\d\d\d5551212	5	1		
(133 i49)	0.15	60		
(928 520)	0.01	6		
(800 888 877 866 85...	0	60		

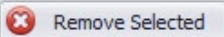


Click on any of these fields to edit the costing for a particular pattern

Removing a pattern can be done as follows:

Edit Patterns


Pattern	Initial Cost (\$)	Initial seco...	Subsequent cost ...	Subsequent seco...
i	1	60	1	60
1411	5	1	0	60
\d\d\d\d		1	0	60
(133 i		60	0.15	
(928 520)	0.01	6	0.01	
(800 888 877 866 85...	0	60	0	



Click on a pattern...

...then click the Remove Selected button to delete the pattern

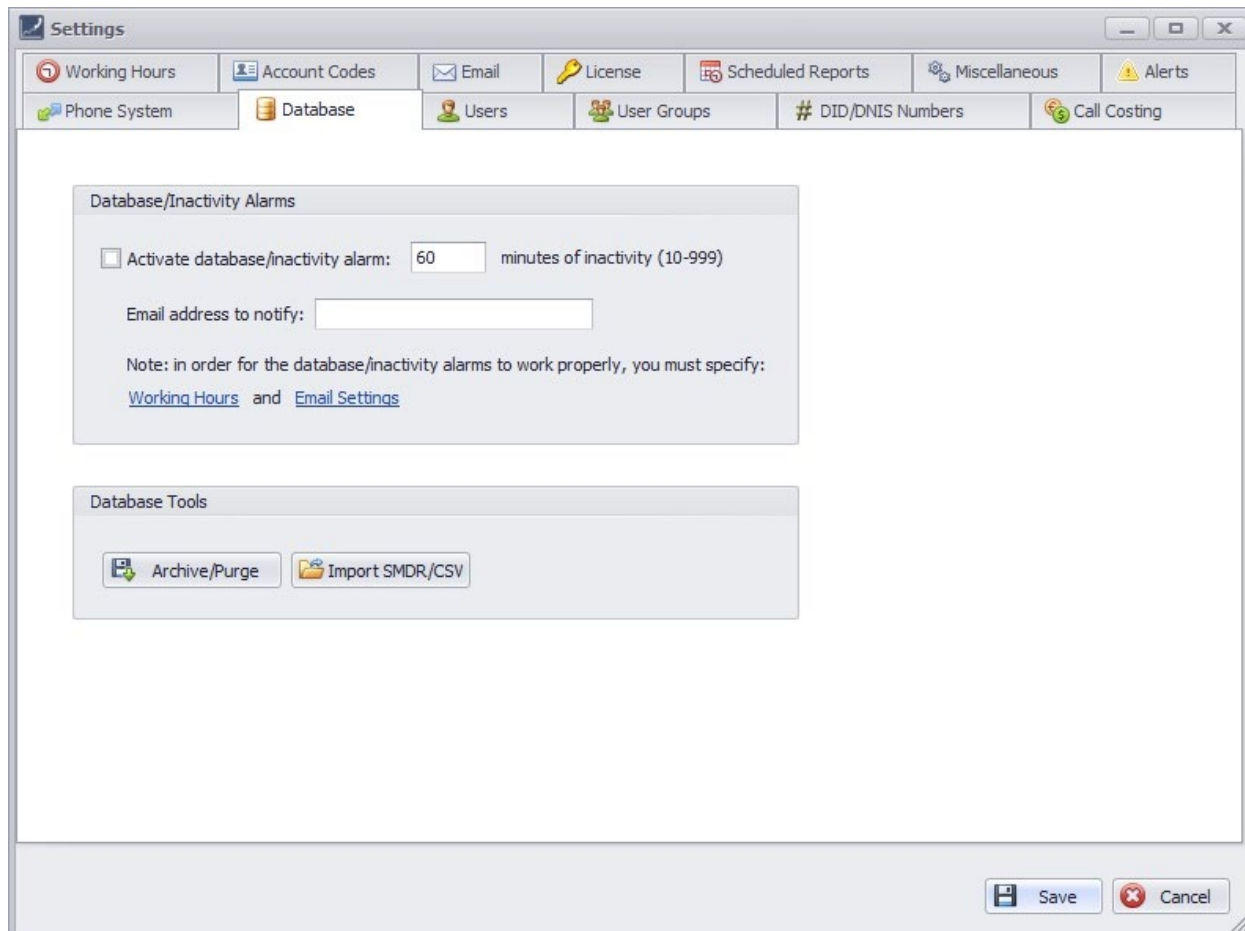
Remember that when you are finished making your changes, you must click the **"Save"** button to save your changes.

 Save

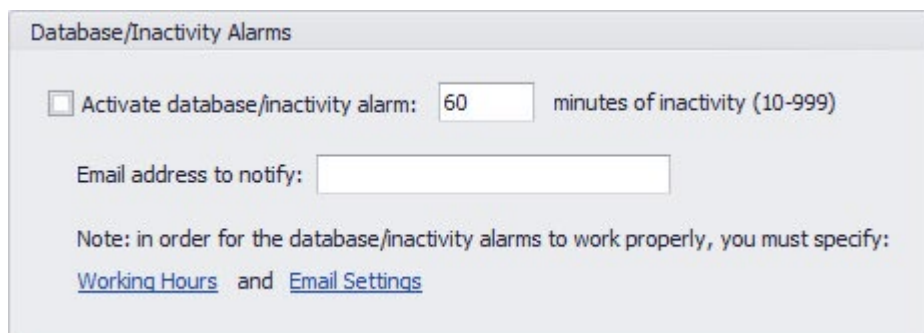
## Database Settings

The Database settings tab appears as follows:

## ESI Call Accounting Application User's Guide



The Database/Inactivity Alarms section allows you to optionally specify to be emailed in the event that (a) the PC stops receiving call data from the phone system, or (b) a database error occurs.



By checking the "**Activate database/inactivity alarm**", you are activating the monitoring option. Then, specify the number of minutes of phone call inactivity after which you would like to be notified. It is recommended that you not set this value too low, since (a) there are natural lulls in call activity in most businesses, and (b) to avoid being emailed/alerted too frequently.

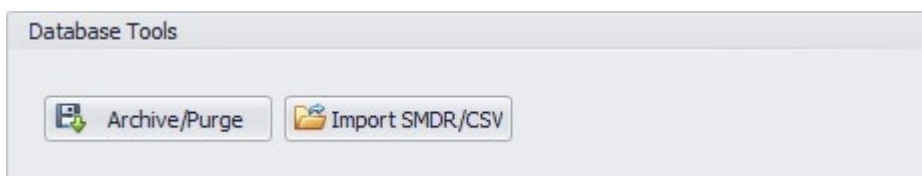
## ESI Call Accounting Application User's Guide

When being notified of database errors, you will not necessarily receive notice of all database alarms; again, this is to avoid you being notified too frequently in the case that, for some reason, there are a large number of database errors occurring. The goal here is to alert you to the fact that there is a problem; from there, you can contact your support representative so that they can investigate more fully.

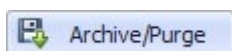
Make sure to specify a valid email address to notify in case an alarm is triggered. If you wish, you may enter multiple email addresses to be notified, separated by commas.

Note that, in order for the database/inactivity alarms to work properly, you must specify both your working hours (since one would obviously expect not to be receiving many calls outside business hours), and your email settings. For your convenience, there is a link to both of these settings.

The next box is Database Tools:

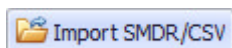


The two options available are:



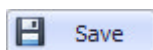
Archive/Purge - allows you to make a backup copy of the call database, and/or purge call data from the database. For your reference, the original copy of the database is located in the Windows common data folder, under a sub-folder called *ESI Call Accounting*. For most users, the full path is:

C:\ProgramData\ESI Call Accounting\Calls.sdf



Import SMDR/CSV - imports raw SMDR data that has not been processed by *ESI Call Accounting*. **Note: the need to do this is rare and would normally only be done via technical support.**

Remember that when you are finished making your changes, you must click the “**Save**” button to save your changes.



## DID/DNIS Numbers Settings

On ESI telephone systems that support certain line types, like T1, PRI or SIP, inbound calls are identified to the phone system with a full or partial phone number that the caller dialed, in order to be able to

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pg. 27

## ESI Call Accounting Application User's Guide

route the call in a specific manner as desired. The DID/DNIS Numbers Settings screen allows you to associate a name with a DID or DNIS number for convenience when reporting. Some reasons to do this might be to identify an employee to whom a number is directly routed (for example, in a private line scenario), or to track a number for advertising purposes. The DID/DNIS Numbers Settings screen appears as follows:

The screenshot shows the 'Settings' window with the 'DID/DNIS Numbers' tab selected. The window has a menu bar with options: Working Hours, Account Codes, Email, License, Scheduled Reports, Miscellaneous, Alerts, Phone System, Database, Users, User Groups, DID/DNIS Numbers, and Call Costing. The main content area is divided into two sections. The top section, 'Add New DID/DNIS Entry', contains two text input fields labeled 'Number:' and 'Name:', followed by an 'Add' button with a plus icon. The bottom section, 'Edit DID/DNIS Numbers', contains a table with two columns: 'Number' and 'Name'. The table is currently empty. To the right of the table is a 'Remove Selected' button with a minus icon. At the bottom right of the window are 'Save' and 'Cancel' buttons.

To add a new DID/DNIS entry, enter the DID/DNIS number in the Number box, and the name you would like to associate with it in the Name box:

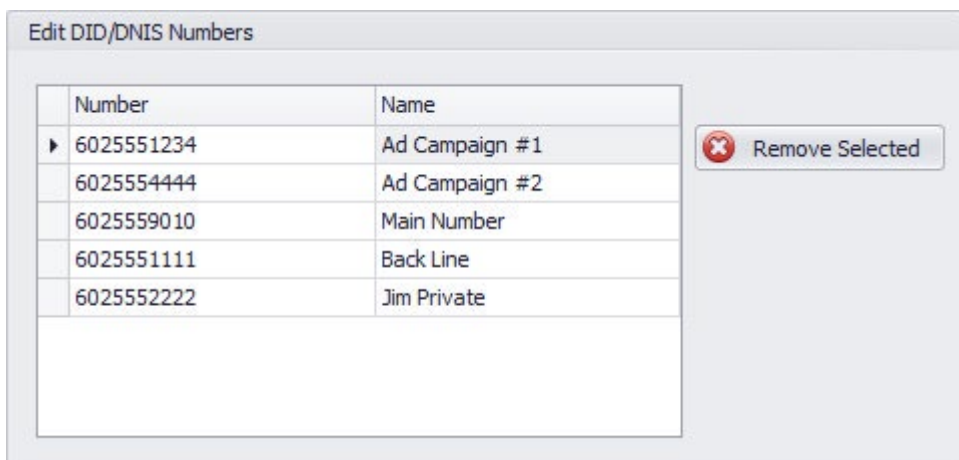
This is a close-up of the 'Add New DID/DNIS Entry' form. It shows the 'Number:' field with the value '6025551234' and the 'Name:' field with the value 'Ad Campaign #1'. The 'Add' button is visible to the right of the fields.

Click the Add button to add the number/name. Note that the DID or DNIS number must be entered in the format in which it is outputted by the phone system. In most cases, this means leaving out any punctuation in the number (such as dashes or parentheses), and in some cases only a partial phone number is presented. If you are unsure how the number is presented by the phone system output, you

## ESI Call Accounting Application User's Guide

may simply allow some data to be collected, run a DID/DNIS Summary Report, and you will see each number exactly as it is received from the phone system.

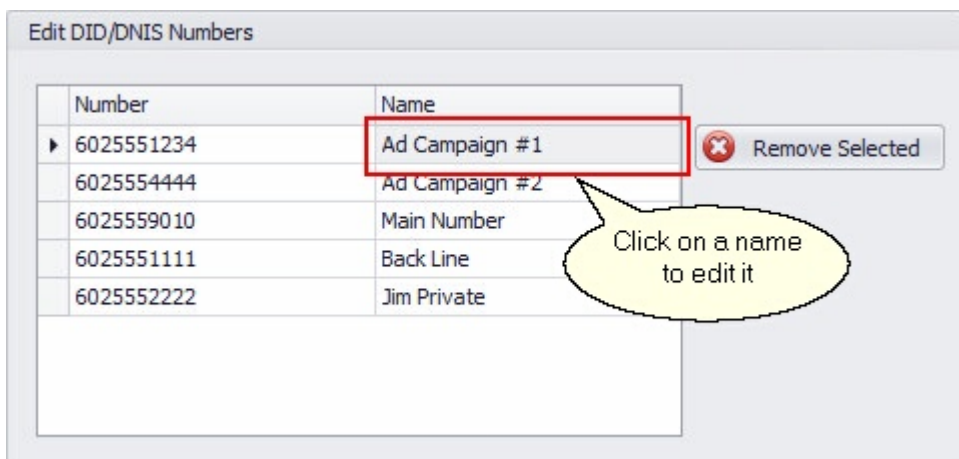
The bottom box in the DID/DNIS Numbers settings is the Edit DID/DNIS Numbers box:



The screenshot shows a window titled "Edit DID/DNIS Numbers". Inside, there is a table with two columns: "Number" and "Name". The table contains five rows of data. To the right of the table is a button labeled "Remove Selected" with a red 'X' icon. Below the table is an empty text input field.

Number	Name
▶ 6025551234	Ad Campaign #1
6025554444	Ad Campaign #2
6025559010	Main Number
6025551111	Back Line
6025552222	Jim Private

Here, you can change a name associated with a particular DID/DNIS number:

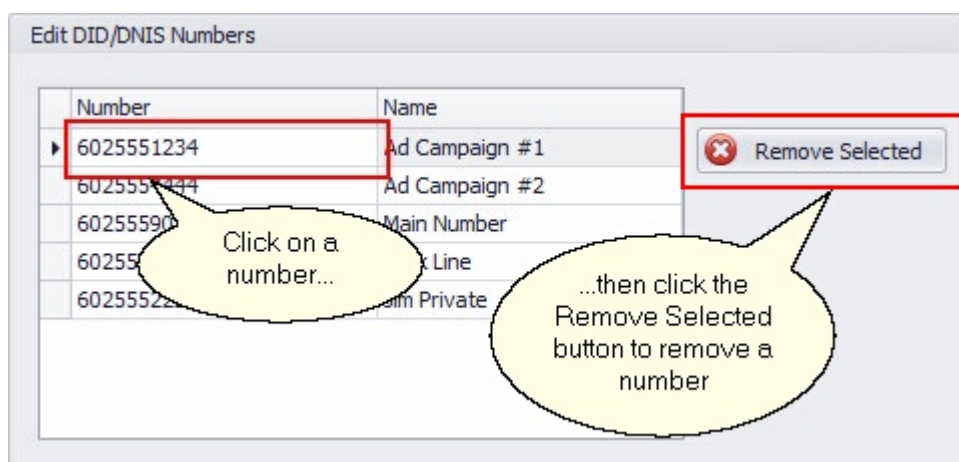


This screenshot is similar to the previous one, but with a red rectangular box highlighting the first row of the table (Number: 6025551234, Name: Ad Campaign #1). A yellow callout bubble with a black border points to the "Ad Campaign #1" text, containing the text "Click on a name to edit it". The "Remove Selected" button and the empty text input field are also visible.

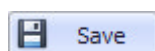
Number	Name
▶ 6025551234	Ad Campaign #1
6025554444	Ad Campaign #2
6025559010	Main Number
6025551111	Back Line
6025552222	Jim Private

Or, you can remove a number:

## ESI Call Accounting Application User's Guide



Remember that when you are finished making your changes, you must click the **"Save"** button to save your changes.



### Email Settings

*ESI Call Accounting* offers the ability to schedule reports to be automatically generated and emailed to you at intervals you specify. *ESI Call Accounting* also offers the capability to warn you when call data is not being received from your phone system, or when a database error has been encountered. For the email functionality to work, you must enter valid email settings that will allow emails to be sent. The Email Settings screen appears as follows:

## ESI Call Accounting Application User's Guide

The screenshot shows the 'Settings' window of the ESI Call Accounting Application. The 'Email' tab is selected, displaying the 'SMTP Server Settings' and 'Test Email' sections. The 'SMTP Server Settings' section includes fields for 'SMTP Server Address', 'SMTP Port' (set to 25), 'User Name', 'Password', and 'From' Email Address. There is also a checkbox for 'This connection uses TLS encryption'. The 'Test Email' section has a 'Send test email to:' field and a 'Test' button. At the bottom right, there are 'Save' and 'Cancel' buttons.

In this section, there are two boxes. The SMTP Server Settings box is to enter your outbound email settings; the Test Email box is used to give you instant feedback on whether you have successfully entered the email settings. Here is an example of some sample email settings--note that these are not actual email settings; you will need to contact your IT department or ISP (Internet Service Provider) for the actual settings for your company:

This is a close-up of the 'SMTP Server Settings' box. It contains the following fields and values:

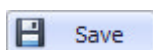
- SMTP Server Address: smtp.example.com
- SMTP Port: 25
- User Name: myusername@example.com
- Password: \*\*\*\*\*
- 'From' Email Address: reports@example.com
- ☐ This connection uses TLS encryption

## ESI Call Accounting Application User's Guide

**Note: the SMTP Server Address can either be a host name (as shown above), or can be in IP address format.**

*ESI Call Accounting* also features a built-in email server, meaning that if the SMTP Server settings are not entered, *ESI Call Accounting* will still attempt to send emails. Some receiving email servers do not accept email from an "anonymous" server, and so emails may be rejected in the case that you do not have these settings filled in. For this reason, sending emails without specifying SMTP Server settings is provided strictly as a convenience and is not supported by ESI. You can always test whether emails will be delivered to a specific email address by sending a test email.

Remember that when you are finished making your changes, you must click the **"Save"** button to save your changes.



### Email Alerts

*ESI Call Accounting* has the capability of monitoring the call database to alert you via email to calls that match flexible criteria you specify via an intuitive, clickable interface. The interface for specifying these criteria is robust, and allows for great flexibility. The interface appears like so:



## ESI Call Accounting Application User's Guide

**Settings**

Phone System Database Users User Groups # DID/DNIS Numbers Call Costing

Working Hours Account Codes Email License Scheduled Reports Miscellaneous Alerts

**Current Alerts:** New

Alert Name
Calls from Anna
Emergency MB 533
International calls

Remove Selected

**Alert Parameters**

Alert Name: International calls

Alert Email(s): notify@example.com (separate multiple addresses with commas)

Send an alert when the call matches this pattern:

And

- [Number (xxx) xxx-xxxx] Begins with 011
- [Direction] Equals Out

Test

Save Cancel

In the example above, we have decided that we want to be alerted to any international calls. In this case, we specified two criteria for the call match: (1) that the phone number begins with "011", and (2) that the call is an outbound call. We could even take this a step further by indicating that we only want to be alerted to these international calls if they are made after hours:

And

- [Number (xxx) xxx-xxxx] Begins with 011
- [Direction] Equals Out
- [Call Is During Business Hours] Equals False

In this fashion, you can add as many criteria you like. Note that since the word at the top says "And", this means that all of the criteria you choose need to be matched for the call in order to trigger an alert.

## ESI Call Accounting Application User's Guide

If you click on the word "**And**", you can change it to "**Or**", in which case any one of the criteria may be true in order for an alert to be triggered.

Other examples of calls you could choose to be alerted to are:

- Flagging of personal calls:

Or +

- [Number (xxx) xxx-xxxx] Contains 980-1316 ✕
- [Number (xxx) xxx-xxxx] Equals (480) 555-1212 ✕
- [Number (xxx) xxx-xxxx] Equals (602) 555-1234 ✕

- Calls where the caller went to a specific voice mailbox:

And +

- [Extension] Equals 533 ✕
- [Call Is A Voice Mail Call] Equals True ✕
- [Direction] Equals In ✕

- Calls to a specific DID (Direct Inward Dial) number exceed a certain cost (in this example, 5 dollars):

## ESI Call Accounting Application User's Guide

And +

- [DID Number] Equals 8005551234 ✕
- [Cost] Is greater than 5 ✕

- You get a call from an important client during the lunch hour:

And +

- [Name] Contains ABC COMPANY ✕
- [Hour Of Day] Equals 12:00-12:59 ✕

- There is an abandoned call in an ACD (Automatic Call Distribution) queue (supported on eSIPx systems natively, or on a Communications Server or IP Server 900 when *ESI Call Accounting* is accompanied with a license of *ESI VIP 7 ACD Supervisor*):

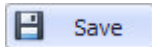
And +

- [Call Result] Equals Abandoned ✕

Please note that for the call alerting feature, *ESI Call Accounting* polls the call database once every five minutes, so an alert may not necessarily go out immediately upon completion of the call.

# ESI Call Accounting Application User's Guide

Remember that when you are finished making your changes, you must click the **"Save"** button to save your changes.



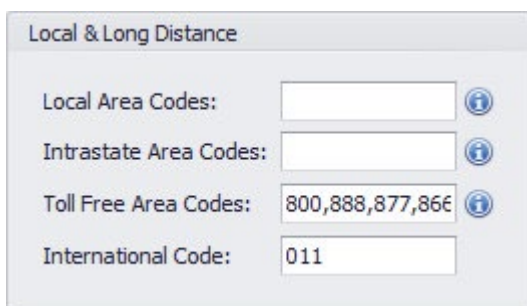
## Miscellaneous Settings

The Miscellaneous Settings screen appears as follows:

The screenshot shows the "Settings" window with the "Miscellaneous" tab selected. The window has a menu bar with icons for Phone System, Database, Users, User Groups, DID/DNIS Numbers, Call Costing, Working Hours, Account Codes, Email, License, Scheduled Reports, Miscellaneous, and Alerts. The main content area contains three sections: "Local \_Long Distance" with input fields for Local Area Codes, Intrastate Area Codes, Toll Free Area Codes (pre-filled with "800, 888, 877, 8"), and International Code (pre-filled with "011"); "Top X Reports" with a "Show top" input field (pre-filled with "100") and the word "Entries"; and "Call Costing" with two checkboxes: "Treat each leg of call as a new call" (unchecked) and "Include time on hold in costing" (checked). At the bottom right are "Save" and "Cancel" buttons.

In this section, there are several boxes. Below is a description of each:

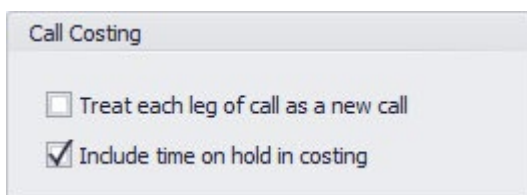
## ESI Call Accounting Application User's Guide



A screenshot of the 'Local & Long Distance' settings box. It contains four input fields: 'Local Area Codes' (empty), 'Intrastate Area Codes' (empty), 'Toll Free Area Codes' (pre-filled with '800,888,877,866'), and 'International Code' (pre-filled with '011'). Each field has a small blue information icon to its right.

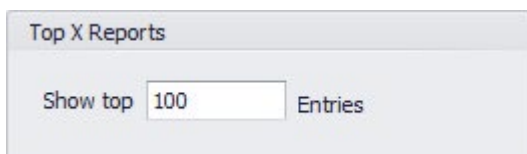
The Local & Long Distance box is used for a couple of things. Primarily, it is used in conjunction with two reports: the Call Summary by Call Type Report, and the Call Detail by Call Type Report. In order for these two reports to accurately reflect the call type of each call (local, intrastate, toll free, etc.), this section must accurately be completed. Secondly, when you are specifying patterns in the Call Costing Settings, the letter "i" represents the International Code in this box.

For your convenience, the Toll Free Area Codes and the International Code are pre-filled for you, although you can change them if needed. Please enter your local area code(s) and your intrastate (long distance calls within your state) area code(s). Note that multiple area codes should be separated by commas.



A screenshot of the 'Call Costing' settings box. It contains two checkboxes: 'Treat each leg of call as a new call' (unchecked) and 'Include time on hold in costing' (checked).

The Call Costing box has two options you can select when it comes to call costing. The first, "Treat each leg of call as a new call", will do precisely that; whenever a particular call is transferred or put on hold and then picked up, it is technically the same call but you can treat it as two calls for costing purposes if you like. The second option, "Include hold time in costing", determines whether time on hold will be calculated in costing or not. The default is for this option to be checked, which will allow for greater accuracy when comparing to your monthly phone bill.

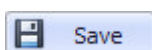


A screenshot of the 'Top X Reports' settings box. It contains a label 'Show top' followed by an input field with the value '100' and the word 'Entries'.

This box has to do with certain reports, such as the Most Expensive Calls Detail Report and the Longest Calls Detail Report. Whatever number you put here is the number of calls to which these reports will be limited.

Remember that when you are finished making your changes, you must click the **"Save"** button to save your changes.

# ESI Call Accounting Application User's Guide



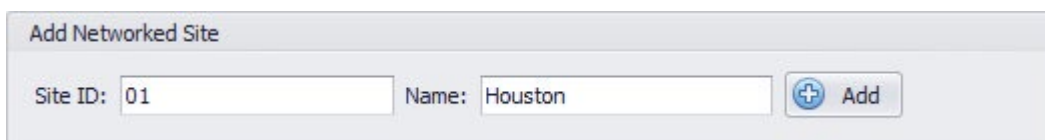
## Networked Sites Settings

Many businesses have multiple physical locations, and in the case where your ESI telephone system supports IP voice communication between sites ("**ESI-Link**" in the case of a Communications Server or IP Server 900 phone system, and "**Multisite Interconnect**" in the case of an eSIPx system), *ESI Call Accounting* is able to track the communication. **Note that this section only applies when the "Standard" SMDR format is selected.** Each networked site is identified by a number, rather than a friendly name. For convenience, *ESI Call Accounting* allows you to specify a friendly name for each site, in order to aid in report readability. The Networked Sites Settings screen appears as follows:

In this section, there are two boxes. The **Add Networked Site** box is to add a new site; the **Edit Networked Sites** box is used to change the friendly name for a specific site, or to delete the site.

To add a new site, simply enter the site number or IP address (as reported by the phone system), and a name you would like to associate with the site (and then click the "**Add**" button). For example:

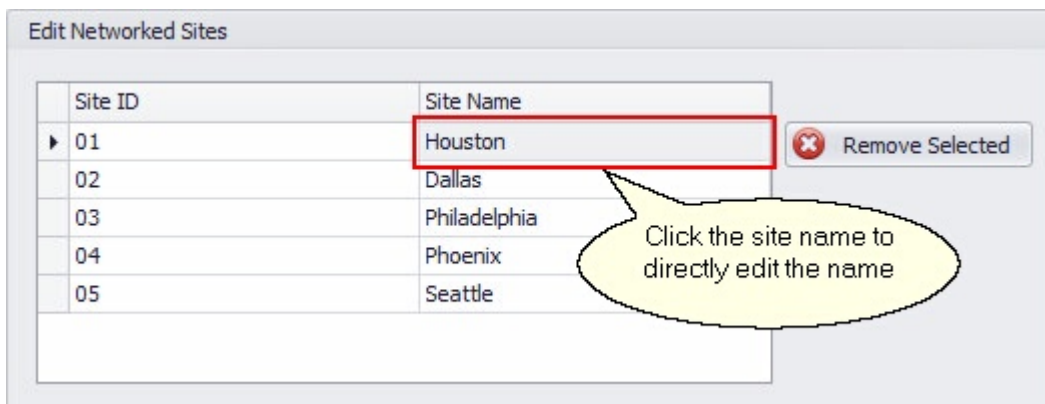
## ESI Call Accounting Application User's Guide



Add Networked Site

Site ID:  Name:

Note that, in the Standard SMDR format, only the last two digits of the site number will output (site 701 in programming is output as 01 by the SMDR). You can edit the name for a particular site as follows:



Edit Networked Sites

Site ID	Site Name
▶ 01	Houston
02	Dallas
03	Philadelphia
04	Phoenix
05	Seattle

Click the site name to directly edit the name

Or, you can delete a site as follows:



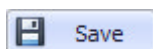
Edit Networked Sites

Site ID	Site Name
▶ 01	Houston
02	Dallas
03	Philadelphia
04	Phoenix
05	Seattle

Click the site ID of the site you wish to delete...

...and then click the Remove Selected button

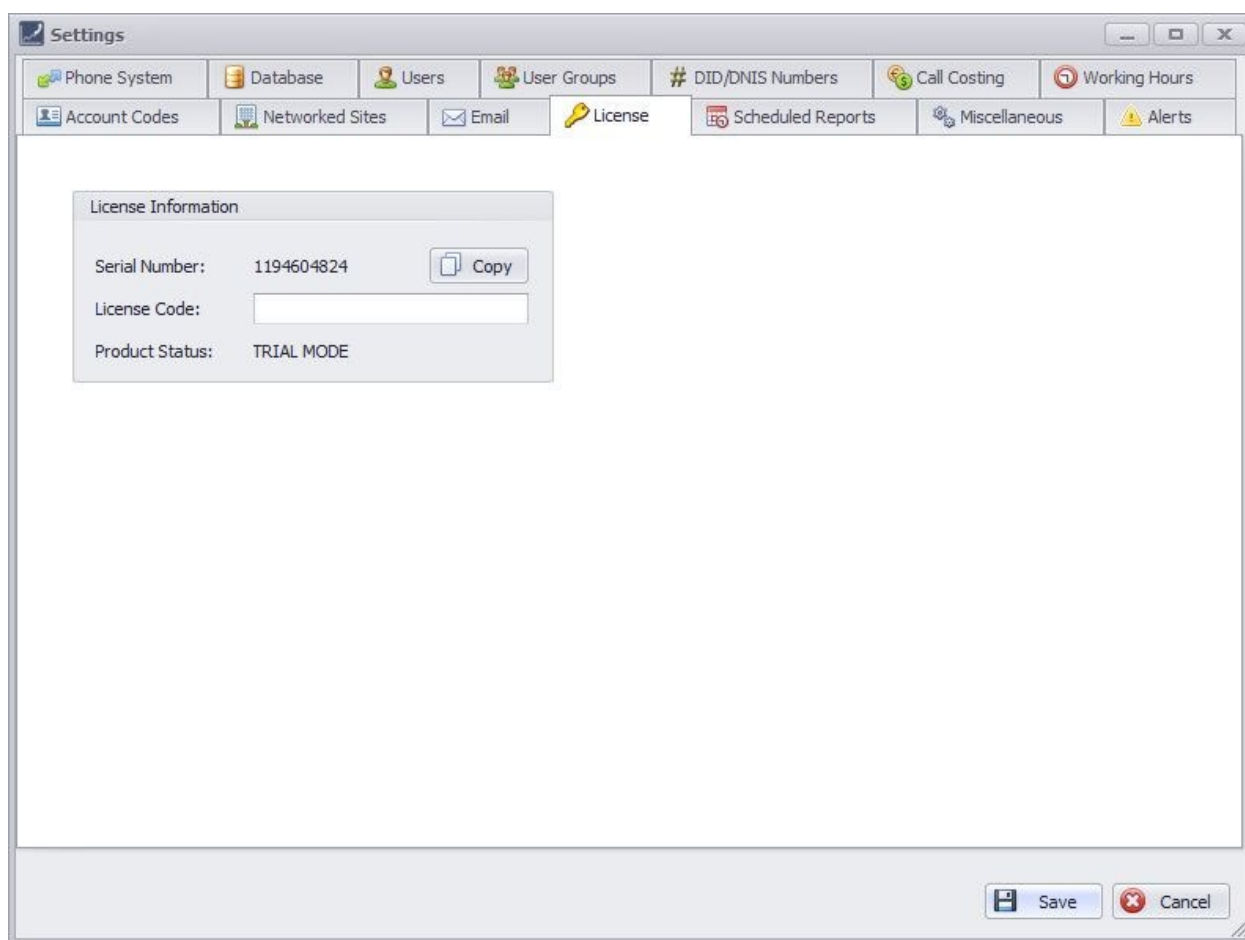
Remember that when you are finished making your changes, you must click the **“Save”** button to save your changes.



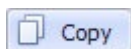
## License Settings

In order for *ESI Call Accounting* to continue to operate properly after expiration of the **30-day trial**, you must enter a valid license code into this section. The License Settings screen appears as follows:

## ESI Call Accounting Application User's Guide

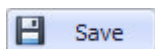


The Serial Number in the License Information box above is an example, and is different on each PC on which *ESI Call Accounting* is installed. For your convenience, you may use the "**Copy**" button to copy the Serial Number to the Windows clipboard.



After purchasing a license for *ESI Call Accounting*, your ESI reseller will provide you with a License Code that is based on your Serial Number. Enter the License Code into the License Code box. Upon successfully entering the license code, the Product Status will change from "**TRIAL MODE**" to "**Unlocked**".

Remember that when you are finished making your changes, you must click the "**Save**" button to save your changes.



### Phone System Settings



# ESI Call Accounting Application User's Guide

The Phone System settings tab appears as follows:

The screenshot shows the 'Settings' window with the 'Phone System' tab selected. The window has a menu bar with options: Working Hours, Account Codes, Email, License, Scheduled Reports, Miscellaneous, and Alerts. Below the menu bar is a sub-menu bar with: Phone System, Database, Users, User Groups, DID/DNIS Numbers, and Call Costing. The main content area is divided into two panes. The left pane contains three sections: 'Phone System Type/Format' with a dropdown menu set to 'ESI Extended'; 'IP Connection' with fields for IP Address, Port (59003), User Name, and Password; and 'ESI VIP 7 ACD Supervisor' with a note and a DB Name field. The right pane is titled 'Phone System Format: ESI Extended' and contains three sections: 'Supported phone systems:' with a bulleted list of ESI IP Server 900 and ESI Communications Servers (ESI-50L, ESI-50, ESI-100, ESI-200, ESI-600, ESI-1000); 'Prerequisites:' with a bulleted list stating the system must be equipped with an NSP (Network Services Processor); and 'Phone system setup:' with a bulleted list stating to set installer programming Function 18 output to ETHERNET, leave baud rate at current value, and set format to. At the bottom right of the right pane is a 'Print Notes' button. At the bottom of the window are 'Save' and 'Cancel' buttons.

In this section, you will specify the type of phone system you have and the connection settings. When you choose an option from the **Phone System Type/Format** box...

A close-up of the 'Phone System Type/Format' dropdown menu, showing 'ESI Extended' as the selected option.

...the window to the right will change to give you detailed notes about the format you have chosen:

## ESI Call Accounting Application User's Guide

### Phone System Format: ESI Extended

**Supported phone systems:**

- ESI IP Server 900
- ESI Communications Servers (ESI-50L, ESI-50, ESI-100, ESI-200, ESI-600, ESI-1000)

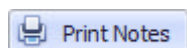
**Prerequisites:**

- System must be equipped with an NSP (Network Services Processor)

**Phone system setup:**

- Installer programming Function 18: set output to ETHERNET; leave baud rate at current value; set format to

You can optionally print the notes to a printer by clicking the **"Print Notes"** button.



You will specify the phone system connection settings in the IP Connection box:

IP Connection

IP Address:

Port:

This is typically the IP address of the phone system's NSP (Network Services Processor), as defined in Function 824 in phone system programming. The port number is usually 59003.

If your phone system is an ESI Communications Server or IP Server 900, and you have a licensed copy of *ESI VIP 7 ACD Supervisor* installed on this PC (sold separately), you may specify its database location in *ESI Call Accounting*. This will make available in *ESI Call Accounting* additional, ACD-related reports, as well as allow you to view ACD-related information in charts, Pivot Tables, and the U.S. Map. You can even take advantage of *ESI Call Accounting*'s ability to send reports to email on a schedule, or configure email call alerts, such as whenever a call has been abandoned in queue. The *ESI VIP 7 ACD Supervisor* database is specified here:

## ESI Call Accounting Application User's Guide



ESI VIP 7 ACD Supervisor

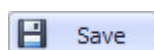
Note: this is only needed if you are also running ESI VIP 7 ACD Supervisor.

DB Name:  ...

For your convenience, you may click the **ellipsis** button, and *ESI Call Accounting* will find the database name for you automatically.



Remember that when you are finished making your changes, you must click the **“Save”** button to save your changes.

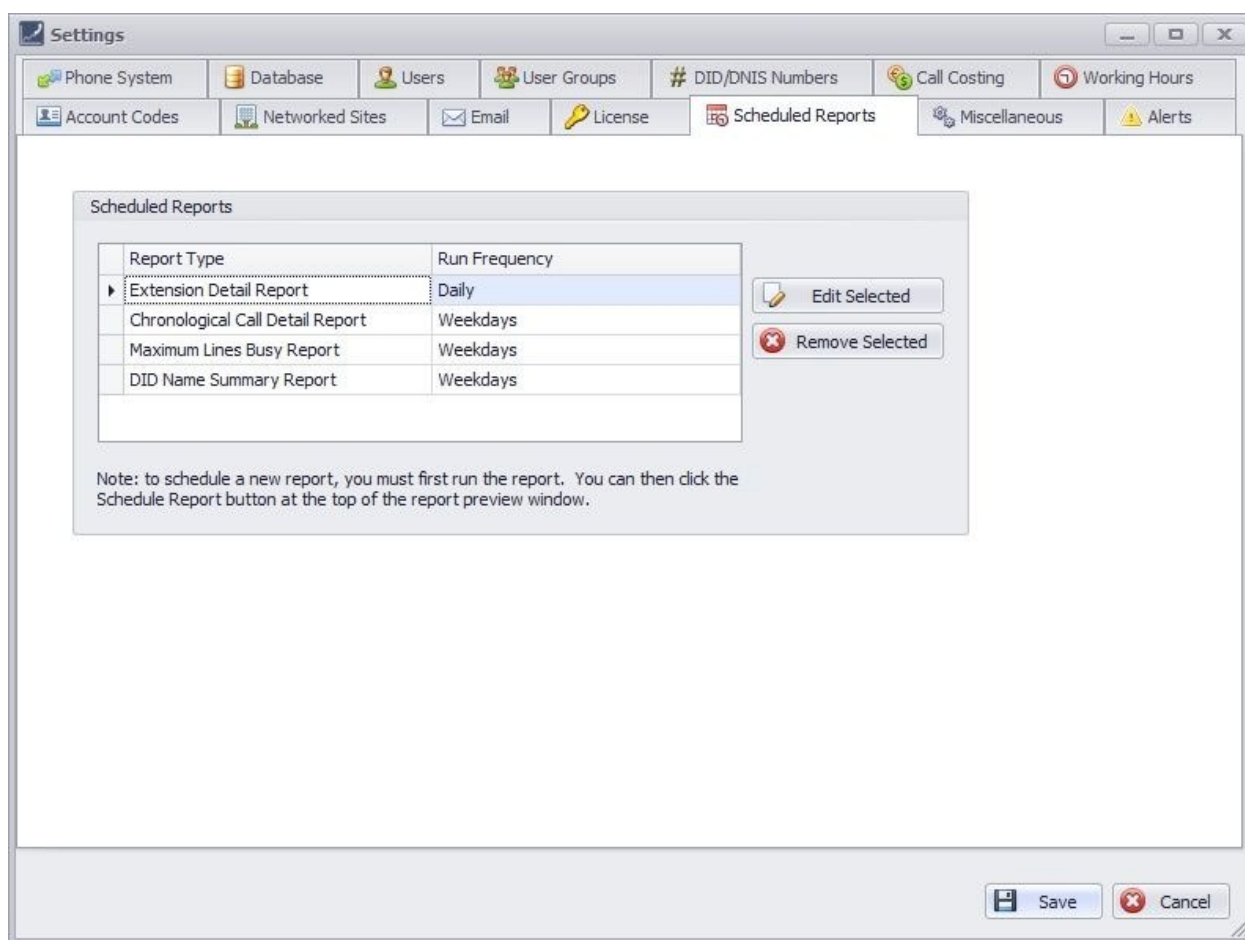


### Scheduled Reports Settings

The various summary, detail, and analysis reports that are available via *ESI Call Accounting* can be scheduled to be emailed to you at the intervals you specify. The Scheduled Reports Settings section shows a list of reports that you have scheduled, allowing you to modify or cancel them. Please refer to the separate topic, [Scheduling A Report](#), to learn how to initially schedule a report.

The following is an example of the Scheduled Reports Settings screen:

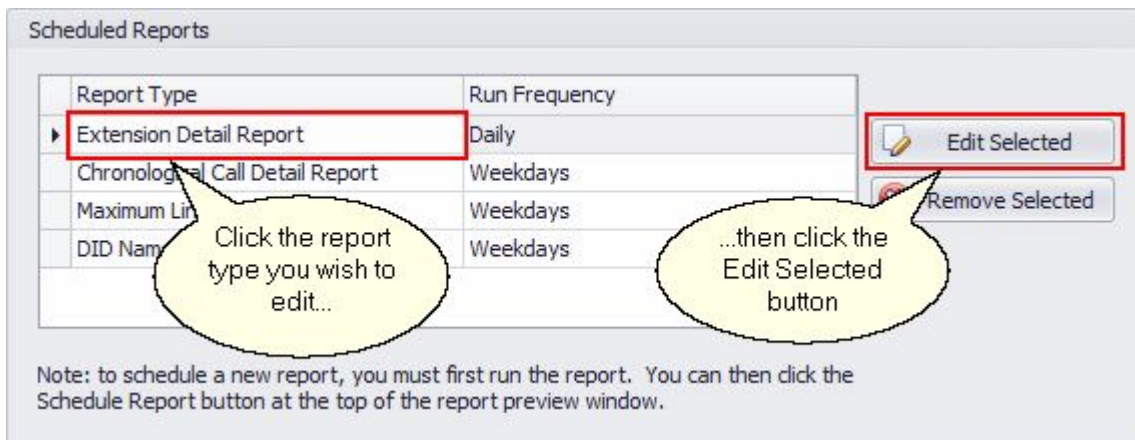
## ESI Call Accounting Application User's Guide



In the Scheduled Reports box, you will see a list of scheduled reports. Naturally, this section on your own PC will be different depending upon which reports you actually have scheduled. For each report, you can see for your convenience the Report Type and Run Frequency (how often the report will automatically run).

To edit the settings for a particular report, click on the report type, and click on the **"Edit Selected"** button:

## ESI Call Accounting Application User's Guide



When you click the "Edit Selected" button, a window similar to the following appears:

The 'Schedule Report' window is shown. It has a title bar with standard window controls. The main area is divided into several sections:

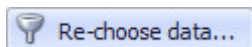
- Data to use for this report:** Contains a 'Re-choose data...' button and a note: 'Note: the data filter you chose initially to run this report will be used by default. It is recommended that you choose one of the presets under Date and Time Range, but if you choose actual dates, the reports that are generated will automatically have their dates shifted appropriately each time the report is run.'
- When to run initial report:** Includes a date dropdown set to '06/20/16' and a time dropdown set to '6:00:00 PM'.
- When to run subsequent reports:** A group box containing radio buttons for 'Daily', 'Weekdays' (which is selected), 'Weekly', 'Monthly', and 'Quarterly'.
- Report format:** A dropdown menu showing 'Adobe Portable Document Format (PDF)'.
- Recipient(s) email address(es) (separate with commas):** A text input field containing 'admin@example.com'.
- Email subject prefix:** A text input field containing 'Customer Service -'.

At the bottom right, there are 'Save' and 'Cancel' buttons.

This window has all the basic information about the report that had been previously saved, including when to run the initial report, the report format, the interval at which to run subsequent reports (daily,

## ESI Call Accounting Application User's Guide

weekly, etc.), the recipient's email address, and an email subject prefix. Also saved is the data filter for the calls--that is, all the particular parameters you may have chosen as far as what calls you were interested in. To change these parameters, click the **"Re-choose data"** button:



When you click the "Re-choose data" button, a window will appear to allow you to filter the data:

A screenshot of the "Data Filter" window. It contains several sections: "Date and Time Range" with dropdowns for "Choose Preset...", "From Date", "To Date", "From Time", and "To Time", and checkboxes for "Use Working Hours" and "Contiguous Time Period"; "Call Direction" with checkboxes for "Inbound" and "Outbound"; "Duration" with dropdowns for "From" and "seconds to"; "Line(s)", "Extension(s)", "User Group", "Department(s)", "Name", "Number(s)", and "DID(s)" with text input fields and info icons; "Hold Time" with dropdowns for "From" and "seconds to"; "Cost" with dropdowns for "From" and "to" with dollar signs; "Account Code(s)" with a text input field and an info icon; and "Miscellaneous" with checkboxes for "Transferred Calls", "Non-Transferred Calls", "Trunk To Trunk Calls", "Non-Trunk To Trunk Calls", "Voice Mail Calls", "Non-Voice Mail Calls", "Site to Site Calls", and "Non-Site to Site Calls". At the bottom are buttons for "Reset All Parameters", "OK", and "Cancel".

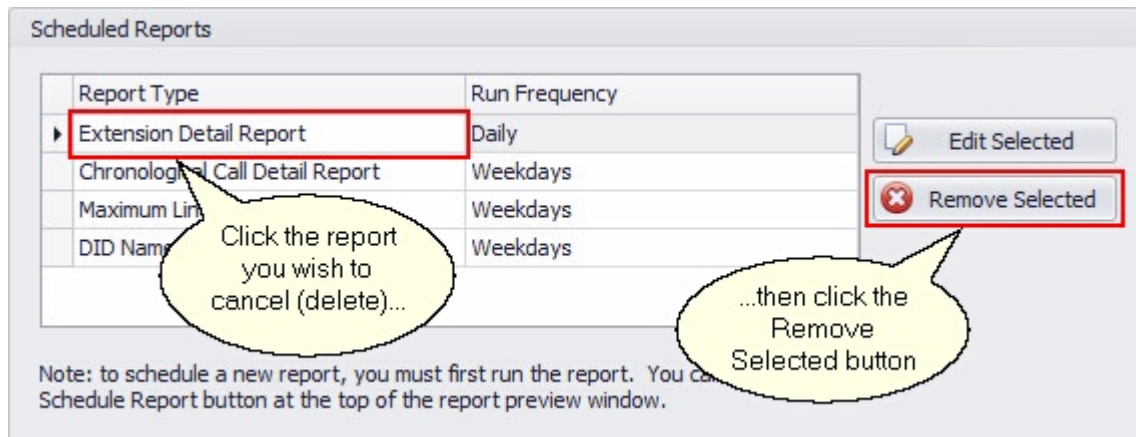
In this window, you can enter as much or as little data as you choose. Leaving it like the example above will have the effect of reporting on all calls for the given time frame; but you can restrict the results however you wish (for example, to limit to a specific User Group, or to include only Voice Mail Calls). When you are finished with the Data Filter window, click the following:

Buttons	Action
OK	Click the <b>"OK"</b> button to accept the changes
Cancel	Click the <b>"Cancel"</b> button if you do not wish to make the changes and to abort the changes
Save	Click the <b>"Save"</b> button after you accept the changes and would like follow through with the changes

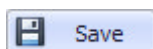
At the original Scheduled Reports Settings window, you can optionally cancel a report from running (delete it) by doing the following:



## ESI Call Accounting Application User's Guide



Remember that when you are finished making your changes, you must click the **“Save”** button to save your changes.



### Users Settings

The Users settings allow you to associate each of your personnel with one or more extension numbers on your phone system. This means that (a) when you are running most reports, the person making or receiving the call can be identified by name, and (b) you can associate more than one extension with a particular user; this is useful if you have personnel with more than one extension (for example, an office phone and a remote IP home phone). The Users settings screen appears as follows:

## ESI Call Accounting Application User's Guide

The screenshot shows the 'Settings' window with the 'Users' tab selected. The 'Add New User' section contains two input fields: 'User Name:' and 'Extension(s):', with an 'Add User' button below them. The 'Edit Users' section contains a table with columns 'User' and 'Extensions', and a 'Remove Selected' button. The bottom of the window has 'Save' and 'Cancel' buttons.

In this screen, the upper box allows you to add a new user, while the lower box shows all of the users that have previously been created. To add a new user:

The 'Add New User' section shows the 'User Name:' field filled with 'Bruno Wells' and the 'Extension(s):' field filled with '102'. The 'Add User' button is visible at the bottom.

### How to add users

1. Enter the user's name in the User Name box.
2. Enter the user's extension number or numbers in the Extension(s) box.

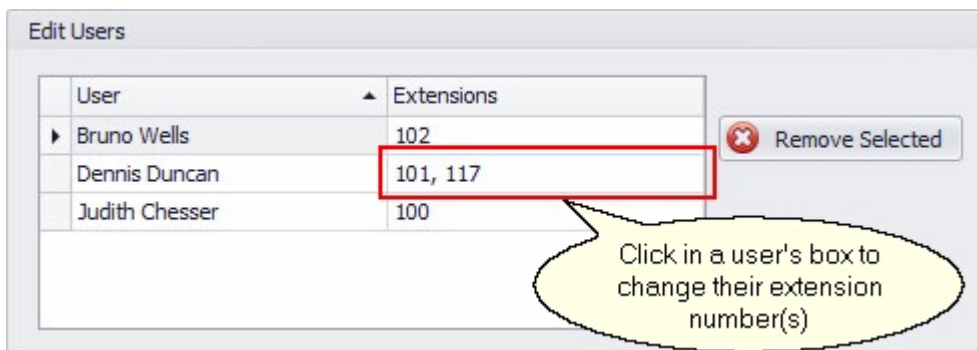
**Note: If there is more than one extension for this user, you may either separate the extension numbers by commas, or put in a range of numbers (ex: 100-102), or a combination.**

3. Click the Add User button to add the user.

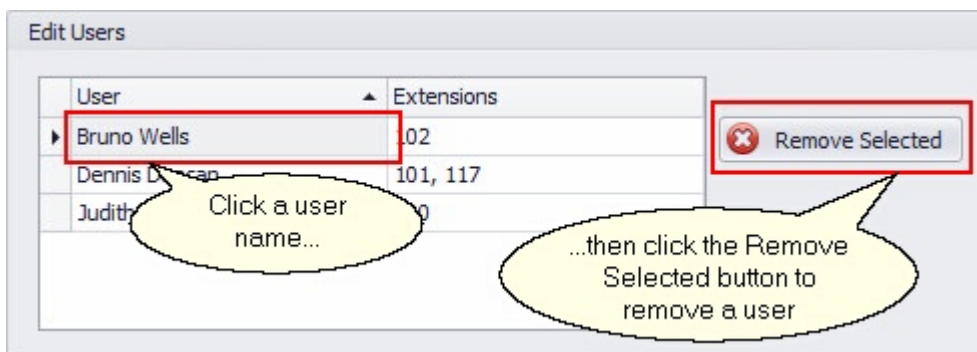


## ESI Call Accounting Application User's Guide

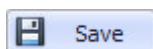
In the Edit Users box, you may either modify the extension numbers associated with a user, or you may remove a user. To modify the extension numbers associated with a user, simply click in the box next to the user name and change the extension number(s):



To remove a user, simply click on the user name and then click the "**Remove Selected**" button:



Remember that when you are finished making your changes, you must click the "**Save**" button to save your changes.



## User Groups Settings

User Groups allow you to combine individual users into a group (for example, Admin or Sales). The User Groups Settings screen appears as follows:

## ESI Call Accounting Application User's Guide

The screenshot shows the 'Settings' window with the 'User Groups' tab selected. The window has a menu bar with options: Account Codes, Networked Sites, Email, License, Scheduled Reports, Miscellaneous, Alerts, Phone System, Database, Users, User Groups, DID/DNIS Numbers, Call Costing, and Working Hours. The main content area is divided into two sections: 'Add New User Group' and 'Edit User Groups'. The 'Add New User Group' section has a text box for 'User Group Name:' and an 'Add' button. The 'Edit User Groups' section has a dropdown menu, a 'Remove User Group' button, and two lists: 'Users in group:' and 'Available users:'. Between these lists are buttons for 'Add', 'Add All', 'Remove', and 'Remove All'. At the bottom right of the window are 'Save' and 'Cancel' buttons.

We recommend that you add and configure users in the [Users Settings](#) before you work on this section, as you will need to add users to each user group.

### *How to add a new user group*

1. In the Add New Users Group
2. Click in the User Group Name box
3. Type in the user group name
4. Click the Add button.

This is a close-up of the 'Add New User Group' dialog box. It contains a text box labeled 'User Group Name:' with the word 'Sales' entered. To the right of the text box is an 'Add' button with a plus icon.

5. When you do so, the user group you have created will appear in the Edit User Groups box below:

## ESI Call Accounting Application User's Guide

Edit User Groups

Sales Remove User Group

Users in group:

Available users:

Buttons: Add, Add All, Remove, Remove All

Available users list: Bernice Rounds, Bruno Wells, Cameron Reyna, Dennis Duncan, Donald Hammond, Gloria Stevenson, Judith Chesser

6. Then you will select the Available user(s) you would like to **Add** or **Remove** from the Users in group:

Edit User Groups

Sales Remove User Group

Users in group:

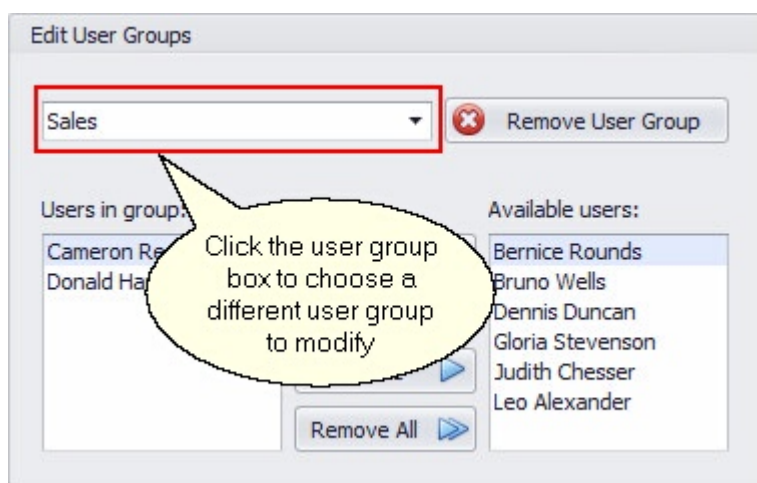
Available users:

Buttons: Add, Add All, Remove, Remove All

Available users list: Bernice Rounds, Bruno Wells, Dennis Duncan, Gloria Stevenson, Judith Chesser, Leo Alexander

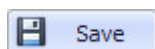
If you have multiple user groups that you have created and wish to switch to another one in order to modify it, simply click on the user group box and select the desired user group:

## ESI Call Accounting Application User's Guide



Clicking the Remove User Group button will remove the current user group that is displayed.

7. Remember that when you are finished making your changes, you must click the **“Save”** button to save your changes.



### Working Hours Settings

There are a couple of scenarios in which it is helpful for *ESI Call Accounting* to know what the general working hours are for your business. First, there are some reports (such as the Extension Utilization Report and the Line Utilization Report) that rely upon this information in order to provide accurate results. Second, if you have the Database/Inactivity Alarm activated, this information is helpful so that you are not unnecessarily getting alerted to a non-existent problem. The Working Hours Settings screen appears as follows:

## ESI Call Accounting Application User's Guide

Day	From	To	Copy	Paste
Monday	8:00:00 AM	5:00:00 PM		
Tuesday	8:00:00 AM	5:00:00 PM		
Wednesday	8:00:00 AM	5:00:00 PM		
Thursday	8:00:00 AM	5:00:00 PM		
Friday	8:00:00 AM	5:00:00 PM		
Saturday	12:00:00 AM	12:00:00 AM		
Sunday	12:00:00 AM	12:00:00 AM		

By default, it is assumed that your business operates between 8AM and 5PM, Monday through Friday. If these are not your business hours, you can modify the times for each day of the week as needed.

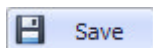
The Copy and Paste buttons are a convenience so that you can quickly copy the start and end time from one day of the week to another. For example:

Day	From	To	Copy	Paste
Monday	8:00:00 AM	5:00:00 PM		
Tuesday	8:00:00 AM	5:00:00 PM		
Wednesday	8:00:00 AM	5:00:00 PM		
Thursday	8:00:00 AM	5:00:00 PM		
Friday	8:00:00 AM	5:00:00 PM	Copy	Paste
Saturday	12:00:00 AM	12:00:00 AM	Copy	Paste
Sunday	12:00:00 AM	12:00:00 AM	Copy	Paste

# ESI Call Accounting Application User's Guide

This example will have the effect of changing the hours for Saturday to 8AM to 5PM.

Remember that when you are finished making your changes, you must click the “**Save**” button to save your changes.



## Using ESI Call Accounting

### Retrieving Call Data

*ESI Call Accounting* features a call collector that runs as a background service. This service is always connected to your phone system (as long as your PC is running), and is collecting call information and storing it to a database. When you run the *ESI Call Accounting* program, you can then retrieve that information in order to run reports, create and view charts, and work with Pivot Tables. You must tell *ESI Call Accounting* what data you are interested in. To do this, click the Get Data button on the Home tab:



**Note:** if you forget to do this step, and attempt to run a report, *ESI Call Accounting* will automatically run you through this step.

When you click the Get Data button, a window will appear that is similar to the following:

## ESI Call Accounting Application User's Guide

**Data Filter**

**Date and Time Range**

Choose Preset...  
From Date: 05/21/16 From Time: 12:00:00 AM ☐ Use Working Hours  
To Date: 05/21/16 To Time: 11:59:59 PM ☐ Contiguous Time Period

**Call Direction**

☒ Inbound  
☒ Outbound

**Miscellaneous**

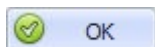
☒ Transferred Calls ☒ Voice Mail Calls  
☒ Non-Transferred Calls ☒ Non-Voice Mail Calls  
☒ Trunk To Trunk Calls ☒ Site to Site Calls  
☒ Non-Trunk To Trunk Calls ☒ Non-Site to Site Calls

Duration: From [ ] seconds to [ ] seconds

Line(s): [ ] ⓘ  
Extension(s): [ ] ⓘ  
User Group: [All User Groups]  
Department(s): [ ] ⓘ  
Name: [ ] ⓘ  
Number(s): [ ] ⓘ  
DID(s): [ ] ⓘ  
Hold Time: From [ ] seconds to [ ] seconds  
Cost: From \$ [ ] to \$ [ ]  
Account Code(s): [ ] ⓘ

Reset All Parameters OK Cancel

This window may look daunting. Please do not let it intimidate you! You can enter as much or as little information into this form as you wish. In fact, if you click on the "OK" button without entering anything, it will retrieve all calls for the current date (which is often what many people want to do in the first place).



This form is designed to allow you to be very flexible in the types of calls you retrieve. It is designed to be as intuitive as possible. For example, if you are only concerned about looking at inbound calls but do not care about outbound calls, you may simply check the check boxes in the Call Direction section as follows:

**Call Direction**

☒ Inbound  
☐ Outbound

If you only wish to retrieve data on certain extensions, you may fill in the "**Extension(s)**" field as needed. For example, let's say I'd like to look at extensions 100, 102, 104-107, and 110. I would fill in the "Extension(s)" field as follows:



## ESI Call Accounting Application User's Guide

**Data Filter**

**Date and Time Range**

Choose Preset...  
From Date: 05/21/16 From Time: 12:00:00 AM ☐ Use Working Hours  
To Date: 05/21/16 To Time: 11:59:59 PM ☐ Contiguous Time Period

Duration: From [ ] seconds to [ ] seconds  
Line(s): [ ]  
**Extension(s): 100, 102, 104-107, 110**  
User Group: [All User Groups]  
Department(s): [ ]  
Name: [ ]  
Number(s): [ ]  
DID(s): [ ]  
Hold Time: From [ ] seconds to [ ] seconds  
Cost: From \$ [ ] to \$ [ ]  
Account Code(s): [ ]

**Call Direction**

☒ Inbound  
☒ Outbound

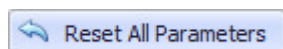
**Miscellaneous**

☒ Transferred Calls ☒ Voice Mail Calls  
☒ Non-Transferred Calls ☒ Non-Voice Mail Calls  
☒ Trunk To Trunk Calls ☒ Site to Site Calls  
☒ Non-Trunk To Trunk Calls ☒ Non-Site to Site Calls

Reset All Parameters OK Cancel

You can follow this same logic with practically any of the fields on this page. Remember that the more fields you fill in or change, the greater will be the restriction on the number of calls that you retrieve.

For convenience, *ESI Call Accounting* will remember this search so that you do not have to enter everything over again if you do another search. At any time, if you want to reset all the fields back to default, you can click the "**Reset All Parameters**" button.



Following is an explanation of each of the fields that can be modified in the Data Filter window:

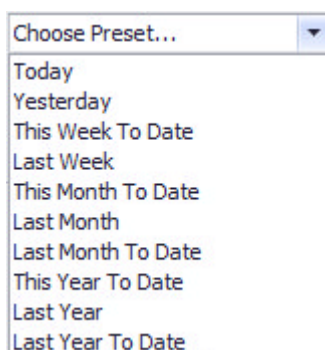
**Date and Time Range**

Choose Preset...  
From Date: 06/01/14 From Time: 12:00:00 AM ☐ Use Working Hours  
To Date: 06/01/14 To Time: 11:59:59 PM ☐ Contiguous Time Period

The Date and Time Range box contains all of the fields that allow you to filter the calls by date and/or time. In this box, you can either choose a starting and ending date and time manually, or you can drop down the "**Choose Preset...**" field and choose among the following (*ESI Call Accounting* will automatically calculate the correct dates for you):



## ESI Call Accounting Application User's Guide



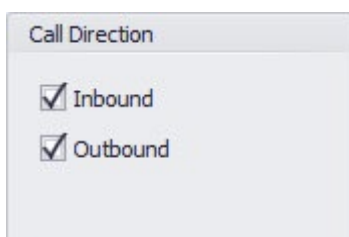
Choose Preset...

- Today
- Yesterday
- This Week To Date
- Last Week
- This Month To Date
- Last Month
- Last Month To Date
- This Year To Date
- Last Year
- Last Year To Date

There are two additional options in the Date and Time Range Box:

**Use Working Hours**, when checked, will limit the calls retrieved to only those made or received during your working hours. Your working hours are defined in Settings (see the [Working Hours Settings](#) section of this document for more assistance).

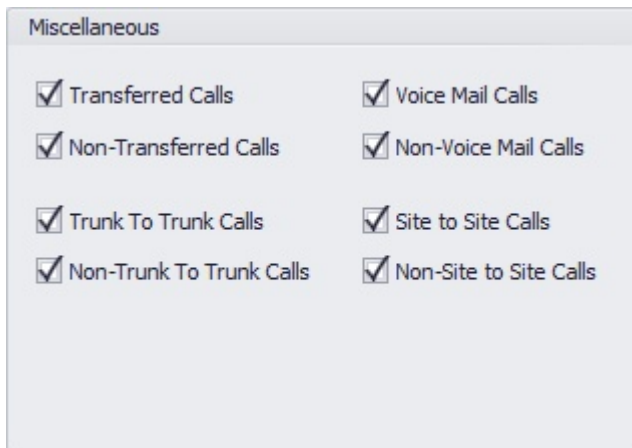
**Contiguous Time Period**: this box comes into play when you have selected multiple days' worth of calls. If you check this box, all calls between the beginning date and time and the ending date and time will be retrieved. If this box is unchecked, then calls that are outside of the From Time and To Time window will not be retrieved, regardless of which day the call falls on.



Call Direction

- ☒ Inbound
- ☒ Outbound

As mentioned, you can specify whether Inbound calls can be retrieved, Outbound calls, or both by checking the appropriate check boxes in the Call Direction box.



Miscellaneous

<input checked="" type="checkbox"/> Transferred Calls	<input checked="" type="checkbox"/> Voice Mail Calls
<input checked="" type="checkbox"/> Non-Transferred Calls	<input checked="" type="checkbox"/> Non-Voice Mail Calls
<input checked="" type="checkbox"/> Trunk To Trunk Calls	<input checked="" type="checkbox"/> Site to Site Calls
<input checked="" type="checkbox"/> Non-Trunk To Trunk Calls	<input checked="" type="checkbox"/> Non-Site to Site Calls

These are some miscellaneous options you can check or uncheck based upon transferred (or held) calls, Voice Mail calls, Trunk To Trunk calls (calls that were transferred to a phone number outside your

## ESI Call Accounting Application User's Guide

organization), and Site to Site Calls (calls that were transferred to another of your physical locations via IP--Standard SMDR format ONLY).

If you have an ESI eSIPx phone system, or if you have an ESI Communications Server or IP Server 900 phone system and there is also a copy of *ESI VIP 7 ACD Supervisor* (sold separately) on this PC, you may also specify whether to include ACD (Automatic Call Distribution) calls:

Miscellaneous

<input checked="" type="checkbox"/> Transferred Calls	<input checked="" type="checkbox"/> Voice Mail Calls
<input checked="" type="checkbox"/> Non-Transferred Calls	<input checked="" type="checkbox"/> Non-Voice Mail Calls
<input checked="" type="checkbox"/> Trunk To Trunk Calls	<input checked="" type="checkbox"/> Site to Site Calls
<input checked="" type="checkbox"/> Non-Trunk To Trunk Calls	<input checked="" type="checkbox"/> Non-Site to Site Calls
<input checked="" type="checkbox"/> ACD Calls	
<input checked="" type="checkbox"/> Non-ACD Calls	

There are various other criteria you can select to further restrict the number of calls you retrieve:

Duration: From  seconds to  seconds

Line(s):

Extension(s):

User Group:

Department(s):

Name:

Number(s):

DID(s):

Hold Time: From  seconds to  seconds

Cost: From \$  to \$

Account Code(s):

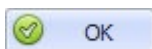
For more details on each field, please reference the table below:

Field	Function(s)
<b>Duration:</b>	This will limit the calls to ones that are between a duration you specify. Note that you are specifying the number of seconds.

## ESI Call Accounting Application User's Guide

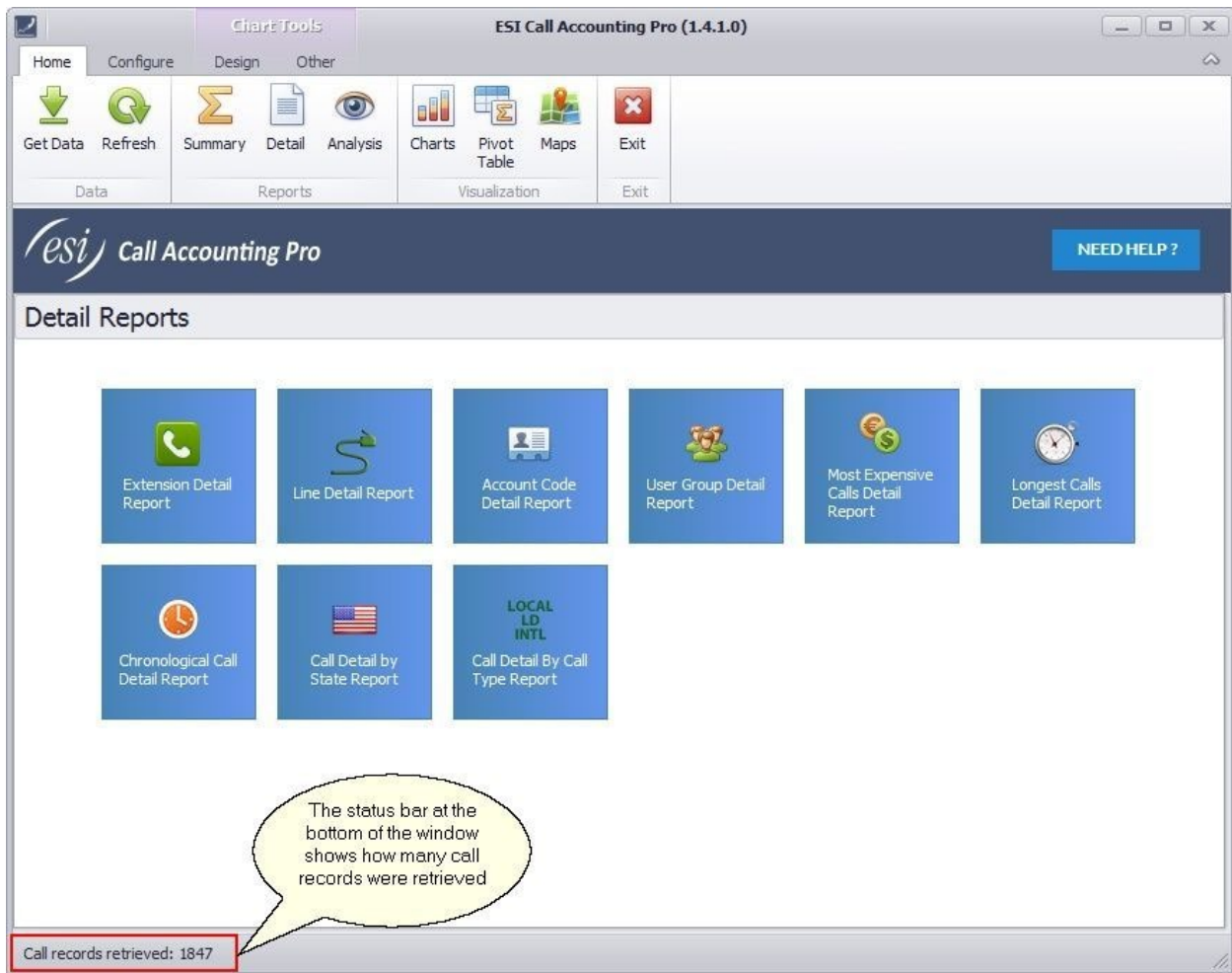
	<p><b>Drop Down Selection</b></p> <p>If you click on the down arrow next to each of the duration fields, a calculator will appear to help you convert minutes to seconds. If you leave the From field blank, zero seconds will be assumed. If you leave the To field blank, an infinite number of seconds will be assumed.</p>
<b>Line(s):</b>	This will specify a line number for calls. You can also specify several lines, separated by commas, or line ranges, or a combination.
<b>Extension(s):</b>	This will specify an extension number for calls. You can also specify several extensions, separated by commas, or extension ranges, or a combination.
<b>User Group:</b>	This drop-down box will let you choose from among any user groups you have defined in <i>ESI Call Accounting</i> . See the topics <a href="#">Users Settings</a> and <a href="#">User Groups Settings</a> for more information on configuring users and user groups.
<b>Department(s):</b>	This will specify a department number for calls. You can also specify several departments, separated by commas, or department ranges, or a combination. Note that only the ESI ASC format supports Department reporting.
<b>Name:</b>	This will search against a particular Caller ID Name of an inbound call. You can also search by a partial name.
<b>Number:</b>	This will search against a particular Caller ID Number (for inbound calls) or number dialed (for outbound calls). You can also search by partial number.
<b>DID(s):</b>	This will specify an DID (or DNIS) number for calls. You can also specify several DID/DNIS numbers, separated by commas, or DID/DNIS ranges, or a combination.
<b>Hold Time:</b>	This will limit the calls to ones that have been on hold for a duration you specify. Note that you are specifying the number of seconds. If you click on the down arrow next to each of the hold time fields, a calculator will appear to help you convert minutes to seconds. If you leave the From field blank, zero seconds will be assumed. If you leave the To field blank, an infinite number of seconds will be assumed.
<b>Cost:</b>	This will limit the calls to ones that are in a cost range you specify. If you leave the From field blank, \$0.00 will be assumed. If you leave the To field blank, an infinite cost will be assumed.
<b>Account Code(s):</b>	Also known as "non-forced" account codes. Specify an account number for calls. You can also specify several account numbers, separated by commas, or account code ranges, or a combination.

When you click the "OK" button, *ESI Call Accounting* will look for all the calls that match the criteria you have specified and retrieve them.



# ESI Call Accounting Application User's Guide

When the calls are retrieved, the only indication you may have that they have been retrieved will be the status bar at the bottom of the main window:



Once you have retrieved call records, you can then run reports, create and view charts and Pivot Tables, and view a U.S. Map based on the call data.

## Refreshing Call Data

To refresh call data, simply click on the Refresh button on the Home tab:



## ESI Call Accounting Application User's Guide

This is typically used when the call records you wish to view are for the current date, and you wish to get all of the most recent calls that have taken place since the last time you retrieved call data.

### Reporting

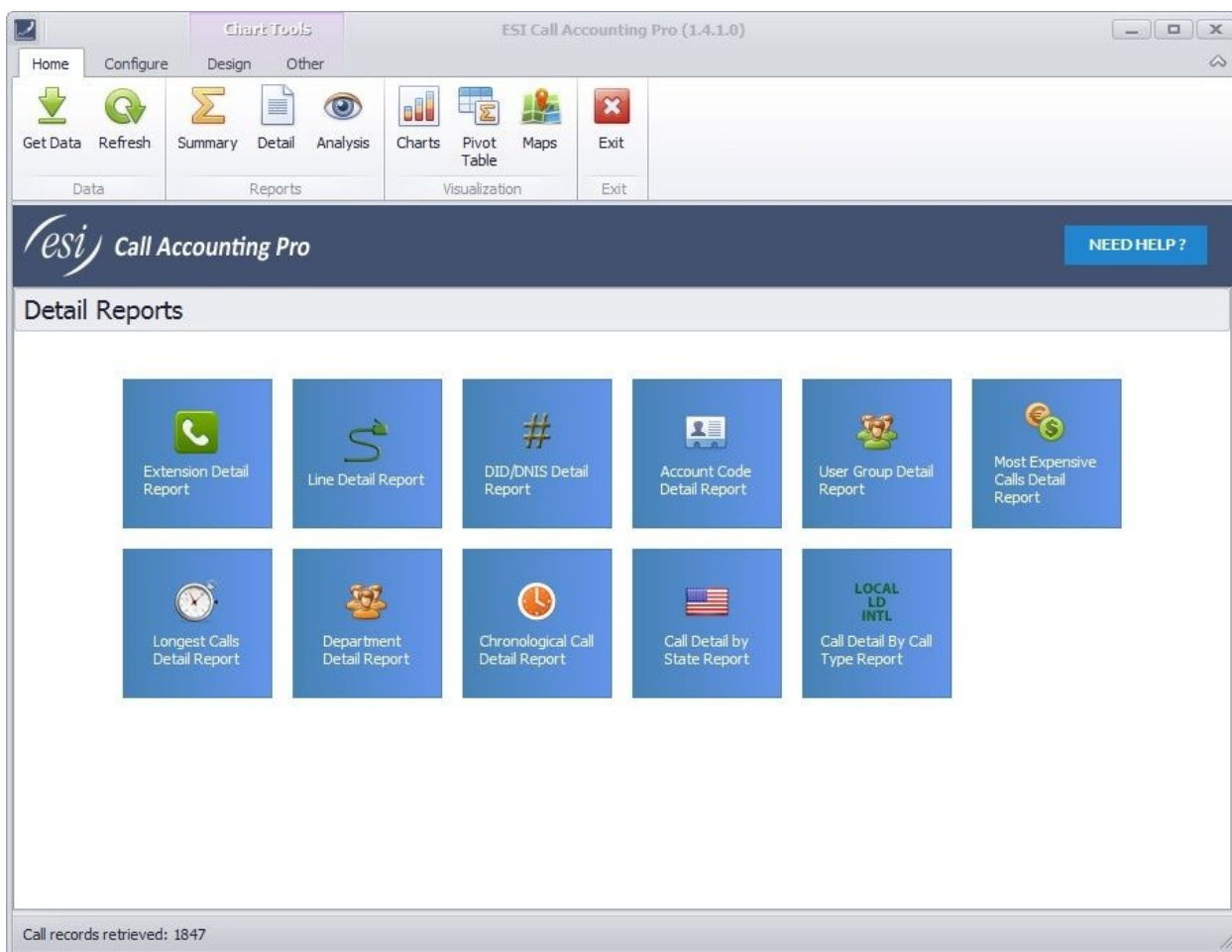
#### *Running A Report*

There are three different report types offered by *ESI Call Accounting*: Summary, Detail, and Analysis. Depending upon the report type you wish to run, you will click on either the Summary, Detail, or Analysis button on the Home tab:



When you click on one of these buttons, the main window will change to show you the available report options for that report type. For example, here is what the screen would look like if you were to click the Detail button:

# ESI Call Accounting Application User's Guide



Note that the reports that are available to you in each section will be dependent upon your ESI phone system format (Standard, Extended or ASC), as well as whether you have a copy of *VIP 7 ACD Supervisor* installed (optional, sold separately).

If you have an ESI eSIPx phone system, or if you have an ESI Communications Server or IP Server 900 phone system and also have a copy of *ESI VIP 7 ACD Supervisor* installed, the following additional reports will be available to you:

## ACD Summary Reports:



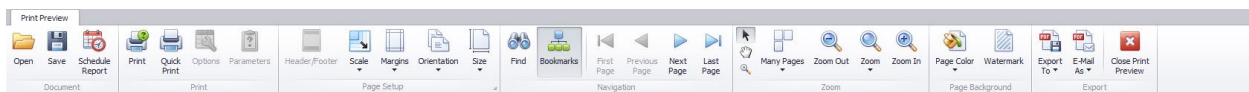
# ESI Call Accounting Application User's Guide

## ACD Detail Reports:



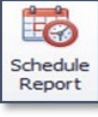



## Report Preview Options

When you run a report, it appears in a report preview window. There are a number of flexible options available to you in regards to printing, exporting, and scheduling your report, and more. The ribbon at the top of the Report Preview window appears as follows:



Note that, depending upon your PC's resolution and how large you have sized the Report Preview window, the ribbon may appear somewhat different than what you see above. The ribbon will intelligently scale in size to fit the space available, and to do so, in some cases the buttons may be made smaller and/or lined up differently. Here is a description of each option available:

Icon	Function
	This is to open a copy of the report you have previously saved in the report's native format (.prnx). If you would like to save the report in any of several other popular formats, use the Export To button on the ribbon.
	This is to save a copy of the report in its native (.prnx) format. If you would like to save the report in any of several other popular formats, use the Export To button on the ribbon.
	This is to schedule the report to be automatically run and emailed to you in the future at intervals you specify. For more details on this option, refer to the help topic, <a href="#">Scheduling A ReportScheduling A Report</a> .
	This will bring up a window that allows you to choose the printer type and some printer options, then allow you to print the report.



## ESI Call Accounting Application User's Guide



This will print a copy of the report to your default printer.



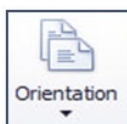
These options are currently unavailable and are reserved for possible future use.




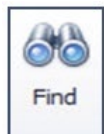

This allows you to change how large the report appears on the printed page. Normally, this should not need to be adjusted. If you are trying to change the size of the report on your computer screen, use the Zoom buttons instead.



This will change the margins for the report on the printed page. As each report is designed to fit into the pre-set margin, you will not normally need to adjust this.

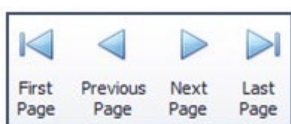


This option allows you to change the report between Portrait and Landscape modes. As the reports are designed to fit within the pre-set margin given the mode they are in, if you do change the orientation of the report you may wish also to click on the Scale button and choose the "Fit to 1 page wide" option.

Icon	Function
	If you need to change the size of the page you will be printing on when you send the report to the printer, you can change it here. The default is 8.5" x 11".
	This will allow you to search for any specific call data within the report.
	This toggles the Bookmarks view on and off. The bookmark panel appears on the left side of the Report Preview window, and allows you to quickly navigate to a specific area of the report. The bookmarks depend upon the particular report type you have run. For example, a User Group Detail Report would list each user group in the Bookmarks panel so that you could quickly skip to a particular user group in the report.



## ESI Call Accounting Application User's Guide



These buttons allow you to navigate among the pages of the report.



These are three separate buttons. The arrow button changes your mouse cursor to a pointer (this is the default). The hand button changes your mouse cursor to a hand, and allows you to click and drag on the report to scroll through the report. The magnifying glass button changes the mouse icon to a magnifying glass and has the effect of toggling the report view between 100% and fitting the report page on the screen.



If you would like to view multiple pages of the report on your screen at once, use this button.



Use these buttons to zoom the report in or out on the screen, or change the zoom to a specific level.



This allows you to change the background color of the report page.



This allows you to add your own text or picture to the background of the report page.



This allows you to save the report in any one of several popular formats.

### Icon

### Function



This allows you to save the report in any one of several popular formats, and then email it.

## ESI Call Accounting Application User's Guide



This closes the Print Preview window.

### *Scheduling A Report*

*ESI Call Accounting* allows you to schedule any report to be run automatically at an interval you specify and be emailed to you. Note that you must have entered your email settings properly in order for this to be successful (see the topic [Email Settings](#) for detailed instructions).

In order to schedule a report, you must first run the report (see the topic [Running A Report](#) for more detailed instructions). Once you have run the report, you will click the "**Schedule Report**" button on the ribbon at the top of the preview window:



When you click the Schedule Report button, a window similar to the following will appear:

## ESI Call Accounting Application User's Guide

**Schedule Report**

Data to use for this report:

Re-choose data... Note: the data filter you chose initially to run this report will be used by default. It is recommended that you choose one of the presets under Date and Time Range, but if you choose actual dates, the reports that are generated will automatically have their dates shifted appropriately each time the report is run.

When to run initial report:

05/21/16 6:00:00 PM

Report format:

Adobe Portable Document Format (PDF)

When to run subsequent reports:

☒ Daily  
☐ Weekdays  
☐ Weekly  
☐ Monthly  
☐ Quarterly

Recipient(s) email address(es) (separate with commas):

Email subject prefix:

Save Cancel

In this window, you must specify some needed settings in order for *ESI Call Accounting* to know exactly what you want (for example, when and how often to run the report, the report format, etc.). Each of the boxes in the window is explained in more detail below:

Data to use for this report:

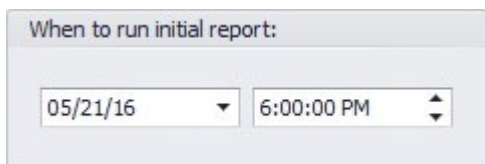
Re-choose data... Note: the data filter you chose initially to run this report will be used by default. It is recommended that you choose one of the presets under Date and Time Range, but if you choose actual dates, the reports that are generated will automatically have their dates shifted appropriately each time the report is run.

If you wish to re-choose the specific call data you're looking for, you can click the **"Re-choose data"** button to do so.

Re-choose data...

## ESI Call Accounting Application User's Guide

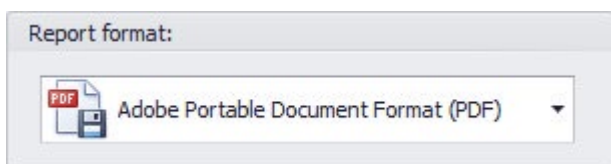
Otherwise, the original data filter you used to run this report will be used whenever the report is generated in the future.




When to run initial report:

05/21/16 6:00:00 PM

Here, you will specify the date and time that you want the automatic report to be run for the first time.



Report format:

 Adobe Portable Document Format (PDF)

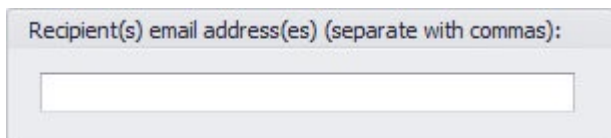
This is the format of the report that will be attached to the email that will be sent to you. By default, the format is Adobe PDF, which is a widely-used format. However, there are several other formats you can choose from if one of them is better suited to you.



When to run subsequent reports:


☒ Daily  
☐ Weekdays  
☐ Weekly  
☐ Monthly  
☐ Quarterly

This specifies how frequently to run this report after the first report run: daily, on weekdays, weekly, monthly, or quarterly.



Recipient(s) email address(es) (separate with commas):

Make sure that you enter a valid email address here. This is the email address to which the report will be sent. Note that you can enter multiple email addresses if you like, separated by commas.

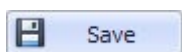


Email subject prefix:

If you have multiple reports emailed to you of the same type, it may be helpful for you to specify the beginning part of the email subject that will be used with this specific report.

## ESI Call Accounting Application User's Guide

When you are finished entering the report parameters, click the "**Save**" button to save the settings. You do not have to be running *ESI Call Accounting* in order for the reports to be generated; as long as your PC is running, a background service will generate and email the reports.



### Pivot Tables

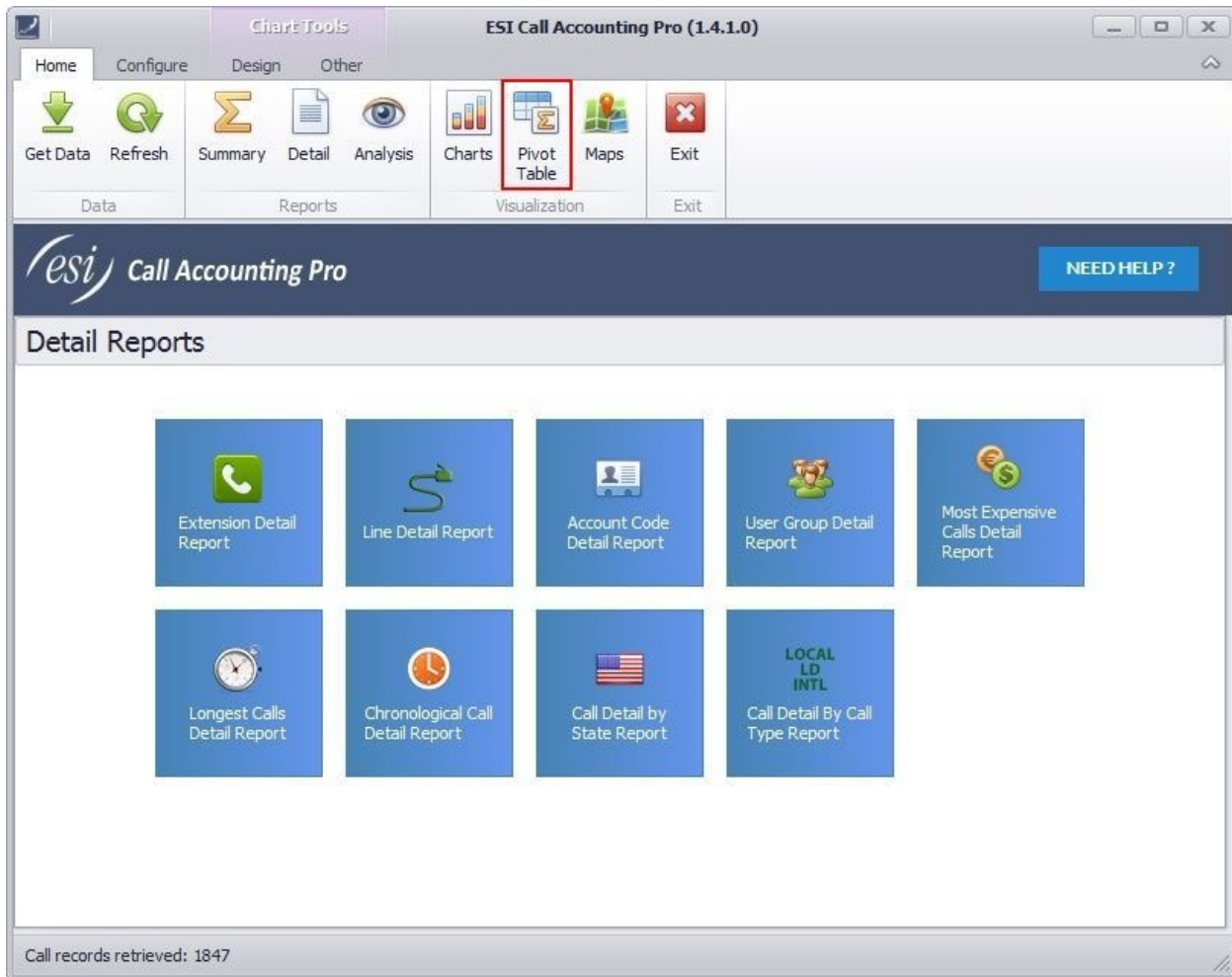
Pivot tables are a way to quickly summarize call data into a table. The way that call data is summarized is completely up to you: there are a number of built-in configurations, or you can create (and save) a practically endless variety of configurations to suit your needs.

#### *Getting Started With Pivot Tables*

Before you can view or configure Pivot tables, you must first retrieve the call data you are trying to summarize. Please refer to the separate help topic, [Retrieving Call Data](#), for more details on retrieving call data.

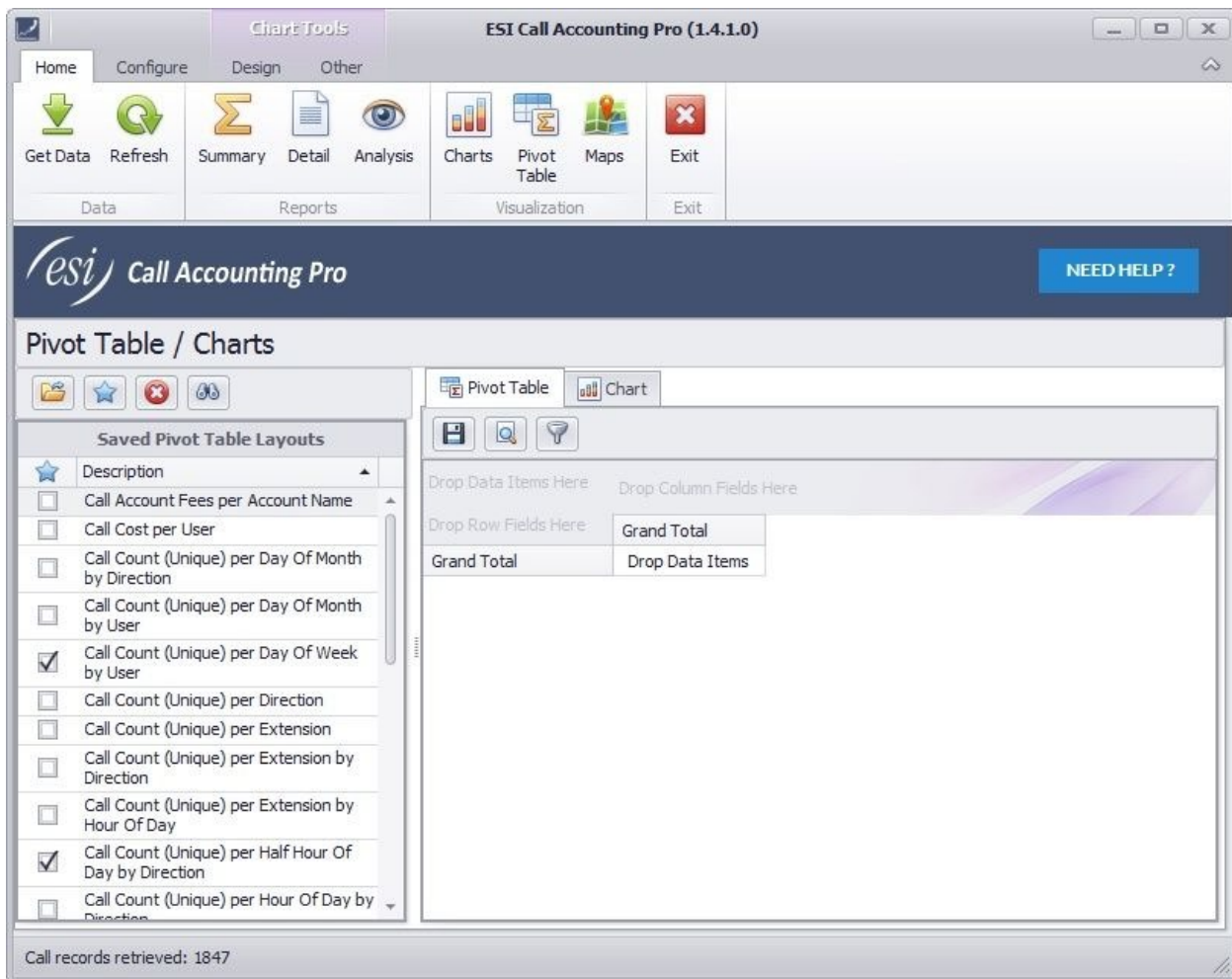
Once you have call data that has been retrieved that you can work with, viewing Pivot tables is easy. To begin, simply click on the "**Pivot Table**" button on the Home tab:

# ESI Call Accounting Application User's Guide



This will change the main window to appear something like the following:

# ESI Call Accounting Application User's Guide



Hmm, we do not see any data--not very helpful, is it? One more thing we must do in order to get any meaningful data is to tell *ESI Call Accounting* how we want to summarize the call data. The help topics following this one will go into more detail about that, but suffice it to say there are some built-in configurations you can try to get the hang of what Pivot tables can do for you. For now, double-click on the entry in the Saved Pivot Table Layouts section called "Call Count (Unique) per Extension by Direction":

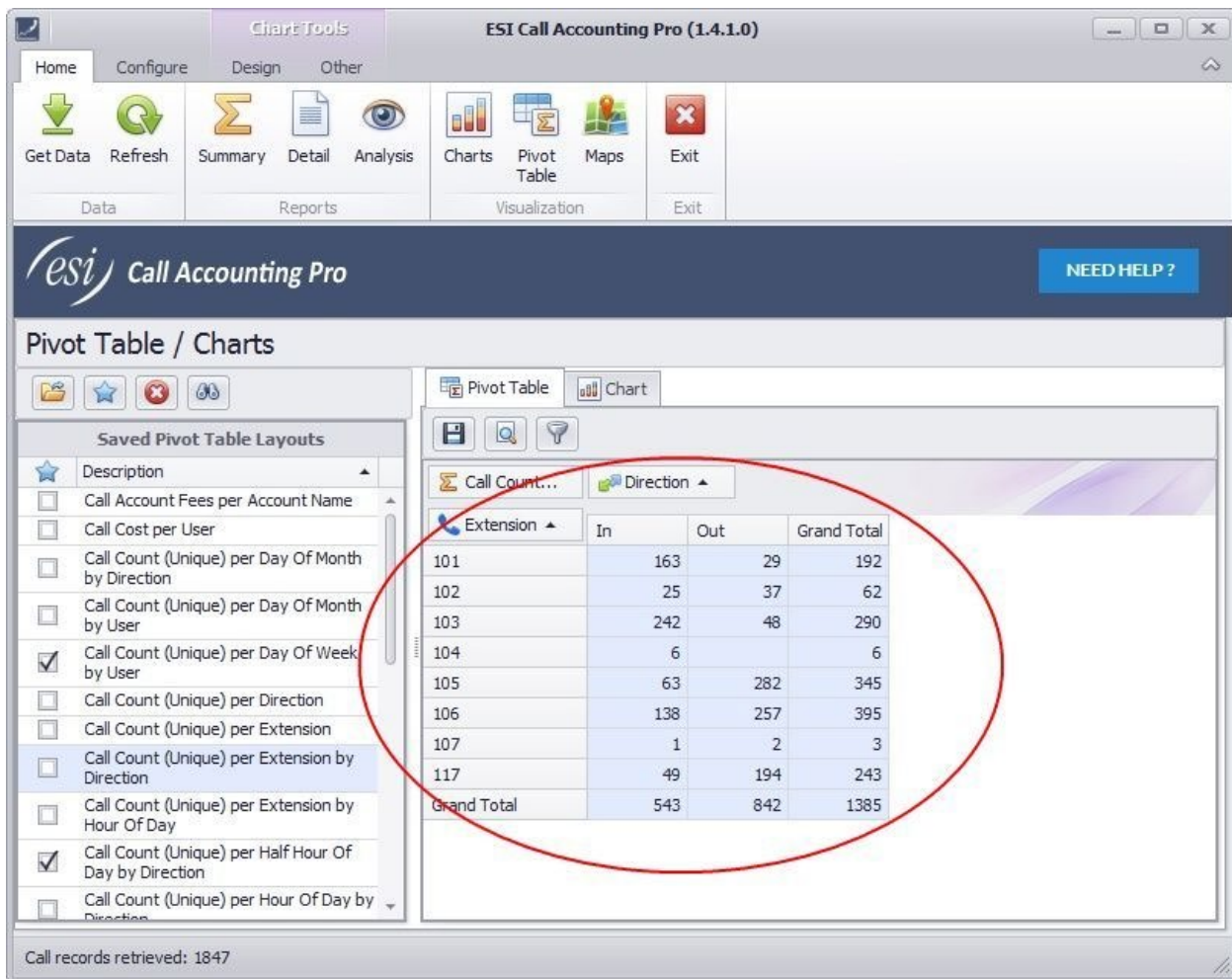
# ESI Call Accounting Application User's Guide

Saved Pivot Table Layouts	
★	Description ▲
<input type="checkbox"/>	Call Account Fees per Account Name
<input type="checkbox"/>	Call Cost per User
<input type="checkbox"/>	Call Count (Unique) per Day Of Month by Direction
<input type="checkbox"/>	Call Count (Unique) per Day Of Month by User
<input checked="" type="checkbox"/>	Call Count (Unique) per Day Of Week by User
<input type="checkbox"/>	Call Count (Unique) per Direction
<input type="checkbox"/>	Call Count (Unique) per Extension
<input type="checkbox"/>	Call Count (Unique) per Extension by Direction
<input type="checkbox"/>	Call Count (Unique) per Extension by Hour Of Day
<input checked="" type="checkbox"/>	Call Count (Unique) per Half Hour Of Day by Direction
<input type="checkbox"/>	Call Count (Unique) per Hour Of Day by Direction

Now there is a table with data in the Pivot Table section!



# ESI Call Accounting Application User's Guide



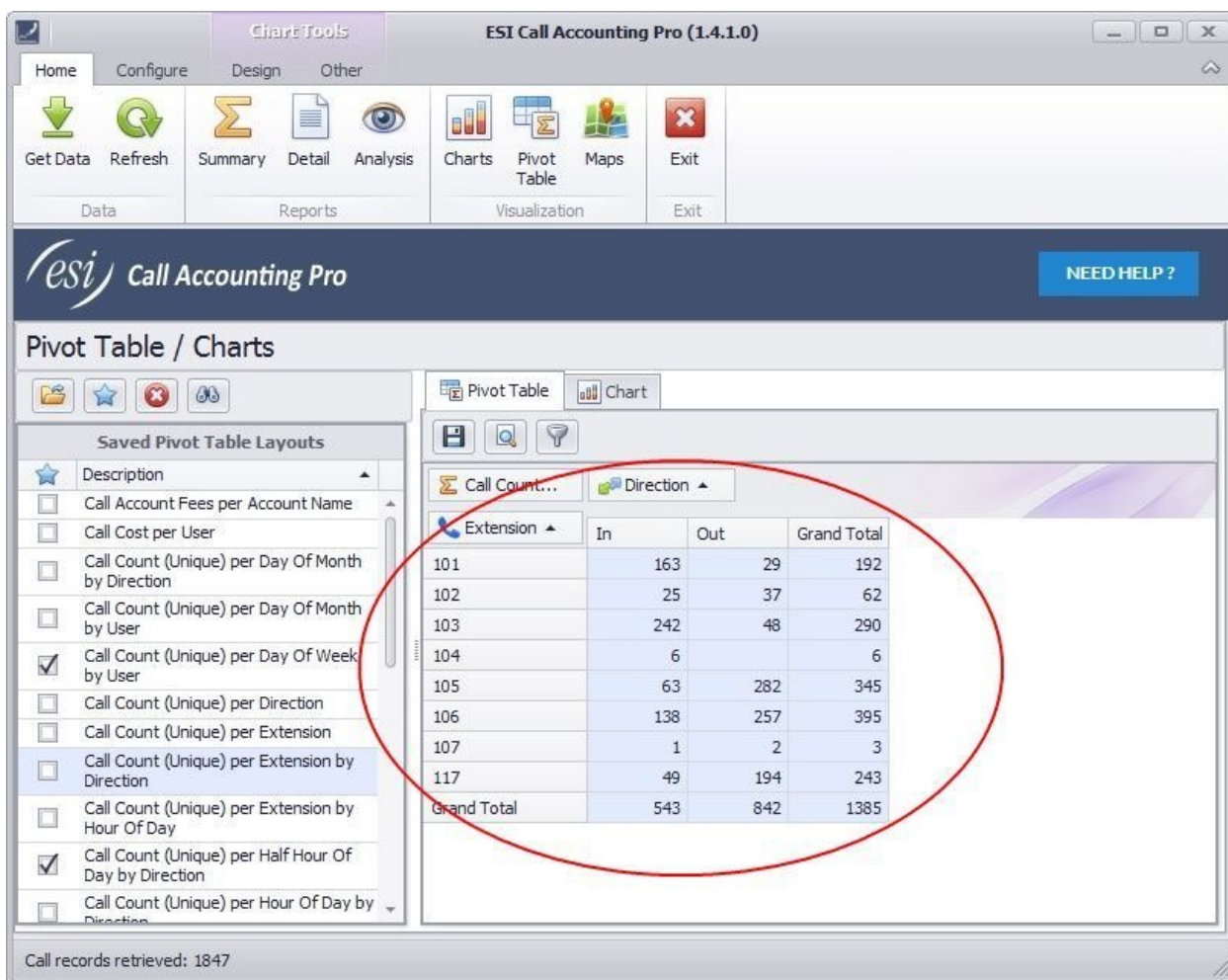
In this case, we see a table where extension numbers are listed on the left hand side, and there are columns labeled In, Out, and Grand Total. You can see that, for each extension, the number of inbound calls, outbound calls, and total calls is shown. At the bottom, we get a grand total of inbound, outbound, and total calls for all extensions.

Pivot tables are at once both powerful and useful--and, as you will see, easy to use and to change for your own needs.

## Pivot Table Screen Navigation

Here is an example of a screen with a Pivot table (to learn how we created this pivot table, refer to the topic, [Getting Started With Pivot Tables](#)):

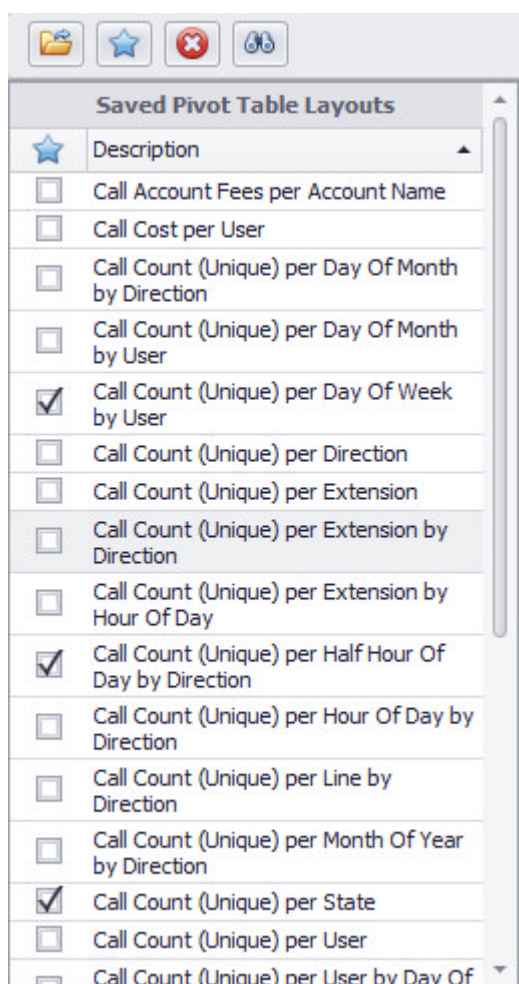
# ESI Call Accounting Application User's Guide



To some, this may look a bit complicated. But we can easily break down everything so that you quickly understand how to navigate the Pivot Table screen. Following are the components of the Pivot Table screen and a description:

## Saved Pivot Table Layouts:





## ESI Call Accounting Application User's Guide






These are some preset configurations that have been supplied to you so that you can quickly begin generating meaningful tables. By double-clicking on any of the descriptions (or by clicking on a description and then clicking the button with a folder on it), the selected layout will load and you will see a table summarizing the data.

The buttons at the top of this section are used as follows:

## ESI Call Accounting Application User's Guide

Icon	Function
	This button the selected layout will load and you will see a table summarizing the data.
	This button is used to toggle between showing only your favorite pivot table layouts or all layouts (Hint: you can mark or un-mark a layout as a favorite by checking or un-checking the check box to the left of the layout description).
	This button will completely remove the selected pivot table layout.
	If you have many pivot table layouts and would like to search through the descriptions for a particular one, click this button.

### Pivot Table:


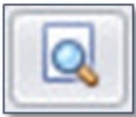

Pivot Table		Chart	
			
Call Count...	Direction ▲		
Extension ▲	In	Out	Grand Total
101	163	29	192
102	25	37	62
103	242	48	290
104	6		6
105	63	282	345
106	138	257	395
107	1	2	3
117	49	194	243
Grand Total	543	842	1385

Here, you see the pivot table itself displayed. The pivot table is a summary table of call data laid out according to the call variables you have chosen. In the example above, you see all the extensions laid out on the left-hand side of the table. The columns show number of inbound calls, outbound calls, and total calls. At the bottom of the table, you see grand totals for all extensions.

## ESI Call Accounting Application User's Guide

The table layout will be different depending upon the layout you have chosen from among the preset layouts, or ones you have created yourself. For example, say instead of counting inbound and outbound calls per extension, I would like to know how many calls were made by time of day, or day of the week? Or instead of tracking the number of calls, I want to track hold time? This and much, much more are possible with *ESI Call Accounting*. Virtually any conceivable combination is possible, and only a few clicks away.

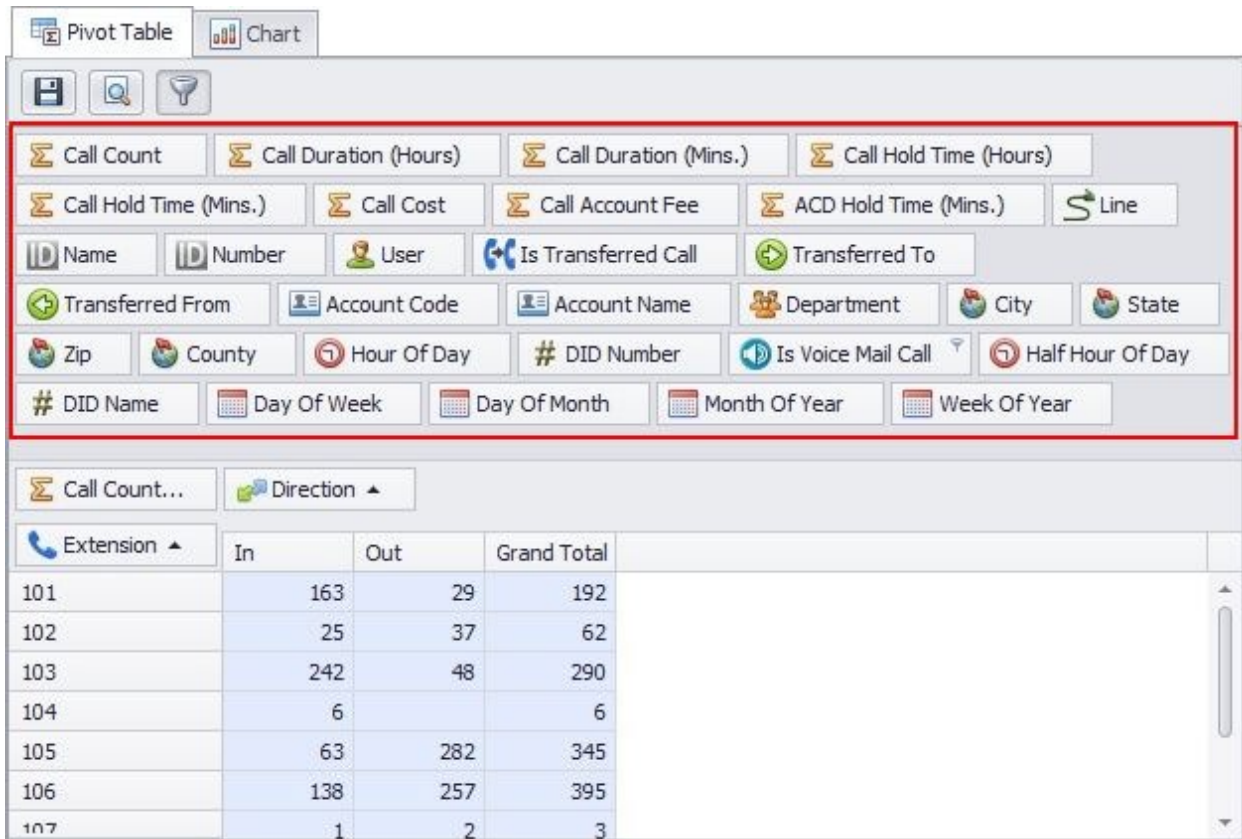
Above the pivot table are several buttons. Here is a description of each:

Icon	Function
<b>Save</b> 	This button allows you to save a custom layout you have created, for easy use later.
<b>Print Preview</b> 	This button will give you a print preview of the pivot table, so that you can print it, email it, or export it to any of several popular file formats.
<b>Filter</b> 	This button allows you to toggle between viewing and hiding all of the different types of call data you can track with your pivot table.

Here is an example of the page view when the “**Filter**” button is selected. This will show all of the available data to filter in your pivot table:



## ESI Call Accounting Application User's Guide

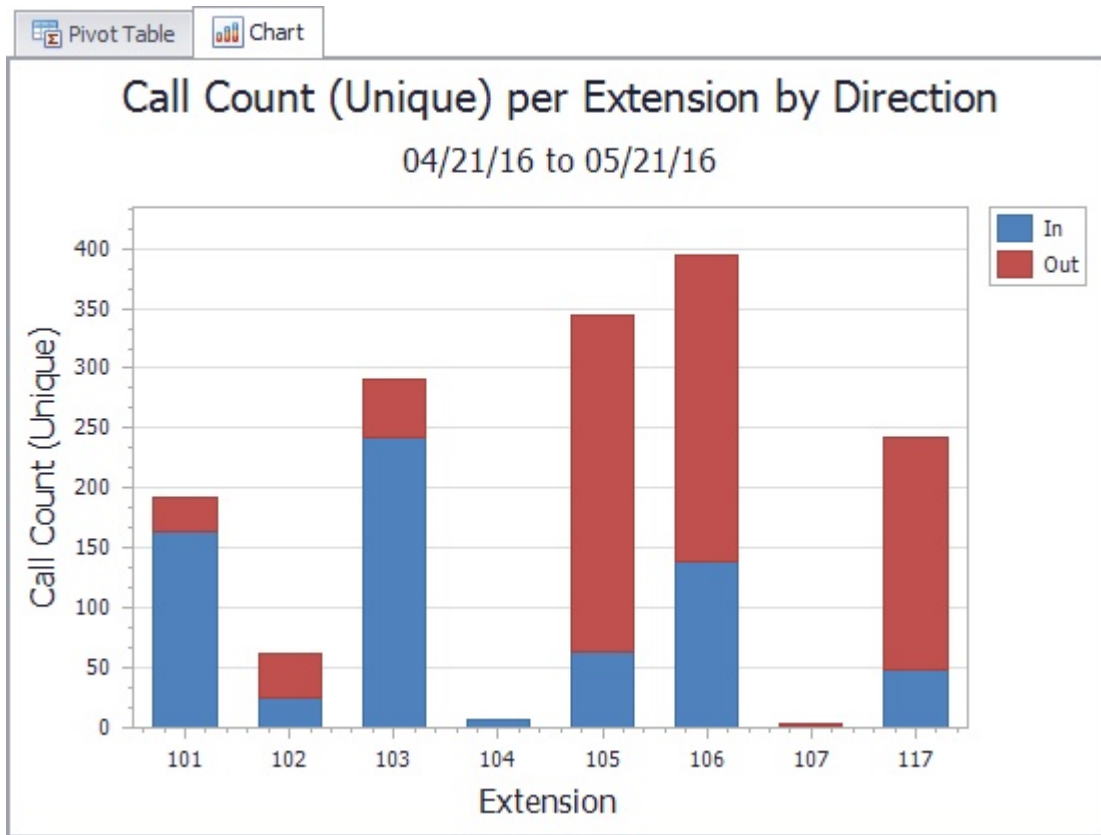


As you can see, there are a great many things you can track and summarize when it comes to pivot tables--the possibilities are nearly endless!

One more thing: you may have noticed that there is a tab here labeled "**Pivot Table**", and a tab labeled "**Chart**". In *ESI Call Accounting*, pivot tables and charts are linked together, so that when you have created or loaded a pivot table, you have also automatically created a chart!

By clicking on the "**Chart**" tab, we can get an instant chart representation of our pivot table:

## ESI Call Accounting Application User's Guide



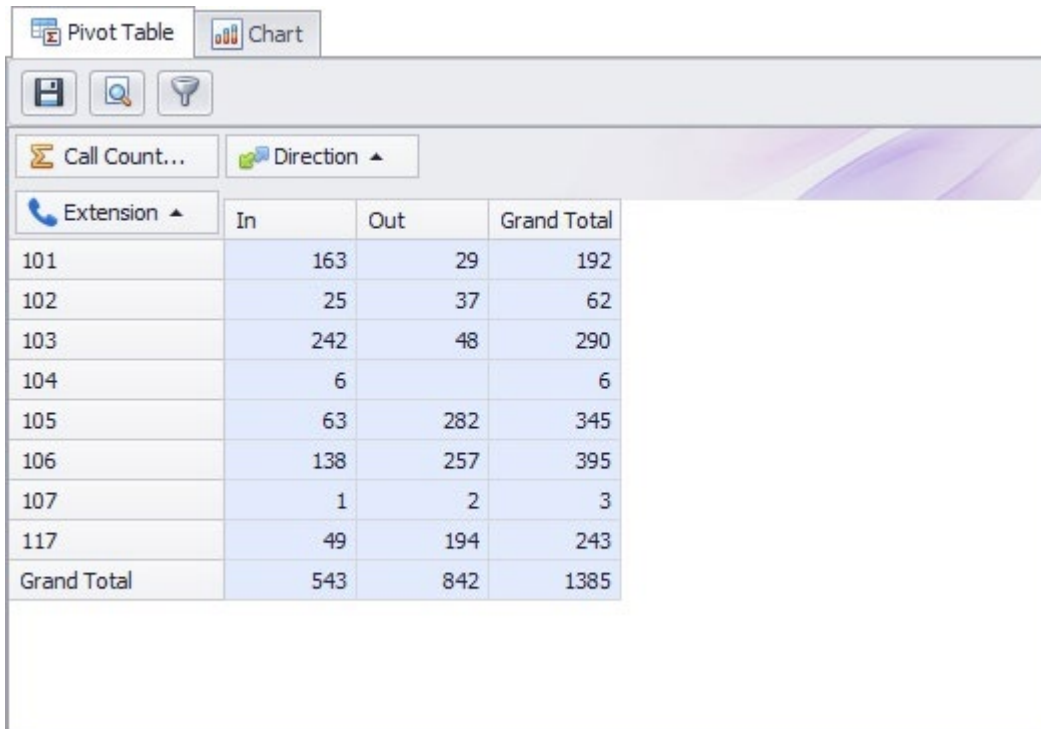
Let this work on your mind for a moment, and you will soon understand both how easy and flexible charting is in *ESI Call Accounting*!

### *Creating/Modifying A Pivot Table*

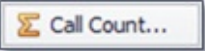

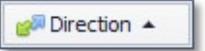

If you have read through the previous topics on pivot tables, you will have begun to understand how powerful and useful pivot tables can be. But how do you create or modify your own? As it turns out, this is very easily done, through the use of dragging and dropping. Let's go back to a couple of our previous screen shots.

This is an example of a pivot table that we loaded from a preset layout:

## ESI Call Accounting Application User's Guide



Here, you can see that we have a table that summarizes how many inbound and outbound calls were made per extension. Above the chart are several buttons. Here is a description of each:

Icon	Function
	Call Count filter
	Extension filter
	Direction of the call filter
	View all the other filter variables that are available for selection

Here is an example of the page view when the “**Filter**” button is selected. This will show all of the available data to filter in your pivot table:



## ESI Call Accounting Application User's Guide

Pivot Table Chart

Save Find Filter

Σ Call Count   Σ Call Duration (Hours)   Σ Call Duration (Mins.)   Σ Call Hold Time (Hours)  
 Σ Call Hold Time (Mins.)   Σ Call Cost   Σ Call Account Fee   Σ ACD Hold Time (Mins.)   S Line  
 ID Name   ID Number   User   Is Transferred Call   Transferred To  
 Transferred From   Account Code   Account Name   Department   City   State  
 Zip   County   Hour Of Day   # DID Number   Is Voice Mail Call   Half Hour Of Day  
 # DID Name   Day Of Week   Day Of Month   Month Of Year   Week Of Year

Σ Call Count...   Direction ▲

Extension ▲	In	Out	Grand Total
101	163	29	192
102	25	37	62
103	242	48	290
104	6		6
105	63	282	345
106	138	257	395
107	1	2	3

From here, it's just a matter of dragging and dropping to get the desired effect. First, though, let's define the different areas that we can drag these variables to and from:

## ESI Call Accounting Application User's Guide

The screenshot shows the ESI Call Accounting Application interface. At the top, there are tabs for 'Pivot Table' and 'Chart'. Below these are icons for saving, searching, and filtering. A large list of fields is available for selection, including Call Count, Call Duration (Hours), Call Duration (Mins.), Call Cost, Call Account Fee, Line, Name, Number, User, Is Transferred Call, Transferred To, Transferred From, Department, Authorization Code, 727 Is Trunk To Trunk Call, 727 Trunk To Trunk Line, DID Number, DID Name, Ring Time, Is Voice Mail Call, Account Code, Account Name, City, State, Zip, County, Hour Of Day, Half Hour Of Day, Day Of Week, Day Of Month, Month Of Year, and Week Of Year. Below this list, a Pivot Table is displayed. The Pivot Table has a 'Row Area' (Extension), a 'Column Area' (In, Out, Grand Total), a 'Data Area' (the numerical values), and a 'Filter Area' (the list of fields above the table). Red arrows point to these four areas.

Extension	In	Out	Grand Total
101	50	5	55
102	6	3	9
103	61	14	75
104	4	4	8
105	22	53	75
106	47	75	122
107	1	54	55
133	1	1	2

Section	Function
<b>Row Area:</b>	This defines what is in our rows.
<b>Column Area:</b>	This defines what is in our columns.
<b>Data Area:</b>	This defines what quantity we are measuring (Number of calls? Call duration? Cost?)
<b>Filter Area:</b>	These are all the items that are unused but available for us to drag in, if we so choose. We can also drag items away from the other areas into the Filter Area if we no longer wish to use them.

For the most part, there are no restrictions on what can be dragged around. You can even put more than one item in the Row Area, Column Area, and Data Area if you like (try it, and see how you like it!). The only real restriction is that the only items that can be dragged to the Data Area are those items with a picture of a summation symbol.



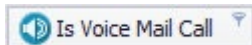
This is to protect you from getting some very *strange* results.

## ESI Call Accounting Application User's Guide

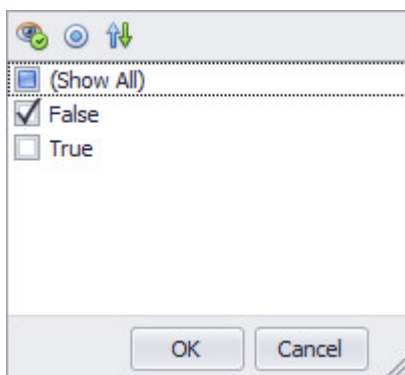
Remember that if you have a stroke of brilliance and come up with a combination you really like, you can save it by clicking the **"Save"** button.



Another thing that is possible with the Pivot table is that you can further filter out unwanted or unneeded data. This is done by hovering over any of the variables; when you do, a tiny filter symbol will appear that you can click on. For example, see the **"Is Voice Mail Call"** button.



In our case, we clicked on its filter button (the teeny tiny picture of a gray funnel), which brought up the following window:

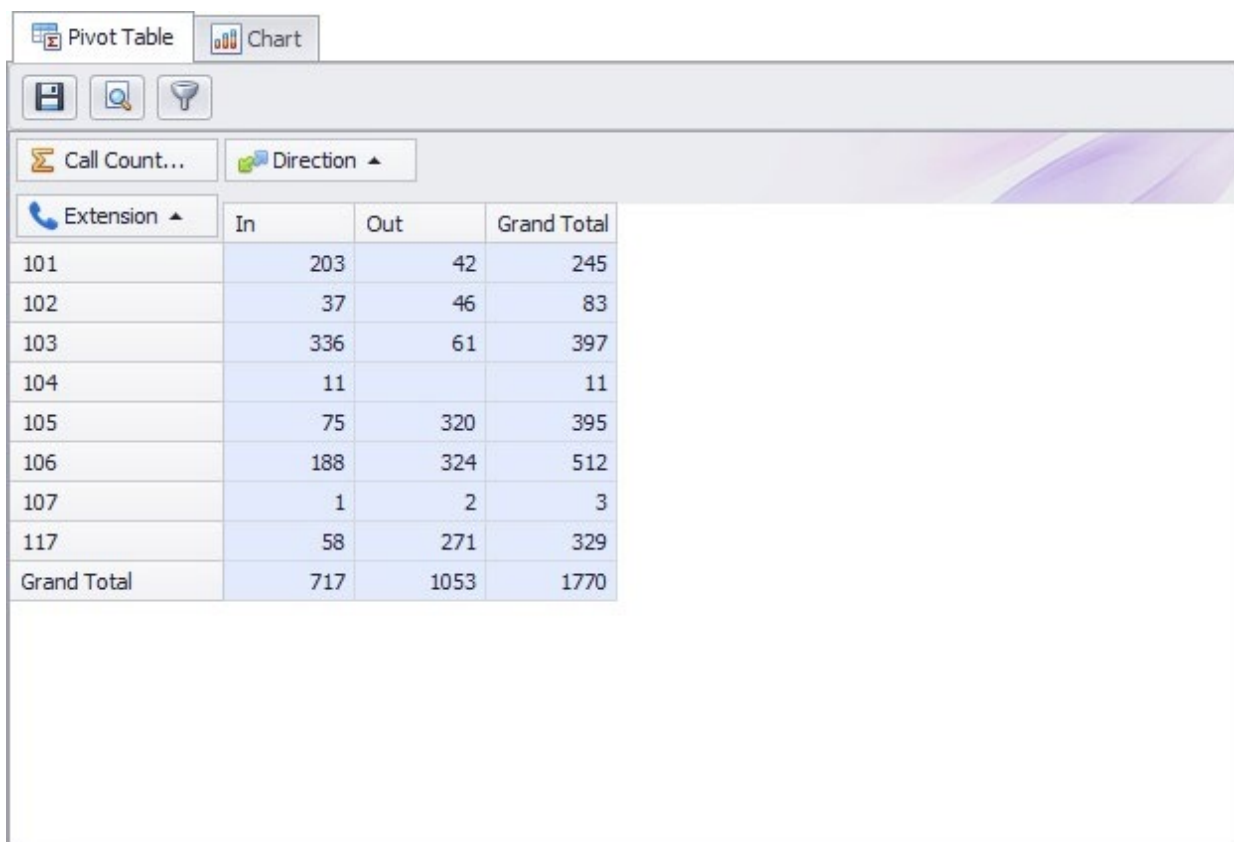


We un-clicked the True check box, which means that our Pivot table will not include any calls that went to voice mail. You can change the filter for any of the call variables in a similar manner.

### *Drilling Down Into Pivot Table Data*

If you have read the topics up to this point, you have discovered that Pivot tables are powerful, easy to create and use, and tremendously helpful. Although it's great to have summary information easily available to us in any way we'd like to dice it up, it would also be nice to be able to drill down into specific calls as needed. As it turns out, this capability is also built into *ESI Call Accounting*, and it's very easy to use. Let's take a look at a previous Pivot table we have generated so that we can put this into action:

## ESI Call Accounting Application User's Guide



Extension ▲	In	Out	Grand Total
101	203	42	245
102	37	46	83
103	336	61	397
104	11		11
105	75	320	395
106	188	324	512
107	1	2	3
117	58	271	329
Grand Total	717	1053	1770

Here, we have generated a Pivot table that shows, for each extension, the number of inbound and outbound calls per extension. For our convenience, there are also totals per extension, and grand totals for all extensions. But what if I'd like to look at, say, the outbound calls for a particular extension in more detail? This is as easy as double-clicking the table cell of the data we want to zoom in on. In our example case, we'll double-click on the outbound calls for extension 103, the cell with the number 61 in it. When we do so, a window appears with the following:

## ESI Call Accounting Application User's Guide

Time Stamp	Dir	Ext	User	Duration	Line	Name	Number	Hold ...	Call Cost	Xfr	Xfr To	Xfr From	VM	Acc
05/19/16 08:16:04	Out	103	Donald Hammond	16	011		(602) 222...	0	0	<input type="checkbox"/>			<input type="checkbox"/>	
05/19/16 13:44:05	Out	103	Donald Hammond	0	012		(800) 491...	0	0	<input checked="" type="checkbox"/>		117	<input type="checkbox"/>	
05/19/16 15:33:27	Out	103	Donald Hammond	62	010		(480) 999...	0	0	<input type="checkbox"/>			<input type="checkbox"/>	
05/19/16 15:34:31	Out	103	Donald Hammond	173	011		(877) 305...	0	0	<input type="checkbox"/>			<input type="checkbox"/>	
05/19/16 15:46:53	Out	103	Donald Hammond	40	012		(602) 980...	0	0	<input type="checkbox"/>			<input type="checkbox"/>	
05/19/16 16:18:36	Out	103	Donald Hammond	165	010		(480) 999...	0	0	<input type="checkbox"/>			<input type="checkbox"/>	
05/18/16 13:40:37	Out	103	Donald Hammond	99	012		(480) 238...	0	0	<input type="checkbox"/>			<input type="checkbox"/>	
05/18/16 14:47:29	Out	103	Donald Hammond	62	012		(602) 376...	0	0	<input type="checkbox"/>			<input type="checkbox"/>	
05/04/16 14:26:03	Out	103	Donald Hammond	529	011		(800) 374...	5	0	<input type="checkbox"/>	103		<input type="checkbox"/>	
05/19/16 13:45:55	Out	103	Donald Hammond	445	012		(800) 491...	8	0	<input checked="" type="checkbox"/>	117	117	<input type="checkbox"/>	
05/04/16 14:34:57	Out	103	Donald Hammond	5	011		(800) 374...	15	0	<input checked="" type="checkbox"/>	103	103	<input type="checkbox"/>	
05/04/16 14:35:17	Out	103	Donald Hammond	3	011		(800) 374...	73	0	<input checked="" type="checkbox"/>	103	103	<input type="checkbox"/>	

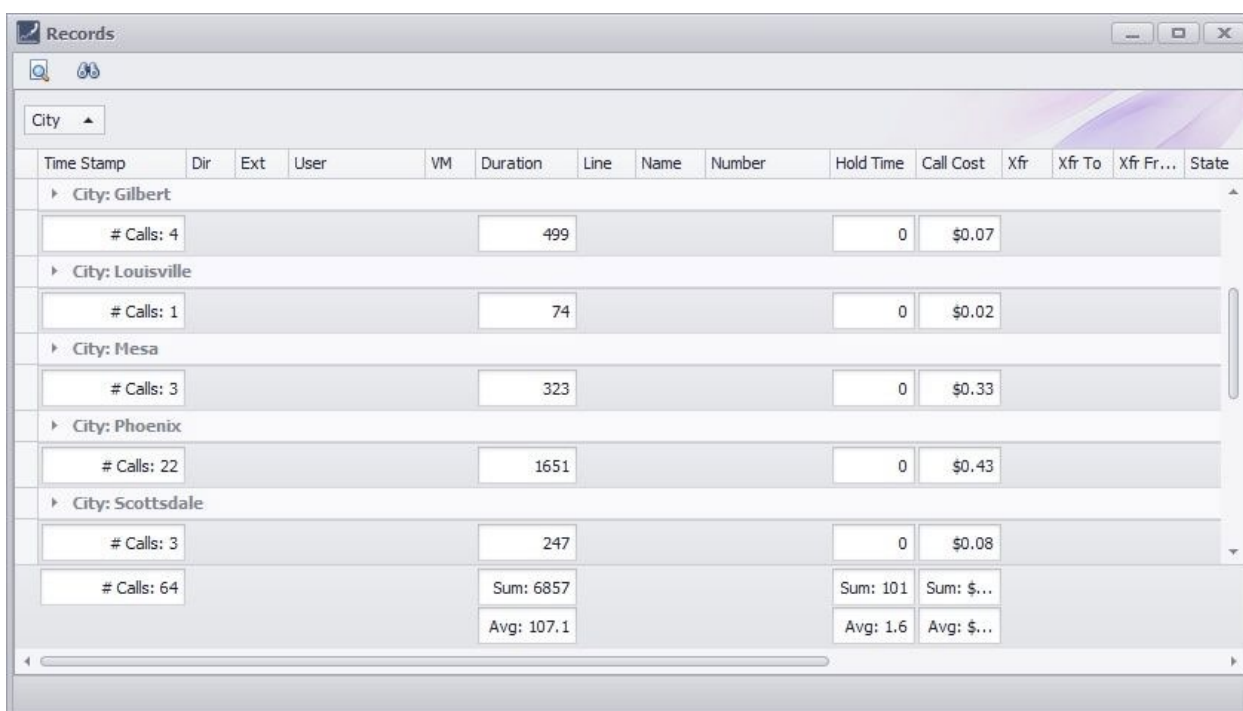
  

# Calls: 64	Sum: 6857	Sum: 101	Sum: \$1.44
	Avg: 107.1	Avg: 1.6	Avg: \$0.02

Here we can see all of the call details for those calls. We can similarly click on any of the table cells in the Pivot table to get a "drill-down" of the call data that make up that number. At the bottom of this window is a section showing grand totals and averages for various columns. Note that, while the Pivot Table showed 61 calls in that cell, the drill down table shows a total of 64 calls. Why? This is because, when we were in our pivot table, we were requesting the Unique call count, which came to 61 separate calls. As some of those calls were put on hold and then picked back up or transferred, we see a total of 64 calls in the drill-down table. A good way to understand the discrepancy is to think of the drill-down information as call "legs".

In the drill-down screen, we can click on any column header to sort the calls by that column. We can also click and drag a particular column header to the area above the columns in order to group the data by that column. For example, if I click and drag the City column to this area, I get the following:

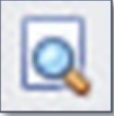

## ESI Call Accounting Application User's Guide



Time Stamp	Dir	Ext	User	VM	Duration	Line	Name	Number	Hold Time	Call Cost	Xfr	Xfr To	Xfr Fr...	State
City: Gilbert														
# Calls: 4					499				0	\$0.07				
City: Louisville														
# Calls: 1					74				0	\$0.02				
City: Mesa														
# Calls: 3					323				0	\$0.33				
City: Phoenix														
# Calls: 22					1651				0	\$0.43				
City: Scottsdale														
# Calls: 3					247				0	\$0.08				
# Calls: 64					Sum: 6857				Sum: 101	Sum: \$...				
					Avg: 107.1				Avg: 1.6	Avg: \$...				

As you can see, the calls are now grouped and tallied by city. At the bottom of this window is still a section showing me grand totals and averages for various columns.

Here is an explanation of the buttons at the top of the drill-down window:

Icon	Function
	This button will generate a print preview window, so that you can print the call data, email it, or export it to any of several popular file formats.
	This button allows you to search through any of the data shown in the drill-down window.

### Conditional Formatting

When creating pivot tables in *ESI Call Accounting*, you can (optionally) apply formatting rules to cells based on their values (and save formatting rules with the pivot table layout). This allows you to automatically color cells, give them a range of shades, and even add data bars or icons! There are a wide range of criteria you may use to alter the appearance of cells in the table. For example:



## ESI Call Accounting Application User's Guide

Extension ▲	Call Cost Total
101	\$6.00
102	\$5.83
103	\$18.14
104	\$0.13
105	\$15.37
106	\$21.73
107	\$0.65
117	\$7.84
128	\$0.02
133	\$0.67
Grand Total	\$76.38

In the example above, we are listing the total cost of calls for various extensions. In addition to showing the dollar amount for each extension, we have added a graphical bar that makes it very easy to see how expensive an extension's calls were, relative to the other extensions.

Call Count	Day Of Week ▲							
Extension ▲	1 Sun	2 Mon	3 Tue	4 Wed	5 Thu	6 Fri	7 Sat	Grand Total
101	1	58	86	46	80	16		287
102	3	16	29	47	31	30	2	158
103	2	111	75	92	48	103	1	432
104				2	1	4		7
105	2	84	70	80	59	64	1	360
106	1	102	77	70	26	68	17	361
107	1	5	6		3	4		19
117	9	16	72	41	51	13		202
128		1						1
133		3	10	6	3	1		23
Grand Total	19	396	425	384	302	303	21	1850

In this example, we are measuring the number of calls made or received by the various extensions, further sorted by day of the week. Through Conditional Formatting, we have specified that the top 20% of values should be shaded green.

## ESI Call Accounting Application User's Guide

Call Duration (Hours)	Extension ▲								
Hour Of Day ▲	101	102	103	104	105	106	107	117	Grand Total
08:00-08:59	○ 4.15	○ 0.33	○ 10.86	○ 0.11	○ 11.17	● 40.90	○ 1.21	○ 7.99	76.72
09:00-09:59	○ 6.04	○ 0.67	○ 15.55	○ 0.12	○ 30.66	● 39.45	○ 0.57	○ 10.16	103.22
10:00-10:59	○ 4.90	○ 1.10	○ 15.24	○ 0.25	○ 31.22	● 44.94	○ 0.93	○ 9.36	107.94
11:00-11:59	○ 4.96	○ 0.91	○ 13.27	○ 0.30	○ 21.42	○ 35.02	○ 0.50	○ 9.26	85.64
12:00-12:59	○ 4.28	○ 0.94	○ 10.92	○ 0.06	○ 22.35	● 44.66	○ 1.09	○ 7.97	92.27
13:00-13:59	○ 3.90	○ 2.13	○ 12.56	○ 0.11	○ 11.86	● 40.21	○ 0.99	○ 7.81	79.57
14:00-14:59	○ 5.24	○ 8.25	○ 15.13	○ 0.10	○ 3.15	● 40.41	○ 1.11	○ 6.97	80.36
15:00-15:59	○ 4.00	○ 6.79	○ 10.96	○ 0.30	○ 4.20	● 38.04	○ 0.74	○ 1.75	66.78
16:00-16:59	○ 1.70	○ 7.91	○ 9.56	○ 0.47	○ 1.91	○ 24.67	○ 0.42	○ 2.07	48.71
Grand Total	39.17	29.03	114.05	1.82	137.94	348.30	7.56	63.34	741.21

In the example above, we have chosen to measure the total time spent (in hours) by each extension for each hour of the day. In this case, we have added icons to the cells that will quickly help us determine visually who the heaviest phone users were.

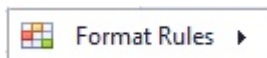
Call Count	Direction ▲		
State ▲	In	Out	Grand Total
CA	253	118	371
CO	49	40	89
FL	55	23	78
MI	27	6	33
MN	34	21	55
NC	21	7	28
NE	15	48	63
NJ	46	5	51
NV	23	10	33
NY	60	30	90
OH	12	35	47
PA	10	64	74
SC	9	19	28
SD	10	6	16
TX	155	25	180
UT	21	36	57
WA	21	3	24
Grand Total	821	496	1317

In this example, we are measuring the number of calls made to or received from various states. Here, we are using a variable shading technique, so that the smallest values are shaded the least heavily (or not at all), while the largest values are shaded the most heavily. Additionally, there are shading ranges in-between.

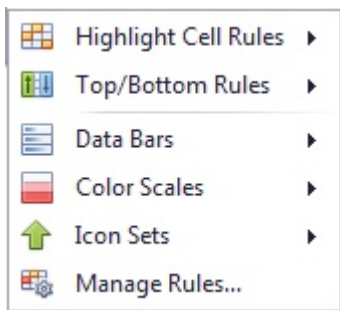


## ESI Call Accounting Application User's Guide

To access Conditional Formatting, simply right-click on any cell in the Pivot table, and click on the "Format Rules" button.



You will have several options:



The options available to you from that point on will depend upon which of these you have chosen. Feel free to experiment, and you will see how flexible Conditional Formatting is!

If you have applied Conditional Formatting to a Pivot table, and subsequently save the Pivot table layout, the Conditional Formatting rules will be saved along with it.

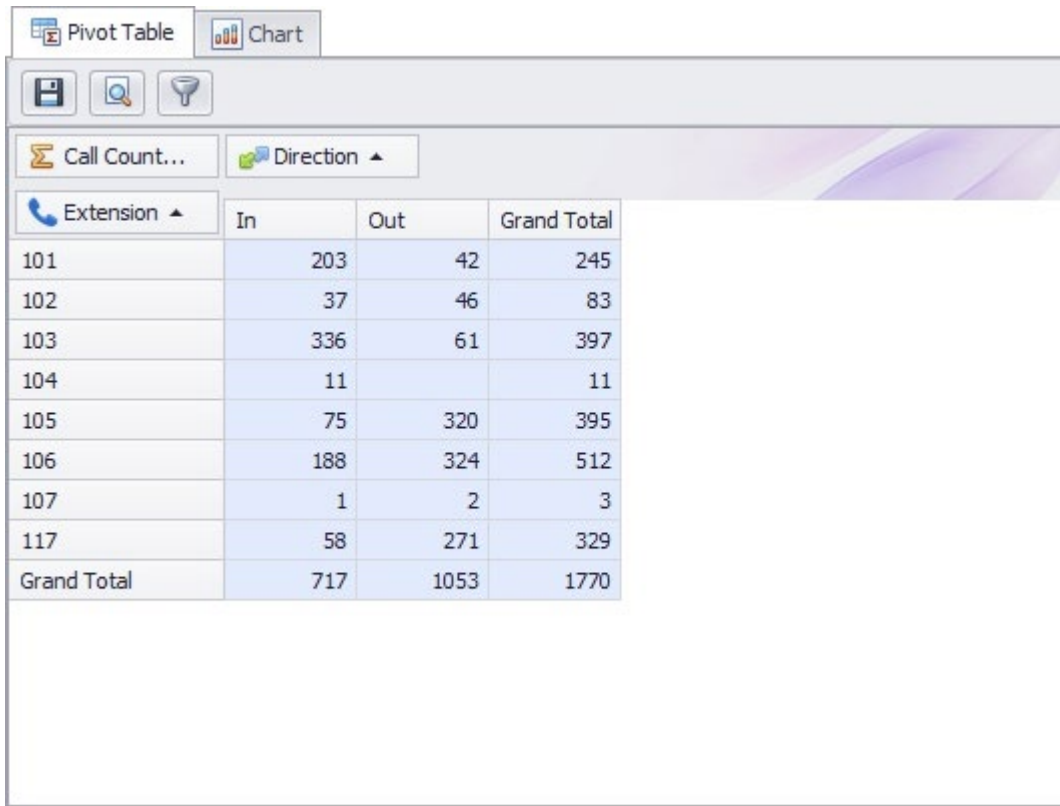
## Charting

*ESI Call Accounting* offers an almost unlimited variety of chart options, with nearly boundless customization options. Because charting is closely tied to *ESI Call Accounting's* Pivot table functionality, it is recommended that you read and become familiar with the topic [Pivot Tables](#).

### *Creating A Chart*

In *ESI Call Accounting*, Charts are intrinsically tied to Pivot tables. When you create a Pivot table, you are automatically creating a corresponding chart. This is why we have placed the Pivot Table and Chart in the same general area with each other:

## ESI Call Accounting Application User's Guide

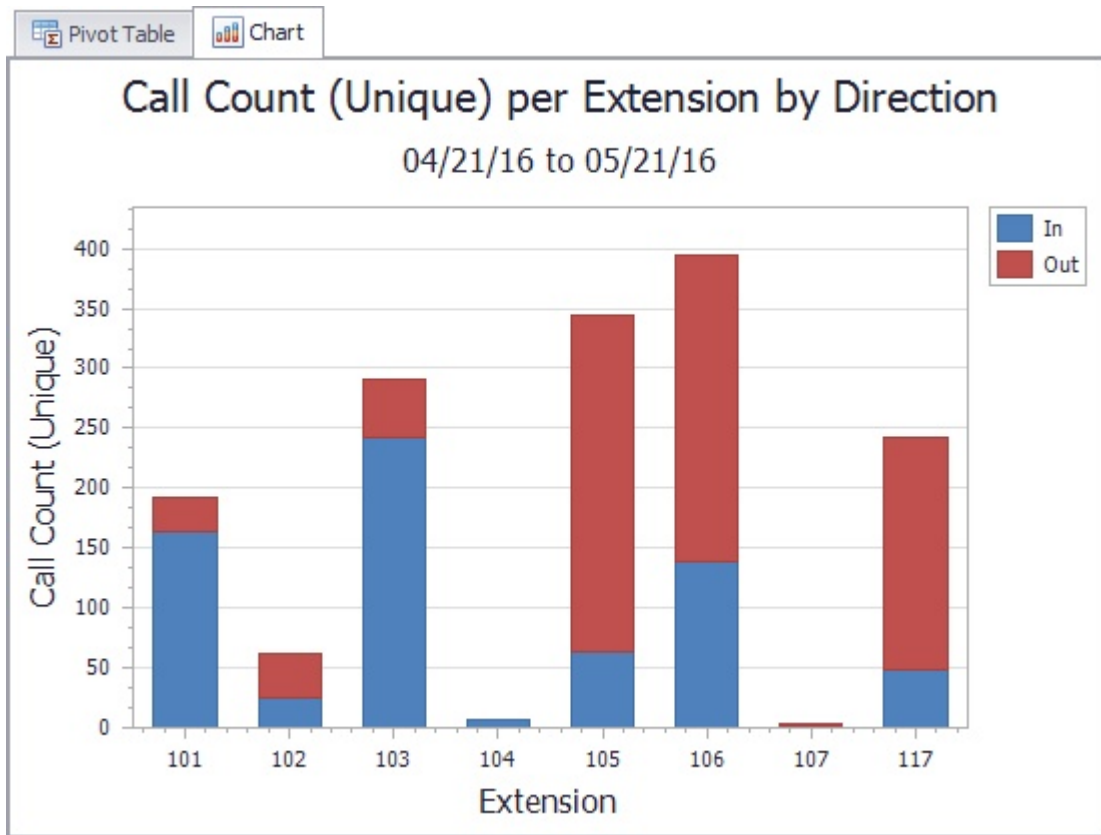


The screenshot shows the ESI Call Accounting Application interface. At the top, there are two tabs: "Pivot Table" and "Chart". Below the tabs is a toolbar with icons for saving, filtering, and other functions. The main area displays a Pivot Table with the following data:

Extension ▲	In	Out	Grand Total
101	203	42	245
102	37	46	83
103	336	61	397
104	11		11
105	75	320	395
106	188	324	512
107	1	2	3
117	58	271	329
Grand Total	717	1053	1770

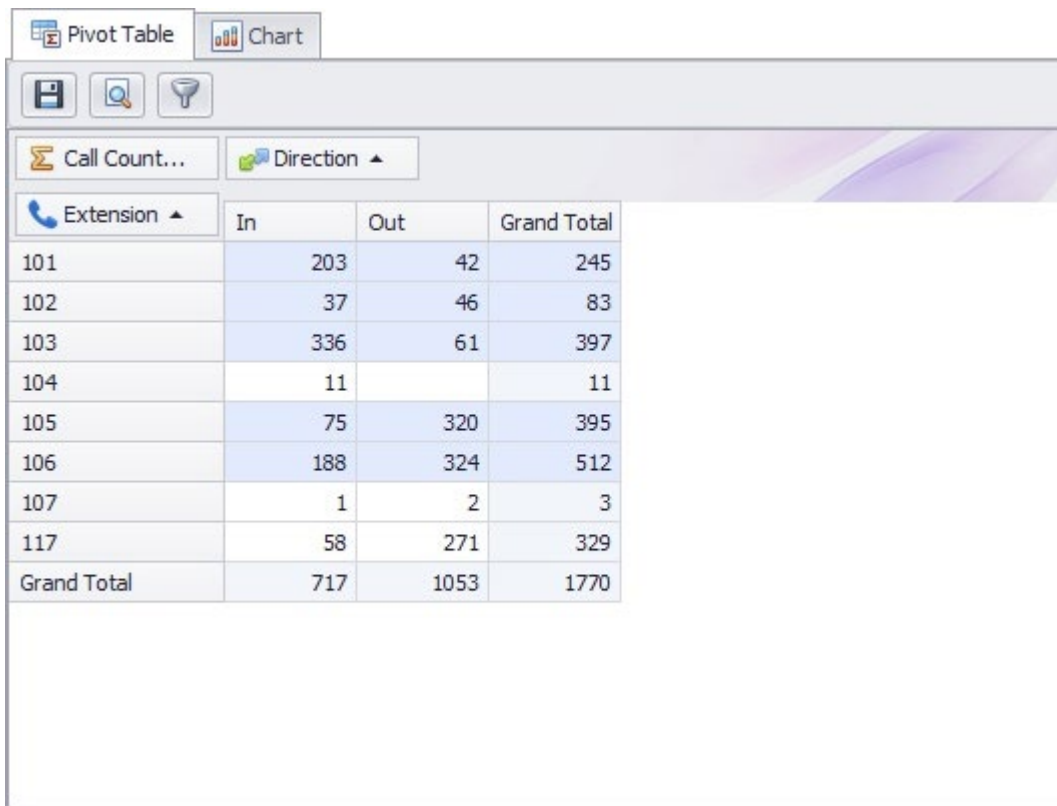
This is what we see when we have clicked on the Chart tab:

## ESI Call Accounting Application User's Guide



*ESI Call Accounting* does this for you automatically. Because the chart is tied into the Pivot table, we can do something else that's neat. For example, if we only want to chart certain of these extensions, we could simply highlight only those rows within the Pivot table, like so:

## ESI Call Accounting Application User's Guide

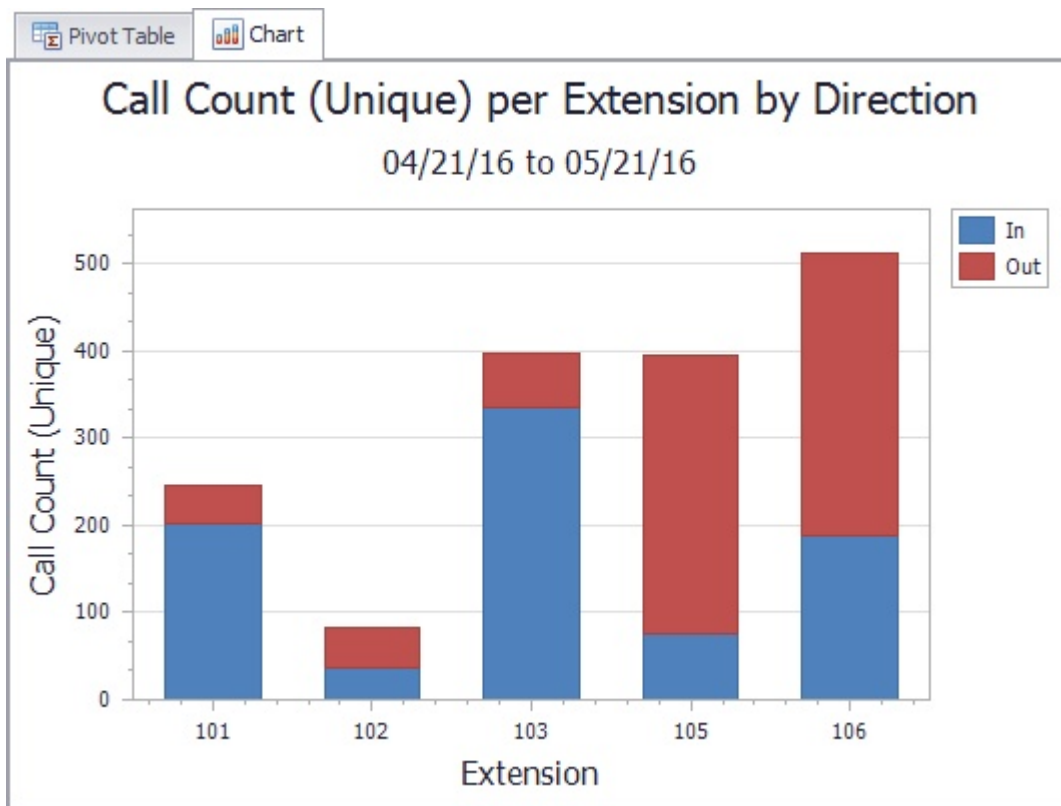


The screenshot shows the ESI Call Accounting Application interface. At the top, there are tabs for 'Pivot Table' and 'Chart'. Below these are icons for saving, filtering, and funneling. The main area contains a 'Call Count...' button and a 'Direction' dropdown menu. A table is displayed with the following data:

Extension	In	Out	Grand Total
101	203	42	245
102	37	46	83
103	336	61	397
104	11		11
105	75	320	395
106	188	324	512
107	1	2	3
117	58	271	329
Grand Total	717	1053	1770

See how I have only selected rows 101, 102, 103, 105, and 106? (By the way, I did this by holding down the "Ctrl" key on the keyboard while I clicked on each extension number). Since we only have some of the rows selected in our table, the chart now looks like this:

## ESI Call Accounting Application User's Guide



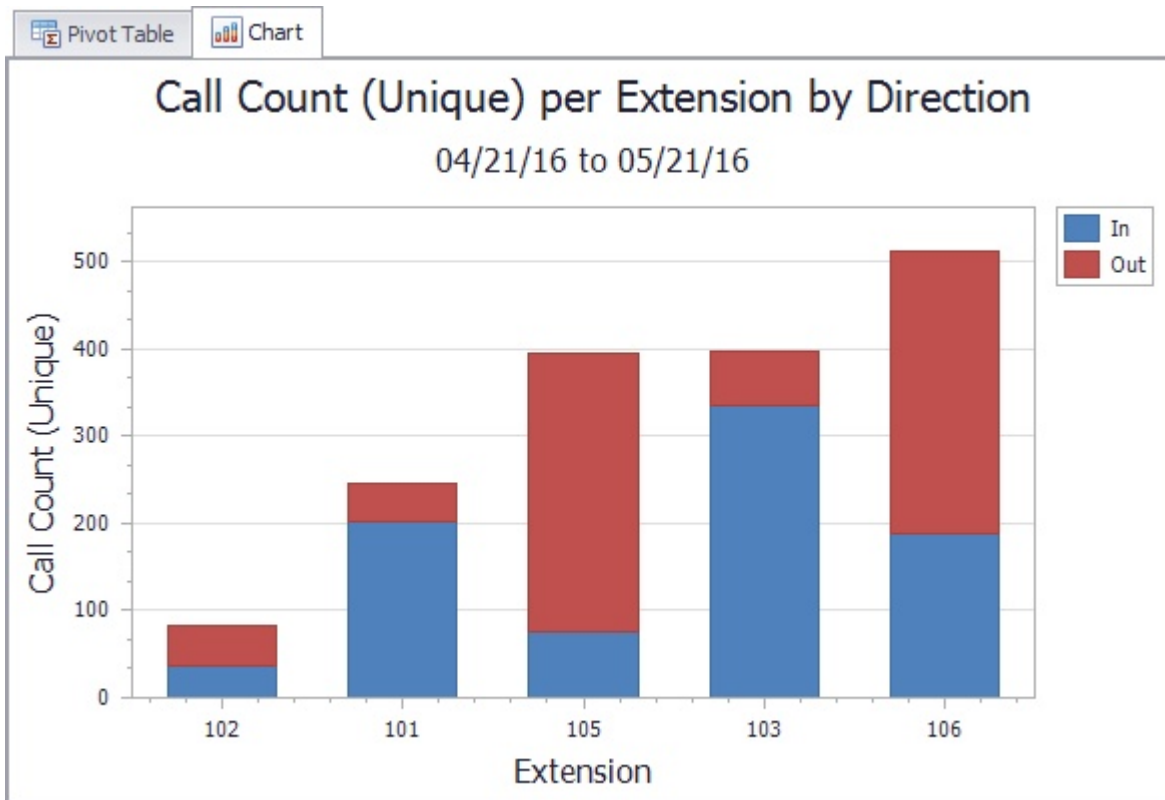
In our chart example, the extensions are shown in numerical order. But what if we'd like a chart that is sorted by number of calls? We can accomplish this by doing the sort within the Pivot table. In the Pivot table, we can right-click the **"Grand Total"** column and select **"Sort Extension by this column"**, like so:

## ESI Call Accounting Application User's Guide

Pivot Table			
Chart			
Call Count...			
Direction ▲			
Extension ▲	In	Out	Grand Total
101	203	42	245
102	37	46	83
103	336	61	397
104	11		11
105	75	320	395
106	188	324	512
107	1	2	3
117	58	271	329
Grand Total	717	1053	1770

Sort "Extension" by This Column

Then, we can re-select our rows and get the following chart:



# ESI Call Accounting Application User's Guide

## Chart Tools - Design

In *ESI Call Accounting*, there are many ways to alter the appearance of your chart. The chart Design tab on the ribbon appears as follows:

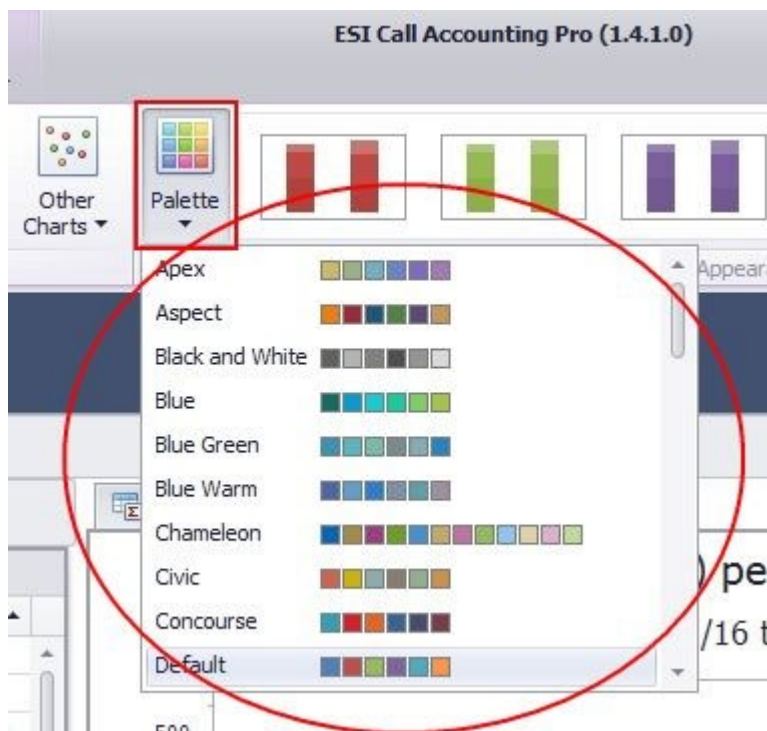


On this tab, there are many chart types to choose from to suit your needs. Both 2D and 3D charts are offered. To change the chart type, click on one of the following buttons:



...and then choose one of the chart types offered.

You can also change the palette, or color scheme, of your chart by clicking the Palette button and choosing among the many color schemes:



## ESI Call Accounting Application User's Guide

Finally, there are a number of preset appearance settings in the ribbon bar that you can choose from, in the following section:



If you have a chart style that you are fond of and took you awhile to create, you can save the chart style. See the help topic, [Chart Tools - Other](#).

### *Chart Tools - Other*

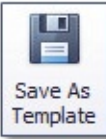
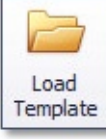

The chart tools Other tab appears as follows:



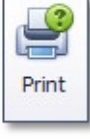

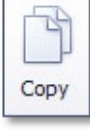
A description of each button is as follows:



## ESI Call Accounting Application User's Guide

Icon	Function
 Save As Template	If you have changed the appearance of your chart and would like to save the chart style for future use, you can do so by clicking this button.
 Load Template	This button allows you to apply a chart style template that you have previously saved using the Save As Template button.
 Print Preview	This shows you a print preview window and allows you to print or email the chart.

Icon	Function
 Print	This shows you a print dialog so that you can print the chart.
 Export	This button allows you to save the chart in one of several popular file or image formats.
 Copy	Clicking this button will copy your chart to the Windows clipboard.

## Maps

In *ESI Call Accounting*, a map of the U.S. is automatically generated, and is updated each time you retrieve call data. With Maps in *ESI Call Accounting*, you get the following:

- States shaded in proportion to the number of calls made and received, to tell at a glance approximate call activity per state
- Ability to click on a particular state and view a wealth of summary call data for that state
- Each call made or received appears as a dot on the map; clicking on the dot allows you to view the information for that particular call

## ESI Call Accounting Application User's Guide

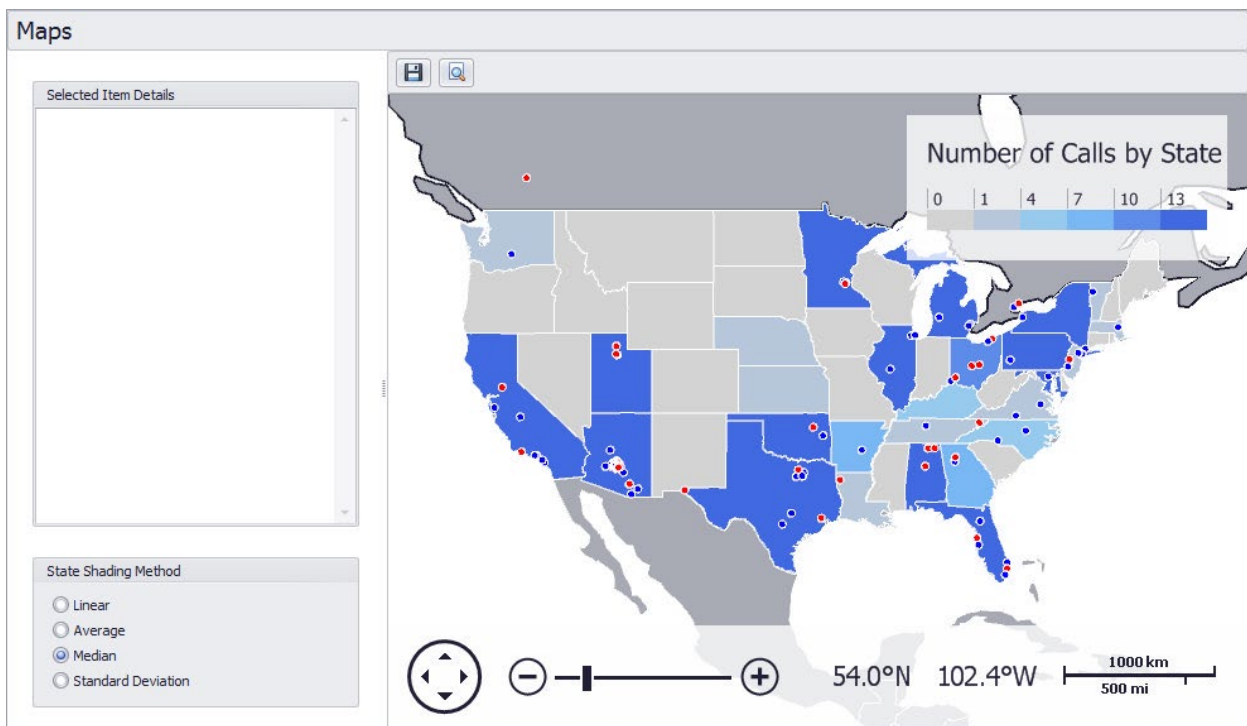
- Ability to save the map as an image file or to send it to your printer

Note that geographical information is only provided for phone numbers corresponding to the NANP, or North American Numbering Plan; primarily to locations in the U.S. and Canada. (see [this link](#) for an unofficial list of the countries participating in the NANP). State or provincial information is not provided for locations outside the United States, although specific calls in NANP countries may be represented by a dot on the map.

Before you will see any data represented on the map, remember that you must first retrieve the call data you are interested in (see [Retrieving Call Data](#)). Then, you may view the map by clicking on the Maps button on the ribbon bar at the top of *ESI Call Accounting*:



Here is an example of the map section:

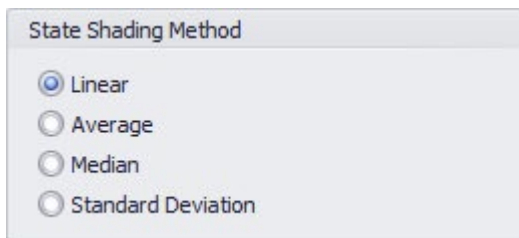


As you can see on the right hand side of the screen, a U.S. map is available and shows geographical information about the call data you have retrieved. By moving your mouse above the map, you will see that the navigation bar at the bottom of the map updates to indicate the world coordinates underneath

## ESI Call Accounting Application User's Guide

your mouse cursor. You can also use the navigation bar to pan, scroll, and/or zoom the map so that the geographic area you are interested in is represented.

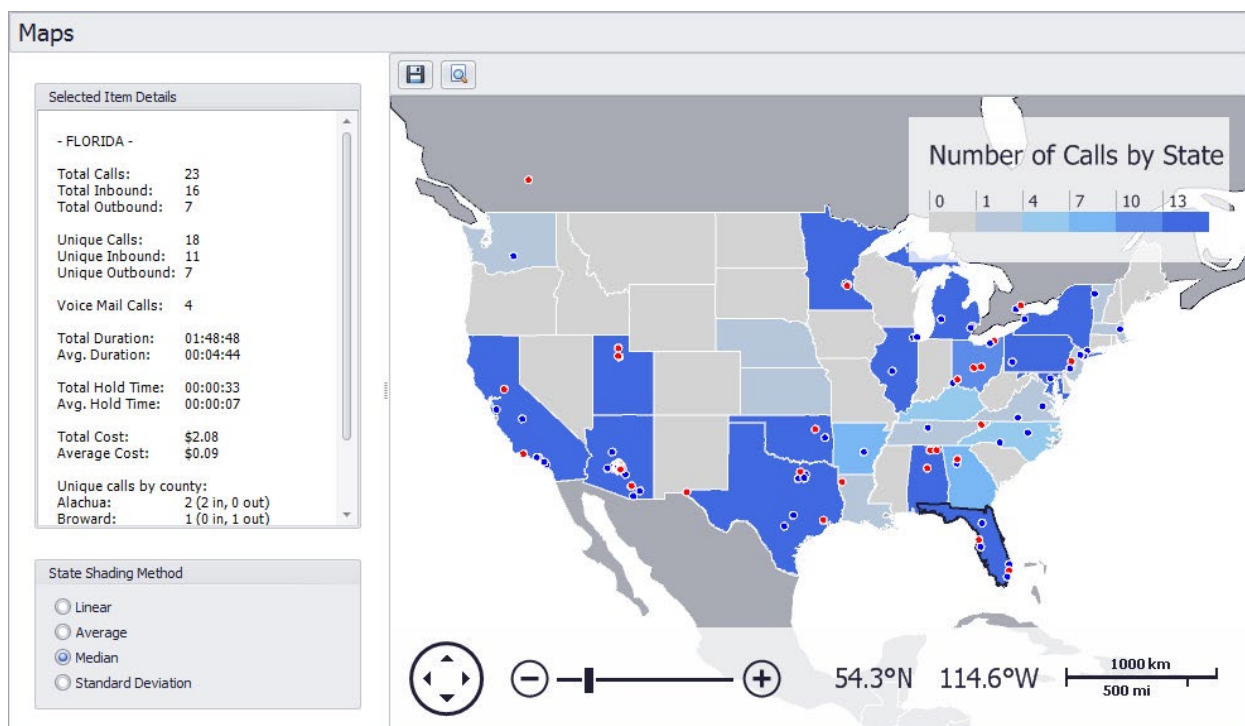
The various states of the U.S. map are shaded to show you at a glance approximately how much call activity has taken place in each state for the call data you have retrieved. Note that there are multiple ways you can shade the map:

A screenshot of a software dialog box titled "State Shading Method". It contains four radio button options: "Linear" (which is selected), "Average", "Median", and "Standard Deviation". The dialog box has a light gray border and a title bar.

The default shading method is Linear, which is what you might expect: the number of calls used for shading (as shown in the legend the map) is based roughly on the state with the largest number of calls. Because there are many businesses whose vast majority of calls are limited to one or two particular states, the Linear method may be fairly boring for you visually. If you are in this situation, there are other shading methods available to you that will have the effect of allowing you to better picture the relative call activity of other states.

To obtain additional information about calls for a particular state, you can click on the state you are interested in. The state you have chosen will be highlighted, and the Selected Item Details box to the left of the map will be populated with summary information for all the calls that were placed to or received from that state. For example:

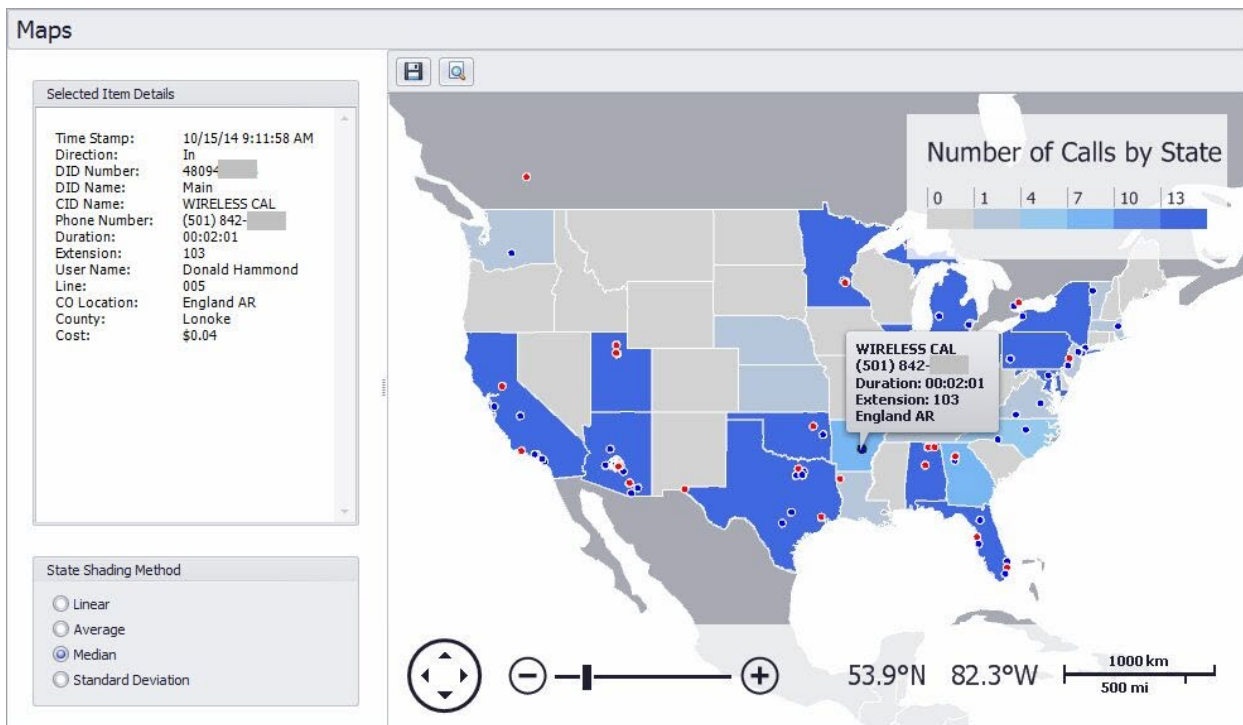
## ESI Call Accounting Application User's Guide



Here, you can see that we have clicked on the state of Florida. The state has become highlighted in black, and now there is summary information for that state presented to the left of the map in the Selected Item Details box.



Each call is also represented on the map. Inbound calls are represented by blue dots, and outbound calls are represented by red dots. To obtain information specific to a particular call, simply click on the dot corresponding to that call:

## ESI Call Accounting Application User's Guide



Here, you can see that two things have happened: (a) a "speech bubble" has appeared on the map itself, showing some basic information about the call for quick reference; and (b) the "Selected Item Details" box to the left of the map has updated to show you all the details for that call.

There are two buttons just above the map that you can use for saving an image of the map or printing the map:

Icon	Function
	This is a quick way to allow you to save the map as a JPEG (.jpg) image. If you need to export it to a different format, see the next option below.
	Clicking this will launch a print preview window; you can either print the map "as-is", or you can customize the page somewhat (for example, to change the page orientation, or to add a header or footer to the page). Note that, from the print preview window, there is also an option to Export the map to one of several different image formats or other document formats.

**Please note:** all location information provided by *ESI Call Accounting* is obtained via a third party (and ultimately, multiple sources) and cannot be guaranteed. Additionally, it is important to note that all location information, such as latitude/longitude or county information, is not representative of the

# ESI Call Accounting Application User's Guide

actual physical location of the caller or callee (although in most cases it is close); rather, this is the location of the Central Office of the dial tone provider with which the caller's or callee's phone number is associated. It is becoming more common over time for businesses and individuals to "port" their phone number(s) to a different service provider, which may be geographically distant from the Central Office or rate center with which the phone number(s) were initially associated. Therefore, it is recommended that you utilize *ESI Call Accounting* maps solely in the manner in which they were intended, which is to get an understanding of general geographical patterns of call activity.

## Configuration for Demo Call Data

### Introduction

The purpose of these steps is to configure demo call data for *ESI Call Accounting* application. Please note that all data provided in the setup file is fictitious information and is meant for simulation purposes only.

### Demo Call Data Setup

1. Install *ESI Call Accounting* from Setup file
2. Stop the "**ESI Database Manager**" Windows service (you can get to the Windows services window by clicking on the Windows Start button and typing "**services.msc**" without the quotes and hitting enter)
3. Navigate to the Program Data folder for *ESI Call Accounting* (it's normally at "**C:\ProgramData\ESI Call Accounting**"; or, if you have ESI Call Accounting running, you can press Ctrl-Alt-D)
4. Rename "**Calls.sdf**" to "**Calls.sdf.bak**", and rename "**Preferences.txt**" to "**Preferences.txt.bak**"
5. Rename "**DemoCalls.sdf**" to "**Calls.sdf**", and rename "**DemoPreferences.txt**" to "**Preferences.txt**"
6. Start the "**ESI Database Manager**" Windows service
7. The dummy call data is located in the time period "**4/22/16 through 4/28/16**"
8. If you would also like to have ACD-related information/reports available, you can do the following:
  - Launch ESI Call Accounting
  - Navigate to the "**Settings**" button on the "**Configure**" tab at the top of ESI Call Accounting
  - On the "**Phone System**" tab, in the "**ESI VIP 7 ACD Supervisor**" box, put the word "**demo**" in the "**DB Name**" box
  - Click the "**Save**" button at the bottom right of the Settings window



# ESI Call Accounting Application User's Guide

## Index

- Accessing Settings, 14
- Account Codes, 16, 17
- ACD, 61
- ACD Supervisor, 11, 40, 54
- Add User Group, 50
- Add Users, 48
- Alerts, Email, 32
- Area Codes, 36
- ASC, 7, 40
  
- Backup, 25
  
- Call Costing, 18, 36
- Call Data, Refreshing, 60
- Call Data, Retrieving, 54
- Chart, 89
- Charts, 89, 95, 96
- Communications Server, 7
- Comparison, 8
- Conditional Formatting, 86
- Connection, 40
- Costing Calls, 18, 36
  
- Data Filter, 43, 54
- Database, 25, 32, 40
- DID/DNIS, 27
- DNIS/DID, 27
- Drill Down, 83
  
- Email, 30
- Email Alerts, 32
- ESI-Link, 38
  
- Features, 6
  
- Import, 25
- Inactivity Alarm, 25
- Installation, 8, 12
- International, 36
- Interstate, 36
- Intrastate, 36
- IP Address, 40
- IP Server 900**, 1, 7
  
- License Code, 39
- Local Calls, 36
- Long Distance, 36
  
- Maps, 97
- Miscellaneous Settings, 36
  
- Networked Sites, 38
  
- Password, 40
- Phone System, 40
- Pivot Tables, 69, 73, 79, 83, 86, 89
- Port, 40
  
- Refreshing Call Data, 60
- Report Preview, 63
- Report Scheduling, 66
- Reporting, 61
- Reports, 43
- Retrieving Call Data, 54
- Running A Report, 61
  
- Scheduling Reports, 43, 66
- Serial Number, 39
- Settings, Accessing, 14
- SMDR, 7, 40
- SMTP Settings, 30
- Summary Tables, 69
- System Requirements, 6
  
- Toll Free, 36
- Trial, 39
  
- U.S. Map, 97
- User Groups, 49
- User Name, 40
- Users, 47

# ESI Call Accounting Application User's Guide

VIP 7 ACD Supervisor, 11, 40, 54

Windows, 8

Working Hours, 52