



# DIAMOND TRAFFIC PRODUCTS

Accuracy Counts

## **MicroTally/WinTally Manual**

### **Introduction**

Congratulations! You are in possession of one of the finest electronic tally boards made. The MicroTally is a hand held electronic tally counter. It is designed to allow manual counting and timing of events, traffic intersections, or vehicle classifications. The keypad layout has been optimized to simulate a street intersection to ease data entry; however, it may be used for anything that needs manual counting or timing. The MicroTally features 14 tally keys, a run/stop slide switch, a button for "beeper" volume, a LED indicator for "silent" operation and a standard DB9 connector for communications with a PC.

The MicroTally individually records all keys that are pressed and the "time" they were pressed. This feature gives the MicroTally tremendous flexibility in the processing of the data. Later, after download, these time-stamps are converted into the appropriate intersection counts and reports. The 14 tally keys can be easily configured to act in different ways. By default all keys are simple tally buttons.

WinTally is Windows based software that works with the MicroTally. It can run on any desktop or laptop PC. WinTally communicates with the MicroTally via a standard serial cable. WinTally is used to configure and reset the MicroTally, download data from the MicroTally, save the data to files, export the data to spreadsheets or databases, view the data, configure keypad assignments and generate a variety of standard reports.

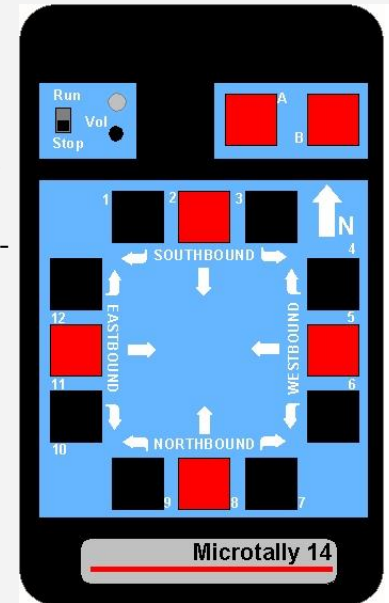
Most of the examples in this manual are related to vehicle counting. It is assumed that you are familiar with the various terms and techniques involved with vehicle counting.

## Getting Started

This section will lead you through the first time use and setup of the MicroTally.

### Organization of the MicroTally controls:

There are 14 tally keys organized in two groups. The first group is the "intersection" keys. This group consists of 12 keys laid out at the four cardinal points of the compass. Normally when counting vehicles at an intersection, you record the count when a vehicle enters the intersection after you have determined the direction the vehicle will take. Vehicles entering an intersection may go straight through, turn left, or turn right (in some states U-turns are also a possibility, this will be discussed in a later section). Therefore, there are 3 keys on each of the cardinal points, labeled "Eastbound", "Westbound", "Northbound" and "Southbound" for this purpose. There are also right turning and left turning arrows next to the turning keys. There is an arrow indicating which direction is assumed to be north. The second group of tally keys consists of two keys in the upper section labeled "A" and "B"; these will be discussed in more detail in a later section.



There is a slide switch labeled "Run" and "Stop". This switch controls when the MicroTally is to be recording key presses. When the switch is in the "Run" position any press of any of the 14 tally switches will be recorded. The MicroTally generates a "Beep" on each key press. This lets you know that the key is being recorded. The beeps have different tones depending on the key location. The exception to this is when the unit is running in "silent" mode.

There is a button labeled "Vol". This button adjusts the volume of the beeps generated each time a key is pressed. This button is only active when the slide switch is switched to "Run". Each press of the button generates a double beep giving you an indication of the beep intensity. The intensity will decrease through 6 button pushes. The 7th press will disable the beeper, placing the counter in "silent" mode; however, the LED indicator (located directly above the button) will then "flash" with each key press. Pressing the button again will go back to maximum volume. Whatever beep state you select will remain until you change it.

There is a DB9 serial connector located on the top edge of the MicroTally. This is the communications connector. This connector may be connected to any PC serial port via a standard serial cable.

### First time setup:

When running the MicroTally for the first time, there are a few simple steps to follow.

1. Install the WinTally software on your computer. You may get the latest copy of this from [WinTally download](#). Copy the WinTally installer onto your computer in any appropriate directory, then "Run" the installer (In Windows, click on "Start", click on "Run..." browse to the WinTally installer file and double click on it).

2. Connect a standard serial cable to your PC's com port. If your PC does not have a serial port, but does have USB ports, you will need to acquire a USB to serial converter and install it on your computer.
3. Attach the serial cable to a MicroTally unit.
4. Start the WinTally software. You should see the MicroTally status screen appear.
5. Click on the Reset Unit button. **WARNING!** This is very important to do before the first time you use the unit.
6. Enter a unit ID by clicking on SetID button. This is optional and can be set whenever you wish.
7. Disconnect the serial cable from the MicroTally unit.
8. Turn the MicroTally on by moving the slide switch to Run. You should hear an ascending sequence of tones indicating the start of a study (in "silent" mode the LED indicator will flash multiple times).
9. Press any number of the tally keys you wish (i.e. a couple of presses on each tally key will do).
10. Turn the unit off by moving the slide switch to Stop. You will hear a descending sequence of tones indicating the end of a study.
11. Reconnect the serial cable to the MicroTally unit.
12. Click on Scan Ports button on the WinTally intro screen. You should see the MicroTally status screen appear.
13. Click on the Download button. You will see a download status bar ending with a dialog box that allows you to assign key positions. There are default positions pre installed, so for now just click on the Continue button. You should now see a summary of the tally keys you pushed above.
14. You have successfully captured your first study. You may close the dialog by clicking on close, and then you will be asked if you wish to save the data, for this test you probably would click on No.

## **MicroTally Usage**

The MicroTally unit provides for manual counting with great flexibility as you will see in the following paragraphs. The MicroTally unit itself simply records all key presses with time-stamps, it has no awareness of how the keys will be utilized or interpreted. The WinTally software is used to download the MicroTally data and configure the key assignments and usage.

### **A and B keys:**

The A and B keys can be used as simple extra "tally" keys, or as "shift" keys for counting other types of data, such as pedestrians, bicycles, trucks, or U-turns. One of them could also be used as an "Undo" key to remove the last key pressed (incase you accidentally press the wrong key).

### **The 12 intersection keys:**

You can use these keys in a variety of ways also. Generally the 12 intersection keys are used as "tally" keys and the A and B keys assigned to "tally", "shift", or "undo" usage, however, you may use any of the keys including the 12 intersection keys, in any way you want. Below are the various ways you can use a button; the way you used the buttons is assigned at the time of downloading the data from the unit.

## **Advanced key usage:**

Below are the various ways you can use a key, the way you used the keys is assigned at the time of downloading the data from the unit (or if you saved the data you can click on "Edit Header" after you open the file).

### **"Tally"**

"Tally" type keys will just count the key presses for that key. This is the standard for most keys.

### **"Undo"**

"Undo" type keys will erase the last tally key pressed (you cannot press this more than once to erase the last two -- only the last one).

Now for the more difficult ones to explain (easy concepts -- just hard to put in words):

### **"Shift"**

"Shift" type keys will cause the next key press to be tallied in a different group, the name of the group will be whatever you name the shift key. You could make key "A" a shift key and name it "Pedestrians". Anytime you press the "A" key followed by a tally key, it will store that data in a separate "Pedestrian" bin. So in this example, when you download your data you will have 24 bins, 12 standard intersection ones and 12 "Pedestrian" ones. This scheme can be used for many different things; some of the more common may be pedestrians, bicycles, trucks, and U-turns.

### **"Shift Lock"**

"Shift Lock" type keys will do the same thing as "Shift" type keys, only it STAYS ON until it is pressed again (which will turn it OFF) or another shift lock key is pressed (in which case the other shift lock key will be ON instead). It's easiest to look at the shift and shift lock like the shift and shift lock on a keyboard -- that's why we chose those names. So the Shift Lock will just save extra key presses, however there's no way at the moment to know which (if any) shift lock is ON or OFF so it could be confusing until we add sound or something else to the units. Therefore, even though this mode is available, it is not recommended for normal use.

## **Multiple Studies**

The MicroTally unit can be used to do several count studies before downloading the data. To do more than one study you'll need to keep track of the times or the order of locations so you can enter the information in when you download the MicroTally unit. Moving the slide switch to "Run" begins a study and when you are done with a study move the slide switch to "Stop". Then travel to the next study location. You then repeat the process to start and stop your study as indicated above. The WinTally software handles the separation of the studies automatically; you just have to enter in the locations. There is no limit to the number of studies a unit can hold. Except for, of course, the units' memory size. Note! If you forget to move the slide switch to "Stop" at the end of a study, the unit will automatically stop a study after 4 minutes of no key press activity (a chirp will occur each 30 seconds until the slide switch is moved to "Stop").

## **Volume Control and LED**

There is a small button which can be pressed to adjust the volume of the beeps from the unit. Each time you press the volume button (labeled "Vol") it will cycle through volumes. The volume will be remembered so you don't have to adjust it every time. There are 7 different volumes (including a volume off.) If the volume is off the LED will flash each time a button is pressed.

## **Unit On/Off Behavior**

The unit has an automatic "Stop" feature that will automatically issue a study end after 4 minutes of no key presses. It will then continue to "chirp" every 30 seconds to let you know that it did this. You will have to move the slide switch to "Stop" and back to "Run" to start the next study.

The unit should be "stopped" to communicate with a PC through the serial port. If you leave the unit on when you connect it to your computer then the current study will automatically end. You will have to turn the unit off and back on again before a new study can be started. Data will not be recorded if you are connected to an active serial port, even though the slide switch may be in the "Run" position.

## **Example Studies**

Following are some examples of how the MicroTally would be used in collecting data for different modes.

### **Example #1 Doing a Simple Count Study:**

This example simply uses the 12 intersection keys as "tally" keys. The "A" and "B" keys are not being used.

1. When the time has arrived for the study to start, turn the unit on by moving the slide switch to Run. You should hear an ascending sequence of tones indicating the start of a study (in "silent" mode the LED indicator will flash multiple times).
2. Hold the unit in the direction of one of the streets. Facing the North arrow towards North is preferred, but it does not need to face to the North (North will be set in the WinTally software).
3. Press the appropriate key indicating the direction the vehicle is traveling (straight through, turning left, or turning right). For example: A car entering from the North (traveling Southbound), with the North arrow facing North, and turning left; the number 3 key would be pressed (Southbound turning left). A car turning right from the same direction would require the pressing of the number 1 key (Southbound turning right), and a car proceeding straight through would require the number 2 key (Southbound straight through). You will hear a beep or see the light flash each time a key is pressed.
4. Continue this process until your study period has ended.
5. Move the slide switch to Stop. You should hear a descending sequence of tones indicating the end of a study (in "silent" mode the LED indicator will flash multiple times).

### **Example #2 Doing a Count Study, keeping track of trucks:**

This example uses the 12 intersection keys as "tally" keys. In WinTally, the "A" key is assigned as a "shift" key with a group name of "Trucks", the "B" key is not being used.

1. When the time has arrived for the study to start, turn the unit on by moving the slide switch to Run. You should hear an ascending sequence of tones indicating the start of a study (in "silent" mode the LED indicator will flash multiple times).
2. Hold the unit in the direction of one of the streets. Facing the North arrow towards North is preferred, but it does not need to face to the North (North will be set in the WinTally software).
3. If the next approaching vehicle to be tallied is a truck, press the "A" key, the unit will beep or the LED will flash.
4. Press the appropriate key indicating the direction the vehicle is traveling (straight through, turning left, or turning right). For example: A vehicle entering from the North (traveling Southbound), with the North arrow facing North, and turning left; the number 3 key would be pressed (Southbound turning left). A vehicle turning right from the same direction would require the pressing of the number 1 key (Southbound turning right), and a vehicle proceeding straight through would require the number 2 key (Southbound straight through). You will hear a beep or see the light flash each time a key is pressed.
5. Continue this process until your study period has ended.
6. Move the slide switch to Stop. You should hear a descending sequence of tones indicating the end of a study (in "silent" mode the LED indicator will flash multiple times).

### **Example #3 Doing a Count Study, keeping track of pedestrians:**

This example uses the 12 intersection keys as "tally" keys. In WinTally, the "A" key is assigned as a "shift" key and given a group name of "Pedestrians"; the "B" key is not being used. Pedestrians crossing the North-side crosswalk are assigned to key 2, the East-side crosswalk to key 5, the South-side crosswalk to key 8, and the West-side crosswalk to key 11.

1. When the time has arrived for the study to start, turn the unit on by moving the slide switch to Run. You should hear an ascending sequence of tones indicating the start of a study (in "silent" mode the LED indicator will flash multiple times).
2. Hold the unit in the direction of one of the streets. Facing the North arrow towards North is preferred, but it does not need to face to the North (North will be set in the WinTally software).
3. If you wish to tally a pedestrian, press the "A" key, the unit will beep or the LED will flash.
4. Next press the appropriate center key indicating the crosswalk the pedestrian is using. For example: A pedestrian is crossing the South-side crosswalk (labeled Northbound on MicroTally), so you would push the "A" key followed by the northbound center key (key 8) (with the North arrow facing north). You will hear a beep or see the light flash each time a key is pressed.
5. Continue this process until your study period has ended.
6. Move the slide switch to Stop. You should hear a descending sequence of tones indicating the end of a study (in "silent" mode the LED indicator will flash multiple times).

#### Example #4 Doing a Count Study, also classifying vehicles by FHWA class:

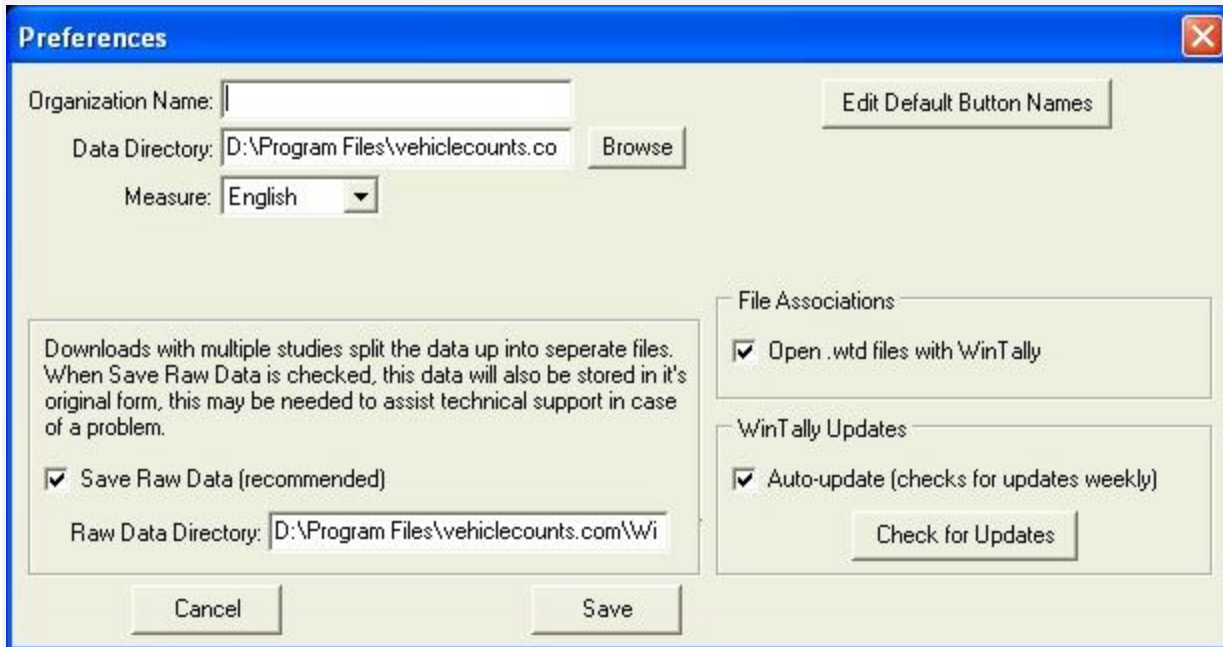
This example uses the 12 intersection keys as normal "tally" keys and to "tally" the first 12 FHWA classes. In WinTally, the "A" key is assigned as a "shift" key and given a group name of "FHWA Classes"; the "B" key will be "Class 13". The FHWA vehicle classification scheme places all vehicles into one of 13 classes (or categories).

1. When the time has arrived for the study to start, turn the unit on by moving the slide switch to Run. You should hear an ascending sequence of tones indicating the start of a study (in "silent" mode the LED indicator will flash multiple times).
2. Hold the unit in the direction of one of the streets. Facing the North arrow towards North is preferred, but it does not need to face to the North (North will be set in the WinTally software).
3. Press the appropriate key indicating the direction the vehicle is traveling (straight through, turning left, or turning right). For example: A car entering from the North (traveling Southbound), with the North arrow facing North, and turning left; the number 3 key would be pressed (Southbound turning left). A car turning right from the same direction would require the pressing of the number 1 key (Southbound turning right), and a car proceeding straight through would require the number 2 key (Southbound straight through). You will hear a beep or see the light flash each time a key is pressed.
4. Next press the "A" key, the unit will beep or the LED will flash.
5. Then press the appropriate key indicating the FHWA class of the vehicle just tallied. You will hear a beep or see the light flash each time a key is pressed.
6. Continue this process until your study period has ended.
7. Move the slide switch to Stop. You should hear a descending sequence of tones indicating the end of a study (in "silent" mode the LED indicator will flash multiple times).

#### WinTally Software (brief overview)



The VehicleCounts.com WinTally software is the key to the MicroTally unit's features. With WinTally, you can configure the MicroTally data into your desired studies and reports. The MicroTally unit simply stores raw time-stamps of button presses, it is up to the WinTally software to analyze the data and separate it into the proper bins, studies, and intervals.



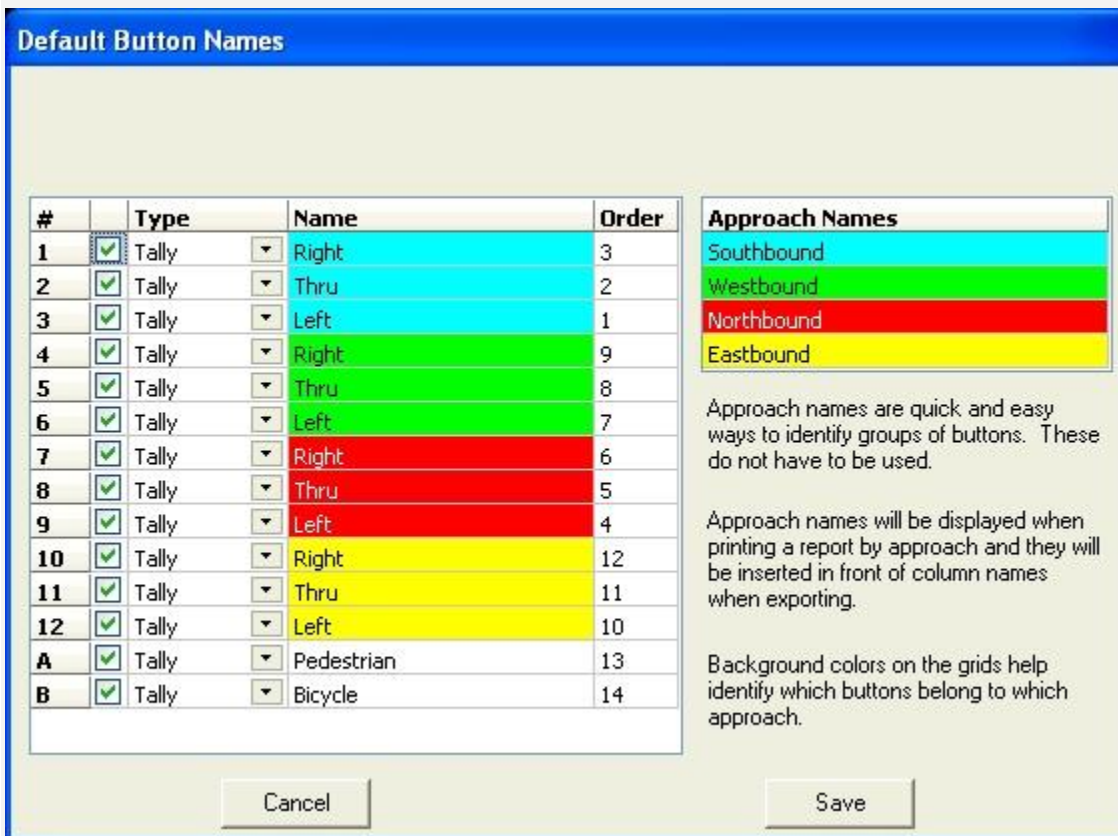
## Preferences

When you first load up the software you will probably want to review and change the Preferences. To do this, just click on the "Preferences" button. Here you will want to enter your company or organization name, this will appear on reports.



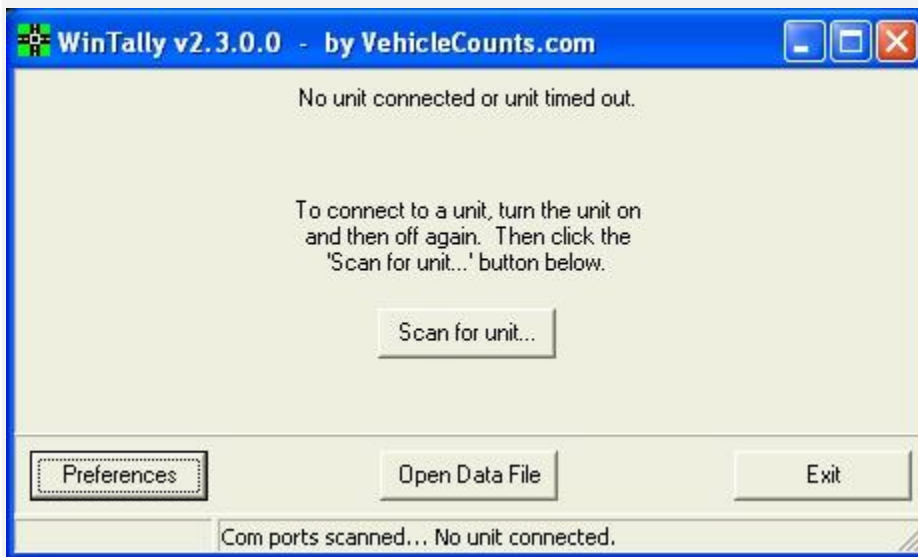


You will also want to select the default data directory, when opening and saving files this directory will be the directory you start in when choosing the filename and where to save. The "Measure" selection here is currently only used to format the date in the software and on reports.



Generally you will have a common button setup which works best for how you use the units. If you know how you plan to use buttons on all or most units, you will probably want to also click on "Edit Default Button Names". Here you can set the names for all the buttons along with how you want to use the button (the types mentioned above: Tally, Undo Last Tally, Shift, or Shift Lock.) This will be used by default from now on when you download data from a MicroTally unit. You can still change it when you download, this will just save you some time so you don't always have to edit that information for each unit.

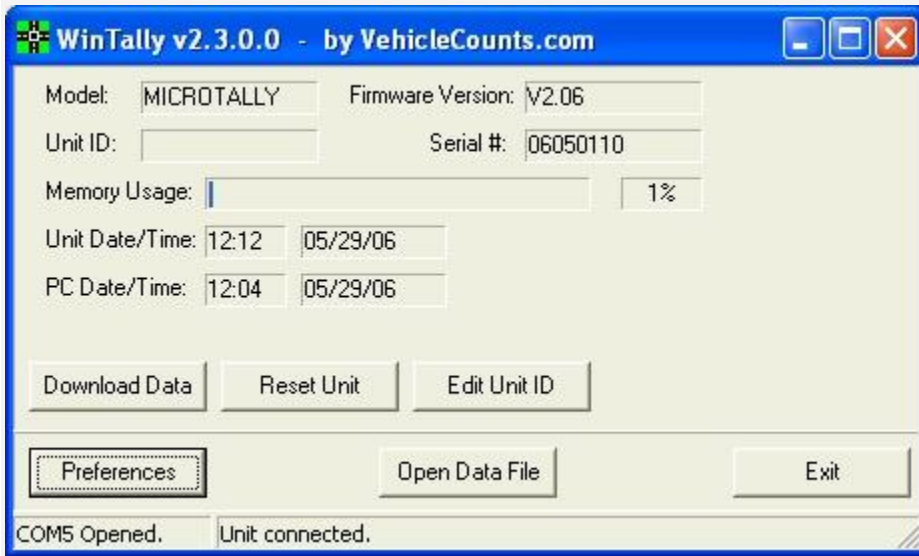
### Connecting With the MicroTally Unit:



It is very simple to connect your MicroTally unit to your computer so you can download data, reset the unit, or enter a new unit ID into the unit. You must have a standard 9-pin serial cable or a USB-to-serial cable for laptops and other computers that don't have a com port on them. Make sure the unit is off (the slider switch is in the "Stop" position), connect the MicroTally to the PC with your serial cable and load up the WinTally software. If the unit is in the "Run" position it will automatically be turned off when it is connected to your computer.

You will have to have a com port in the range of COM1 thru COM8. Com ports above COM8 are not scanned by the software. Some USB-to-serial cables may be occasionally assigning the com port above COM8. You can change this to a different com port by going into the windows Device Manager. Note: You may need to reboot your system after changing it.

Once the WinTally software is loaded simply click on the "Scan for Unit..." button. When the unit is connected you will see the window change and you will then be able to see the Model, Firmware Version, Unit ID, Serial Number, and various other bits of information about the unit that is plugged in.



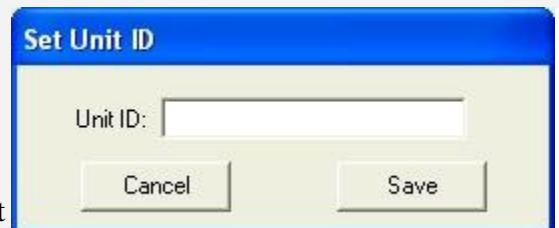
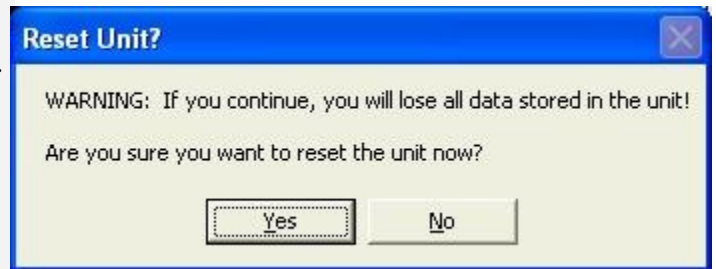
Note: The software may automatically connect to your unit without having to press the "Scan for Unit..." button.

### "Reset Unit" and "Edit Unit ID" Buttons

You will see these buttons ("Reset Unit" and "Edit Unit ID") when a unit is connected.

These buttons will both send commands to the unit. You will always want to reset your unit after you first receive it, you will also want to reset your unit after you have downloaded the data out of it. Resetting the unit erases all data currently in the MicroTally unit and sets the time in the unit to the current time on your computer. So if you want to sync a watch up to the time of the unit you will want to set your watch to the time on your computer that you reset the MicroTally with.

The Unit ID can be used for anything you want. It can be a unique identifier that you will be using for the unit or whatever else you may find a use for. The Unit ID is actually stored inside of the unit and it will never be cleared or changed unless you choose to edit the unit ID again. The Unit ID can be up to 32 characters in length, anything longer will simply be cut off.



## Downloading Data from the MicroTally



Once you have connected to a MicroTally unit, click on the "Download Data" button. You will see a small download indicator which will move from the left to the right showing how much has been downloaded. If you don't have much data this will happen very quickly. You will now see a screen where you can set the locations for all of your studies and any comments you may want to make about the studies. You can also edit the button names and types at this time if you want. Once you are done click on the "Continue" button. You will now see a quick data summary screen.

## Reports, Exports, and Data Files

Done.

Location:

Comments:

Model: MICROTALLY      Firmware Version: V2.06

Unit ID:       Serial #: 06050110

Start Time: 12:17    05/29/2006

Stop Time: 12:18    05/29/2006

Button	Count	Button	Count
Southbound Right	9	Northbound Thru	9
Southbound Thru	9	Northbound Left	9
Southbound Left	9	Eastbound Right	9
Westbound Right	9	Eastbound Thru	9
Westbound Thru	9	Eastbound Left	9
Westbound Left	9	Pedestrian	9
Northbound Right	9	Bicycle	9

<< Previous Study      Next Study >>

Edit Header    Print    Export    Save    Close

The summary screen shows one study at a time, you can click on "Next Study" or "Previous Study" to view different studies. If you want to save, export, or print a study then you will first find the study and then click on either "Save", "Export", or "Print".

Both "Print" and "Export" have very similar screens where you can choose which columns you would like to export or print, and if the time is slightly off you can enter a number of minutes to skew the data slightly -- to start on an even hour for example. When exporting you can choose to export the "shift data" (bins that used a "Shift" type button) into separate files or into the same file. Reports will always split shift data onto separate pages.

If you save a study, you will be able to load it up at a later time by choosing "Open Data File" form WinTally's opening screen.

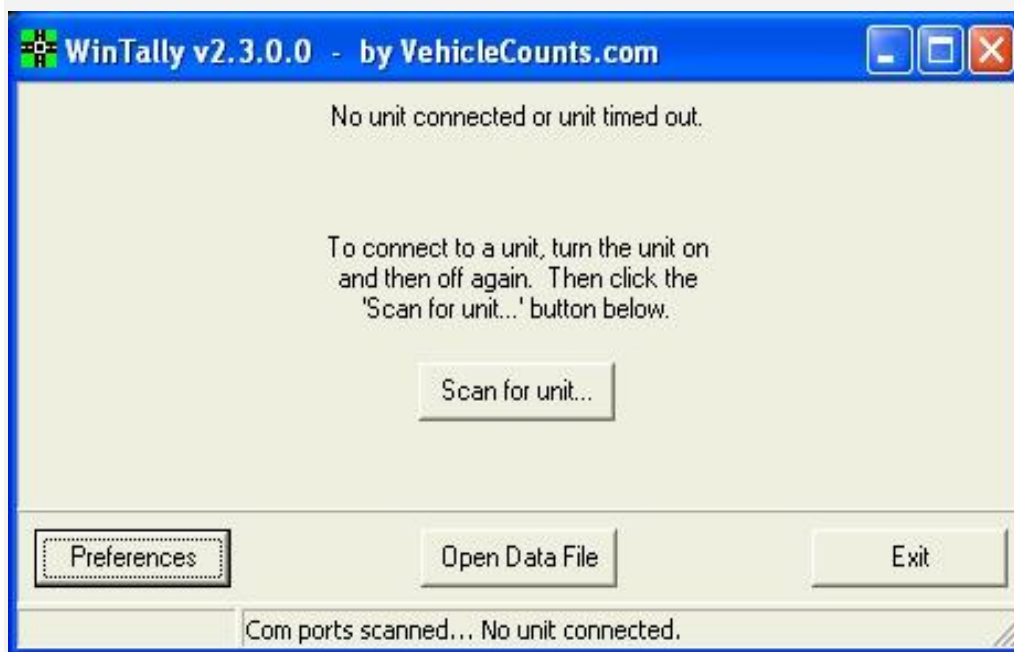
## WinTally Software (screen details)

The following section describes all windows in the WinTally software and what everything on them does. If you are trying to figure out what something does this is the place to look.

### Main window

This screen shows you information about a unit if one is connected. It has various buttons displayed on it depending on whether or not you have a unit connected, and whether or not that unit is a demo. All buttons are described below.

If you don't have a unit connected you will see:

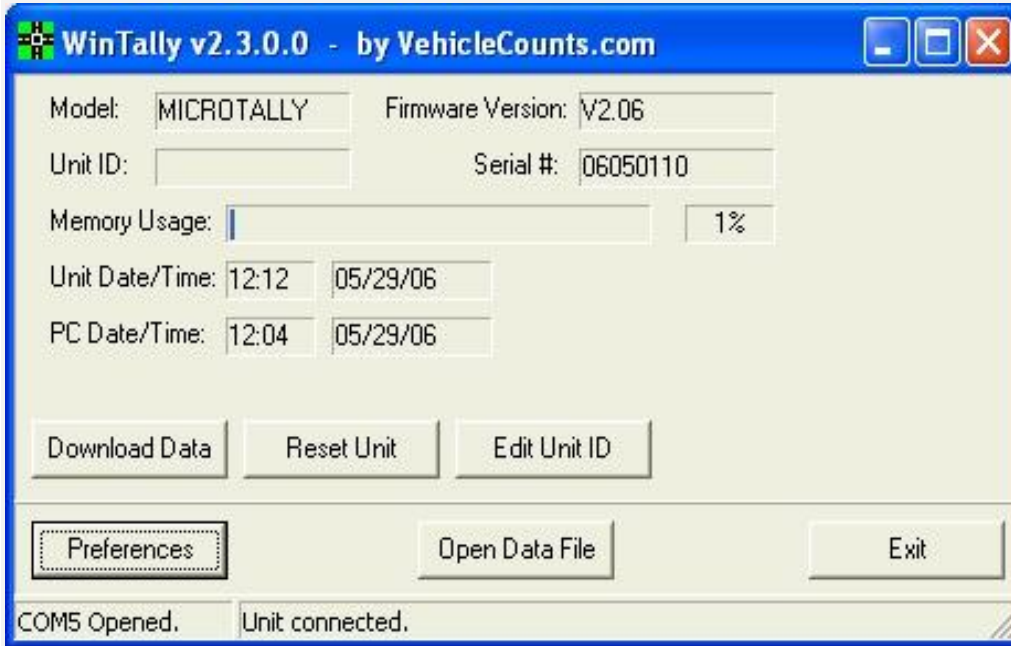


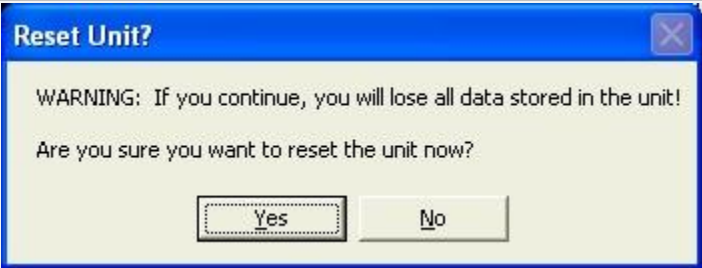
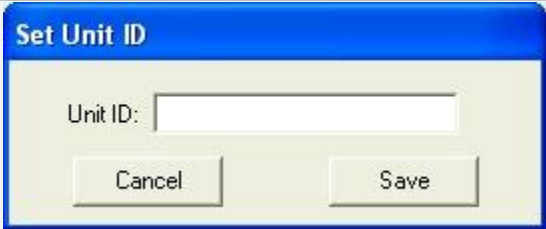
#### Scan for unit...

This button will scan com ports (COM1 thru COM8) to see if a MicroTally unit is connected. If a unit is connected the upper portion of this window will change and show unit information.



If you have a unit connected you will see:

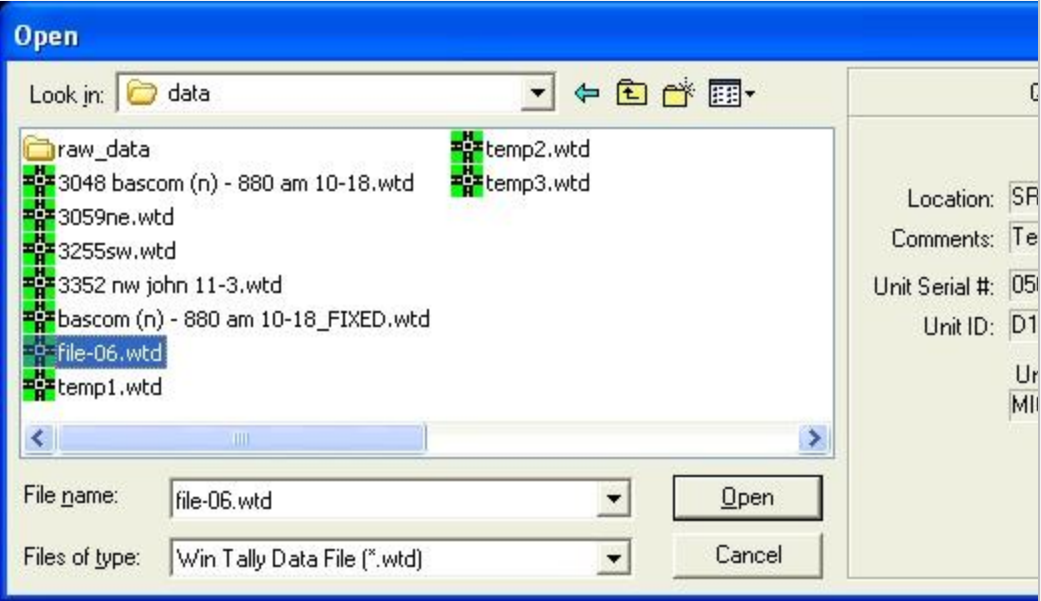


<p><b>Download Data</b></p>	<p>This will download the timestamp data from the unit. You will see a "Unit Data" window with a progress bar as the data is downloaded (this may be very brief). You will then be at one of two windows, either "<b>Edit Header</b>" if you have only one study in the unit, or at "<b>Edit Headers</b>" if you have more than one study in the unit where you will then be able to enter in location, button information, and comments.</p>
<p><b>Reset Unit</b></p>	<p>This button will erase all of the timestamp data in the unit and set the date/time in the unit to the computer's date/time.</p> 
<p><b>Edit Unit ID</b></p>	<p>This button will allow you to enter in a new "Unit ID" that is stored in the unit. This can be used to give your MicroTally unit's custom unit numbers or for anything else you'd like. The "Unit ID" is stored with files when data is saved and is even printed on the header of reports.</p> 

If you have a demo unit connected you will also see:

<p><b>Activate Unit</b></p>	<p>This button will take you to a screen where you will see an "Upgrade Code" and allow you to enter an "Activation Code". Activation Codes are only given out by VehicleCounts.com. These codes can upgrade your unit to a fully functional unit or add more demo time to it.</p>
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Buttons always at the bottom of the screen:

<p><b>Preferences</b></p>	<p>This button takes you to the "<b>Preferences window</b>", where you can set up defaults, check for new software updates, and enter in other information that the software will use to run.</p>
<p><b>Open Data File</b></p>	 <p>This button will allow you to select a WinTally Data (.wtd) file to open, as you highlight files when looking for a file to choose you will notice some file information displayed on the right side under "Quick View".</p>
<p><b>Exit</b></p>	<p>This button will close out of WinTally.</p>



## Preferences window

Organization Name:

Data Directory:

Measure:  ▼

Downloads with multiple studies split the data up into seperate files. When Save Raw Data is checked, this data will also be stored in it's original form, this may be needed to assist technical support in case of a problem.

Save Raw Data (recommended)

Raw Data Directory:

File Associations

Open .wtd files with WinTally


WinTally Updates

Auto-update (checks for updates weekly)

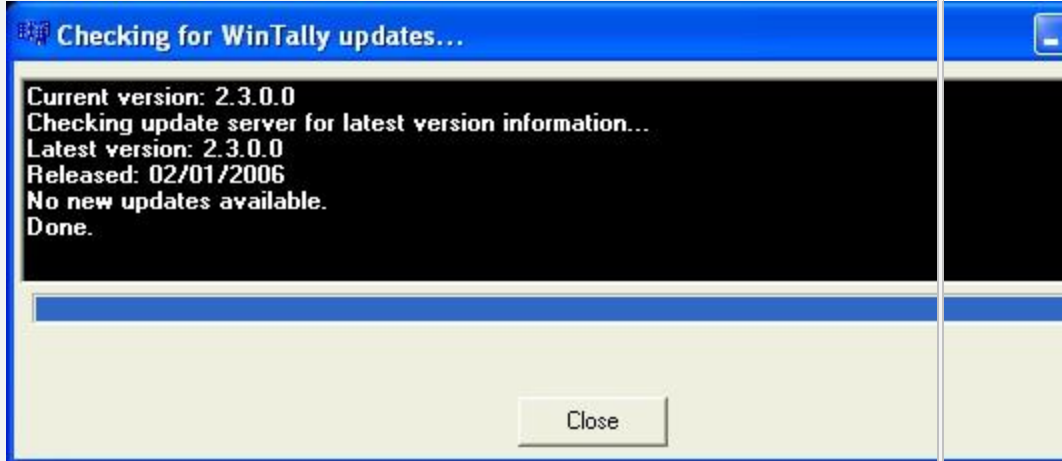
On this screen you can change various settings that will affect how the software functions. It is advised you look through these and change the settings to work for you, most notably you may want to look over the default button names by clicking on "Edit Default Button Names".

### Organization Name

Here you can enter in your company name or organization that you would like printed at the top of reports. You may leave this blank if you don't want your company name on reports.

<p><b>Data Directory</b></p>	<p>This is the directory (or folder if you prefer) that will open up by default when choosing to open a file or save a file. If you have a common directory where you save your count files, you may want to specify that here.</p>	
<p><b>Measure</b></p>	<p>Currently this is only used for deciding the format of dates. It may be used for more at a later time. If "Metric" is selected the date format will be DD/MM/YYYY, if "English" is selected the date format will be MM/DD/YYYY.</p>	
<p><b>Edit Default Button Names</b></p>	<p>Pressing this button will open up a "<b>Default Button Names</b>" window where you can set-up how you commonly use the buttons, what names the buttons have, and set approach names. This will help to avoid extra work with common button configurations at each download.</p>	
<p><b>Save Raw Data</b></p>	<p>If this is checked then any time you save data that has multiple studies in it, the data will be saved as one file in the "Raw Data Directory". This is in ADDITION to the files that get saved for each study. This is for troubleshooting only; these large files shouldn't be used for general use and will only be useful in case of a problem with files from multi-studies.</p>	
<p><b>Raw Data Directory</b></p>	<p>This is only used if you have "Save Raw Data" checked. All data that downloaded that has multiple studies and is saved will also be saved as a single file with all studies in it to this directory.</p>	
<p><b>Open .wtd files with WinTally</b></p>	<p>If this is checked (which it is by default), then files with .wtd extensions (WinTally Data files) will be loaded up into WinTally if they are double-clicked or opened in windows.</p>	
<p><b>Auto-update</b></p>	<p>If this is checked, then once a week (or longer if the software is not used), when the software is opened it will automatically check for updates on the internet, and upgrade WinTally if a new version is available.</p>	

**Check for Updates**



If this button is pressed, the software will check for any new WinTally updates on the internet and upgrade WinTally automatically if any are available. If you have an internet connection this is a very quick and convenient way to update WinTally to the latest version.

**Cancel**

Cancels all changes made and returns to the "**Main window**".

**Save**

Saves any changes made and returns to the "**Main window**".

## Default Button Names window

### Default Button Names

#		Type	Name	Order
1	<input checked="" type="checkbox"/>	Tally	Right	3
2	<input checked="" type="checkbox"/>	Tally	Thru	2
3	<input checked="" type="checkbox"/>	Tally	Left	1
4	<input checked="" type="checkbox"/>	Tally	Right	9
5	<input checked="" type="checkbox"/>	Tally	Thru	8
6	<input checked="" type="checkbox"/>	Tally	Left	7
7	<input checked="" type="checkbox"/>	Tally	Right	6
8	<input checked="" type="checkbox"/>	Tally	Thru	5
9	<input checked="" type="checkbox"/>	Tally	Left	4
10	<input checked="" type="checkbox"/>	Tally	Right	12
11	<input checked="" type="checkbox"/>	Tally	Thru	11
12	<input checked="" type="checkbox"/>	Tally	Left	10
A	<input checked="" type="checkbox"/>	Tally	Pedestrian	13
B	<input checked="" type="checkbox"/>	Tally	Bicycle	14

#### Approach Names

Southbound
Westbound
Northbound
Eastbound

Approach names are quick and easy ways to identify groups of buttons. These do not have to be used.

Approach names will be displayed when printing a report by approach and they will be inserted in front of column names when exporting.

Background colors on the grids help identify which buttons belong to which approach.

Here you can change the default names, types, and order of all buttons, along with assigning default Approach Names. First we will describe the columns in the first grid (the grid on the left).

<b>1st Column (#)</b>	This column lists the MicroTally button number for this entry. If you look at your MicroTally unit, you will see button numbers (1 thru 12, along with A and B) next to each button that is what this is.
<b>2nd Column</b>	This column allows you to enable or disable buttons. If you don't want to use a button (or shifted button), un-check the box in this column.
<b>3rd Column (Type)</b>	This column allows you to change the type of the button (how it is used). If you select a cell in this column and then click on it again you will get a drop down list of options: "Tally", "Undo Last Tally", "Shift", and "Shift Lock". If an item is changed to Shift or Shift Lock you will notice the grid gets longer because you now have a whole set of "Shifted" buttons that you can name. Shifted buttons are tally only, their type cannot be changed. For more information on button types, see " <a href="#"><u>Advanced Key Usage</u></a> ".

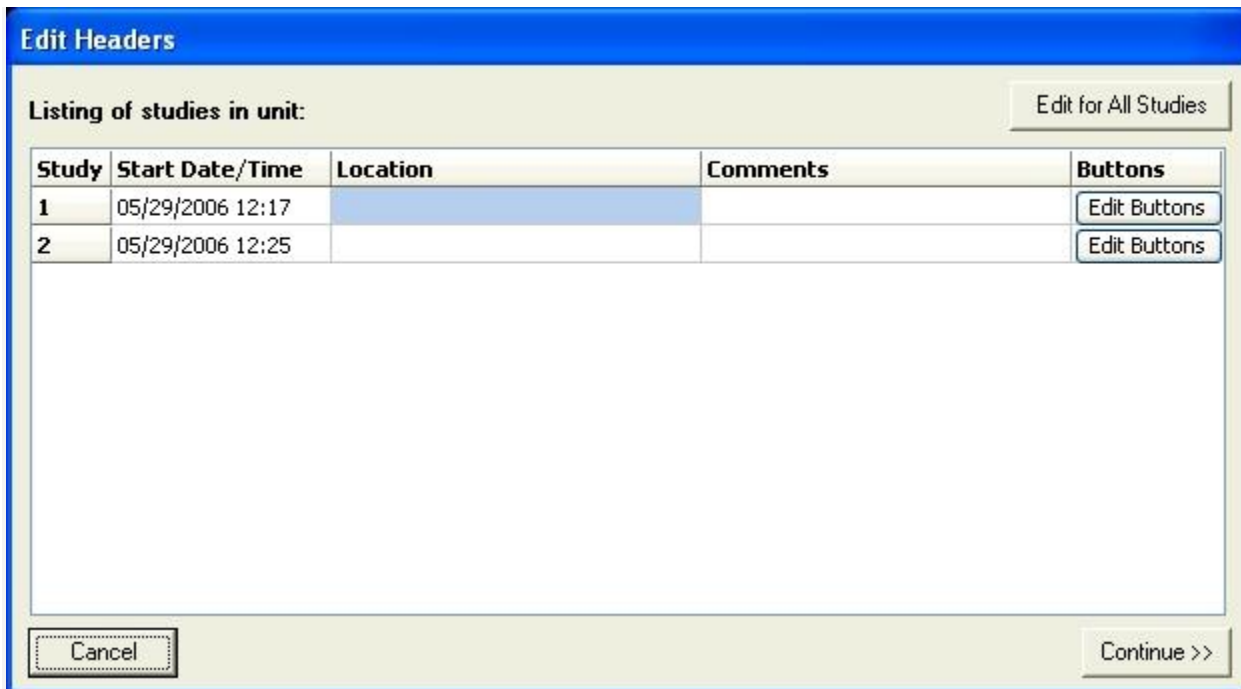
<b>4th Column (Name)</b>	In this column you can name your button. Generally you will want to keep this very short (6 or so characters) for it to print neatly on "Group by Approach" type reports. "Approach Names" on the right automatically get stuck in front of the names that have the same background colors. Generally names such as "Left", "Right", "Thru", "Trucks", or "Peds" are normal names for buttons. A shifted button will always be identified by the "Shift" button somehow on other screens, exports, and reports; generally by inserting the "Shift" button name in front of the shifted button name.
<b>5th Column (Order)</b>	This column will likely be removed in a future release for a more graphical or at least click-n-drag version. For now, you can re-order the way columns are printed or exported by changing the numbers in this column. The lowest number is printed/exported first. If there are two numbers the same, the first one in the list will be printed first. These can all be set at 0, or left how they are if you do not care about the order. When printing by approach, however, all approaches will automatically get grouped together even if the numbers are not together.

The second table (the table on the right) only has one column:

<b>Approach Names</b>	Enter in a name for each of the 4 approaches, one on each row. The background color shows which buttons belong to which approach. Approach names will be used to further identify each button name that has the same background color (in most cases the approach name is inserted in front of the button names that are in this approach). These can be left blank if you don't want to use them but you will not be able to print reports by approach. Some common approach names would be directions such as "Northbound" or "North".
-----------------------	--

Buttons at the bottom of the window:

<b>Cancel</b>	Cancels all changes made and returns to the " <b><u>Preferences window</u></b> ".
	Saves any changes made and returns to the " <b><u>Preferences window</u></b> ".



This window is for multi-study units, if you don't see this window you may be looking for the "**Edit Header**" window. In this window you can enter in location information and comments for each study. You can also edit the button and approach names for each study individually or for all studies at once. First, the "Listing of studies in unit" grid:

<b>1st Column (Study)</b>	This column simply shows what study number this is, the first study is 1, second study is 2, and so forth, may be useful if you know what order you did the studies in.
<b>2nd Column (Start Date/Time)</b>	This shows when this study actually started. This should be very useful in determining which study is which.
<b>3rd Column (Location)</b>	Enter the location of the study here such as "SW 3rd and Pine St.", or whatever you'd like. This is displayed as the location in the unit data window and on any reports or exports for this study.
<b>4th Column (Comments)</b>	You can enter in any sort of comments you would like here. This will be displayed on the unit data window and is also in any exports for this study.
<b>5th Column (Buttons)</b>	By clicking on the "Edit Buttons" button in this column you will go to the " <b>Edit Buttons window</b> " where you can edit the button layout/names and approach names specifically for this study. If you would like to change the names for all of the buttons as once you should click on the "Edit for All Studies" button instead.

Buttons on the screen:

<b>Edit for All Studies</b>	By clicking on the "Edit for All Studies" button you will go to the " <b>Edit Header window</b> " where you can edit the button layout/names and approach names globally for all studies listed. You will also be able to enter a location and/or comments that will be used for all studies listed.
<b>Cancel</b>	If you are downloading this will cancel the download and return you to the " <b>Main window</b> ", otherwise if you clicked on the "Edit Header" button from the " <b>Unit Data window</b> " it will just cancel any changes you made and return you to that window.
<b>OK</b>	This is shown only if you have chosen to "Edit Header" from the unit data window. This will return to the " <b>Unit Data window</b> " keeping the changes made. If you would like to save the changed data to a file, however, you will still need to be sure and save it.
<b>Continue</b>	This is shown only if you are downloading data from the unit. When clicking on this it will process your data and continue on to the " <b>Unit Data window</b> " where you can view an overview of your data for each of your studies.

### Edit Buttons window

Edit Header

Location

Comments

#	Type	Name	Order
1	<input checked="" type="checkbox"/> Tally	Right	3
2	<input checked="" type="checkbox"/> Tally	Thru	2
3	<input checked="" type="checkbox"/> Tally	Left	1
4	<input checked="" type="checkbox"/> Tally	Right	9
5	<input checked="" type="checkbox"/> Tally	Thru	8
6	<input checked="" type="checkbox"/> Tally	Left	7
7	<input checked="" type="checkbox"/> Tally	Right	6
8	<input checked="" type="checkbox"/> Tally	Thru	5
9	<input checked="" type="checkbox"/> Tally	Left	4
10	<input checked="" type="checkbox"/> Tally	Right	12
11	<input checked="" type="checkbox"/> Tally	Thru	11
12	<input checked="" type="checkbox"/> Tally	Left	10
A	<input checked="" type="checkbox"/> Tally	Pedestrian	13
B	<input checked="" type="checkbox"/> Tally	Bicycle	14

**Approach Names**  
 Southbound  
 Westbound  
 Northbound  
 Eastbound

Approach names are quick and easy ways to identify groups of buttons. These do not have to be used.

Approach names will be displayed when printing a report by approach and they will be inserted in front of column names when exporting.

Background colors on the grids help identify which buttons belong to which approach.

Cancel

Continue >>



Here you can change the names, types, and order of all buttons, along with assigning Approach Names. First we will describe the columns in the first grid (the grid on the left).

<b>1st Column (#)</b>	This column lists the MicroTally button number for this entry. If you look at your MicroTally unit, you will see button numbers (1 thru 12, as well as A and B) next to each button that is what this is.
<b>2nd Column</b>	This column allows you to enable or disable buttons. If you don't want to use a button (or shifted button), un-check the box in this column.
<b>3rd Column (Type)</b>	This column allows you to change the type of the button (how it is used). If you select a cell in this column and then click on it again you will get a drop down list of options: "Tally", "Undo Last Tally", "Shift", and "Shift Lock". If an item is changed to Shift or Shift Lock you will notice the grid gets longer because you now have a whole set of "Shifted" buttons that you can name. Shifted buttons are tally only, their type cannot be changed. For more information on button types, see " <a href="#"><u>Advanced Key Usage</u></a> ".
<b>4th Column (Name)</b>	In this column you can name your button. Generally you will want to keep this very short (6 or so characters) for it to print neatly on "Group by Approach" type reports. "Approach Names" on the right automatically get stuck in front of the names that have the same background colors. Generally names such as "Left", "Right", "Thru", "Trucks", or "Peds" are normal names for buttons. A shifted button will always be identified by the "Shift" button somehow on other screens, exports, and reports; generally by inserting the "Shift" button name in front of the shifted button name.
<b>5th Column (Order)</b>	This column will likely be removed in a future release for a more graphical or at least click-n-drag version. For now, you can re-order the way columns are printed or exported by changing the numbers in this column. The lowest number is printed/exported first. If there are two numbers the same, the first one in the list will be printed first. These can all be set at 0, or left how they are if you do not care about the order. When printing by approach, however, all approaches will automatically get grouped together even if the numbers are not together.



The second table (the table on the right) only has one column:

<b>Approach Names</b>	Enter in a name for each of the 4 approaches, one on each row. The background color shows which buttons belong to which approach. Approach names will be used to further identify each button name that has the same background color (in most cases the approach name is inserted in front of the button names that are in this approach). These can be left blank if you don't want to use them but you will not be able to print reports by approach. Some common approach names would be directions such as "Northbound" or "North".
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Buttons at the bottom of the window:

<b>Cancel</b>	Cancels all changes made and returns to the previous window.
<b>OK</b>	This will return to the previous window, keeping any changes made.

### Edit Header window

**Edit Header**

Location

Comments

#	<input checked="" type="checkbox"/>	Type	Name	Order
1	<input checked="" type="checkbox"/>	Tally	Right	3
2	<input checked="" type="checkbox"/>	Tally	Thru	2
3	<input checked="" type="checkbox"/>	Tally	Left	1
4	<input checked="" type="checkbox"/>	Tally	Right	9
5	<input checked="" type="checkbox"/>	Tally	Thru	8
6	<input checked="" type="checkbox"/>	Tally	Left	7
7	<input checked="" type="checkbox"/>	Tally	Right	6
8	<input checked="" type="checkbox"/>	Tally	Thru	5
9	<input checked="" type="checkbox"/>	Tally	Left	4
10	<input checked="" type="checkbox"/>	Tally	Right	12
11	<input checked="" type="checkbox"/>	Tally	Thru	11
12	<input checked="" type="checkbox"/>	Tally	Left	10
A	<input checked="" type="checkbox"/>	Tally	Pedestrian	13
B	<input checked="" type="checkbox"/>	Tally	Bicycle	14

**Approach Names**

Southbound

Westbound

Northbound

Eastbound

Approach names are quick and easy ways to identify groups of buttons. These do not have to be used.

Approach names will be displayed when printing a report by approach and they will be inserted in front of column names when exporting.

Background colors on the grids help identify which buttons belong to which approach.

Cancel
Continue >>

Here you can change the names, types, and order of all buttons, along with assigning Approach Names and setting the location and comments for the current study (or in the case of multiple studies, all studies at once). First, the fields at the top of the window, which are fairly straight forward:

<b>Location</b>	This field is where you can enter in a location of the study. This will be printed on reports, exported with data, and shown on the data overview screen. It can be anything you'd like, such as a location code or an intersection name (i.e. 4th & Washington).
<b>Comments</b>	This field is where you can enter comments for the study. This is only shown in the data overview screen and is in exports (it is not printed on reports). It is for your use only; it could for example include comments if something was strange with the intersection (i.e. construction nearby) or weather conditions.

Now we will describe the columns in the grid on the left:

<b>1st Column (#)</b>	This column lists the MicroTally button number for this entry. If you look at your MicroTally unit, you will see button numbers (1 - 12, as well as A and B) next to each button that is what this is.
<b>2nd Column</b>	This column allows you to enable or disable buttons. If you don't want to use a button (or shifted button), un-check the box in this column.
<b>3rd Column (Type)</b>	This column allows you to change the type of the button (how it is used). If you select a cell in this column and then click on it again you will get a drop down list of options: "Tally", "Undo Last Tally", "Shift", and "Shift Lock". If an item is changed to Shift or Shift Lock you will notice the grid gets longer because you now have a whole set of "Shifted" buttons that you can name. Shifted buttons are tally only, their type cannot be changed. For more information on button types, see " <a href="#"><u>Advanced Key Usage</u></a> ".
<b>4th Column (Name)</b>	In this column you can name your button. Generally you will want to keep this very short (6 or so characters) for it to print neatly on "Group by Approach" type reports. "Approach Names" on the right automatically get stuck in front of the names that have the same background colors. Generally names such as "Left", "Right", "Thru", "Trucks", or "Peds" are normal names for buttons. A shifted button will always be identified by the "Shift" button somehow on other screens, exports, and reports; generally by inserting the "Shift" button name in front of the shifted button name.

<b>5th Column (Order)</b>	<p>This column will likely be removed in a future release for a more graphical or at least click-n-drag version. For now, you can re-order the way columns are printed or exported by changing the numbers in this column. The lowest number is printed/exported first. If there are two numbers the same, the first one in the list will be printed first. These can all be set at 0, or left how they are if you do not care about the order. When printing by approach, however, all approaches will automatically get grouped together even if the numbers are not together.</p>
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The table on the right only has one column:

<b>Approach Names</b>	<p>Enter in a name for each of the 4 approaches, one on each row. The background color shows which buttons belong to which approach. Approach names will be used to further identify each button name that has the same background color (in most cases the approach name is inserted in front of the button names that are in this approach). These can be left blank if you don't want to use them but you will not be able to print reports by approach. Some common approach names would be directions such as "Northbound" or "North".</p>
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Buttons at the bottom of the window:

<b>Cancel</b>	Cancels all changes made and returns to the previous window.
<b>OK</b>	This is shown when clicking on "Edit Header" for single studies or when clicking on "Edit for All Studies" for multiple studies. When clicking on this it will keep the changes made and return you to the previous window.
<b>Continue</b>	This is shown only if you are downloading data from the unit. When clicking on this it will process your data and continue on to the " <b><u>Unit Data window</u></b> " where you can view an overview of your data for each of your studies.

## Unit Data window

Done.

Location:

Comments:

Model: MICROTALLY      Firmware Version: V2.06

Unit ID:       Serial #: 06050110

Start Time: 12:17    05/29/2006

Stop Time: 12:18    05/29/2006

Button	Count	Button	Count
Southbound Right	9	Northbound Thru	9
Southbound Thru	9	Northbound Left	9
Southbound Left	9	Eastbound Right	9
Westbound Right	9	Eastbound Thru	9
Westbound Thru	9	Eastbound Left	9
Westbound Left	9	Pedestrian	9
Northbound Right	9	Bicycle	9

<< Previous Study      Next Study >>

Edit Header      Print      Export      Save      Close

This is a general overview window for you to quickly glance at a study and make sure everything looks ok. From this window you will be able to edit the header (location/comments/buttons), print reports, export the data, or save it. In the case of a multi-study download you will also be able to select the study you would like to print or export by using the "Previous Study" / "Next Study" buttons.

There is various data displayed:

<b>Location</b>	This shows the location that was entered for this study.
<b>Comments</b>	This shows any comments for this study.
<b>Model</b>	The type of unit that the data was downloaded from is listed here. Currently we have only one model and it is listed as: "MICROTALLY".
<b>Firmware Version</b>	This is the firmware version of the unit at the time the data was downloaded.
<b>Unit ID</b>	The Unit ID that was in the unit when the data was downloaded. This value is assigned by clicking on "Edit Unit ID" after connecting a unit. If used, it is often just to give a custom number to the unit (i.e. "Unit #11").

<b>Serial #</b>	This is the serial number of the unit that the data was downloaded from. This cannot be changed; it is assigned when the unit is assembled.
<b>Start Time</b>	This is the time and date when the study started. (when the switch on the unit was moved to the "Run" position)
<b>Stop Time</b>	This is the time and date when the study stopped. (when the switch on the unit was moved to the "Stop" position -- or in the case of the unit timing out this is the time of the last button pressed before the timeout)

Now we will describe the data grid, it has 4 columns, but only 2 different types of columns:

<b>1st &amp; 3rd Column (Button)</b>	These columns show the name of the button (preceded by its approach name) for the count that will be in the column to the right.
<b>2nd &amp; 4th Column (Count)</b>	These columns show the total number of button presses for the button name that's to the column to the left. Note: This is just a simple total of how many times a button was pressed, the data has not yet been processed to show shifted buttons and such.

The buttons:

<b>Edit Header</b>	Clicking on this button will let you edit button names, locations, and comments. For data with just a single study clicking this will take you to the " <b><u>Edit Header window</u></b> ", for data with multiple studies it will take you to the " <b><u>Edit Headers window</u></b> ".
<b>Print</b>	Clicking this button will take you to the <b><u>print "Data Selection window"</u></b> where you can select the button columns to print and various other report settings.
<b>Export</b>	Clicking this button will take you to the <b><u>export "Data Selection window"</u></b> where you can select the button columns to export and various other export settings.
<b>Save</b>	For single study data you will get the standard "Save As..." dialog where you are prompted for a folder to save to and a filename. For multi-study data you will see a <b><u>multi-study "Save As... window"</u></b> where you can give each study its own filename. All files saved are in a special WinTally Data format (".wtd") which WinTally can open.
<b>Close</b>	This will close the data file and return you to the " <b><u>Main window</u></b> ".

## Data Selection window (when printing)

This window is where you will choose what you want on your report. Here you can specify what columns you would like printed, you can adjust the start time, specify the length of each interval, choose which types of totals and statistics you want, and various other settings.

The settings:

<p><b>Adjust study start time by</b></p>	<p>You can adjust the start time forward or backward by entering a positive or negative number of minutes in this field. This allows for a slight adjustment to the start time. So if your watch doesn't agree with the unit's clock (which is the same as the computer's time that reset the unit) and you started a study at 3:04pm instead of at 3:00 you could enter a "-4" here to make the reports come out starting at 3:00 instead of 3:04.</p>
<p><b>Interval</b></p>	<p>This is how often (in minutes) buttons are summed up and displayed on the report as its own row. For example, if the interval is 15, every 15 minutes there will be a button count listed on the report for each column. The default is 15. If you would like peak hour data, 60 will need to be divisible by this number.</p>

<b>Show column totals</b>	If this is checked, you will have a "Total" column on each page of shifted data on the report. In other words you will have a total of all button counts for each time interval.
<b>Show row totals</b>	If this is checked, you will have a "Total" row on each page of shifted data on the report. In other words you will have a total for each button type across the entire study period.
<b>Subtotal every</b>	You can set this to the number of intervals that you would like a subtotal for. So if you have 15 minute intervals and want hourly subtotals, set this to 4 (which means every 4 intervals show a subtotal).
<b>Show peaks</b>	If this is checked, the peak hour for the entire intersection is shown, and if "Group by approach" is checked each approach will also have its own peak hour. Note: The interval must divide into 60 evenly or peak hours will not work. When calculating the peak hour, the peak hour will always fall on an increment of the interval, not necessarily on an even hour. For example, if you have 15 minute intervals, you could have a peak hour of 16:45 to 17:44.
<b>Group by approach</b>	This will group all buttons that are in the same "approach" together and give approach totals along with other approach statistics. This is a common reporting method. If this is not checked then each button column is printed in the order that was specified in the button setup, with no approach statistics or grouping.
<b>Columns to print</b>	Here you can check what columns you would like on the report. Only columns that are checked will be shown on the report.

The buttons:

<b>Cancel</b>	Cancels printing and returns to the " <b><u>Unit Data window</u></b> ".
<b>Continue</b>	When clicked, a print preview will be generated and displayed on the screen. From there you can choose to print by clicking on the print icon in the upper left corner of the window.

## Data Selection window (when exporting)

This window is where you will choose what you want in your export. Here you can specify the export format, select which button columns you would like exported, adjust the start time, set the interval, and choose other export settings.

The settings:

<p><b>Adjust study start time by</b></p>	<p>You can adjust the start time forward or backward by entering a positive or negative number of minutes in this field. This allows for a slight adjustment to the start time. So if your watch doesn't agree with the unit's clock (which is the same as the computer's time that reset the unit) and you started a study at 3:04pm instead of at 3:00 you could enter a "-4" here to make the reports come out starting at 3:00 instead of 3:04.</p>
<p><b>Interval</b></p>	<p>This is how often (in minutes) buttons are summed up and exported as its own row. For example, if the interval is 15, every 15 minutes there will be another row with the button counts for those 15 minutes. The default is 15.</p>

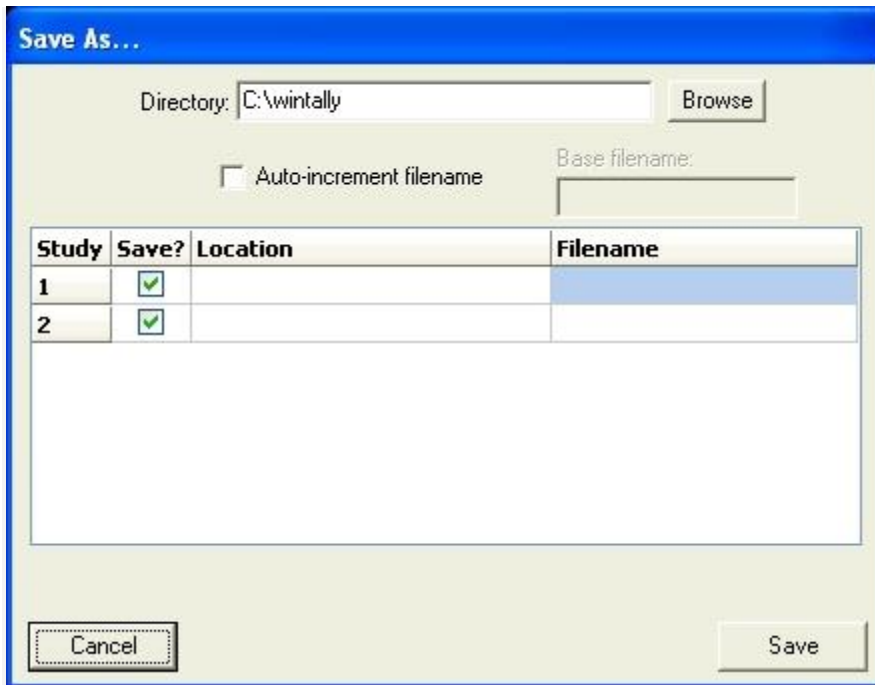


<b>Export Type</b>	These are different export formats you can choose from. It is recommended you use the "CSV, Standard" format. Any variations of this format were added by user request. The "CSV, Timestamps" format will actually export every button or code that was stored in the unit with the amount of time that has elapsed from the start of the study. This format can be useful for those who would like to process the data themselves with a custom program or for other general purpose timing calculations done by hand.
<b>Split shifted data into separate files</b>	If there are any buttons that were set as "shift" buttons then checking this will export shifted data into separate files. You will still only be prompted for one filename when exporting; the shift button name will be added to the filename with an underscore in between. For example if you export with a name of "myexport" and you have one shifted button (button A for instance) and you named it "Trucks" you would get two files: "myexport.csv" (containing the regular car data) and "myexport_Trucks.csv" (containing the Truck data). If you have no "shift" buttons, this setting does nothing at all.
<b>Include totals</b>	If this is checked, then there will be a "Total" column with all buttons pressed for each interval summed up.
<b>Columns to export</b>	Here you can check what columns you would like to export. Only columns that are checked will be exported.

The buttons:

<b>Cancel</b>	Cancels exporting and returns to the " <b><u>Unit Data window</u></b> ".
<b>Continue</b>	When clicked, you will be prompted for a file name (and location) for your exported data.

**Save As... Window (for multiple studies, on following page)**



In this window you can choose which studies you would like to save, what file names to give them (each study is saved to a separate file), and where to save them.

First, the controls at the top of the window:

<b>Directory</b>	This is the directory (or "folder") where any files you save will be stored. You can click on the "Browse" button to browse to and select the location instead of typing it.
<b>Browse</b>	Clicking this allows you to browse to the directory (or "folder") where you would like to save your files, instead of typing it.
<b>Auto-increment filename</b>	If this is checked then all filenames will automatically be generated. You can then type something into the "Base filename" field and it will be used for the filename for each study followed by "-XX" where XX is the study number. This makes it quick and easy to save a bunch of studies at once without typing a filename for each.
<b>Base filename</b>	This is only enabled if "Auto-increment filename" is checked. This will be the first part of each study's filename, the remaining part of the name will be "-XX" where XX is the study number.

The grid:

<b>1st Column (Study)</b>	This column lists the study number. This is just the order in which the study data was collected by the unit.
<b>2nd Column (Save?)</b>	This column allows you to select whether or not you want to save this study data. Occasionally you may have some accidental "fake" study entries when somebody starts a study presses a few buttons and stops it. This makes it easy to skip those studies if you don't want to save them. When this is checked (which is the default) the study will be saved.
<b>3rd Column (Location)</b>	This column shows the location of the study.
<b>4th Column (Filename)</b>	In this column you can enter the name of the file that will be used when saving this study or just use auto-increment to automatically generate it.

The table on the right only has one column:

<b>Approach Names</b>	Enter in a name for each of the 4 approaches, one on each row. The background color shows which buttons belong to which approach. Approach names will be used to further identify each button name that has the same background color (in most cases the approach name is inserted in front of the button names that are in this approach). These can be left blank if you don't want to use them but you will not be able to print reports by approach. Some common approach names would be directions such as "Northbound" or "North".
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Buttons at the bottom of the window:

<b>Cancel</b>	Returns back to the " <b><u>Unit Data window</u></b> " without saving anything.
<b>Save</b>	This will save the studies you have selected to the filenames that you entered and will return to the " <b><u>Unit Data window</u></b> ".