

## **Radar Statistical Data Collection Operation:**

All SolarTech Silent Messenger and Silent Advisor Products equipped with a MegaTech controller operating TRAFIX 2.0.1 or later and the optional Houston Radar radar gun will automatically log and record (to a standard USB memory stick) all raw data provided by the radar gun along with basic statistical and histogram information about the collected data in 15 minute intervals. The data are stored in four (4) CSV (Comma Separated Value) files which may be opened in Microsoft Excel or any other similar spreadsheet type application for viewing, manipulation and analysis. The hr\_analyzer.csv file may be analyzed with the Houston Stats Analyzer Software included on the USB memory device shipped with the unit or available at [www.solartechtechnology.com](http://www.solartechtechnology.com). Additionally, the most recent 30 days worth of Radar Statistics and Histogram Data (statistical and histogram radar data logged every 15 minutes) is maintained in the control consoles non-volatile memory and may be retrieved remotely via Control Center 3000 or via the Web Interface - see Control Center 3000 manual for further details. Three (3) files are available remotely: radar\_histogram.csv, radar\_statistics.csv and hr\_analyzer.csv.

### **Data Provided is as follows:**

Raw Data File: (radar\_data.csv file) - (Year, Month, Day, Time, Reading) - every detection/reading - readings recorded every 250ms while tracking a target

Statistical Data File: (radar\_statistics.csv file) - (Year, Month, Day, Time, # of Detections/Readings, Mean, Median, Mode, Standard Deviation, Lowest Reading, Highest Reading) - based on all detections/readings - readings are taken every 250ms while tracking a target

Histogram Data File: (radar\_histogram.csv file) - (Year, Month, Day, Time, Total # Vehicles Detected and # Vehicles Detected within Each Speed Bin in 5 MPH intervals)

Houston Stats Analyzer File: (hr\_analyzer.csv file) - (Year, Month, Day, Time, Total # Vehicles Detected and # Vehicles Detected within Each Speed Bin in 5 MPH intervals in a format suitable for analysis using the Houston Stats Analyzer Software)

### **To use the TRAFIX Radar Statistical Data Collection feature:**

1. Insert a USB Memory Device into the USB Port on the back of the MegaTech Control Console. **NOTE:** the most recent 30 days worth of Radar Statistics and Histogram Data (statistical and histogram radar data logged every 15 minutes) is maintained in the control consoles non-volatile memory even if a USB Memory Device is not used and may be retrieved remotely using Control Center 3000 or the Web-Interface at any time.
2. Setup and program the unit as desired. Data logging and recording is now taking place automatically. **NOTE:** a small USB Memory Stick Icon will be displayed in the lower right-hand corner of the Control Console LCD Screen in the Manage Messages Page (Silent Messenger PCMS) or the Main Control Page (Silent Advisor RST) indicating that the radar data collection feature is active if a USB device is used.
3. Remove the USB Memory Device from the USB Port on the Control Console and insert into the USB Port on any standard PC or, if the unit is equipped with a cellular modem for remote communication, access the unit and download the desired files using either Control Center 3000 or the Web-Interface.
4. Either cut and paste or copy the four (4) CSV files to desired location on the PC and use Microsoft Excel (or any other similar spreadsheet type application) to view, manipulate and analyze the data. The Houston Stats Analyzer Software may be used to analyze the data contained within the hr\_analyzer.csv file. **Note:** If the files are removed from the USB Memory Device, the Control Console will create new files upon reinsertion; however, if the files are left on the USB Memory Device, the Control Console will simply append new data to the existing files.

# Houston Radar Advanced In-Radar Traffic Statistics

With Houston Radar Advanced Statistics Analyzer Windows Software

Short Form Datasheet  
Rev 1 June 2006



Availability: Now

Houston Radar's Advanced In-Radar traffic statistics is a unique best in class traffic statistics gathering and storage option available in all DR series radars.

The advanced design of the statistics package allows it to track multiple targets simultaneously- a capability not possible in competing stats packages implemented outside the radar.

The Windows based Advanced Stats analyzer software retrieves and analyzes the stored data from the radar generating detailed weekly and monthly reports for counts, averages and 85<sup>th</sup> percentiles. Detailed drill down interactive graphical analysis is also available.

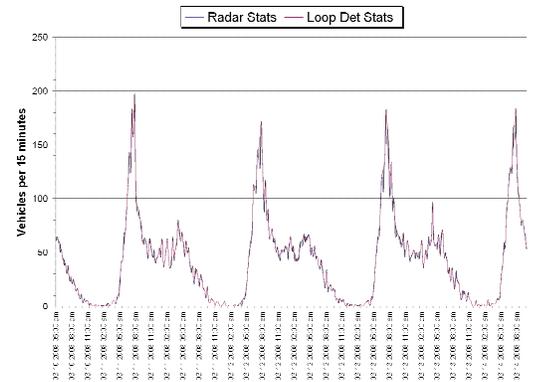
## Advanced In-Radar Statistics features

- Tracking and storage inside the radar for up to 60+ days of traffic
- Excellent collection accuracy for 1 and 2 lane incoming traffic
- User selectable 1 minute to 60 minute binning and storage intervals
- Live histogram feature to monitor "live" traffic from the radar for remote monitoring applications
- Stats collection possible from either radar COM port

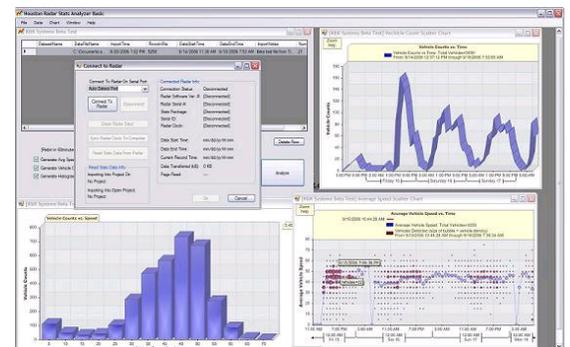
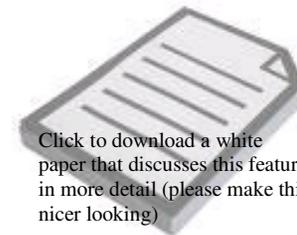
## Windows Statistics Analyzer Software features

- MS Windows 2000/XP/Vista based professional quality software
- Connect to radar and retrieve data or read from file
- Store and organize data in individual projects
- Generate weekly views of hourly counts and average speeds
- Generate average monthly views by weekday hour of counts and speeds
- Generate detailed hourly counts, average speed, max speed and 85<sup>th</sup> percentile reports
- Generate interactive raw data scatter graphs of speed vs. time, counts vs. time
- Join and trim data sets to manage data effectively

Houston Radar In-Radar Advanced Stats vs. In Road Loop Detector



Radar counts vs. loop counter



Stats Analyzer Screen Shot

Even though stats counting accuracy may exceed 90 to 95% in many situations, stats counting accuracy will vary with installation and road traffic conditions and should not be used where count accuracy guarantee is required. This is a more effective tool than generating stats by looking at speed data output from radar.