

TealAuto User's Manual



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Introduction



Thank you for trying TealAuto, the advanced automobile mileage and expense-tracking program for PalmOS. TealAuto can be used to record fill-ups, trip distance, service and expenses for multiple vehicles. The program is highly configurable, supporting custom services, gas brands, gas grades, service stations and billing accounts. Unmatched reporting capabilities also allow exporting and summarizing of information in charts, graphs, memos, or documents.

Contents

This archive contains the following files:

Program files:

TEALAUTO.PRC The TealAuto program file
TPSETUP.EXE Windows easy-installer program

Document files:

AUTODOC.PDF This document in Adobe Acrobat (PDF) format
AUTODOC.PDB This document in Palm (TealDoc) format
AUTODOC.HTM This document in HTML format (sans images)
REGISTER.HTM TealPoint Registration form in HTML format
REGISTER.TXT TealPoint Registration form in text format

Installing



Use the Palm Install Tool that comes with your organizer to install the program file **TEALAUTO.PRC**. The Palm Install Tool can be found as an icon along the left hand side inside the Palm Desktop program on your desktop computer.

Instructions on how to use the PalmOS Install Tool are in the User Handbook that came with your Palm, Handspring, CLIE, WorkPad, or other PalmOS handheld.

You may also wish to install the manual file **AUTODOC.PDB**, which is this document in handheld-friendly format for reading with our product TealDoc.

On a Windows PC, you can alternatively run the automatic installer program double-clicking on the **TPSETUP.EXE** installer program, and following the on screen prompts.

Terms used in this document

Hardware Buttons:

The four physical buttons (typically labeled Date, Address, To Do, and Memo) on the bottom of the handheld.

Scroll Up/Down Buttons:

The physical rocker switch or separate buttons at the bottom center of the handheld.

Graffiti:

The special letter-like symbols you write to enter text with your stylus.

Graffiti Entry Area:

The rectangular area at the bottom of the display screen where you can write letters using the graffiti input language.

Silkscreen Buttons:

The four, printed circular, tap areas (typically labeled Home, Menu, Calculator, and Find) to the left and right of the graffiti drawing area.

Menus:

The drop-down menus you get when tapping on the silkscreen Menu button.

Chapter 1 – Overview

TealAuto is a convenient and powerful data collection and analysis system, allowing you to easily enter fueling, service, and trip information while on the road. Powerful summary and analysis tools allow you to track and graph that information as well, all while still on the move. It even features a handy meter minder countdown timer with an alarm to keep those pesky parking tickets at a minimum.

TealAuto is a standard PalmOS application program. While it contains facilities for importing and exporting data to a desktop computer through the Palm Desktop, it does not contain a PC-component, and thus is compatible with PC's, Macs, and any type desktop computer that can HotSync to the handheld.

Using TealAuto



Once installed, run TealAuto by tapping on the “TealAuto” application icon on the PalmOS application launcher screen, reachable by tapping the “Home” silkscreen button on the handheld.

TealAuto is easy to use, and consists of six basic interface screens, reachable by six icons in the upper right corner of each screen. From left to right and top to bottom, the icons correspond to: Fueling Entries, Trip Entries, Service and Expense Entries, Reports and Summaries, Configuration, and Meter Minder.

Fueling Logs



The *Fueling Logs* screen is used to log information about gas station stops, and records the date, station, odometer readings, notes, billing account, and the price, quantity, and grade of the fuel purchased.

Trip Logs



The *Trip Logs* screen logs trip, accident, and memo reports. Trip entries contain a date, start and stop odometer reading and allow assigning the elapsed mileage between up to three billing accounts. Accident and memo reports contain only one odometer reading, and can be used to store information relating to an event associated with a particular date or mileage.

Service and Expense Logs



Services and Expenses are logged into this screen, which stores the cost, date, vendor, and mileage associated with this event. Services and expenses can be chosen from a configurable list of entries. Services can also be assigned a repeating time or mileage interval, so TealAuto can remind you when regular maintenance is due.

Reports and Summaries



TealAuto features unmatched reporting and graphing capabilities, features accessible from the *Reports and Summaries* screen. Here, data can be summarized or exported to external formats including the memos, Doc files, and comma separated value (CSV) files. A wealth of analysis tools is available, allowing the break down of data records into text reports, bar charts, or timeline graphs.

Configuration



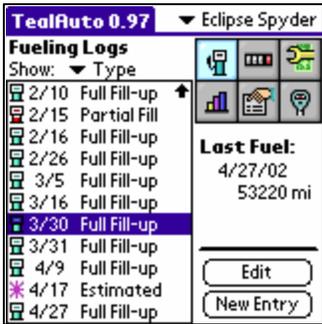
TealAuto is extremely configurable. In the *Configuration* screen, the user can define a virtually unlimited number of vehicles, gas brands, gas stations, gas grades, payment types, billing accounts and service/expense types.

Meter Minder



A simple but useful feature, the *Meter Minder* functions as a straightforward countdown timer with an alarm and multiple retries.

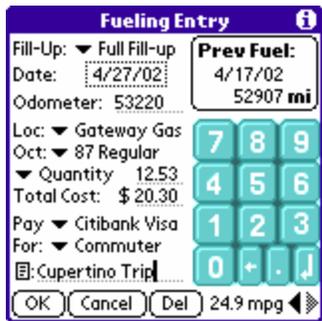
Chapter 2 – Fueling Logs



The *Fueling Logs* screen displays all fueling log entries for the current vehicle along with the date and selectable information about each entry, such as the type, odometer reading, calculated fuel efficiency (for full fill-ups), gas station, payment method, etc.

Tap “Edit” to enter the *Fueling Entry* screen to see or modify details for an existing entry or “New Entry” to create a new entry from scratch.

Fueling Entry Screen



Use the *Fueling Entry* screen to enter details for a stop to the gas station. An on-screen keypad is available for easy Graffiti-free entry of numerical values. When the “enter” button is pressed on the keypad, the next empty text field is automatically activated.

Fueling Types

Three fill-up “types” can be selected: *Full*, *Partial*, and *Estimated*. While all three accept the same data, distinguishing between different fueling stops with different types allows for selective report generation (see “Reports and Summaries”). For instance, it’s possible to generate fuel efficiency reports that ignore any results calculated using data from “estimated” fueling log entries.

Data Fields

Through drop down menus, the gas station (location), gas grade (octane), payment type, and billing account can be selected for the fueling stop. These selections come from the user-defined list of available choices.

Fuel Quantity and Price

TealAuto supports two methods of entering gas quantities. While the amount purchased can be entered as a number of gallons (or liters), it can also be entered as a price per gallon. If so, the gallons purchased are calculated automatically when the total fuel cost is entered. The latter method is often preferable, as the fuel price can be entered while gas is being pumped, leaving only one quantity (the total cost) to be entered after pumping is done.

Notes

A freeform note or memo can be associated with each entry. The first line appears on the fueling entry screen. To expand the note to full screen, tap on paper-shaped the “note” icon.

Converting Units

When entering fuel quantities or prices in a foreign currency or measurement unit, use the “Unit Converter” from the “Edit” menu to convert the values to local equivalents. See the Unit Converter chapter of this document for more details.

Chapter 3 – Trip Logs



The *Trip Logs* screen displays trip, memo, and accident entries for the current vehicle along with the date and selectable information about each entry, such as the type, odometer reading, elapsed miles, or note.

Tap “Edit” to enter the *Trip Entry* screen to see or modify details for an existing entry or “New Entry” to create a new entry from scratch.

Trip Entry Screen

The *Trip Entry* also features an on-screen keypad. As on the *Fuel Entries* screen, when the “enter” button is pressed on the keypad, the next empty text field is automatically activated.



Trip Types

Unlike fueling entries, trip entries contain a selectable type which affects which data fields are available. “*Trip*” entries contain both a start and end odometer reading, and are used to record events associated with traveling a specified distance. The end odometer reading can be specified as an actual final value, or as an elapsed distance (trip miles).

Note: When creating a “*Trip*” entry, **always enter both a starting and ending odometer reading**, as the difference between the two is required to calculate correct trip distances.

“*Accident*” and “*Memo*” entries, however, are used to record notes and events associated with a single location and time, such as an accident report or notable sighting.

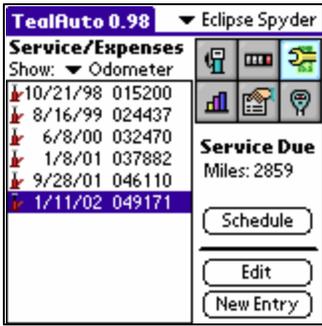
Accounts

The elapsed mileage for “*Trip*” events can be divided by up to three separate billing or tracking accounts. This allows for, say, a trip to be easily billed as 50% business and 50% personal without creating two separate trip entries. Enter the miles to assign to the second and/or third account, and the remaining balance will automatically be calculated and assigned to the first account.

Notes

As with fueling entries, a freeform note or memo can be associated with each entry. To expand the note to full screen, tap on paper-shaped the “note” icon.

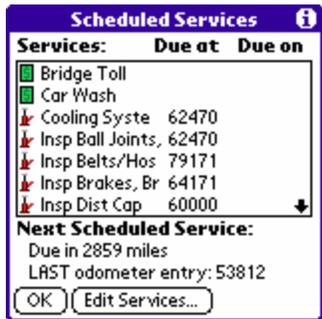
Chapter 4 – Service and Expense Logs



The *Service and Expense Logs* screen displays non-fueling transactions that have an associated cost. This can include simple expenses such as parking and tolls, or scheduled maintenance items such as oil changes and tire rotation.

When scheduled services exist, the numbers of miles and days until the next scheduled service are shown under the heading “Services Due”. To view individual scheduled services, tap on the “Schedule” button to enter the *Scheduled Services* screen.

Scheduled Services Screen



The *Scheduled Services* screen shows all services attached to the current vehicle, along with the next date and/or miles at which the service is scheduled. Services listed only include those that have been explicitly linked to the current vehicle. To link or unlink services from the global available list, tap on the “Edit Services” button.

Vehicle Services Screen

While the global list of services is defined in the *Configuration* screen, **services must be linked to a specific vehicle** before they can be used for that vehicle. This customization process allows them to have periodic service intervals that vary from one vehicle to the next.



Tap on the “Add” or “Rem” buttons to link or unlink, services from the available global list. Tap on the “Edit” button to modify an unlinked service, or “New” to create a new service.

Once services are linked (“active”), they can be scheduled to issue a reminder after a specified number of weeks and/or miles. When so selected, the date or mileage of the first (next) scheduled service should be set. Future services continue at the specified intervals.

Services Entry Screen

Service/Expense Entry

Entry Type: Services: Edit

Date: 3/16/04

Odometer: 14

Total cost: \$

Location: (Unspecified)

Payment: (Unspecified)

Account: (Unspecified)

Notes:

OK Cancel Delete

- Air Cond. Check
- Change Coolant
- Check Tires
- Insp Belts/Hoses
- Insp Brakes

The *Services Entry* screen is similar to both the *Fuel* and *Trip Entry* screens.

Service/Expense Types

Entries can be designated as “Service”, “Expense”, or “Misc” types. A scrolling list of services and expenses presents items to be selected for the transaction. When a “Service” or “Expense” type is selected, **only entries of that type appear**. When “Misc” is set, however, all items are displayed.

Data Items

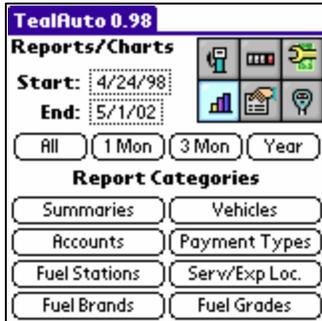
Standard drop down lists and text entry fields allow for entry of odometer readings, total cost, entry location, payment, and billing account.

Notes

As with fueling entries, a freeform note or memo can be associated with each entry. To expand the note to full screen, tap on paper-shaped the “note” icon.

Chapter 5 –Reports and Summaries

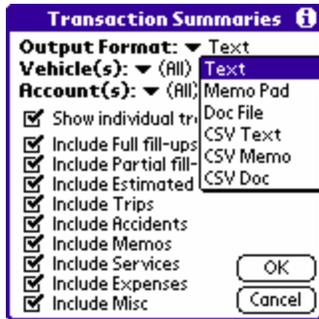
The *Reports and Summaries* screen presents powerful tools to analyze trends and compute statistics from transaction logs entries.



Start and End Dates

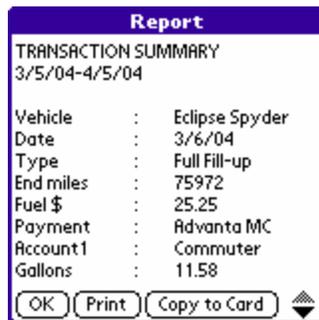
The transactions used in the reports are specified by a range of dates, which default to the full range of entries present in the log when the screen is first entered. While start and end dates can be modified individually, on-screen buttons allow the start time to be easily set to encompass the 1-month, 3-months, or 1-year interval preceding the current end date. Hold down the Page-Up scroll button to abort a summary report in progress.

Summary Reports



The first of eight report options, *Summary Reports* summarize statistics calculated from selected transactions in the specified date range. If the “Show individual transactions” checkbox is selected, they can also optionally show details of individual transactions, or export these transactions to external file formats for importing into spreadsheets, word processors, or other programs.

Reports can be generated in the following formats:



Text

Displays the information in a scrollable window. The text can be copied or edited, or printed to an attached printer if the program TealPrint is installed. Text reports are limited to 32k in size, however; so large reports should be output to Memo or Doc File format instead. They can also be copied to the root of an external storage card as the file “Report.txt” using the “Copy to Card” button.

Memo Pad

Exports the report to one or more Memo Pad memos. As memos are limited to 4k in size, TealAuto creates new memos as needed to fit all the text in the report. As text in memos can be selected and copied from the Palm Desktop software, exporting to the Memo Pad can be a handy way to export data to the desktop.

Doc File

Standard Doc files are a simple text file format supported by most PalmOS document readers like TealDoc. This option creates a new uncompressed document with a name of your choosing. If you have a desktop conduit installed as part of a PalmOS word processor that supports Doc format, this can be an alternate way to import data to the desktop.

CSV Formats

By default, three data formats above output text in human-readable form. Alternatively, data can be output in comma-separated-value (CSV) format commonly supported by most desktop spreadsheet and database programs. This can be particularly useful in conjunction with the "Copy to Card" feature.

See the "Exporting Data" section of this document for more information on using CSV files to export data to a spreadsheet program.

Summary Statistics

Summary reports calculate some basic statistics about the transactions in the date range, including:

Days of operation

Days between first and last transactions in date range

Fueling entries

Number of applicable fueling entries in date range

Trip log entries

Number of applicable trip entries in date range

Service/expenses

Number of applicable service and expense entries in date range

Total fuel purchased

Amount of gasoline purchased (gallons/liters)

Average fuel purchased

Average amount of gasoline purchased per fueling transaction (gallons/liters)

Average fuel efficiency

Average fuel efficiency in time period (mpg/kpl)

Average days between fuelings

Total elapsed days in the time period divided by the number of fueling events

Average miles between fuelings

Total elapsed miles in the time period divided by the number of fueling events

Average fuel cost per mile

Total fuel expenditures in the period divided by the number of miles

Total estimated fuel cost

If fuel entries exist in the time period with no cost entry, this item estimates the total fuel cost using the average fuel cost for missing entries.

Total trip distance

Total distance assigned to trip log entries in date range (miles/km)

Total distance

Total distance traveled (miles/km)

Total fuel cost

Total cost of fuel purchased (\$)

Average fuel cost

Average cost of fuel per transaction (\$)

Total service and expense cost

Total spent on service and expense entries (\$)

Logged operation cost

Total service, expense, and fuel cost (\$) based on actual logged costs

Logged cost per mile

Logged operation cost divided by total distance (\$ per mile/km)

Logged approximate cost per month

Projected total cost of operation per month (\$ per month) based on logged costs

Total operation cost

Total service, expense, and fuel cost (\$), using average fueling cost for fueling entries with no entered cost.

Total cost per mile

Total operation cost divided by total distance (\$ per mile/km) including estimated fuel cost for fueling entries with no entered cost

Total cost per month

Projected total cost of operation per month (\$ per month) including estimated fuel cost for fueling entries with no entered cost

Projected annual distance

Projected annual mileage based on date range (miles/km per year)

Adjusted direct expenses

Total fuel and service expenses, adjusted by each account's direct rate (\$)

Adjusted travel expenses (\$)

Total assigned trip miles, adjusted by each account's mileage adjustment rate (\$)

Adjusted travel miles (\$)

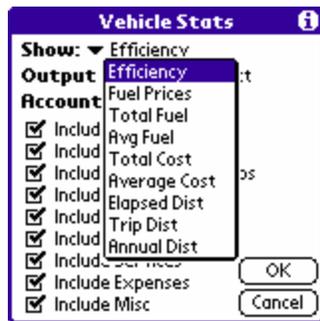
Total miles assigned to accounts (miles/km)

Comparison Reports

Comparison reports are designed to track a single statistic relating to a range of transactions, and analyze how that figure varies over time or in relationship to a particular variable. For instance, average fuel efficiency can be calculated for a range of dates, and compared from vehicle to vehicle. Additional conditions can be specified for each report, such as only including transactions from a specified account, for instance. Available choices differ by variable field.

Six different variable options are supported, each summarizing the following statistics:

Vehicles



- Average Fuel Efficiency
- Average Fuel Prices
- Total Fuel Purchased
- Average Fuel Purchased per Transaction
- Total Cost
- Average Cost per Transaction
- Elapsed Total Distance
- Total Trip Distance
- Projected Annual Distance (mileage)

Accounts

- Average Fuel Prices
- Total Fuel Purchased
- Average Fuel Purchased per Transaction
- Total Cost
- Average Cost per Transaction
- Total Trip Distance

Payment Types

- Average Fuel Prices
- Total Fuel Purchased
- Average Fuel Purchased per Transaction
- Total Cost
- Average Cost per Transaction

Fuel Stations

- Average Fuel Efficiency for Travel Prior to Fueling
- Average Fuel Efficiency for Travel After Fueling
- Average Fuel Prices
- Total Fuel Purchased
- Average Fuel Purchased per Transaction
- Total Cost
- Average Cost per Transaction

Service Stations

- Total Cost
- Average Cost per Transaction

Fuel Grades

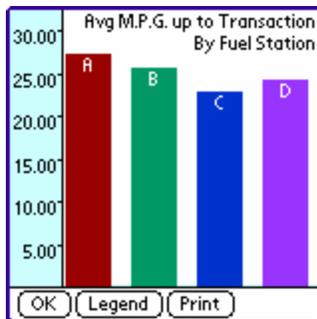
- Average Fuel Efficiency for Travel After Fueling
- Average Fuel Prices
- Total Fuel Purchased
- Average Fuel Purchased per Transaction
- Total Cost
- Average Cost per Transaction

Fuel Brands

- Average Fuel Efficiency for Travel After Fueling
- Average Fuel Prices
- Total Fuel Purchased
- Average Fuel Purchased per Transaction
- Total Cost

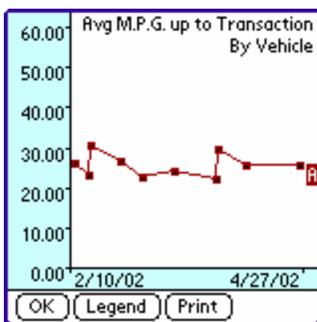
Report Types

In addition to the standard text-based reports, comparison reports can be displayed in graphic bar and line charts for easy judging of trends.



Bar Charts

Bar Charts show the same calculated statistics summarized in a text report, but displays them as a simple bar chart with one bar for each variable item. The bars are identified with a single letter, corresponding to an off-screen legend, reachable by tapping on the “Legend” button.

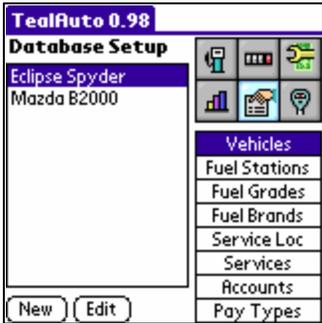


Timeline Graphs

Timeline Graphs show the actual data points used to calculate averages and totals found in the text reports. For a calculated average such as average fuel efficiency, for instance, a timeline graphs shows a data point for each transaction with that entry’s calculated fuel efficiency. For a calculated total such as elapsed travel distance, however, a data point is shown for the accumulated mileage up to each data point, so trends can be seen in how fast the miles add up.

Reports can be very useful in analyzing the data you’ve collected. See **Advanced Reports** for more information on using them fully.

Chapter 6 – Configuration



The configuration screen allows for the creation and customization of database entries used as selections for entries in fuel, trip, and service logs. This customization allows for a near unlimited number of vehicles, services, accounts, etc.

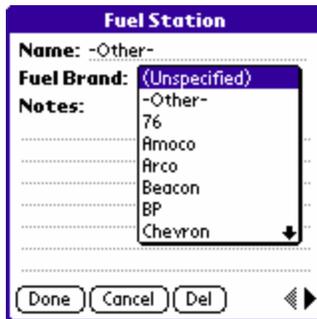
Vehicles



Vehicle Entries support a number of general purpose utility text fields such as VIN number, license plate, tire size, oil type and/or quantity, and a general purpose note field. Of particular interest is the “miles” field, which is used to calculate initial fuel efficiency for the first fueling and the estimated time and mileage before initial service is due.

Also present are two buttons used to view currently due services or attach services to the vehicle. Services **must be attached to a vehicle** before they can be used.

Fuel Stations



Fuel stations support a general-purpose note field, typically used to store the station’s location, address, or phone number. In addition, it can also be linked to a gas brand if the station is a member of a chain.

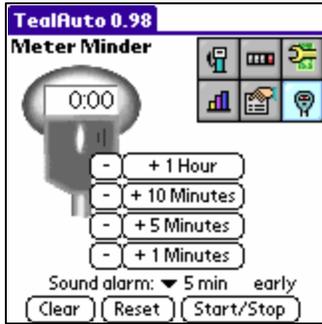
Fuel Grade

Fuel Grades are typically used to track the type of gas used in a fueling, such as “regular”, “premium”, “plus”, or “supreme”, or the octane rating for fuel.

Fuel Brands

Fuel Brands support a note field and typically track the company, chain, or brand name associated with the gasoline.

Chapter 7 – Meter Minder



The meter minder provides a handy countdown timer to warn when your parking meter is about to expire. The alarm can be set to sound 1-10 minutes before the timer expires, or to retry a specified number of times through settings in the program settings screen.

Chapter 8 – Settings (Preferences)

Services



The services warning period can be set here. Whenever TealAuto is run, it checks to see if the current mileage and date fall within the warning period for any scheduled service, and will put up a reminder message if either is true.

Meter

The meter minder can be set to re-sound the alarm if the initial alarm is not answered. The duration and retry count can be set on the preferences screen.

Units

TealAuto supports flexible settings for the units used to measure currency, fuel, and efficiency, as well as the number of decimal points displayed for each value.

Distance:

- miles
- kilometers

Fuel Quantity:

- gallons(US)
- gallons(imperial)
- litres

Fuel Efficiency:

- miles per gallon (US)
- miles per gallon (Imperial)
- litres/100 km
- kilometers per litre
- gallons per 100 miles (US)
- gallons per 100 miles (Imperial)

Note that for consistency in calculations, TealAuto currently expects all records to be stored in a single “home” set of standard units. When values in different currency or fuel units have to be entered (say, when traveling abroad), those values must be first converted to local units using the **Unit Converter**.

It's also important to note that changing other unit preferences only changes the text labels used throughout the program and fuel efficiency calculations. Data already entered in databases keep the same numbers. Thus, once measurement units are chosen, data should consistently be entered in the same units from that point onwards. If units are subsequently changed, previously-entered will not be adjusted, but will retain their originally entered numerical value but display with the new unit labels.

Chapter 9 – Converting Units

TealAuto requires that all data records be stored using a single set of consistent currency, fuel, and distance units. However, when traveling to other countries, TealAuto unit converter helps translate foreign measurement values to local units.



Opening the Conversion Calculator

Open the unit converter by choosing “Convert Units” from the edit menu on the text entry screen. If the text cursor is active, the contents of that field will automatically be loaded into the conversion calculator.



Using the Conversion Calculator

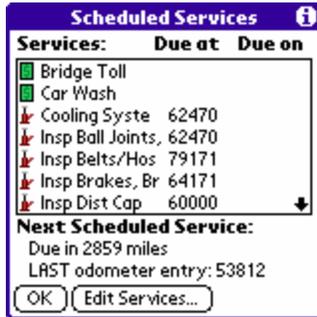
On the left side of the calculator, a list of supported conversions will appear. A few common conversions are listed, though you can remove entries or add your own using the add/delete/rename buttons.

Each conversion is linked to a conversion “factor”. The incoming number is multiplied by this value to calculate a converted product. When converting currencies, you may need to periodically adjust this multiplication factor to match current exchange rates.

When done, tap “OK” to close the calculator, or tap “Paste Result” to insert the converted product back into a previously active text field.

Chapter 10 – Using Services

In order to use TealAuto to track services and issue reminder when they are due, they must first be created in the global services list and then attached to each vehicle to which they apply. Once done, TealAuto will check for services due every time the program is run, and bring up a reminder if any are required.



Service Intervals

When TealAuto is first run, it creates a default list of commonly needed services set to typical services intervals. Services and service intervals vary from vehicle to vehicle, however, so you should adjust these entries according to your vehicle maintenance manual.

Maintenance manuals typically break down service into minimum regular intervals; corresponding to the most frequently needed service--oil changes--which are needed every 3000-7500 miles,

depending on the vehicle and severity of use. Other services, such as tire rotation, wheel alignment, and coolant service, occur at less frequent regular intervals, such as every 2, 3, 4, or more oil changes.

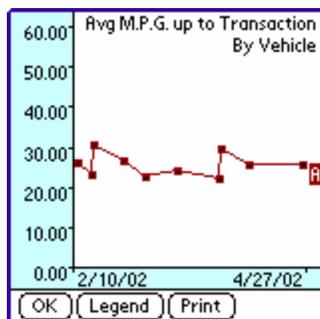
Initial Service

When adding a service to a vehicle in TealAuto, the date and/or mileage of the first scheduled service should be set to when the *next* service is due. With a new vehicle before its first oil change, this is typically the same as the service interval. For instance, if tire rotations are required every 6000 miles, then the first tire rotation is usually done at 6000 miles. Some vehicles require a special service after the initial break-in period, however, so some adjustment may be necessary for the first service interval.

Chapter 11 – Advanced Reports

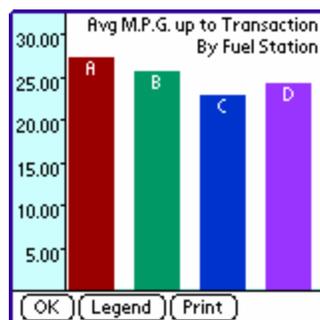
Tracking expenses and mileage would be of little use without reporting tools, and TealAuto's report generation tools can be used to generate a wide range of reports and summaries. Here are some common useful reports you can generate:

Fuel Efficiency



Fuel efficiency is the most common statistic compiled from the logs. Tracking fuel efficiency gives a good snapshot of the health of a vehicle, as an unexpected drop in efficiency can warn of low tire pressure, improper tuning, or required service. Fuel efficiency can be tracked either as a calculated item in a summary report, or as a graph or chart when plotted by vehicle, fuel, or station. It tracking fuel efficiency, note that one can easily omit the use of estimated or partial fill-ups by un-checking them from the list of acceptable transactions prior to generating the report.

Pump Accuracy



Ever wonder if that gas station down the street really gives you all the gas you've paid for? By charting fuel efficiency as a function of fuel station, you can feed your paranoia and check for sure.

Note that you should track the option **fuel efficiency before fueling** when evaluating the pumps, and limit the reports to one particular grade of gas for consistent values. Also take into account that some variance can occur between gas stations if you tend to go to them under different circumstances. For instance, a gas station located along a long stretch of highway is likely to report better mileage due to increased highway driving when compared to one located along a route for short errands within city limits.

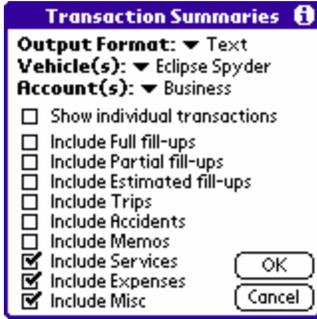
Quality of Gas

Gas brands sometimes generate strong loyalty from their customers. Is this justified from a fuel efficiency point of view? By tracking **the fuel efficiency after** a transaction, you can check when gas from a particular brand or station really gives you better gas mileage. When tracking as a function of gas station, it might also let you know if a station is really giving you that Premium gas you've paid for.

Octane Mileage

Most manufacturers recommend you use gasoline with an octane recommended in your owner's manual and no higher. Nevertheless, many of us sometimes like to "treat" our cars with a nice dose of the expensive stuff from time to time. While we can't really track whether our vehicle particularly enjoys this little treat, we can track the mileage as a function of gas grade to see how many more miles we get per gallon when we use the "good" stuff.

Expense Summaries



Transaction Summaries ⓘ

Output Format: ▼ Text
Vehicle(s): ▼ Eclipse Spyder
Account(s): ▼ Business

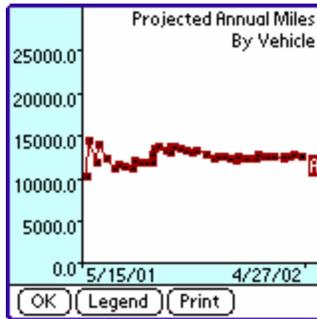
- Show individual transactions
- Include Full fill-ups
- Include Partial fill-ups
- Include Estimated fill-ups
- Include Trips
- Include Accidents
- Include Memos
- Include Services
- Include Expenses
- Include Misc

OK Cancel

Use expense summaries to total expenditures for a specified date range. Reports can be limited by vehicle or account, or only include specified transaction types. In summary reports, totals are reported both as raw numbers and as values modified by each account's "adjusted" rates.

To summarize the results for all accounts at once, use the "Account" report button to generate a comparison report of total expenditures as a function of account.

Lease Mileage



Of particular interest to many people who lease their vehicles is the number of miles they put on their cars annually. This is because most leases charge fees for excessive miles beyond a typical cap of 12000 miles per year.

Both summary and vehicle comparison reports can calculate the projected annual mileage for a vehicle based on the usage to date. To calculate the projected mileage, set the report start date to the beginning of the lease year. When creating a timeline of the annual mileage, the plot will show the estimated mileage as it is calculated using all the accumulated data so far from the start date. Thus, the

"projected" miles for the beginning of the term will vary more in the beginning, but will settle to a more stable value as more data points are added to reach a stable value.

Chapter 12 – Exporting Data to a Spreadsheet

Data logs from TealAuto can be exported to desktop programs and spreadsheets using the summary report generation tool. To do so, generate a summary report, making sure “Show individual transactions” is checked and by selecting a CSV export type. You may want to export certain transaction types, depending on what data you find relevant. The most common format to use in exporting data is CSV Memo.

Format



CSV (comma separated value) files are simple text files supported by most desktop database and spreadsheet applications. In CSV files, data in cells in output column by column and row by row, with the data for each cell separated by commas and a line break between rows. Data for each cell is typically enclosed in quotation marks, which is required if a cell contains a comma character inside. Quotation marks in a cell are denoted by two quotation marks (") next to each other.

TealAuto exports data in 22 columns, in the following order, preceded by a single line containing the column headers:

1. Vehicle
2. Date
3. Type
4. Beg Miles
5. End Miles
6. Fuel \$
7. Expense \$
8. Payment
9. Account1
10. Account2
11. Account3
12. Miles1
13. Miles2
14. Miles3
15. Gallons
16. Grade
17. Fuel \$
18. M.P.G.
19. Station
20. Expense Loc
21. Services
22. Note

As not all fields apply to all types of log entries; cells are left blank if they do not apply to a particular transaction type.

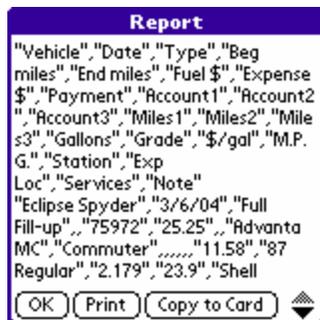
Example:

Below is a simple example of a one-transaction CSV entry. Note that the label line is actually a single very long line which may appear word-wrapped in a text editor, and multiple sequential commas indicate blank data fields.

```
"Vehicle", "Date", "Type", "Beg miles", "End miles"  
"Eclipse Spyder", "10/21/98", "Service", , "15200"  
"Eclipse Spyder", "10/28/98", "Full Fill-up", , "15419"  
"Eclipse Spyder", "11/4/98", "Full Fill-up", , "15704"
```

Step 1. Create the data

Generate a report, choosing "CSV Memo" as your output format.



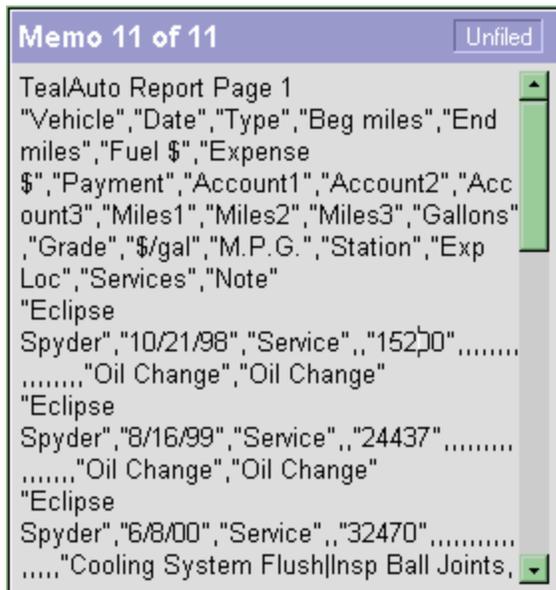
Shortcut: If you have an PC storage card reader, choose "CSV Text" instead and use the "Copy to Card" button to create a CSV file directly to the root of the card.

You can then skip to Step 4 and load the file directly into your spreadsheet program using your card reader.

Step 2. Get the data to the Desktop

HotSync to copy the memo to the Palm Desktop. Your desktop memo pad conduit should be set to "Handheld overrides desktop" or "Synchronize the files"

Step 3. Paste together the CSV file



In the Palm Desktop, the memo should now appear with the exported CSV data. If the report is large, it might appear split across several memos.

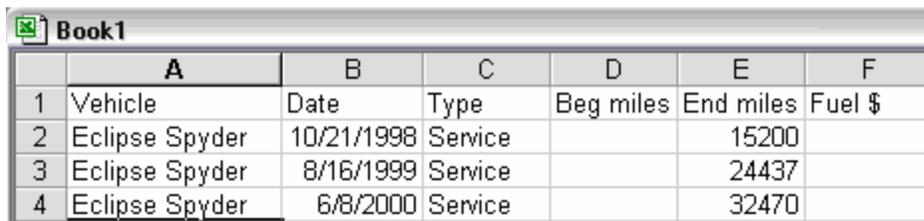
To create the final CSV file, start with a new blank document in a text editor such as NotePad or WordPad.

Copy the text from each of the memos into the file.

DO NOT INCLUDE the initial title line of each memo, as it is not part of the CSV data. Then save the document with a .TXT or .CSV file extension (such as CARDATA.CSV) and you should then have a file that can be imported into most any spreadsheet application.

Step 4. Import into spreadsheet program

If you've done this correctly, you should be able to load the CSV file into a spreadsheet program, with each value appearing in its own cell. When importing, set your "text delimiter" to a quotation mark, and the "record delimiter" to a comma, if requested.



	A	B	C	D	E	F
1	Vehicle	Date	Type	Beg miles	End miles	Fuel \$
2	Eclipse Spyder	10/21/1998	Service		15200	
3	Eclipse Spyder	8/16/1999	Service		24437	
4	Eclipse Spyder	6/8/2000	Service		32470	

Chapter 13 – Importing Data from a Spreadsheet

To help transfer records entered externally in a spreadsheet or importing data when upgrading from another program, TealAuto supports a powerful, flexible data import system.

File Format

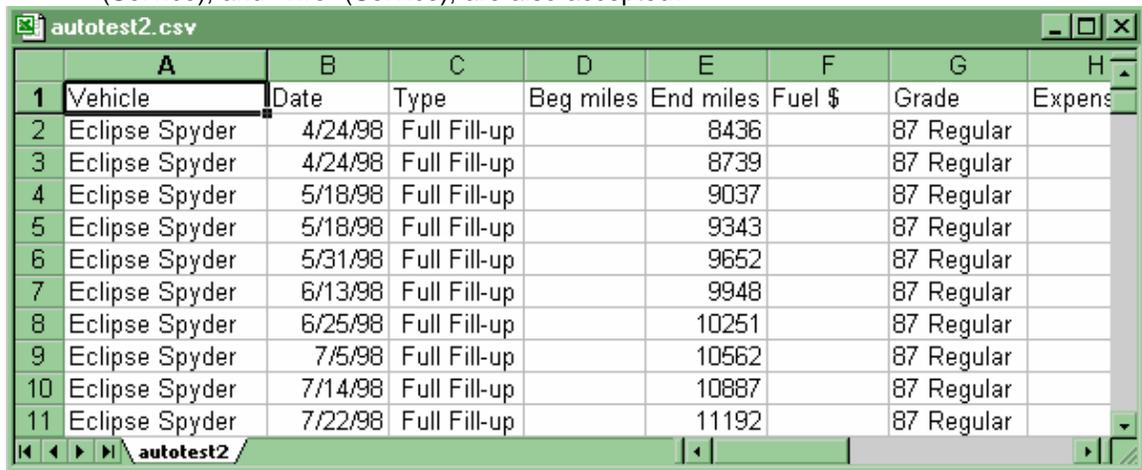
TealAuto accepts data imported from the MemoPad in the same or similar CSV format generated by exporting a summary as a CSV Memo. The import system is flexible, however, allowing for different column orders, missing columns, optional headers, and tab-separated files in addition to comma-separated ones.

Start by making sure the data begins in the top-leftmost cell in the spreadsheet, ideally reserving the first row as labels for each column of data. It is helpful, but not necessary, to set up the columns in the same order as the import headers described in the previous section. If labels are included, name them using the standard TealAuto label names, as this will help TealAuto auto-detect the contents of each column when converting the data.

While most columns are optional, you **must** define both a “date” and a “type” column for best results, so TealAuto will know which type of log file to create for each entry. Contents of the “type” column should be set to one of the 9 standard log type names:

1. Full Fill-up
2. Partial Fill
3. Estimated
4. Trip
5. Accident
6. Memo
7. Service
8. Expense
9. Misc

For ease of importing from third party programs, the keywords “Fuel” (Full Fill-up), “Oil” (Service), and “Tire” (Service), are also accepted.



	A	B	C	D	E	F	G	H
1	Vehicle	Date	Type	Beg miles	End miles	Fuel \$	Grade	Expense
2	Eclipse Spyder	4/24/98	Full Fill-up		8436		87 Regular	
3	Eclipse Spyder	4/24/98	Full Fill-up		8739		87 Regular	
4	Eclipse Spyder	5/18/98	Full Fill-up		9037		87 Regular	
5	Eclipse Spyder	5/18/98	Full Fill-up		9343		87 Regular	
6	Eclipse Spyder	5/31/98	Full Fill-up		9652		87 Regular	
7	Eclipse Spyder	6/13/98	Full Fill-up		9948		87 Regular	
8	Eclipse Spyder	6/25/98	Full Fill-up		10251		87 Regular	
9	Eclipse Spyder	7/5/98	Full Fill-up		10562		87 Regular	
10	Eclipse Spyder	7/14/98	Full Fill-up		10887		87 Regular	
11	Eclipse Spyder	7/22/98	Full Fill-up		11192		87 Regular	

When done, save the file in CSV file format (preferably comma separated) to continue.

Getting the Data from the Desktop

To import the data into the Palm Desktop, you must first open the CSV file into a text editor so it can be seen as text. To do this, open a text editor like NotePad. Choose the *Open* menu and load in the CSV file. You may need to change the *file types* control to show "All files" to see your CSV file. Then select all text and choose *Copy* from the *Edit* menu.

Now enter the Palm Desktop and go to the Memo screen. Choose *Paste* from the *Edit* menu to create a new memo with the contents of the CSV file. If the CSV is large it will be split across multiple memos.

Selecting the Memo

To begin the import process, start TealAuto and select *Import Records* from the *Program* menu. You'll be presented with a list of available memos.



Select the memo to import, or the first memo of a sequence if the data is split across multiple memos. If there are multiple memos and they appear out of order, go into the MemoPad program and place them in the correct order before continuing.

Setting Options



Once a memo is selected, TealAuto analyzes the file to guess the correct import options. However, you should verify them carefully to insure proper importing:

Default Vehicle

Defines which vehicle to assign to new entries when a vehicle column is not defined.

Number of Memos

The number of sequential memos to import.

Data Columns

The number of data columns in each row.

Skip 1st, 2nd line before each memo

Check these items if each memo contains one or two title lines that are not part of the CSV. The Palm Desktop automatically adds a title line when pasted data needs to be split across multiple memos. Other programs may add one or more title lines to specify, say the title of the report or the name of the vehicle.

First line holds column labels

Check this item if the first row of data contains labels and does not hold actual record data.

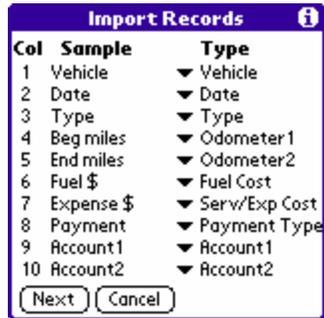
Column Separator

Set to “comma” or “tab” depending on the CSV file format.

Date Format

Set to the month-day-year order of dates contained in the imported data.

Selecting Columns



The last step when importing records is to select the contents of each column. Sample data from the first line of the CSV is presented, along with potential choices for each column. If the first line contains text labels, they will be shown as the sample data. If the labels match standard label names, TealAuto will detect them and preset those entries with the correct definition.

Some programs export data mixing fueling and service costs or service and fueling stations in the same column. When this is the case, set that column's type to either "fuel" or "service". TealAuto

will automatically convert imported entries based on that line's log entry type.

Undoing Changes

TealAuto backs up the configuration and log entries before starting an import operation. To restore the previous settings after an unsuccessful import, select the *Undo Import/Purge* menu item from the *Program* menu.

Chapter 14 – Purging old Records



When old records are no longer needed, they can be deleted using the “Purge Records” item under the *Program* menu.

Records are backed up before deleting, so you can restore purged records from the backup if you make a mistake by immediately selecting the “Undo Import/Purge” menu item.

APPENDIX A – Registering

Registering allows you to use the program past the 30 day expiration period and turns off registration reminders.

Currently, you may register by snail mail or online with a credit card and a secured server from the store where you downloaded the software. For the first option, send the following information on a sheet of paper separate from your payment.

- Product Name
- E-Mail Address
- HotSync User ID (Pilot Name Required for Passkey generation. It can be found on the main screen of the HotSync application on the Pilot as "Welcome _____" or in the corner on a PalmIII or higher)
- Check (drawn off a US Bank) or Money Order for (\$19.95 US). No international checks or money orders please.

APPENDIX B – Products

Visit us online at <http://www.tealpoint.com> for our complete product line, including:

TEALAGENT (<http://www.tealpoint.com/softagnt.htm>)

A Desktop Doc file converter and Palm-format web clipper for news, movies, and more, TealAgent automatically fetches web-based content and installs it to your Palm when you HotSync.

TEALALIAS (<http://www.tealpoint.com/softalia.htm>)

Making the most of expansion memory, TealAlias creates placeholder alias files that automatically find, load, and launch apps and data from external SD cards, freeing precious main memory.

TEALAUTO (<http://www.tealpoint.com/softauto.htm>)

The complete automobile mileage, service, and expense tracking program, TealAuto supports unmatched features and customization options. Log book for your car or any vehicle.

TEALDOC (<http://www.tealpoint.com/softdoc.htm>)

Powerful reader for Palm documents, e-books, and newspapers, supporting advanced features such as pictures, links, and flash cards.

TEALECHO (<http://www.tealpoint.com/softecho.htm>)

Digital "ink" lets you see what your graffiti text as you write, vastly increasing graffiti writing speed and accuracy. No more writing blind!

TEALGLANCE (<http://www.tealpoint.com/softglnc.htm>)

Pop-up utility shows time, date, appointments and to-dos, and other useful information at power-up. See your day at a glance.

TEALINFO (<http://www.tealpoint.com/softinfo.htm>)

A system for creating and displaying interactive databases, reference works, and mini-application folios; a handheld reference library. Includes tip/sales/postage calculators.

TEALLAUNCH (<http://www.tealpoint.com/softlnc.htm>)

A pop-up application launcher and mapping utility for launching apps and special functions from pen taps, graffiti strokes, or button presses.

TEALLOCK (<http://www.tealpoint.com/softlock.htm>)

Secure automatic locking program with optional data encryption for memory and SD cards, as well as numerous activation and customization options.

TEALMAGNIFY (<http://www.tealpoint.com/softlens.htm>)

An ever-ready magnifying glass that works with most any program, TealMagnify's zoom/enlarge feature saves your eyes when looking at tiny text.

TEALMASTER (<http://www.tealpoint.com/softmstr.htm>)

A supercharged Hackmaster replacement with 100%-compatibility with hacks and enhanced stability, configuration, diagnostic and activation features and PalmOS 5.0 support.

TEALMEAL (<http://www.tealpoint.com/softmeal.htm>)

A personal restaurant database and selection wizard. Keep a database of your favorites and easily find them by type or category.

TEALMEMBRAN (<http://www.tealpoint.com/softmemb.htm>)

Memory monitor and stack manager which helps identify conflicts and greatly improves stability running multiple hacks and drivers.

TEALMOVER (<http://www.tealpoint.com/softmovr.htm>)

File management utility to beam, delete, rename, and copy files in RAM or SD/CF/MMC flash cards.

TEALMOVIE (<http://www.tealpoint.com/softmovi.htm>)

High-quality multimedia system with video and synchronized sound. Includes audio/movie player and Windows AVI/Quicktime converter program.

TEALNOTES (<http://www.tealpoint.com/softnote.htm>)

Insert freehand graphic "Sticky Notes" into memos, to-do lists, address book entries--almost anywhere you currently have editable text.

TEALPAINT (<http://www.tealpoint.com/softpnt.htm>)

The most powerful paint and sketch app on Palm OS, featuring 20 tools, 16 patterns, 24 brushes, zoom, hires, layers, multi-undo, and desktop converter.

TEALPHONE (<http://www.tealpoint.com/softphon.htm>)

A powerful address book replacement with superior interface, display, search, phone dialing support, and indexing options for all your contacts.

TEALPRINT (<http://www.tealpoint.com/softprnt.htm>)

The all-in-one text and graphic printing solution for Palm OS, supporting IR (IrDA) infrared, serial, and HotSync printing to any Windows printer.

TEALSAFE (<http://www.tealpoint.com/softsafe.htm>)

A personal encrypted data vault and wallet for computer passwords, credit card numbers, calling cards, software registration codes, PIN numbers, bank accounts, business contacts, journal entries, or any other sensitive information. A must for features and security.

TEALSCRIPT (<http://www.tealpoint.com/softscrp.htm>)

An improved, tunable, Graffiti replacement that supports custom strokes, macros, better accuracy, and full screen writing under OS5

TEALTOOLS (<http://www.tealpoint.com/softtool.htm>)

Six pop-up desk accessories, including a popup calculator, clock/stopwatch, preferences panel, editing panel, memopad, and a file/backup manager. Compatible with DALauncher, TealLaunch or other launcher hacks.

APPENDIX C – Credits

Manual by Vince Lee, Sara Houseman, and Tex Tennison.

APPENDIX D – Contact Info

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San Rafael, CA 94903-3618
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Please visit us at www.tealpoint.com, or email us at support@tealpoint.com.

APPENDIX E – Revision History

Version 1.52 – April 5, 2004

- Added option to export text reports directly to text/csv file on SD/CF/MS card.
- Fixed printing of graphs to TealPrint on OS5+ handhelds

Version 1.50 – March 16, 2004

- Added support for independently setting any combination of US, imperial, and metric units for distance, efficiency, and fuel.
- Added user-expandable currency/value unit converter calculator to edit menus
- Fixed display of small dividing line on log screens
- Rearranged Service/Expense entry screen to more intuitive entry order

Version 1.40 – March 8, 2004

- Added support for imperial Gallons in mixed unit calculations
- Fixed mileage calculation overflows when using mixed units
- Fixed minor calculation roundoff differences between fueling screen and report mileage

Version 1.31 – October 4, 2002

- Fixed summary calculation errors with large currency numbers
- Fixed fueling calculation error with large currency numbers

Version 1.30 – Sept 13, 2002

- Fixed on-the-fly efficiency display on fuel entry screen to work with distance-per-quantity settings
- Added option to have "MPG" mileage calculation mixed with metric units
- Fixed bar graph calculation and scaling
- Fixed estimated monthly cost summary when calculated with large numbers
- Fixed display of correct vehicle's services when shown from within vehicle configuration entry

Version 1.00 - May 10, 2002

- Initial Release

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