

Product Overview

This is a sophisticated system for scheduling vehicle reservations for organizations that maintain their own pool of vehicles. The system maintains an inventory of vehicles by type, ascertains availability of a vehicle of the selected type for the requested length of time, assigns vehicles from the pool just-in-time to distribute mileage, calculates the distance of multi-hop travel using a geographic database, and accommodates charging by time and/or mileage. The system also allows for maintenance scheduling and long term "open ended" use of a vehicle.

Benefits

This system was developed for the US Army Corps of Engineers, New England District (NAE). Prior to its implementation, NAE used emails to request a vehicle reservation and all tracking was done on paper or spreadsheet. While it might seem that reserving a vehicle from a relatively small pool is straight forward, this is in fact not the case: there are overlapping reservation periods, multiple vehicle types, scheduled maintenance, need to track mileage and charges, and other factors that make paper reservations a nightmare. This resulted in vehicles of the correct type not being available on the requested dates, lost reservations, required the use of considerable labor, and required that "extra" vehicles be purchased to handle the deficiencies. It has been shown that proper resource scheduling can achieve considerable returns.

The Ceonex Vehicle Reservation System built on our experience with NAE and addresses the above issues. The savings in administrative costs has been substantial and the system is credited with allowing the district to operate with fewer vehicles than would have been otherwise required.

Bottom line: ROI of less than a year.

Features

Reservation features include

- Uses network authentication (no separate log in)
- Uses Active Directory to determine user list
- Requires Corps specific charging information – Work Item and PR&C
- Allows for “multi-hop” trips
- Calculates expected mileage for trips
- Allows for multiple vehicle types such as sedan, van, truck, suv
- If a vehicle of the requested type is not available for the duration of a trip, offers choice of types that are
- Allows “trips” to be saved for easy subsequent reuse

Administrative features include

- Complete automation of vehicle assignment
- Assigns lowest mileage available vehicle of required type first
- Single click vehicle check-out
- Enter mileage to check vehicle in
- Automated calculation of charges based on mileage and vehicle rate by type of vehicle
- Automated maintenance reminders based on mileage and interval
- Maintenance scheduling
- Allows for permanent vehicle assignment
- Vehicle disposition retains data
- Reports include pool usage percent by day of week over any desired interval and specific employee(s) usage.

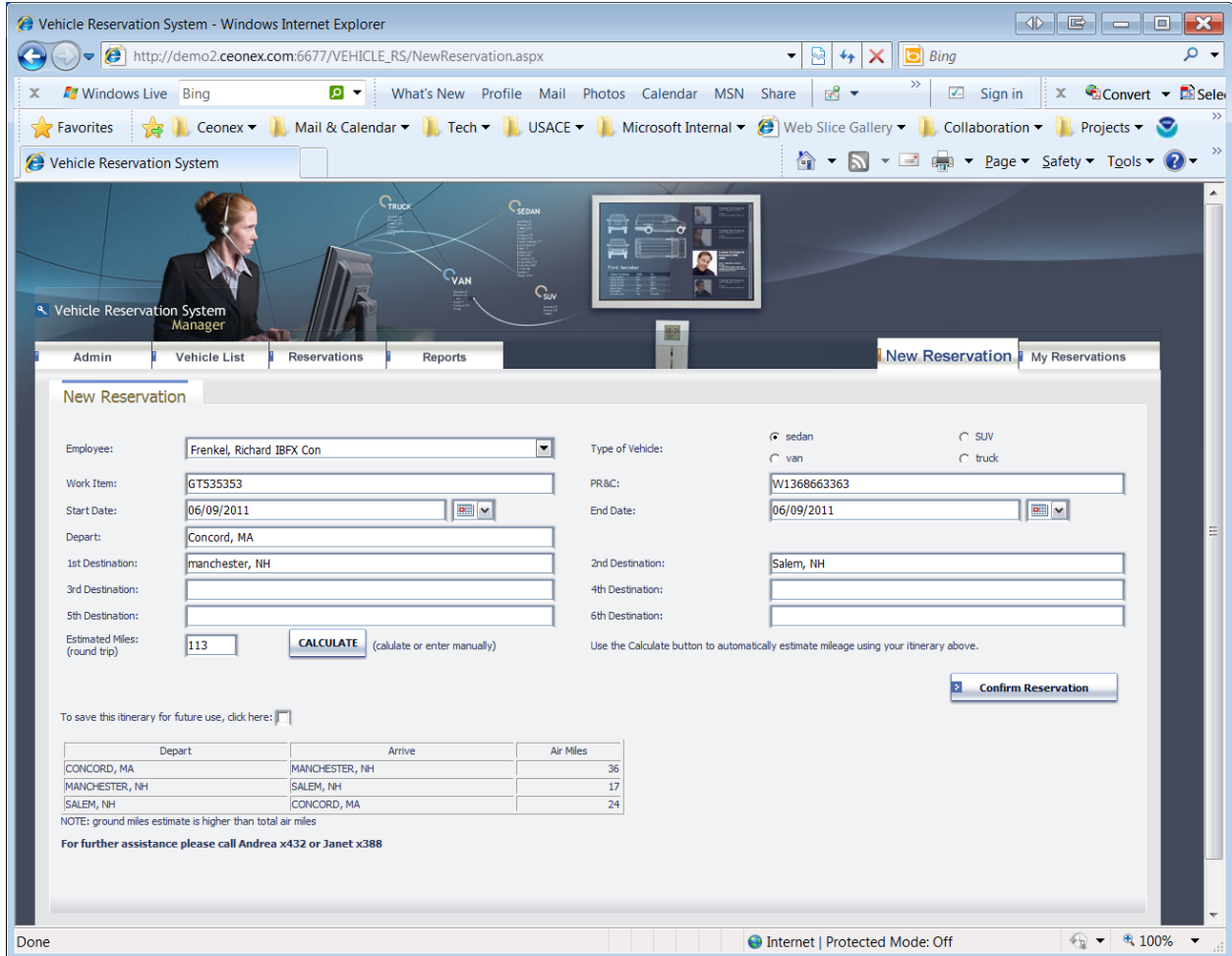
Future Enhancements

Vehicle Reservation System can be integrated with CEFMS to validate charging information. We would also expect to integrate it with FEMS for vehicle information when that system becomes operational.

Enhancement direction will be largely determined by licensee preferences.

Screens

Reservation Screen (non administrators see only the new and my reservation tabs)



Confirmation

New Reservation Acknowledgement

Reservation Confirmation

We have reserved a Van for **Richard Frenkel** for the dates **06/09/2011** through **06/09/2011**.
Your initial destination is **Manchester, NH**.

This rental will be charged to PR&C: **W13686242423423** Work Item: **GT64326326342**

Estimated mileage: **107**. Estimated cost: **0**.

Your reservation number is **7626**. Please remember to fuel up the government vehicle upon return.

Early Departures: you may pick up vehicle after 3PM the day before. If you are planning on taking a government vehicle home, please [click here](#) for more information.

Thanks!

For further assistance please call **Andrea x432** or **Janet x388**

Version: 2.0.1
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My Reservations

My Reservations

| Start Date | End Date | Destination | Res. No. | Status | Cancel | Change |
|------------|------------|----------------|----------------------|------------|--------------------------|----------------------|
| 1/22/2010 | 1/26/2010 | MAINTENANCE | 7620 | ASSIGNED | | |
| 11/23/2010 | 11/25/2010 | MAINTENANCE | 7625 | ASSIGNED | | |
| 6/9/2011 | 6/9/2011 | Manchester, NH | 7626 | UNASSIGNED | <input type="checkbox"/> | Edit |
| 6/22/2011 | 6/30/2011 | Manchester, NH | 7627 | UNASSIGNED | <input type="checkbox"/> | Edit |

My Saved Trips

Query start date: end date: show all status

| Res. No. | Veh Type | Destination 1 | Destination 2 | Days | UnSave | Sched |
|----------------------|----------|----------------|---------------|------|--------------------------|--------------------------|
| 7627 | V | Manchester, NH | none | 9 | <input type="checkbox"/> | Use this |

no saved trips yet

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Vehicle Reservation System

Product Sheet



Administrative Screens

Vehicle Reservation System Manager

Admin | Vehicle List | Reservations | Reports | Client

Rates

| Vehicle Type | Daily rate | Mile rate |
|--------------|------------|-----------|
| SEDAN | 22.0000 | 0.2500 |
| VAN | 26.0000 | 0.2700 |
| SUV | 26.0000 | 0.2700 |
| TRUCK | 26.0000 | 0.2700 |

Employees Authorized to use Manager Screens

Add
 Remove

Abair, Martha A
 Accone, Deborah E
 Accone, Scott E
 Adams, Karen K
 Adams, Michael S
 Adamsarr, Wendy ACE-IT@
 Admin 1, CBHCO

Richard Frenkel
 Timothy Maynard
 Andrea Clotz-Pittman
 Janet Brayden

Employees to Email Notify (last minute reservations)

Richard Frenkel
 Timothy Maynard
 Andrea Clotz-Pittman
 Janet Brayden

Submit Rate Changes | Submit Notification Changes

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Vehicle List

Vehicle List

| Tag | Current Odometer | Last Maint. Date | Status | Customer | Schedule Maint. |
|---------------------------|------------------|------------------|--------|--------------------|-----------------|
| G10 9153H | 14519 | 12/10/2009 | AVAIL | | DUE |
| G11 0172G | 32339 | 10/16/2009 | AVAIL | | DUE |
| G11 0180G | 26880 | 11/20/2009 | AVAIL | | DUE |
| G11 0181G | 33454 | 12/10/2009 | MAINT | | SCHEDULED |
| G11 0182G | 33170 | 3/9/2009 | AVAIL | | DUE |
| G11 3387F | 20049 | 11/19/2010 | MAINT | | SCHEDULED |
| G11 3482F | 51629 | 11/7/2009 | AVAIL | | DUE |
| G11 5894G | 31651 | 11/12/2009 | AVAIL | | DUE |
| G11 5904G | 33652 | 8/26/2009 | AVAIL | | DUE |
| G11 5922G | 33036 | 11/13/2009 | MAINT | | SCHEDULED |
| G11 5924G | 32699 | 11/10/2009 | AVAIL | | DUE |
| G11 6000G | 31976 | 8/14/2009 | AVAIL | | DUE |
| G41 1535D | 10103 | 11/14/2007 | PERM | | DUE |
| G41 4062A | 19234 | 9/22/2006 | PERM | Christopher Scabia | DUE |
| G41 4063A | 39290 | 10/16/2009 | AVAIL | | DUE |
| G41 6855D | 36029 | 11/14/2007 | PERM | | DUE |
| G62 3529E | 34424 | 7/1/2005 | PERM | | DUE |
| G63 2716D | 29186 | 10/30/2009 | AVAIL | | DUE |

Show disposed

Add Vehicle | Refresh

Vehicle Detail (includes reservation query)

Windows Live Bing | What's New Profile | Sign in | Convert | Sele

Vehicle Detail

Make: Model: VIN: Model year:
 Sedan/Van/Truck: Doors: Current odometer: Tag:
 Date in Service: Last Maintenance Date: Status:

Reservations

Query start date: end date:

| Date Out | Date In | Mileage Out | Milage In | Miles Est/Actual | Client | Work Order | PR&C |
|------------|------------|-------------|-----------|------------------|----------------------|------------|-----------------|
| 12/9/2009 | 12/10/2009 | 32786 | 33036 | 239 | Kirk Bargerhuff | 307614 | W13G8672891946 |
| 12/9/2009 | 12/10/2009 | 0 | 0 | 40 | John Perry | 74Jk77 | %144941 |
| 12/7/2009 | 12/8/2009 | 32501 | 32786 | 269 | Pamela Bradstreet | 3C232F | W1368693416022 |
| 12/4/2009 | 12/4/2009 | 32299 | 32501 | 0 | Michael Boiard | 2LGD82 | %3205097 |
| 12/1/2009 | 12/3/2009 | 31760 | 32299 | 272 | Janet Patev | 41FC84 | %215121 |
| 11/23/2009 | 11/24/2009 | 31588 | 31760 | 176 | Maureen Davi | 30H288 | W1368692781702 |
| 11/18/2009 | 11/19/2009 | 31401 | 31588 | 0 | Michael Perko | #### | #### |
| 11/13/2009 | 11/13/2009 | 31344 | 31401 | 40 | Kenneth Paton | C45C49 | W13G8691635521 |
| 11/9/2009 | 11/9/2009 | 30989 | 31344 | 372 | Adam Burnett | 000000 | W13G000000 |
| 11/6/2009 | 11/6/2009 | 30877 | 30989 | 150 | Wayne Johnson | 1F6008 | W13G8662980553 |
| 11/2/2009 | 11/4/2009 | 30657 | 30877 | 120 | Thomas Fredette | 503842 | W1368683 |
| 10/28/2009 | 10/29/2009 | 30671 | 30697 | 43 | Michael Riccio | 13D788 | W13G8673485682 |
| 10/23/2009 | 10/23/2009 | 30488 | 30671 | 197 | Christopher Hatfield | 000000 | W13686000000 |
| 10/22/2009 | 10/22/2009 | 30353 | 30488 | 0 | Richard Heidebrecht | 000000 | %000000 |
| 10/21/2009 | 10/21/2009 | 30168 | 30353 | 0 | Casey Haskell | D9461B | 000000 |
| 10/19/2009 | 10/20/2009 | 29825 | 30168 | 168 | Catherine Rogers | %000000 | %000000 |
| 10/16/2009 | 10/16/2009 | 29601 | 29825 | 0 | Thomas Davidson | 94GD05 | 000000 |
| 10/15/2009 | 10/15/2009 | 29601 | 29601 | 103 | Maureen Davi | 30H288 | W1368692781702 |
| 10/13/2009 | 10/14/2009 | 29469 | 29601 | 146 | | LGD964 | W13686111111111 |
| 10/8/2009 | 10/8/2009 | 29456 | 29469 | 20 | | 61K4K1 | 0000 |
| 10/5/2009 | 10/6/2009 | 29383 | 29456 | 67 | | RP6001 | W13G8653537923 |
| 9/23/2009 | 9/23/2009 | 29343 | 29383 | 67 | Paula Kullberg | 85294L | W1368683433139 |
| 9/22/2009 | 9/22/2009 | 29113 | 29343 | 220 | Joseph Buckley | 85294L | W1368683433139 |
| 9/21/2009 | 9/21/2009 | 28825 | 29113 | 226 | Donna Russell | 1H9630 | 767675 |
| 9/18/2009 | 9/18/2009 | 28615 | 28825 | 195 | | | |

Schedule Maintenance

Vehicle Reservation System Manager - Windows Internet Explorer

http://demo2.ceonex.com:6677/VEHICLE_RS/SchedMaint.aspx?tag_vin=2G1WB58K979398003

Schedule Maintenance

Tag:

Start Date: End Date:

override availability checks

Set Reminders

Every Miles Or Every Months

Maintenance History

| Date | Month since prior | Mileage | Mileage since prior |
|------------|-------------------|---------|---------------------|
| 11/07/2009 | 6 | 51629 | 6000 |

Next Scheduled Maintenance

05/07/2010 Or 57629 miles whichever comes first.

Next Scheduled Maintenance

Version: 2.0.1
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Reservation List (main day to day working screen)

The screenshot shows the 'Reservation' tab in the Vehicle Reservation System Manager. The interface includes a navigation menu with 'Admin', 'Vehicle List', 'Reservation', 'Reports', and 'Client'. The main area displays a table of reservations with the following data:

| No. | Date Out | Date In | First Destination | Type | Tag | Client | Beginning Mileage | Ending Mileage |
|----------------------|------------|------------|-------------------|------|-----------|---------------------|-------------------|----------------|
| 3052 | 11/6/2006 | 12/31/2009 | Various NAE Dams | V | G41 4062A | Christopher Scabia | 19234 | |
| 5131 | 3/27/2008 | 12/31/2009 | Concord, MA | S | G11 3387F | Emanuel Poindexter | 20049 | |
| 7584 | 12/10/2009 | 12/17/2009 | MAINTENANCE | S | G11 0181G | Andrea Clotz-Pitman | | Chk in |
| 7620 | 1/22/2010 | 1/26/2010 | MAINTENANCE | S | G11 5992G | Richard Frenkel | | Chk in |
| 7625 | 11/23/2010 | 11/25/2010 | MAINTENANCE | S | G11 3387F | Richard Frenkel | | Chk in |

Below the table, there are search filters for 'Query start date' (6/8/2011) and 'End date' (6/8/2011), a 'Show checked-in' checkbox, and a 'Refresh' button.

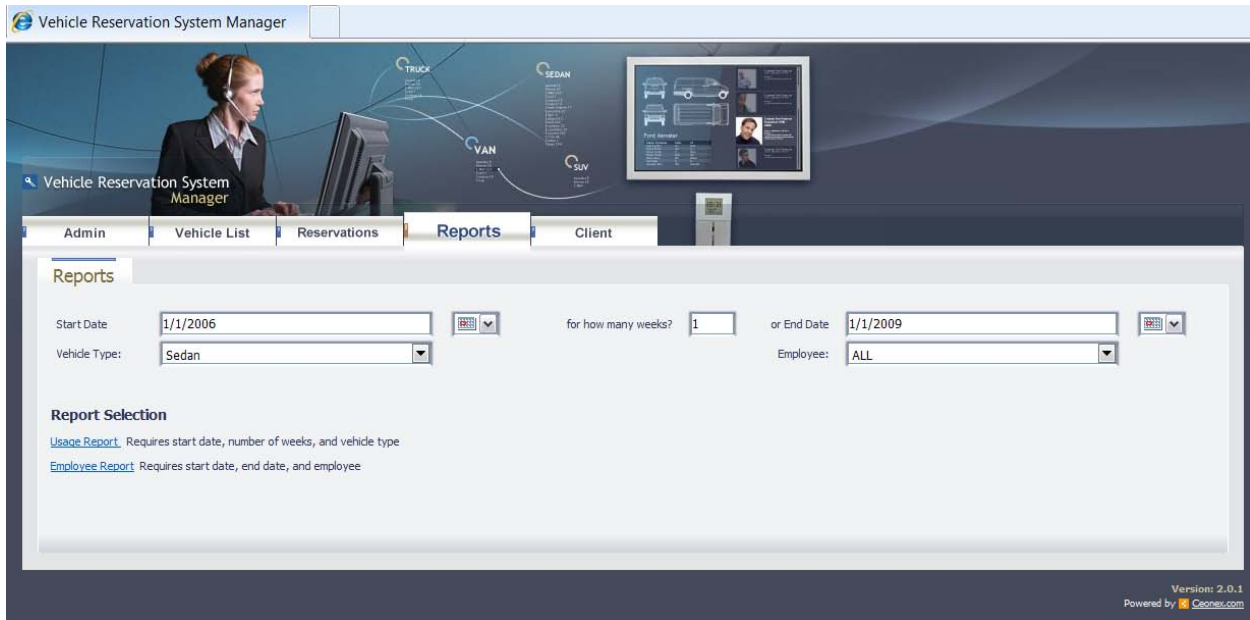
Reservation Detail

The screenshot shows the 'Reservation Detail' page for reservation number 5131. The details are as follows:

- Reservation number:** 5131
- Status:** ASSIGNED
- Reserved by:** Emanuel Poindexter
- Start date:** 3/27/2008
- End date:** 12/31/2009
- Vehicle type:** S
- Reservation type:** REG
- Estimated mileage:** 0
- Assigned tag:** G11 3387F
- Start mileage:** 20049
- End mileage:** 0
- PR&C:** W1368600000000
- Work Item:** 000000000
- Mileage charge:** 0
- Days charge:** 0
- Departure:** Concord, MA
- 1st Destination:** Concord, MA
- 2nd Destination:**
- 3rd Destination:**
- 4th Destination:**
- 5th Destination:**
- 6th Destination:**

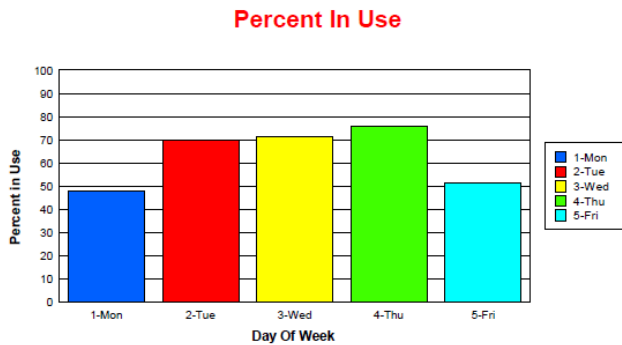
At the bottom, there are buttons for 'Change reservation status to:' (Cancel, UnAssign, ReOpen), 'Close Window', 'Print', and 'Record Changes'. The version is 2.0.1, powered by Ceonex.com.

Reports (queries are available on most screens)



Sample Usage Report

Average Sedan Usage by Day of Week from 1/1/2009 - 12/30/2009



| Day Of Week | In Use | Available Vehicles | Percent Used |
|-------------|--------|--------------------|--------------|
| 1-Mon | 5.77 | 12 | 48.08 |
| 2-Tue | 8.40 | 12 | 70.03 |
| 3-Wed | 8.54 | 12 | 71.15 |
| 4-Thu | 9.12 | 12 | 75.96 |
| 5-Fri | 6.19 | 12 | 51.60 |