



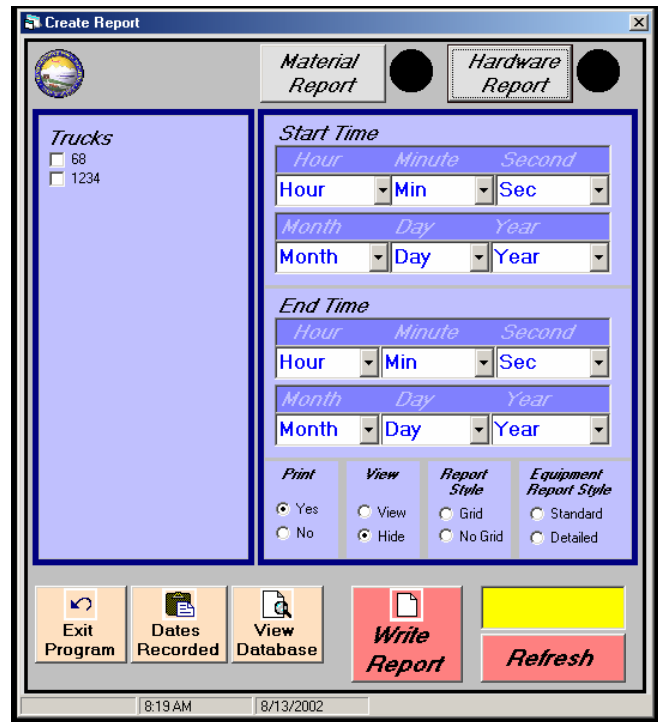
SnowOwl™ Active Vehicle Tracking

⇒ The concept of knowing “What is going on?” becomes increasingly important as service providers compete for resources, increase service areas, expand customer options, and solve budgetary constraints.

⇒ The requirement to create a **virtual picture** of system status at a given point in time from remotely collected real time data is crucial.

⇒ These systems provide valuable data points to aid managers, supervisors, and foremen; as well as provide high level data for executive staff to review when making policy, procedure, strategic, and budgetary decisions. The remote collection of data, the transmission of real-time data, and the presentation of gathered data provides the staff with a “**situational awareness**” of fleet location, driver and vehicle status, and mission progress.

The **SnowOwl™** active data collection system is an event logging and storage system for recording vehicle actions and tagging them with date, time, and location information. Events are transmitted in real-time using a wireless network to a host-end mapping & reporting application & database.



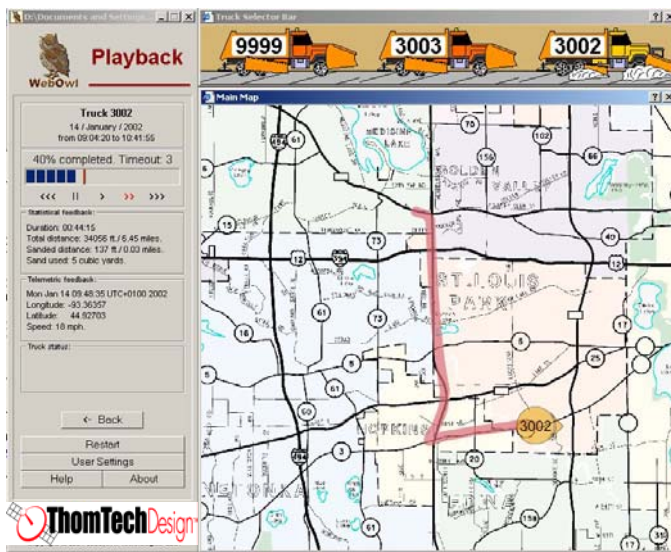
Reporting Software Example

We have the best mapping products both client/server based and web enabled designs.

Includes integration of mapping products from Microsoft MapPoint, ESRI ArcView, and Rastrac, & SnowOwl™.

Our sophisticated report generating system prepares standard and customized reports from the automatic vehicle location SnowOwl database (MS Access, SQL Server, Oracle, Foxpro, etc.

We specialize in integrating with your existing network.



Web Site Mapping Example

Event Logging:

Events are generated by several methods. The SnowOwl hardware (consists of wireless modem, GPS receiver, and mobile data terminal) seeks to record changes in vehicle activity and mark these changes (or tag them) with GPS information. An event is generated each time one of the following occurs:

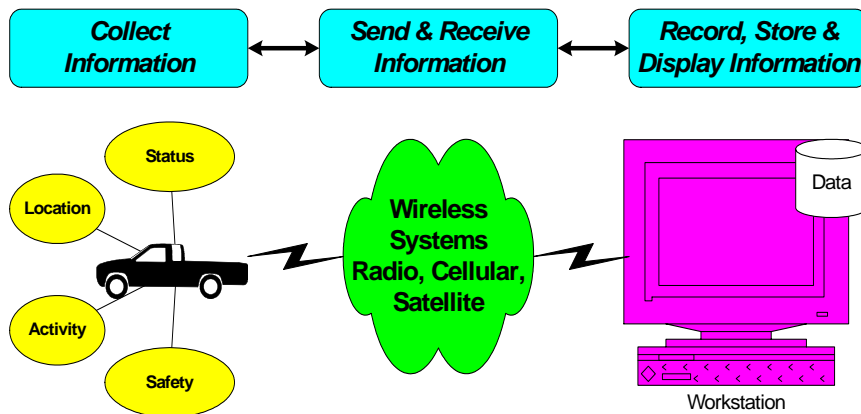
1. Salter/spreader/controller has an event, such as , blast, change rate, add prewet, etc.
2. An Input/Output changes state (e.g. engine temperature, oil pressure, door open, etc.).
3. An external data device reaches a threshold, such as temperature setting.
4. The unit travels 1000 feet or operates for 10 seconds or time and distance set by user.
5. Manual event is inputted by the operator, such as emergency button, lights on/off, etc.

Benefits:

- Optimize Fleet Operations Functions
- Customer Focused & Real-time Situational Awareness for Supervisors
- “Hands Free” data collection feeds existing management and maintenance applications
- Identify Areas where Real-time Remote Data Collection Assists Decision Making
- Employ the Routing & Database Features of GIS, Digital Mapping, Differential GPS
- Shared Dispatching Resources

Features:

- Real-time information for improved decision making
- Recorded information for after action playback and analysis
- Reduce paperwork, one write
- Allow operators to respond/send messages when it is safe or appropriate to do so
- Provides information for verification of route completion



An organized remotely collected data set reflecting:

- preventive maintenance
- operational schedule
- customer support

Is now becoming vital to providing:

- superior levels of service
- protecting operators & motorists
- achieving customer satisfaction

Three Distinct Subsystems Work Together Seamlessly

Not only do we have our own product line, but we also are resellers and offer vehicle tracking products from *Trimble, Kenwood, Manning Navcomp, Mentor Engineering, Panasonic, and Technocom*. Contact us for more information or a demonstration. Tel: (651) 482-9680.

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