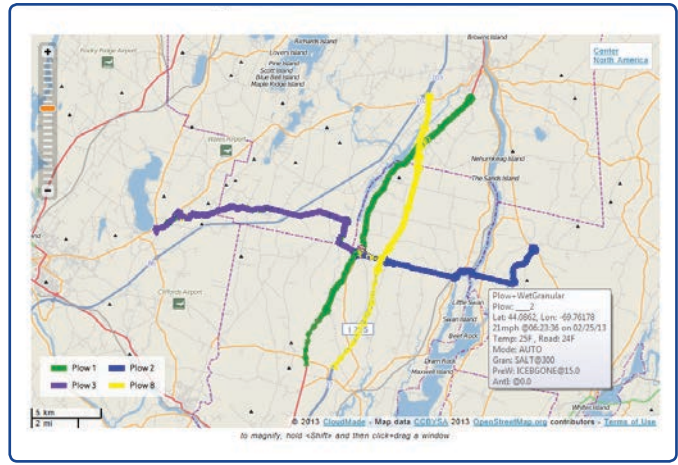




## Measure and manage your fleet's use of snow and ice removal materials and liquids

As a fleet manager, you are responsible for maintaining safe winter travels, controlling costs and protecting the environment by reducing the amount of salt applied to roadways. The GPS DataSmart™ data collection and reporting system provides accurate data, reports and maps on the amount, type and location of materials and liquids applied by individual snowplow trucks or an entire fleet. The GPS DataSmart software generates reports and maps based on the data collected and recorded by the SpreadSmart Rx™ and the XDS™ automated electronic spreader controls. Fleet managers can access accurate easy-to-use reports and maps and "raw" data on spreading activities using any computer with internet access.



Map of plow routes traveled

### REDUCE ROAD MAINTENANCE COSTS

- Salt and other materials
- Labor and fuel

### IMPROVE ROAD-CLEARING PERFORMANCE

- Provide location-specific performance enhancement (e.g., map particular locations that are difficult to keep clean and dry)
- Enable operator training and shift-to-shift performance comparisons
- Document when a vehicle was at a particular location to clear the road

### IMPROVE OPERATOR SAFETY

- Identify which operators need more training and those that are using methods that are different than planned

### IMPROVE COMMUNICATION WITH THE PUBLIC

- Map the locations of plow routes so citizens can see routes cleared and routes yet to be cleared
- Retain records of each vehicle's location, time and operating functions in the event that an accident or problem results in litigation
- Demonstrate continuing commitment to improved performance and customer satisfaction while delivering a service in a challenging environment

### WINTER ROAD MAINTENANCE DATA COLLECTED FROM VARIETY OF SOURCES

- Sensors record vehicle ground speed, plow position and air and road surface temperature
- Microprocessor-based spreader controls
- GPS-based vehicle tracking





## VIEW YOUR WINTER ROAD MAINTENANCE DATA THE WAY YOU WANT TO

### SPREADING PERFORMANCE REPORTS

- Operating mode
- Spreader utilization
- Speed and distance
- Dispensing mode
- Materials dispensed
- Warnings

### MAPS

- Plowing and spreading activities
- Sample data and all data snapshots
- Plow routes traveled
- Sites needing maintenance

### MAPPING FORMATS

- GIS (Shape File)
- Google Earth®
- Microsoft Map Point®

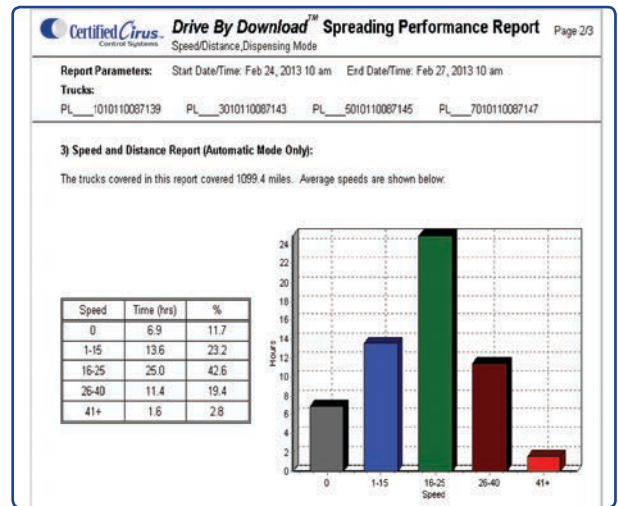
### REPORT FORMATS

- Excel
- CSV
- KML
- GPX
- Shape File (ArcView)

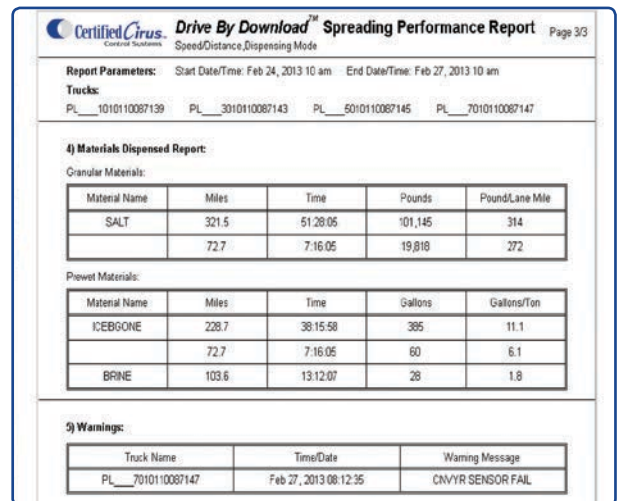
## MODIFY OR CREATE CUSTOM REPORTING FORMATS THAT MEET YOUR SPECIFIC NEEDS

## RUN YOUR WINTER ROAD MAINTENANCE REPORTS FROM ANYWHERE

- **Web-based access and control for anyone with access to your network or intranet**
  - View from district offices, fuel or material depots or headquarters
- **Web-based access and control for anyone you authorize**
  - View from any computer with Internet access
- **Master data files are secure on your server**
  - Report writing does not disturb master data files



Speed and distance report



Materials dispensed report



Minneapolis, MN  
763-493-9380

St. Louis, MO  
314-344-3300

Des Moines, IA  
515-244-7411

Chicago, IL  
847-573-3800

Toledo, OH  
419-873-7411

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