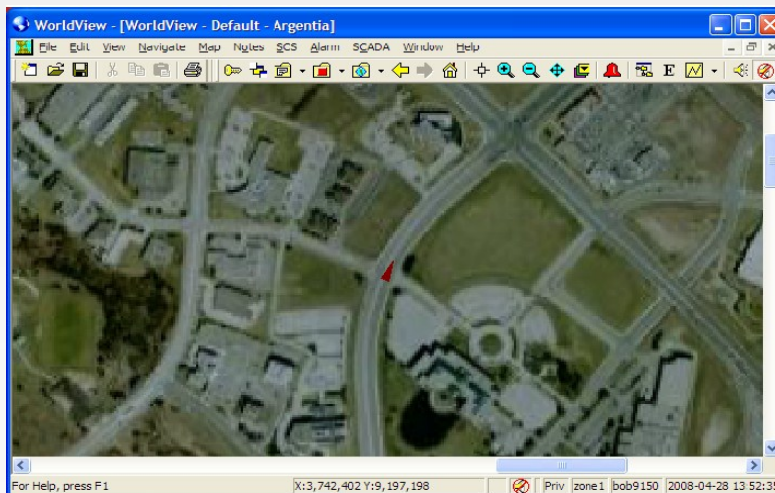


**Automatic Vehicle Location (AVL)** refers to a means of determining the location of vehicles in your fleet (or other mobile assets in your organization) and transmitting that information to the SCADA system.

This information is then held in analog and status points in the SCADA database, where it can be viewed and manipulated like any other SCADA data. In addition, special features are provided in WorldView to allow this data to be used to position mobile icon macros in your map, displaying the locations in a meaningful way to your operators. This WorldView-based user interface includes features to support the management of the mobile icons and the vehicle data they represent.



Typically, each vehicle is equipped with a tracking device that incorporates both:

- A Global Positioning System (GPS) receiver, which allows it to determine its position and motion from signals received from the constellation of GPS satellites. This device allows each vehicle to frequently fix its latitude and longitude, and to calculate its speed and heading.
- A radio transceiver for data communications. This may use the cellular telephone network, VHF or UHF radio, satellite or other methods to allow the GPS data to be collected.

There may be a stand-alone AVL "base station" in the system, gathering the vehicle data and providing tracking, management and display functions of its own. SCADA communicates with this computer over the network, keeping its vehicle database points up to date.

If no stand-alone AVL system is involved, SCADA can communicate with vehicle tracking devices directly over the TCP/IP network provided by the cellular carrier, collecting the required GPS data when updates are reported by the vehicles, or on demand by the SCADA operator.