

What is the Real Time Locator application?

Oakland County's Real Time Locator is an Internet application that allows users to spatially receive, display, and analyze real-time information transmitted from a GPS enabled mobile device. The application can track the location of a vehicle through an Automated Vehicle Locator (AVL) device or the location of personnel with GPS enabled personal device such as a cell phone.

The Real Time Locator application includes three core tools.

- Monitor and inquire real time or historic location data
- View mobile device attributes.
- Generate historic location data reports

How does it work?

A mobile device transmits location data to the centralized server. The Real Time Location application then retrieves the data from the centralized server and delivers the data to the "thin" client utilizing a web browser. The Real Time Location application uses ESRI's ArcIMS technology for data display and Crystal Reports for reporting output.

Hardware Requirements

The hardware requirements for the Real Time Locator application are as follows:

- Access to the Internet
- Minimum Screen Resolution of 1024x768

The basics of Real Time Location Application

The Real Time Location Application enables a user to browse County base map information. Base map features within the application include: tax parcel, water body, waterway, township and municipal boundaries, road centerline, railroad, and aerial photography. Some key mapping navigation tools used in browsing the County map include: Changing Map Visible Layers, Zoom In/ Zoom Out, and Measuring Distances between points. For areas identified on the map, the system enables the user to view information about the mapped features.

In order to monitor real time or historic location data, a user must select the device according to group name or individual device name. After selecting the mobile device, the map is then refreshed to include the device location. The device movement is categorized by color (red, green, or yellow) and an arrow represents the direction of travel from the last reported position. Additional tools have been developed to assist users in selecting individual devices, device tracking and status inquiry.

Users may also generate reports from historic location data within the Real Time Location Application. These reports include: Stop Log, Department by Day,

Employee/Device by Date Range. The Stop Log Report delineates the stop date, start/stop time, duration and the latitude/longitude location for individual devices. The other reports detail GPS information collected by hour and show the maximum speed by device/employee for each day.

Who is using?

Oakland County's Real Time Locator application is being used by the Oakland County Water Resources Commissioner's Office and Waterford Township Public Works.

How can an organization get it?

If an organization is interested in implementing the Real Time Locator application, please contact Oakland County IT.

In order to implement Oakland County's Real Time Locator application within an organization; the purchase of a GPS enabled mobile device is required. A mobile device can include Automated Vehicle Locator (AVL) devices or GPS enabled personal devices such as cell phones. Please contact Oakland County IT in order to obtain a list compatible device. The organization must also select a cellular phone provider to transmit the location data to the centralized server.

The cost to setup a new vehicle is about \$650. This cost includes a vehicle AVL device, AVL antenna, vendor configuration, and typical OC Garage installation. The only ongoing cost associated is the monthly cellular charges which are about \$15 per month.