January 28, 2008

Location Configuration Correction
in SunGuide 3.0.3

Due to a misunderstanding and/or miscommunication, a second, incorrect SunGuide 3.x location configuration method has emerged which yields unpredictable results.

Locations in SunGuide are entered as sub-records of a specified Reference Point on a specified Roadway in a specified County, going in a specified Direction. You'll notice that the SunGuide Administrative Editor asks you to choose all of those things (County, Roadway, Direction and Reference Point) before entering a Location's information.

Locations and Reference Points both have Sort Order properties. How these are used has led to the confusion.

Incorrect Configuration

Fig. 1 – Incorrect Location configuration.

In the incorrect configuration, the Sort Order property of Reference Points dictated what order those Reference Points appeared in. Within a specific Reference Point (in a specified County, on a specified Roadway, in a specified Direction), the Sort Order property of the Locations dictated what order the Locations appeared in. (See *Fig. 1*)

This creates two major issues: first, in the event that a Reference Point (for example, a Cross-Street) crosses two Roadways, that Reference Point can only have one Sort Order value, creating sorting conflicts over those two Roadways that can be difficult or impossible to reconcile without creating Reference Points specific to Roadways. Second, if the same Cross-Street crosses a roadway at two distant points, two different Reference Points would have to be created to represent that Cross-Street. All this duplication of Reference Points would make Performance Measures involving a specific Cross-Street much less valuable, as multiple Reference Points would have to be grouped together to represent what is in reality just one Cross-Street.

Correct Configuration

Fig. 2 – Correct Location configuration.

To avoid these issues, the following methodology has been adopted: the Sort Order property of Reference Points is for SunGuide Administrative Editor use only. The Sort Order property of Locations determines how their parent-record Reference Points will be ordered in the GUI. To clarify: for a given County, Roadway and Direction, all Locations that match those criteria are considered. They are then sorted according to their Sort Order, and each Location's Reference Point is in turn added to a list. When the Reference Point is unchanged from one Location in the list to the next, the latter Reference Point is discarded. And what we end up with is a list of (not-necessarily-unique) Reference Points, sorted by Location Sort Order. (See *Fig. 2*)

In this way, Reference Points on multiple Roadways will not have to worry about sorting conflicts, because their associated Locations (which are unique to a County/Roadway/ Direction combination) will determine their sequence. And in the case of a Cross-Street crossing a Roadway at two distant points, it will appear twice in the list because of the Sort Order property of its Locations.

We apologize for any inconvenience this misunderstanding and/or miscommunication may have caused. Please also note that Locations should now be given Sort Orders from beginning to end of a Roadway in whatever direction they are attached. Formerly, Sort Orders were always ascending, North to South and West to East. That is no longer the case.