

## More Information Regarding Point of Service, *the missing link*

---

JCMB delivers the customer-to-transformer link information for a major American electric utility.

As with any Outage Management System implementation, the customer-to-transformer link represents *system-critical* information.

JCMB *automatically* connected 894,000 of a total of 1.2 million customers to their respective transformers using advanced data analysis algorithms — *without manual intervention!*

An Outage Management System (OMS) is only as effective as the integrity of its data. JCMB believes that an accurate customer-to-transformer link is a pre-requisite to deploying an effective OMS. By including customer information as part of the Electric Distribution Network Model, the OMS and the Customer Information System (CIS) have a reliable reference in which to manage customer connection changes.

JCMB has developed several approaches to creating or validating customer-to-transformer relationships depending on the Utility's available source data.

In one instance, legacy OMS customer data, pole information, CIS data and proximity algorithms were used to generate links and provide a confidence index.

In another instance, landbase parcel numbers, CIS data, and proximity algorithms were employed (see figure 1 below). In the most severe case, a manual production process was used to generate customer-to-transformer links by creating a secondary network from GIS source data. Figure 1 illustrates the color-coded results of several link algorithms. The yellow circles indicate where the algorithms were applied and appear for analysis purposes only.

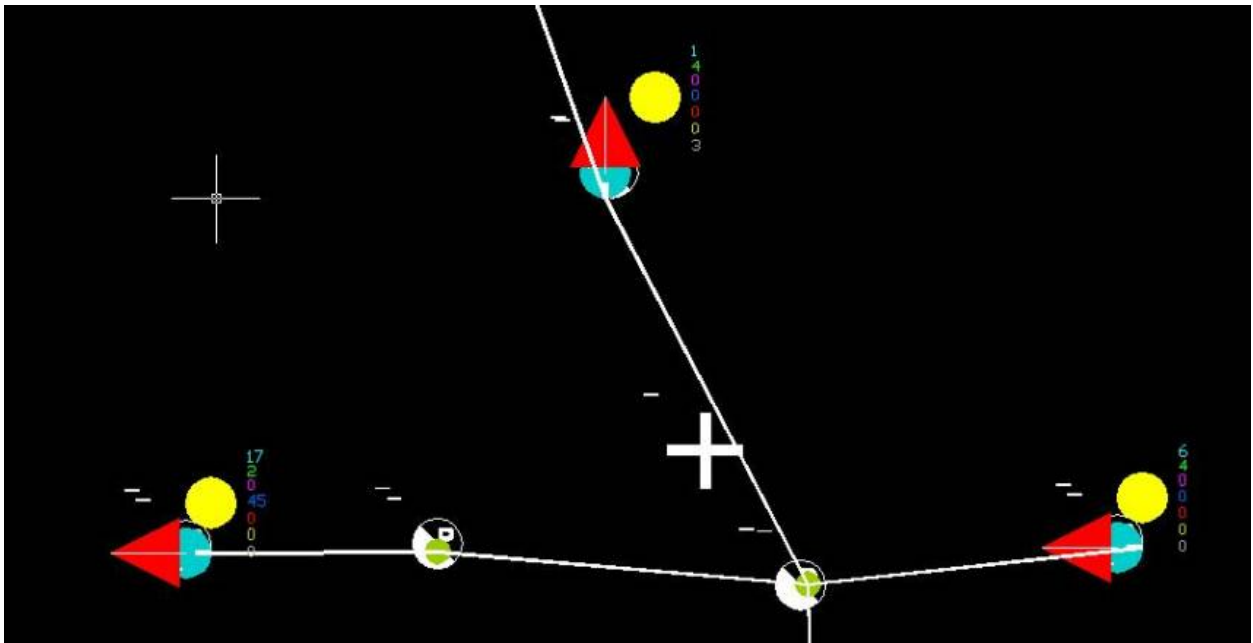


Figure 1. Color-coded results from customer-to-transformer algorithms appear for network analysis.

The following diagram illustrates a sample algorithm that may be used to automatically define links between customers and their respective transformers.

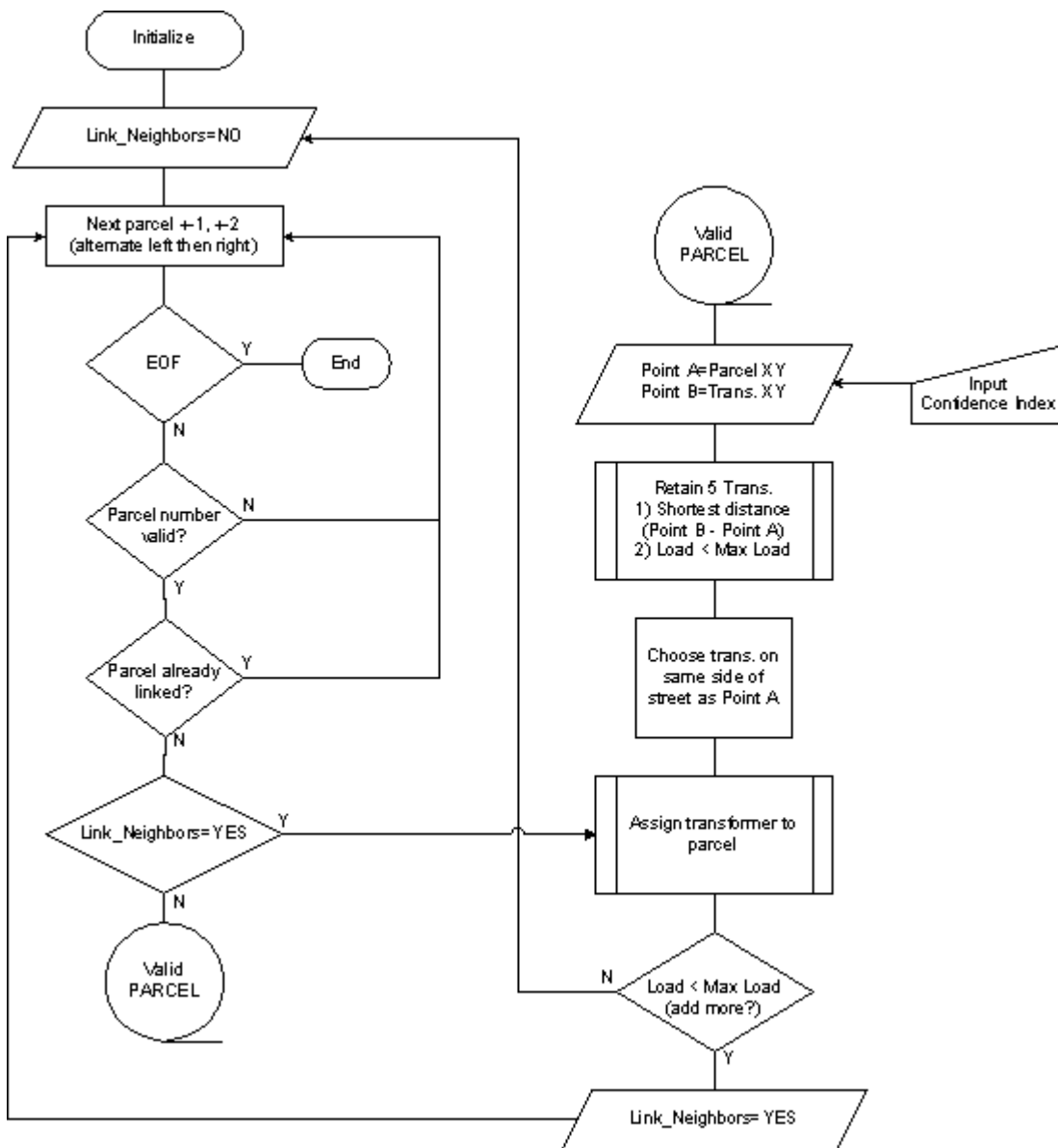


Figure 2. A customer-to-transformer algorithm flowchart with confidence indexing.

In all cases, the Point of Service application developed by JCMB was used to validate and correct the links after the automated process.

JCMB's network viewing applications (illustrated below) can be used to graphically illustrate the customer-to-transformer tabular data.

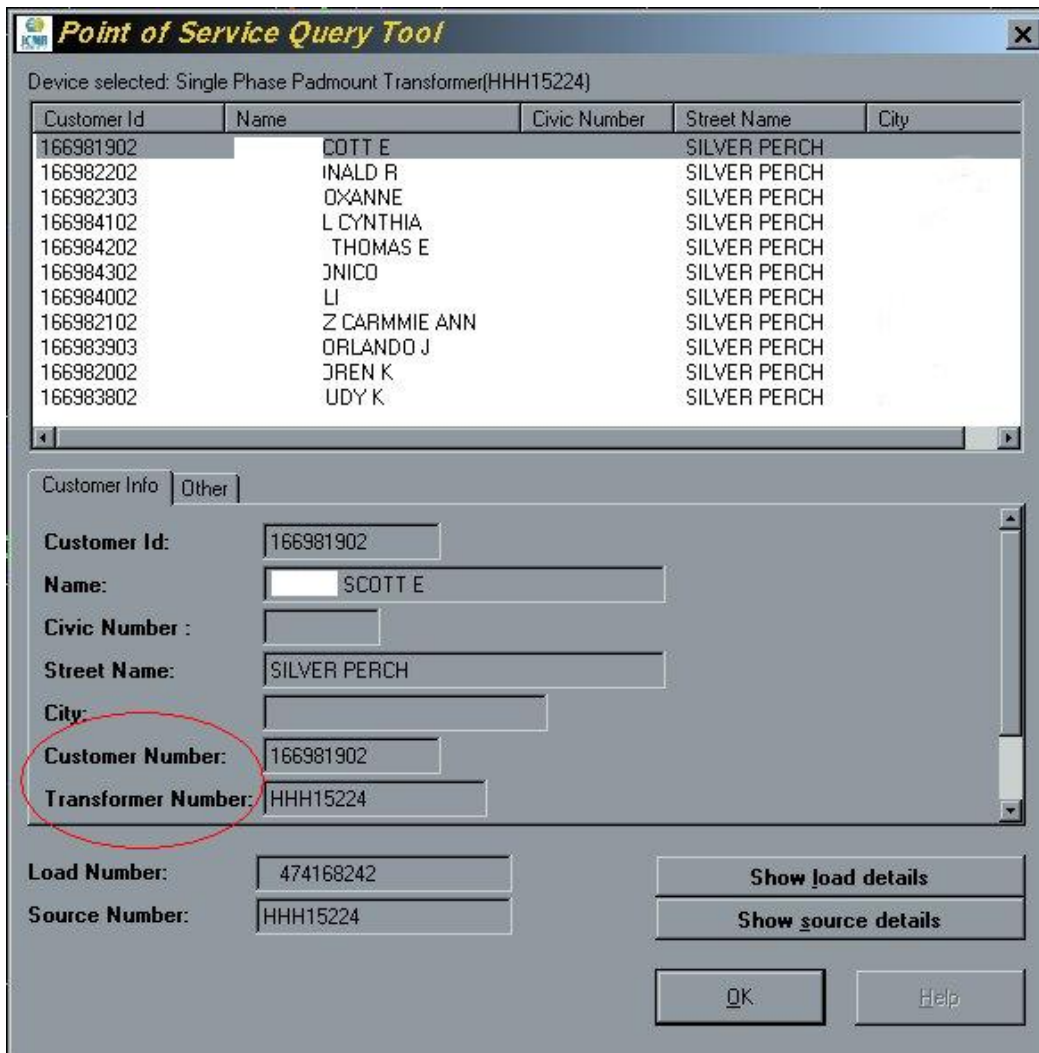


Figure 3. Point of Service query tool, featuring customer and transformer numbers (circled in red).

This user-friendly method of maintaining the customer-to-transformer information ensures that all dependent applications, including the OMS and CIS, have direct access to accurate and up-to-the-minute customer information at all times.

JCMB is prepared to receive, analyze and explore how we can improve your customer-to-transformer information. Please contact Frank Fata directly for more information.

Frank Fata, P.E.  
 Project Engineer  
 JCMB Technology Inc.  
[frank.fata@jcmb.com](mailto:frank.fata@jcmb.com)  
 514-745-7776