



Case Study: BC Hydro



Key Facts:

Industry: Utilities

Problem: Integrating and migrating data from multiple formats into GE Smallworld GIS

Solution: FME

Location: British Columbia, Canada

The Organization

BC Hydro is the predominant supplier of electrical services in the province of British Columbia serving more than 1.5 million customers. BC Hydro is currently implementing an Enterprise Geographic Information System (EGIS) based on the GE Smallworld GIS. The organization also uses MicroStation. Both GE Smallworld GIS and MicroStation run on Windows NT.

The Challenge

Contractors provide data in MicroStation DGN format. After verification and validation procedures have been performed, the data needs to be merged with provincial maps that are in SAIF (Spatial Archive and Interchange Format). Ultimately, all this data needs to be imported into the GE Smallworld GIS.

The complexity of the BC Hydro EGIS data model (over 230 feature types from the As-constructed Mapping compilation), and the large number of feature types that are imported from the GDBC TRIM data (over 300 additional feature types) created a key problem to be resolved. All these features had to be available in MicroStation Design, Carl-Ziess Phocus Phodat and GE Smallworld formats.

The Solution

BC Hydro chose FME® as a one-stop solution for data verification, data translation, data merging, and the data import into GE Smallworld GIS. View a data flow diagram of the solution. Please refer to Figure 1:

Data Verification: FME validates mapping specifications. This process ensures all contractors' data meets the BC Hydro Specifications for Data Capture. FME reads the MicroStation Design files supplied by the photogrammetric contractor, checks that all features match the BC Hydro EGIS

As-Constructed Mapping Program specification, and then writes out a new DGN file. Any features that do not meet the design specification are saved on DGN Level 63 and a report is generated (see Figure 2 on next page) indicating where the error occurred. To save time, some contractors run FME themselves to check their photogrammetric compilation work prior to submission to BC Hydro.

Figure 1:



