

Creation of GIS Database of Field Surveyed Electrical Network

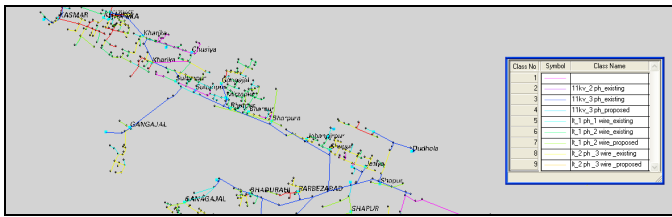


Figure1. Map showing Feeder-wise Electrical Network

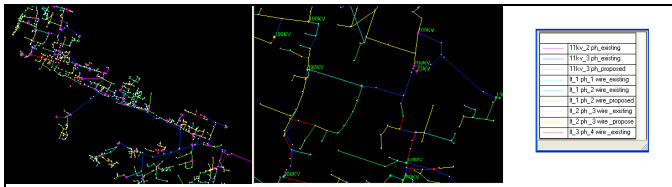


Figure2. Map showing Feeder-wise Electrical Network

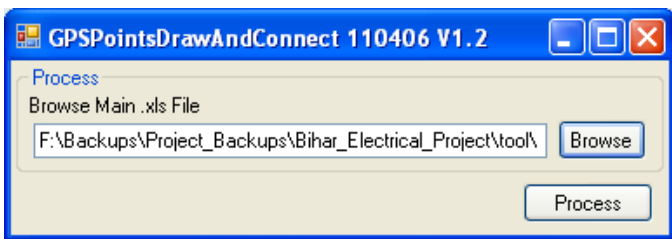


Figure3. Tool Developed for Automatic Drawing of Field Survey Data

S.No.	GPS.No.	X_Value	Y_Value	Current GPS	Village Name	Tolla	District	DTR Existing	DTR Proposed	Remarks
1	150	84.9549	25.9453	150	Dharlahi Kethar	Petniya tola	Saran		63 KV	1808500
2	164	84.9600	25.9444	164	Chapra Aviman	Rajjee tola	Saran		63 KV	Okil Rai-
3	175	84.9618	25.9393	175	Dhorlani Kethar		Saran	16 KV		
4	184	84.9598	25.9378	184	Dhorlani Kethar	Janta Bazar	Saran	16 KV	100 KV	16 kv
5	209	84.9580	25.9341	209	Dorlahi aviman		Saran	100 KV		
6	227	84.9651	25.9382	227	Aviman Darlahi		Saran	16 KV		
7	231	84.9609	25.9298	231	Aviman Darlahi		Saran	16 KV		
8	241	84.9612	25.9360	241	Darlahi Kaitther		Saran		63 KV	Sanjay

Figure4. DTR Attribute attached

Sub-District Code	Village Code 2001	NAME OF STATE, DISTRICTS, SUB-DISTTS. & VILLAGES	CD BLOCK CODE	CD BLOCK NAME	Village Code 1991	Remarks
0010	01494500	Kararia	0010	Gopalganj	110070007000700041	
0010	01494600	Hariharpur	0010	Gopalganj	110070007000700042	
0014	01523600	Shafabad	0014	Baikunthpur	110100010001000294	Jadgisipur
0014	01527900	Baikunthpur	0014	Baikunthpur	110100010001000336	Jadgisipur
0014	01523800	Bistaul	0014	Baikunthpur	110100010001000296	Jadgisipur
0014	01523300	Chamanpura	0014	Baikunthpur	110100010001000291	Jadgisipur
0014	01523700	Dharambari	0014	Baikunthpur	110100010001000295	Jadgisipur
0014	01528300	Sirsa	0014	Baikunthpur	110100010001000340	Jadgisipur
0014	01523200	Sisai	0014	Baikunthpur	110100010001000290	Jadgisipur
0014	01525800	Jadgisipur	0014	Baikunthpur	110100010001000316	Jadgisipur
0014	01523400	Hardia	0014	Baikunthpur	110100010001000292	Jadgisipur
0014	01523500	Mangru Chhapra	0014	Baikunthpur	110100010001000293	Jadgisipur

Figure5. Census Data attached

Business Need:

The client of ours is engaged in a project for the development of GIS database of Electrical Network. The need was also to appropriately show the different categories of wire types in the study area and their corresponding length in each village. The business need was to

- i) Create Feeder wise Electrical Network Map
- ii) Create related geo-database

Area Covered:

The study area encompassed around 56 feeders in two districts of Bihar states i.e. Saran district and Gopalganj district.

Inputs Used:

- i) GPS aided Field Survey Data
- ii) Hand drawn 'Field Maps'
- iii) Mauza Map

Business Solution:

Mauza maps were scanned and geo-referenced with respect to the available taluk map/district map. They were further digitized to create the base map.

GPS aided field survey was carried out and the data were collected in pre-defined format. During the data collection in the field, as built map were also created in the field.

A tool was developed in VB, to automatically plot and connect the Field data, which was collected in a predefined format in excel sheet.

The data excel sheet was imported using tool to create Electrical Network map.

Further spatial analysis was carried out in GIS environment to calculate length of different wire types within each village.

May layouts were created for printing purpose.

Project Shipment:

The following shipments were made-

- i) Feeder wise map
 - a. CAD format
 - b. Shape file format
- ii) Map Layout in PDF format