

GIS for Water Utilities (Case Study)



Client: Confidential (Non-Disclosure)

Location: GCC (One of the Government Water Authorities)

Purpose of the Project:

With aging infrastructure, growing regulatory requirements, and ongoing security concerns, water utilities face increasingly difficult challenges. **Microcenter** is a full service information technology company with the knowledge, experience, and commitment to provide such clients with total infrastructure services and solutions using state-of-the-art business and quality processes.

GIS provides with an efficient platform for the data management planning and analysis, workforce automation, and situational awareness. Utility companies can leverage these capabilities since it can integrate GIS with the existing information technology infrastructure. Microcenter recognizes the problems faced by GIS Professions in the Water utility industry.

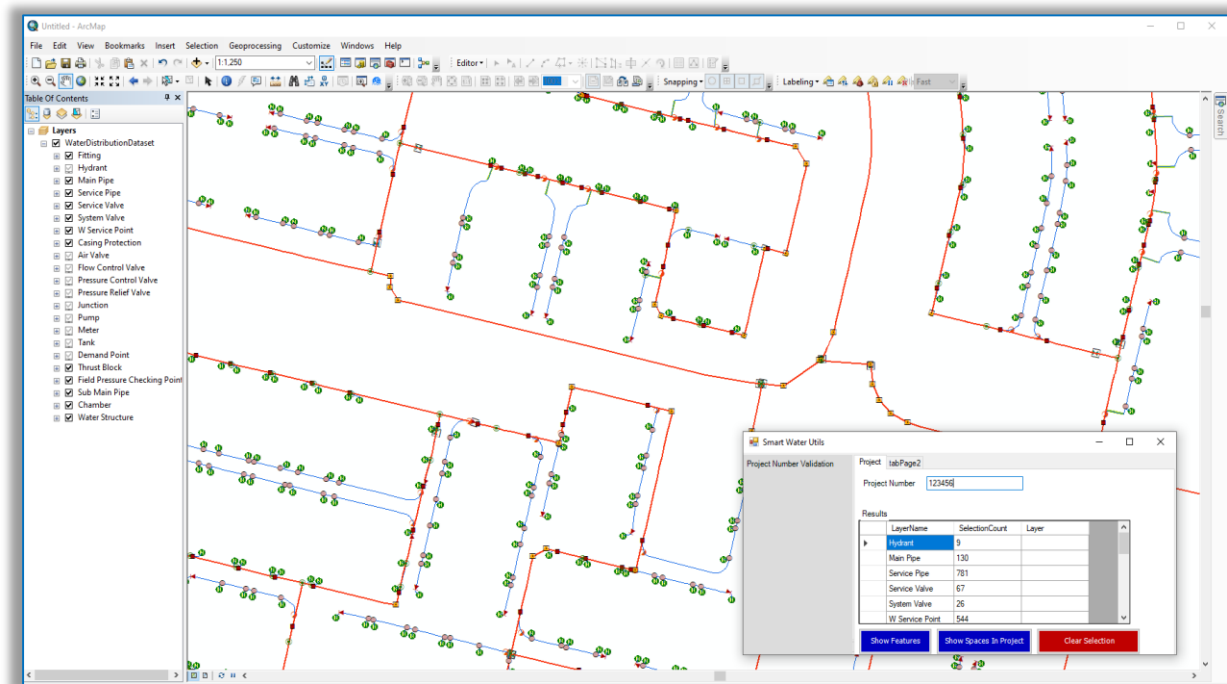
The Water Utility assets are mapped with the high accuracy GPS at the time of installation and As-built information of the field utilities are updated in the enterprise GIS system as soon as construction is over.

Project Inputs: Planning Drawings(CAD), GIS Data Model Schema

Software: ESRI ArcGIS Desktop 10.8, AutoCAD 2020

Deliverables: Geodatabase format.

Project Screen flow:



Business Definition

Microcenter is experienced in handling Water Utility Survey and GIS data Conversion Mapping projects involving field data collection and enterprise GIS database creation. We are equipped with skilled resources to carry out high accuracy field data collection, field inventory of Water utility network with attributes.

Our experience ranges from relatively simple geospatial data enhancement projects to enterprise system implementations for GIS water utility mapping and field survey service provider. No matter the size, Microcenter's staff stand ready to support Government, IT, geospatial, and engineering support needs.

Microcenter team has specialized and Our team assisted Utility companies in converting the hard copy maps, As-built drawings and the associated attribute information and developing Utility distribution mapping system.

Microcenter has ability develop custom tools in ArcGIS API for Python, ArcObjects. Designing Data Model schema and Data Migration for the Modern Utility industry business needs.

Microcenter Technology Expertise

- ESRI for Utility Data Conversion (Electric, Water, Gas)
- GIS Data Modelling, Geodatabase Design & Migration
- Spatial Data Infrastructure (SDI)
- Pipeline- As-Built, DB update, Legacy data systems
- Autodesk- CAD/ESRI GIS Migration, MicroStation (Bentley)

- GIS Transportation – Traffic Analysis, Road data Networking & Digitization
- GIS for Telecom, Broadband Mapping, AM/FM
- GIS Land Base Management, Parcel Mapping & GIS Data conversion
- GIS for Urban Planning- Web-based 3D application, Building information modelling (BIM)

- Filed Survey & Inventory
- LiDAR Mapping

- AWS Cloud Migration
- AI & Machine Learning, IoT and Data Analytics

- ESRI- ArcGIS Desktop, ArcGIS Pro
- ESRI ArcGIS Online & Portal Development
- ESRI ArcGIS Enterprise Solutions
- ArcGIS Server Application development
- Microsoft.Net/ Web Technology and Software Development
- GIS Customized Desktop Application Development- ArcGIS Engine, ArcObjects
- ArcGIS for Python .

- Autodesk & ESRI Software Training

MicroCenter Group

Founded in 1983, MicroCenter Group is a pioneer in providing information technology solutions in Bahrain. Initially it was started with the aim of providing customized IT solutions to small and medium organizations but today with over 100 customers, both in the Government and private sector it has attained a leadership position in the industry within the country. With four group companies and an office in Saudi Arabia, today it has diversified into various other businesses that include training and engineering solutions.

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