

Smart Information for a Sustainable World



Telvent Energy Conduit Manager

Underground Facility Management Tool

Utilities must have the ability to effectively manage underground conduit systems. Business functions such as duct leases, duct space joint use, call-before-you-dig, and cable placements are important revenue generating activities that require accurate supporting information. A large number of utilities are documenting their underground conduit assets with file-based technology. They're using information in several formats—CAD drawings, spreadsheets, Visio diagrams—spread out across their enterprise to inform critical decisions about their network. Or worse, they're relying on human memory, and all that vital information about their network and assets will walk out the door when those valued employees leave. Utilities need an advanced system to document, plan, design, analyze and maintain their underground conduit systems.

With this in mind, Telvent has developed Conduit Manager (CM) as an extension to the ArcFM™ Solution to support underground facilities management. Conduit Manager is an integrated set of tools to document, plan, design, analyze and maintain the underground conduit system of a utility network. Conduit Manager provides tools to define an underground conduit system with duct banks, trenches, sub-ducts, cross-sections,

underground cables, and underground access structures. Internals of underground structures such as manholes and vaults are also fully supported. Once the underground system is built, users can leverage the tracing queries to determine duct availability based on various criteria.

Conduit Manager Advantages:

Conduit Manager allows you to leverage your existing ArcFM data. You can take any existing data managed by the ArcFM Geodatabase and associate it to ducts managed by CM. This includes electric conductors, communications cables, fiber optic cables, etc. Annotation of the map is automatically managed by ArcFM and CM business rules and Auto Updaters. As an extension of the ArcFM Solution™ Enterprise GIS, Conduit Manager is built on the same proven enterprise architecture and tools of Telvent's ArcFM™ Solution. This provides a user-friendly, GIS-based environment to document, plan, design, analyze and maintain underground conduit systems. This information can be easily accessed across multiple departments within an organization:

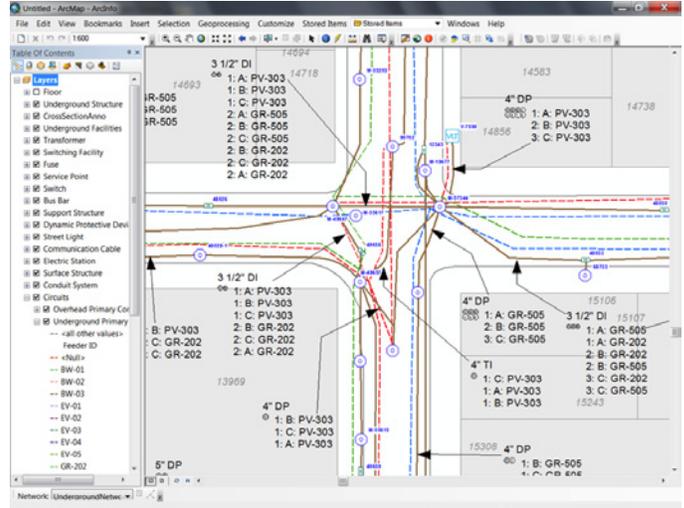
- Intuitive GUI
- Easy-to-use
- Simplifies underground facility management and reporting
- Cost-effective

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Users can perform the following functions with Conduit Manager:

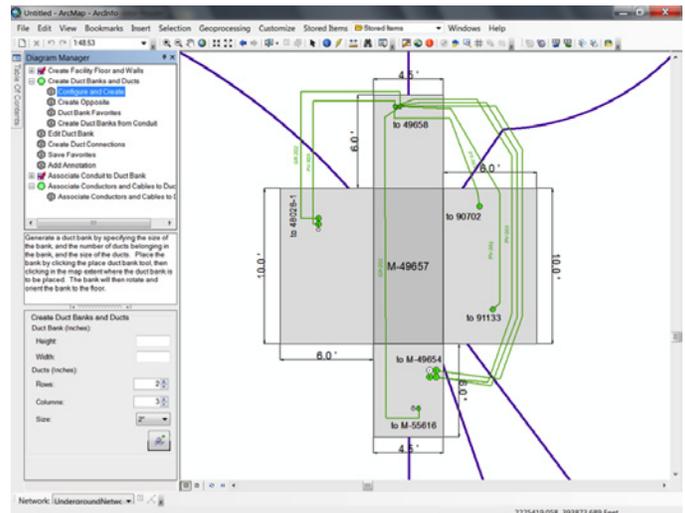
- Define duct bank configurations including sub-ducts and circular or rectangular ducts
- Create conduit system network connectivity
- Manage duct availability and leasing information
- Associate underground conductors, fiber optic cables, etc. to duct positions
- Add cross-section annotation of the duct bank to the map
- Create internal views of a manholes and vaults – butterfly diagrams
- Navigate between manholes and vaults automatically
- Set duct query criteria and perform duct availability traces
- Query and report Conduit Manager ducts based on criteria such as availability, size, material, occupancy, etc.



Above: Conduit Manager map annotation.

Conduit Manager Benefits:

- Integrated system to document, plan, design and maintain the underground conduit system
- Centralized data storage for easy dissemination to other enterprise users
- Underground conduit system data is accurate and up to date
- Annotation and manhole diagrams are automatically updated as data changes
- Create revenue for accurate tracking of leased ducts, use the tracing queries to determine duct availability for new leases
- Leverage your existing ArcFM data - electric conductors, communications cables, fiber optic cables



Above: Butterfly diagram with Diagram Manager creation framework.

Built on a sound foundation.

Conduit Manager is an extension of Telvent's ArcFM GIS, which is based on the ESRI ArcGIS® platform. ArcFM provides a graphical, data-rich environment that displays the information utilities need for maximum reliability and efficiency. Developed as a complete enterprise solution for an entire organization, ArcFM offers a map-centric, intuitive way to model, design, maintain and manage

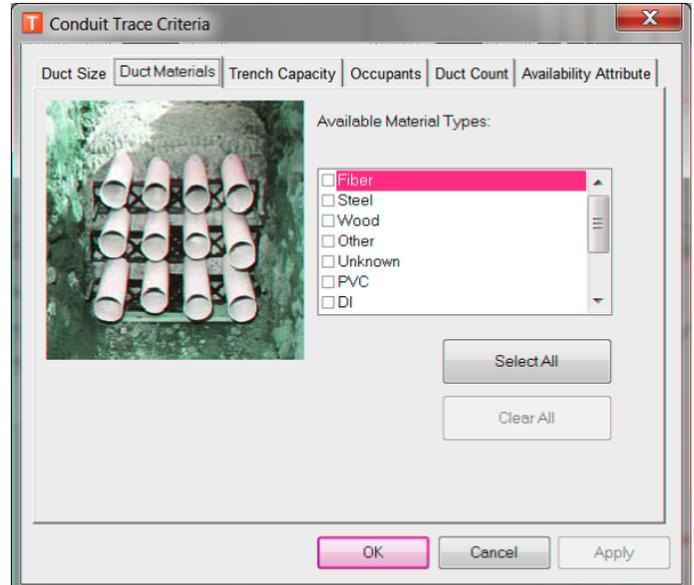
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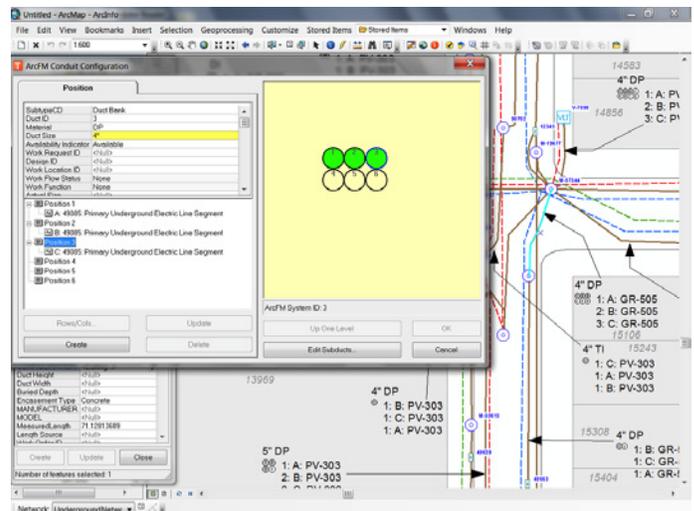
facility and land base information. That's why hundreds of utilities worldwide have adopted ArcFM for their design and asset management technology. Now with Conduit Manager, utilities have a single integrated advanced system to document, plan, design, analyze and maintain their underground conduit systems. Your underground conduit network is too important to manage with an outdated, cumbersome file-based system. So why not transition to an advanced solution that seamlessly organizes and analyzes the volume of data produced by your network? That's Conduit Manager from Telvent.

Take another step closer to the Smart Grid.

Conduit Manager from Telvent is just one component in our Smart Grid Solutions Suite, a comprehensive toolset created to help energy providers efficiently plan, design and reliably operate the grid. With capabilities that include data collection and monitoring, grid analytics, rules-based economic decision-making tools and the ability to integrate with traditional business software, the Telvent Smart Grid Solutions Suite can help every utility transition into a next generation energy provider.



Above: Conduit Manager trace criteria.



Above: Conduit Manager duct configuration.



Our evolution to Schneider Electric, the global specialist in energy management, re-affirms our commitment to provide you with innovative solutions, best-in-class customer service, and exceptional quality in everything we do. We are proud to be your partner, and we are dedicated to helping you make the most of your energy.

www.telvent.com/smartgrid 1.866.537.1091

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