FREQUENTLY ASKED QUESTIONS

Smart. Simple. Secure.

WHY FUZIONVIEW?

Why would anyone want to use FuzionView?

FuzionView is a unique opportunity to see all underground infrastructure of the participating utilities in a dig-site using security protocols that protect proprietary data.

- **Design Engineers:** Quickly gain understanding of buried infrastructure locations which could substantially impact their plans
- **Locators:** Efficiently know where to find their respective infrastructure while avoiding confusion with other buried systems
- **Excavators:** Effectively can perform a safety check on visual markings – no more hoping everything was marked correctly

How much does FuzionView cost?

FuzionView is an open-source product that was developed using community funding. There is no cost to use the software when submitting a ticket or when an 811 center installs it as part of their system.

Is facility operator data safe in FuzionView?

FuzionView is only available to authorized users that have been granted access by the 811 system operator. The Security Overview fact sheet provides information on extensive data protections that have been built into FuzionView.

Will FuzionView deliver any $ savings?

We won't know for sure until FuzionView is fully implemented, but a similar project in the UK, the National Underground Asset Register (NUAR), has projected annual efficiency gains and cost savings of $7.5 billion once fully operational in late 2025. While these figures are specific to the UK and based on projections, similar results are anticipated as FuzionView adoption increases.

Who built FuzionView?

FuzionView's development was championed by a vendor neutral team of more than 30 industry and government 30 experts known as the Underground Utilities Mapping Project Team (UUMPT). Based on their recommendations, Gopher State One Call hired Minnesota geospatial nonprofit SharedGeo to create FuzionView.

DATA PROVIDERS

How does data get into FuzionView?

Data comes from facility operators, municipalities, and other data providers who own or manage underground infrastructure and have agreed to make their data visible in FuzionView.

Does becoming a data provider take long?

It's really up to the organization. Once an organization has moved through the onboarding process (see the applicable fact sheets), it takes only a few minutes to get configured as a new data provider.

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DATA PROVIDERS

Does FuzionView require data provider support?

During onboarding, the 811 center will ask the facility operator to designate a single point of contact who has GIS and/or CAD expertise. After that, gaining access and setting system configuration is simple and quick. And, once FuzionView is connected, there is no need for additional support unless the facility operator makes configuration changes to the data being provided (files renamed or similar).

CONNECTION & INTEGRATION

How is data made available in FuzionView?

The preferred connection method is via a WFS web service. FuzionView can also support an ESRI Feature web service. Other options may be available dependent on the 811 center's capabilities.

Is there a need to change our data to display it in FuzionView?

No. FuzionView is designed to connect to almost any data source and uses simple SQL statements to perform any transformations required.

What coordinate systems does FuzionView support?

By default, the FuzionView engine stores everything as EPSG: 6344, but it can support any coordinate system included on this list: https://spatialreference.org/ref/epsg

DATA SCHEMA & CONFIGURATION

Are all the fields in the schema mandatory?

No. Four fields are required; the others are optional. If the data is available and provided, it will be displayed.

What if depth is not stored in our data?

No problem. "DEPTH" is an optional field.

What about GPS points that store the accuracy & depth? For example, when a mainline changes depths throughout, one depth per feature is not an accurate depth for the entire line.

The preferred method is to categorize by feature type. The underlying data model supports storing X,Y, and Z. Additionally, it may be possible to convert data in this circumstance as there is flexibility in FuzionView's underlying tools (check out documentation at PROJ (https://proj.org/en/latest/). Also, the 811 center may have additional options for this data.

Should abandon_mainline & mainline be combined, or should they be left separate?

They can be combined or separated. All features will be grouped by the FuzionView engine based on their APWA FEATURE_CLASS color coded infrastructure type. Ideally they would be combined into one feature category as long as the STATUS was correctly identified as abandoned or active.

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DATA SCHEMA & CONFIGURATION

Does Provider ID need unique naming or numbering?

It only needs to be unique within each dataset.

Should the fields have a text/number classification & is there a standard length?

Data elements can be alphanumeric, and there is currently no length limitation. The emphasis should be on providing the data elements in as human readable a format as possible.

How do you set up an API key?

FuzionView needs an API token to connect to most GIS systems. ArcGIS has a good tutorial that is available here: https://developers.arcgis.com/documentation/mapping-apis-and-services/security/tutorials/create-and-manage-an-api-key/ An ArcGIS Dev or Arc Online (Creator) account will be required. There are limitations put on the API creation aspect by ESRI.

SYSTEM INFORMATION

Where do the maps and other information come from?

FuzionView can use data and services from a wide variety of sources to create an augmented view of an 811 dig ticket. Sources may include feature data providers such as facility operators who provide GIS feature data and attributes using WFS and ESRI, ancillary data such as survey markets, railroad right of way and, in the future, parcels. Resident basemaps include OpenStreetMaps and ArcGIS Test

What are the components of a FuzionView system?

The FuzionView system is composed of the core engine, a PostgreSQL database, a user identity management database, and data transfer and maintenance APIs. Optional companion tools may include: Web Based Ticket Viewer (Leaflet), and a web based Data Providers and System Administration interface (Ruby). See the Technical Specifications fact sheet for details.

Does FuzionView include authorization management?

FuzionView does not include a specific authorization management solution. FuzionView was designed to work with any OpenID Connect (OIDC) based authentication system. KeyCloak was used for testing and demonstration, and that software is included in the example configurations in the FV-Demo repository.

What implementation support is available?

Effective January 2026, FuzionView is an open-source project that will be entirely dependent on community funding for code maintenance and enhancements. Funds received will be used to continue improvements to all parts of the project including: documentation, deployment and configuration tools, and sample configuration and data for demo and testing purposes.

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SYSTEM INFORMATION

Are there any contractors available who could help implement FuzionView in a 811 call center?

811 call centers or call center service providers who would like implementation support can contact SharedGeo for assistance. It is expected that other contractors will become available over time as FuzionView use becomes more widespread.

SharedGeo™

Ready to revolutionize your utility operations?

Contact us today to learn more about FuzionView.

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- **Technical information**
- **Fact sheets**
- **Connection information**
- **More...**

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