

Application for Network Infrastructure Management *Generic*

2018





Features and Advantages



- Easy access from the user's browser;
- Multi-browser application, acessible by:
 - ✓ Internet Explorer, Firefox, Opera, Safari, Google Chrome;



• Without limitations on the number of users.



Multi-platform



- The application is compatible with different geographic databases;
- Data can come from various sources, provided they are transferable to geographic databases;
- The application has a reversing mechanism to read the existing data structure.



Data editing

- Ability to query and edit geographic and alphanumeric data;
- Web application with advanced geographic editing capabilities of the register elements.







Network Dimensions

- The length of each segment of the network is automatically calculated after its creation and the value stored in the database;
- Other attributes related to the dimensions of the network such as diameter, depth, inclination, etc., can also be entered by the user.



Relationships and hierarchy

• Establishing relationships between the objects determined by a defined hierarchy.

Example in Water Network



Example in Generic Network

Elemento complexo Elemento simples 1 Elemento simples 3

- Simple elements inherit the geometry of complex elements where they are inserted;
- This concept can be applied to any type of network: electric, gas, optic fiber, water and sanitation.





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Relationships and hierarchy



- Research
- Research of elements by one or more attributes combined research;
- Research of elements by address.









Historic

- Whenever the elements are changed, a new element is created and the previous one goes to the historic;
- Easy access to historical data.





Authentication

- Registration of access of users;
- Definition of usage profiles.





Legacy Data

- Ability to access existing information on the elements:
 - ✓ Eg: Diagrams, Images, PDFs, etc....





Network Analysis

- The application allows you to make a series of validations on the network, including:
 - ✓ Failure detection elements in the network breaks and ends;
 - ✓ Detecting discontinuities and null geometries;
 - ✓ Check connectivity between two points;
 - $\checkmark\,$ Detection of affected extensions by cutting supply.

Example in Water Network:

Detection of closing valves and respective affected extensions in case of failure.

Example in Electric Network:

Customers affected by a power cut.





Data Export

- Export capacity of application data to other formats:
 - ✓ Geographic data to shapefile and others;
 - ✓ Alphanumeric data eg: Microsoft Excel, PDF and others.





Tabel of Contents

- Table of contents with the ability to group topics;
- Each theme is represented with its symbology.





Synthesis

- The Generic Network Application can be used for any data structure that complies the binomial: Network <-> Network Elements;
- Its features are designed to be transversal to any attribute that distinguishes the network;
- It is flexible as to the origin of the data and the geographic database that will support the application;
- Examples of networks that can use this application:
 - ✓ Water and Sanitation Network;
 - ✓ Electric Network ;
 - ✓ Gas Network ;
 - ✓ Optic Fiber Network;
 - ✓ Others.





Relations between objects

The application is able to show related elements (Eg: Node <-> Tees).

When searching for relationship with Tees, it is open a new table with the respective form element.







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Editing and consultation

The "Info" tool allows you to select and access the editing and consultation form.

In this example the selected item is an extension line (shown in red).







Editing or creating geometries

By selecting the "Draw" on the edit form, new tools are available.







Edit Toolbar - Modify

"Modify" tool enables the editing of the selected extension line.

Editing is done by dragging the corners to the desired location.



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Historic

The "View Historic" option lets you view the extension line before and after editing.







Simulation of faults

By using the "Close Valves" button it is possible to simulate a fault condition at any point of the map and get information about which affected valves and extension lines to close. The damaged pipeline is shown on the map.

Additional information about each element can be displayed on the edit form.







Contacts

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