

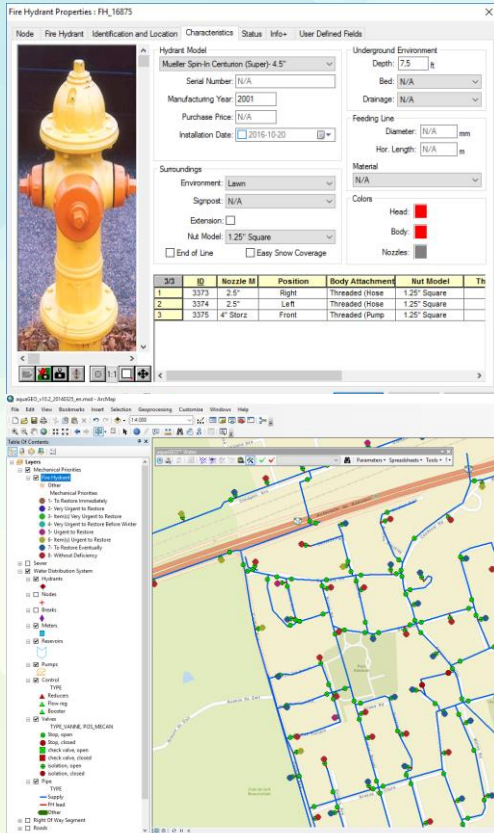
Fire Hydrant Management Module

ROLE

- Management of fire hydrant inventory, characteristics and operation condition to determine intervention priorities.

ADVANTAGES

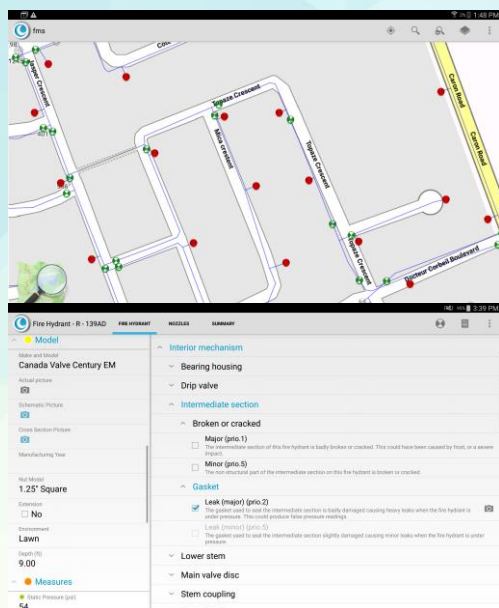
- Management of fire hydrant inventory data, including identification, location, make and model, type of mechanism, date of installation and local environment conditions;
- Possible configuration for more than 140 makes and models of fire hydrants;
- Access to the longitudinal section of the model and an example or real photo of the fire hydrant;
- Data management of physical, mechanical and hydraulic conditions of a fire hydrant (external condition, internal mechanism operation, watertightness, measured pressures, water quality, etc.);
- Management of work orders and fire hydrant inspection records and maintenance;
- Recognition of more than 300 deficiencies and validation of the logic according to the make and model of the fire hydrants;
- Analysis and generation of the mechanical intervention priorities according to observed deficiencies;
- Quick access to the global condition of a fire hydrant and its intervention priorities;
- Printing of reports including individual fire hydrant registers containing all descriptive data for each fire hydrant, detailed condition, maintenance records and summaries of encountered conditions;
- Graphical display of fire hydrant conditions and intervention priorities;
- Generation and storage of customised queries for all data with the query generator tool;
- Definition and management of work orders according to fire hydrants that need inspection and/or require maintenance;
- Data available in spreadsheets, registers, maps or export to shapefile format.

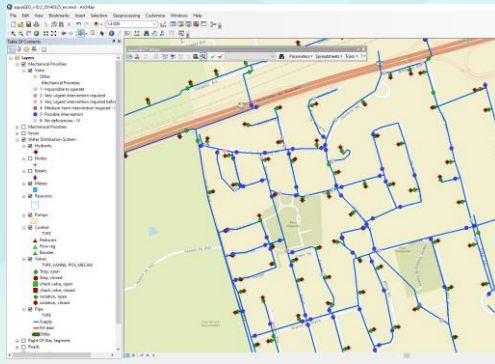


Fire Hydrant Field-Data Collection Unit

ROLE AND ADVANTAGES

- Mobile georeferenced application running on tablet;
- Facilitates locating hydrants and data collection during inspection and maintenance;
- Exports tasks to be performed and imports data collected during the field work;
- Eliminates transfer of handwritten data, reducing update times;
- Instantly validates data entry according to the make and model of the fire hydrant and relevance of the deficiency;
- Monitoring of work advancements and generates warning notices of incomplete tasks;
- Integrated quality control tools.





Valve Management Module

ROLE

- Management of watermain and fire hydrant isolating valves inventory, characteristics and operation condition to determine intervention priorities.

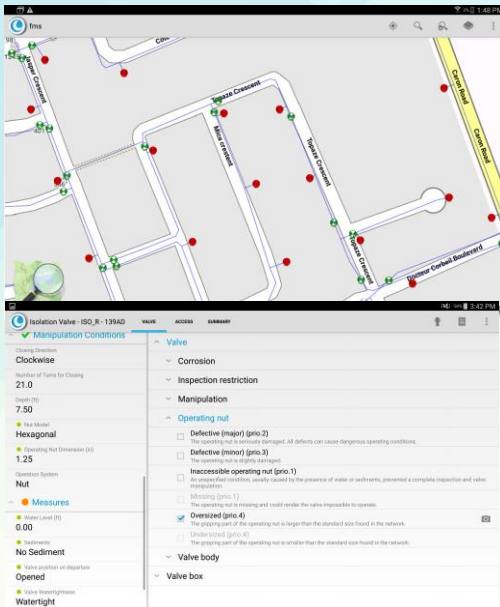
ADVANTAGES

- Management of valve inventory data, including element identification, location, type of mechanism, closing direction and access characteristics;
- Management of valve condition and accessibility: position of the mechanism, watertightness, presence of sediment, manipulation condition, operating nut condition and access, valve box or chamber and cover conditions;
- Management of work orders, valve intervention records and physical conditions observed;
- Analysis and generation of the mechanical and structural intervention priorities according to observed deficiencies;
- Quick access to the global condition of the valve and its intervention priorities;
- Indicates the general operating condition of the valve (operable, non-operable, to avoid, only in case of emergency) and shares this information with the unidirectional flushing module;
- Printing of reports including individual valve registers, grouping all the descriptive data for each valve, detailed condition, maintenance records and summaries of encountered conditions;
- Graphical display of the valve conditions and intervention priorities;
- Generation and storage of customised queries for all data with the query generator tool;
- Definition and management of work orders according to valves that need inspection and/or requiring maintenance;
- Data available in spreadsheets, registers, maps or export to shapefile format.

Valves Field-Data Collection Unit

ROLE AND ADVANTAGES

- Mobile georeferenced application running on tablet;
- Facilitates identification of valves and data collection during inspection and maintenance;
- Exports tasks to be performed and imports data collected during the field work;
- Eliminates transfer of handwritten data, reducing update times;
- Instantly validates data entry depending of the relevance of the deficiency;
- Monitoring of work progression and generates warning notices of incomplete tasks;
- Integrated quality control tools.





Water Distribution Pipe Management Module

ROLE

- Management and analysis of pipe data inventory and the hydraulic and physical conditions of pipes of a water distribution system.

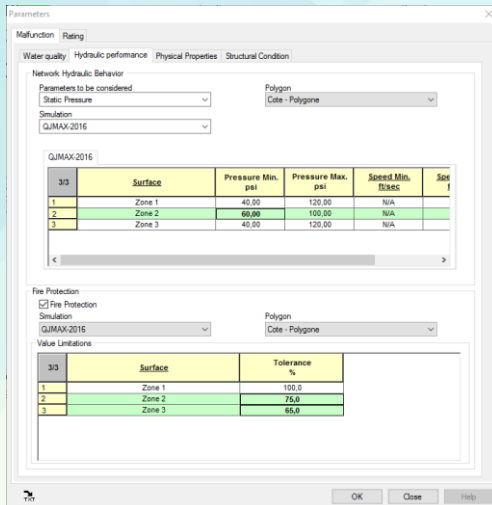
ADVANTAGES

- Management of pipe inventory data, including identification, location, physical characteristics and local environment conditions;
- Rapid access to pipe data, including: material, internal lining, year of installation, soil type, corrosive soil index and cathodic protection;
- Management of pipe interventions while maintaining a record of work completed on each pipe section, including:
 - Field Diagnosis: Records on intervention characteristics and results of analysis (length of pipe examined, pipe thickness, percentage of thickness lost, ...);
 - Breaks/Leaks: Detailed records including location, method of detection and repair details (type of break, break dimension, method of repair, period of service interruption, ...);
 - Complaints: Record of person filing the complaint, the motive, and corrective action.
- Generation and storage of customised queries for all data with the query generator tool;
- Generation of statistics and graphical display of intervention types (ex.: number of breaks/leaks on each pipe by street and by year, break rate);
- Access to data and results in the form of thematic maps, spreadsheets and export to shapefiles.

Water Distribution Pipe Management Module

PIPE DYSFUNCTIONS AND PERFORMANCE GRADING

- Analysis of water main deficiencies and assignment of condition ratings based on established parameters which are customizable;
- Analysis of deficiencies according to four criteria: hydraulic performance, physical characteristics, structural condition and water quality;
- Analysis of the criteria according to available data inventory and pipe condition, to the interventions records and to the hydraulic modeling results;
- Criteria definition in accordance with a single or all available parameters and for the level of service specified:
 - Hydraulic performance: hydraulic network behavior (flow, head loss and static pressure) and ability to provide the required fire protection;
 - Physical characteristics: diameter, C-factor, material, ...;
 - Structural integrity: breakage rate and diagnosis records;
 - Water quality: complaints, absence of interior lining, flow-through time and chlorine degradation results.
- Overall performance rating based on the weighting assigned to each criteria;
- Assignment of prioritization level based on the hydraulic importance of the pipe, its location or other socio-economic criteria;
- Analysis of an entire water network or for defined sectors as well as scenarios for the calculations with different parameters or with different levels of service;
- Results and statistics of network performance by individual or global criteria.



3/D	Surface	Pressure Min. psi	Pressure Max. psi	Speed Min. ft/sec	Sort
1	Zone 1	40.00	120.00	N/A	
2	Zone 2	60.00	100.00	N/A	
3	Zone 3	40.00	120.00	N/A	

3/D	Surface	Tolerance %
1	Zone 1	100.0
2	Zone 2	75.0
3	Zone 3	50.0

Water Meter Management Module

ROLE

- Management of water meters inventory, characteristics, operation condition and readings. Transfer residential, industrial, commercial and institutional reading for use with the hydraulic model and for invoicing purposes.

ADVANTAGES

- Inventory of service lines and water meter consumption data through various spreadsheets;
- Management of water meters installed on residential, industrial, commercial and institutional service lines;
- Creation of user accounts;
- Various spreadsheets available for invoicing purposes;
- Tracking of consumption records;
- Ability to use the water meter consumption data for hydraulic model simulations;
- Produce water audits easily for the entire network or for individual sectors to increase precision;
- Ability to import new water meter readings using aquaGEO software Synchronization module.

