

Gaz de Strasbourg

Automatic creation of Flowmaster networks from Geographic Information Systems helps Gaz de Strasbourg guarantee constant supply of natural gas at a low price.

Since the company was founded in 1914, Gaz de Strasbourg has many years experience in providing natural gas to the Bas-Rhin area of France.

From the technical aspects of maintaining the gas network infrastructure to answering domestic and commercial customers' enquiries, Gaz de Strasbourg's aim is to offer its customers natural gas at the lowest cost, as safely as possible.

To ensure the gas distribution network operates as efficiently as possible and that every customer has a constant supply of natural gas, Gaz de Strasbourg invested in Flowmaster to continue to help them manage the gas network maintenance program.

The ability to calculate the gas pressure and flow rate at any location of the gas network as a function of the customers consumption means that scheduled and unscheduled maintenance can be done with the minimal disruption to supply.



This ability to analyse the different “what if scenarios” considerably helps Gaz de Strasbourg evaluate the impacts on replacing older sections of the gas network. It also enables a more accurate view of how parts of the network would cope for future growth in demand.

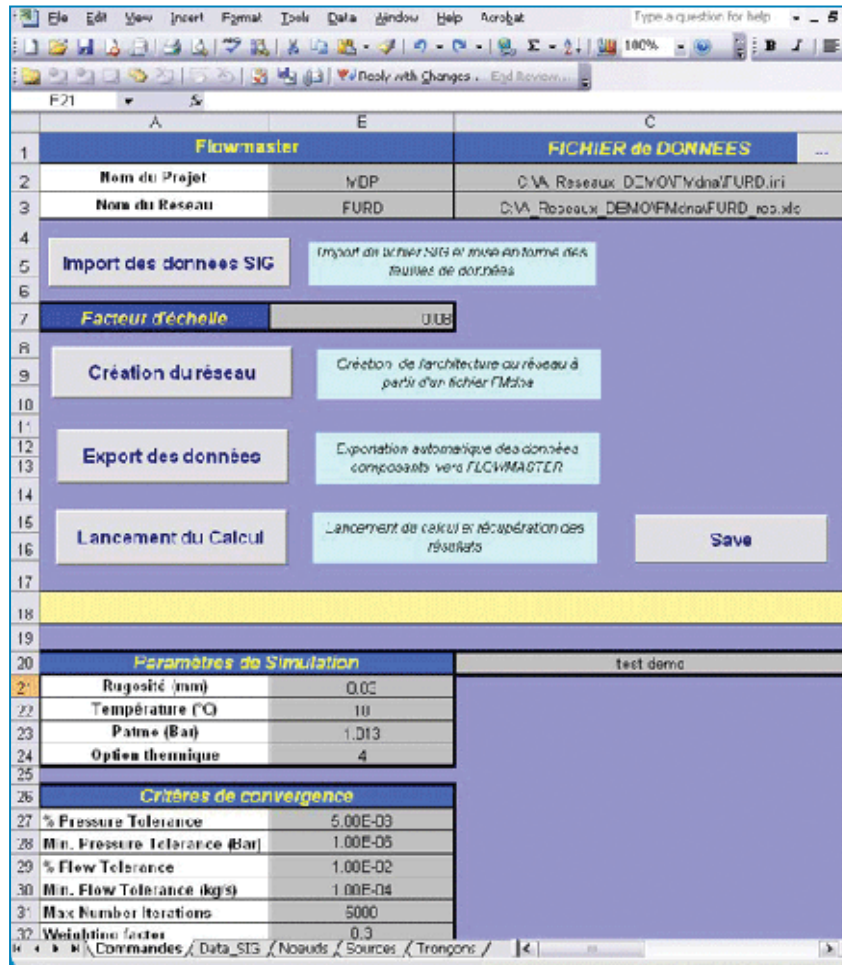


Figure 1: Excel interface for automatic creation of a Flowmaster network

Challenge

As you may imagine a gas supply network consists of hundreds if not thousands of pieces of equipment, mainly valves and pipes – all of which Gaz de Strasbourg have mapped in their Geographic Information Systems (GIS). All data relating to the equipment’s location, start and end point co-ordinates and properties such as pipe diameter and other geometrical data are stored in this system.

Problem

Building large and complex networks by and is a time consuming and laborious process. For the past six years Gaz de Strasbourg have been using a piece of bespoke software written specifically for them to automatically create the relevant portion of their network directly from their GIS application. They wanted to replaced this aging piece of purpose written software with Flowmaster but maintain the procedure of extracting from the GIS system.

Solution

With the help of the Flowmaster France technical team a solution to Gaz de Strasbourg's requirements was quickly developed. Gaz de Strasbourg's GIS application was able to export all the data in MS Excel format. From this Excel spreadsheet the Flowmaster network was automatically created using Flowmaster FMDNA functionality and component data automatically entered with the use of COM technology embedded within Flowmaster.

Engineers at Gaz de Strasbourg could then analyse that portion of the gas network and either visualise the pressure and flow rates in Flowmaster or export them into Excel for communication with their colleagues.

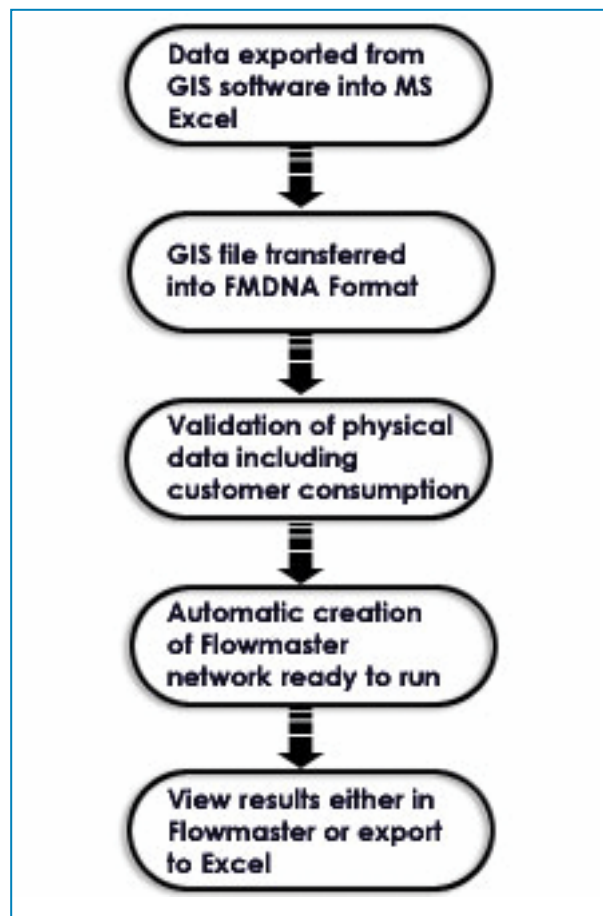


Figure 2: Automatics data transfer from GIS to Flowmaster

Result

By replacing their existing fluid analysis system with the Flowmaster solution, Gaz de Strasbourg will be able to continue to optimize their network infrastructure at a lower cost.



Figure 3: An area of a French city gas network in Flowmaster

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