

AFT Fathom™ Opens New Possibilities at Perigon

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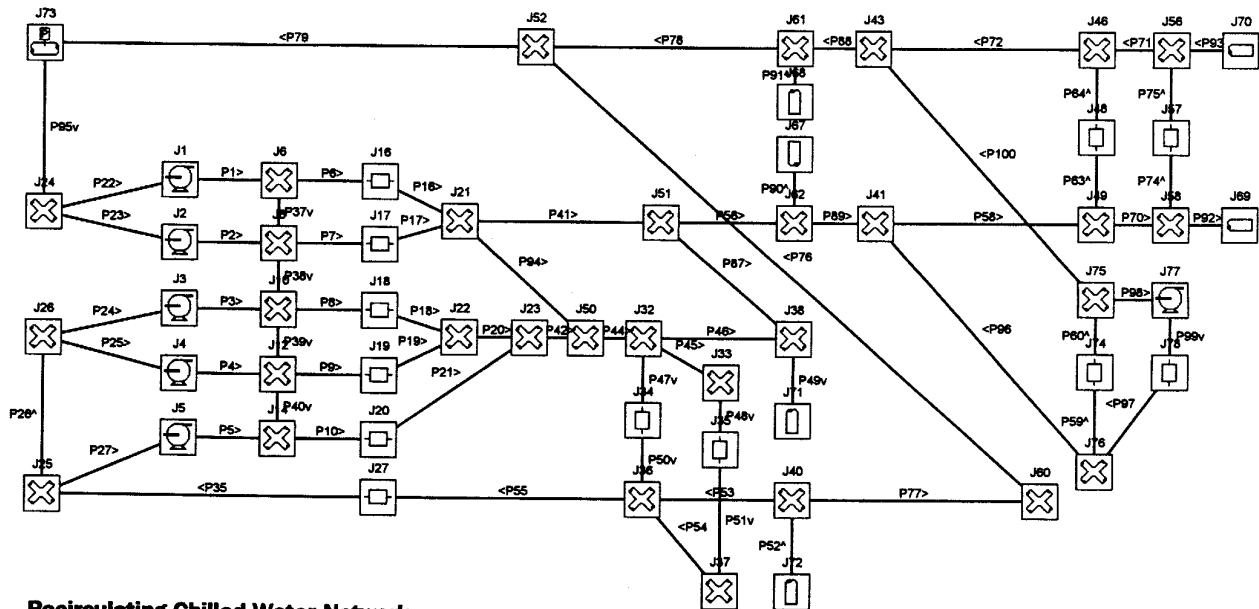
Perigon is a multi-disciplined engineering and architectural firm providing a broad range of services in plant design and modification for the chemical and fiber industries.

If there was ever a company for which AFT Fathom was a perfect fit, Perigon would be it. A company of 175 who work out of three offices located in North Carolina and Virginia, Perigon's engineers are of the practical, hands-on variety. They wanted to find a software package that could do the job and did not require a month of training or a PhD to use.

This portrait of Perigon's staff is typified by Michael Freeland, Senior Process Engineer. When Mike identified the need for a better method of pipe flow analysis at Perigon, he followed the traditional approach of looking through the magazines, ordering demos from all the vendors, and comparing five different packages. He was impressed with the AFT Fathom demo, but they had worked previously with one of our competitors and decided to give them the first shot. After the competitor's software failed to model the systems they were working on, he tried AFT Fathom.

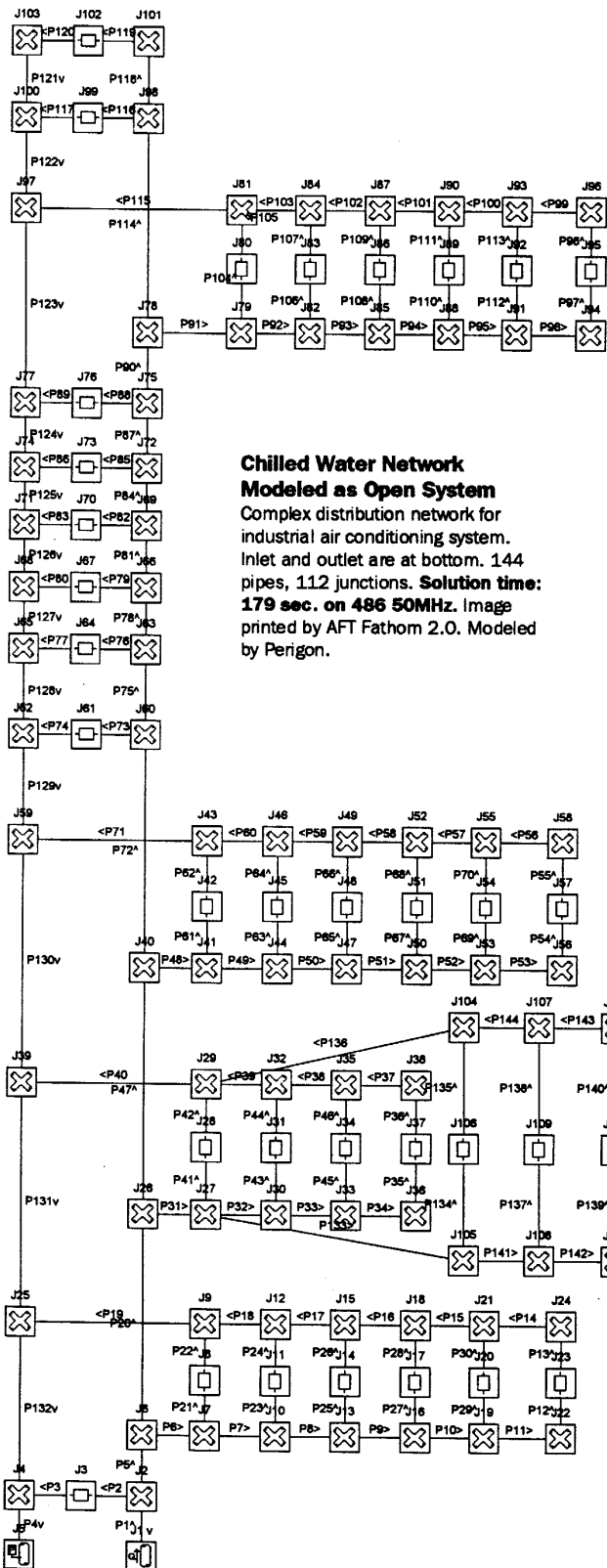
Mike shared with us his reasons for choosing AFT Fathom: 1) a demo that allowed them to construct complete models and evaluate the learning curve; 2) Windows compatibility; 3) price; 4) graphic construction of models; and 5) AFT's technical support.

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Recirculating Chilled Water Network

Five pumps in parallel (J1-J5) feed five chiller units (J16-J20) shown on left. Booster pump at J77 (shown at right) provides increased local flow for enhanced heat transfer. 70 pipes, 56 junctions. **Solution time: 40.8 sec. on 486 50MHz.** Image printed by AFT Fathom 2.0. Modeled by Perigon.



**Chilled Water Network
Modeled as Open System**
Complex distribution network for industrial air conditioning system. Inlet and outlet are at bottom. 144 pipes, 112 junctions. **Solution time: 179 sec. on 486 50MHz.** Image printed by AFT Fathom 2.0. Modeled by Perigon.

After several months of use, it is clear that AFT Fathom has completely changed the way Perigon does its work. When we asked Mike about AFT Fathom's impact on Perigon, he told us, "AFT Fathom has allowed Perigon to do detailed analysis of complex piping networks for our customers. It is also a very useful tool for analyzing simple piping systems and is being used in everyday process engineering calculations. . . . After a brief initial learning curve, AFT Fathom has allowed Perigon to more fully analyze complex hydraulic networks than we have been able to in the past."

According to Mike, Perigon has used AFT Fathom to model a large variety of systems, including

- a chilled water network consisting of five pumps in parallel;
- a hot water recirculating loop with multiple heat exchangers and two pumps in parallel;
- a cooling tower system consisting of five pumps in parallel with multiple in-users in a large industrial complex;
- a wastewater system consisting of gravity flow between various process equipment; and
- numerous single pump systems.

Comparisons with field data

Comparisons against data are always the litmus test for modeling software, and Perigon's projects on existing systems have provided a unique opportunity to compare AFT Fathom predictions against field data. True to their hands-on approach, Mike and his colleagues have taken AFT Fathom printouts to customer sites to compare the predictions against observed performance. This experience has convinced Perigon that AFT Fathom predictions are reliable indicators of real world operations. As a result, Perigon is able to make recommendations on system modifications with increased confidence.

We are pleased to hear that AFT Fathom—used as both an everyday analysis tool and a heavy-duty system modeler—is making a difference for Perigon.



For more information on AFT Fathom, contact Applied Flow Technology at (800) 589-4943 or (719) 686-1000 or fax us at (719) 686-1001.