How can I make sure that a plant is running optimally?
How can I simulate transients before they happen?
How can I utilise IoT solutions?
How can I extend the lifecycle of equipment?

Answers to these and many other burning questions related to energy are provided by Fortum eNext’s Digital solutions.

ADVANCED DIGITAL SOLUTIONS

APROS® - FOR THE MANAGEMENT OF DYNAMICS AT POWER PLANTS AND DISTRICT HEATING NETWORKS
- Integrate design of process and automation changes
- Ensure the functionality of changes in all operating situations and at all partial loads
- Train operators to run the changed process
- Maintain the operators’ ability to operate the plant in all operating situations

FORTUM MAINTENANCE MANAGEMENT SYSTEM BASED ON IBM MAXIMO®
- Use a maintenance solution customised for energy management
- Make use of integrated work permit and separation management

LOGBOOK - AN ELECTRONIC SHIFT DIARY
- Take a firm grip of events
- Feel how comfortable use can be

Eliot - A VERSATILE DATA TRANSFER PLATFORM
- Scalable from a single sensor to several power plants
- You can connect it to any interface
- IoT platform possibility

TOP® - ENERGY MANAGEMENT SYSTEM
- Easily monitor the KPIs of your power plant
- Improve your operational economy
- See production planning through a new set of eyes
- Be amazed by how easy the system is to use

SOLVO® - PROCESS ANALYSIS AND HEAT DEMAND CALCULATION
- Build process models and optimise your processes
- Identify the best operating mode for each situation
- Optimise regional heat production at hourly level even in one years period

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FORTUM eNEXT’S DIGITAL TOOLS FOR OPERATING AND MAINTAINING POWER PLANTS

Our digital tools are designed with decades of experience in operating and owning power plants. At Fortum eNext, we help you improve your plant operations and maintenance and reduce emissions by providing continuously developed tools and solutions to meet today’s requirements.

APROS® - ADVANCED DYNAMIC SIMULATION SOFTWARE

Our Apros® simulator has helped to take the dynamics of power plants and district heating networks in control in more than 30 countries! Apros® software is designed for the dynamic simulation of the processes of power plants and energy networks, automation and control, as well as power systems. Fortum delivers solutions based on Apros® to meet the needs of design, automation testing and operator training in power plant modernisation and investment projects. The unique benefits of Apros® include the high level of realism in models in all types of operations and changes, ranging from cold start-ups to power change responses and equipment failures. Fortum also delivers more compact simulation solutions in order to efficiently solve any of its customers’ problems as well as software licences so that customers can further develop their processes and automation by using Apros®. Many leading international power plant operators and equipment manufacturers have already selected Apros® — join the team.

FORTUM’S MAINTENANCE MANAGEMENT SYSTEM, BASED ON IBM MAXIMO®, ENHANCES AVAILABILITY AND EFFICIENCY

Fortum Asset and Maintenance Management Solution improves the availability and efficiency of power plants and reduces maintenance costs, not forgetting safety. Fortum has over decades developed maintenance management concept. Customised for power plants, the maintenance management system is a part of Fortum’s concept. It contains all necessary information about process locations, equipment and storage. Our concept is applied to planning maintenance and annual outage projects, monitoring the condition of equipment, storage management and cost analyses.

LOGBOOK - EASY-TO-USE ELECTRONIC SHIFT DIARY

With Fortum Logbook, an electronic shift diary, you can take a firm grip of all data produced by operating and maintenance processes. The system includes a hierarchical location structure, a flexible function for defining shifts and efficient searches and statistics. Logbook is very easy to define, learn and use.

ELLIOT - PREVENTIVE CONDITION MONITORING USING IoT

Elliot is an effective IoT platform Fortum has developed to manage increasing data volumes in the future energy system. Elliot takes care of even the most complex data transfer needs, also as a cloud service. Elliot allows you to add new applications to an existing database (e.g. the data from a wind turbine) or to transfer data from one system to another (e.g. operating hours from an automation system to a maintenance system). Elliot is easy to implement and take into use, and you do not need to make significant investments to deploy the system.

TOP® ENERGY MANAGEMENT SYSTEM

TOP® is an excellent tool for real-time monitoring and optimisation of power plant processes, thermal condition monitoring, data analysis, reporting and production planning. The solution includes all the applications the customer needs to keep KPI values up to date, automate routines and make reporting and data transfer to other systems easier. TOP® system can include an automation interface, integration with other systems, a database, various application calculations, such as Solvo® process calculation, production optimisation and many others. KPIs and related measurements can be visualised with the easy-to-use TOP® Browser tools (reports, trends, process views, special tools). Fortum delivers TOP® system according to your needs, from design to deployment throughout the maintenance lifecycle. KPIs are necessary for development of production and preventive maintenance. TOP® system produces accurate and trustworthy KPIs you can utilise in your operation progress, more effectively than ever before.

SOLVO® — DESIGNED POWER PLANT SOLUTIONS AND OPTIMISED OPERATIONS

Solvo® is a versatile simulator of heat balances. It is intended for designing power plant processes, carrying out process modifications and process optimisation. It is an independent off-line tool for designers and an on-line process simulator as a part of TOP® system. Solvo® helps you in plant’s design review phase, actual design, operational optimisation, thermal condition monitoring, training and evaluation of process investments. Solvo® Regio optimises regional heat production on hourly level, even over a period of one year.