

FUTURE IS INTEGRATION

Automation and integration of decentralized power sources

B:TECH, a.s. is a Czech engineering company with ten years of experience in the field of industrial automation with focus on energy. They embrace the development of renewable energies as a big challenge. Therefore B:TECH engages itself with all its strength and according responsibility in this field of automation. The specialists are experienced in the development and commissioning of applications in various fields worldwide. B:TECH realizes customer requirements with efficiency and the use of standardized and open solutions. Quality, flexibility and the modern concept of Bachmann products are the main reasons why B:TECH uses these systems.

B:TECH

B:TECH, a. s. with its registered office in Havlíčkův Brod (Czech Republic) and a staff of 80 offers comprehensive solutions in the field of industrial automation, power wiring systems, emergency and prevention maintenance service.

Smart automation is an absolute must for an efficient operation of any technology. The basis is the design of system components, considering the technology requirements and the requirements in which the device will be working, the operators' needs and last but not least the integration capacity with other or master systems. B:TECH consider an efficient technology management as a matter of fact and in their portfolio of activities they focus on the needs of the customer investing their own money with clear vision statements. The utility value of this investment is largely dependent on the interface between the technology and the operator (Human-Machine-Interface). The operator must have a complete overview of the technology operation from the local operator's panel and through a standard web browser

anywhere and anytime. The integration of a larger number of decentralized energy sources is another requirement of the technology operator or of the electric transmission system which is a clear demand to B:TECH. The master system M1 meets all of the above given requirements and is therefore a clear choice for them.

B:TECH IS PUTTING TOGETHER EFFICIENT TEAMS FOR LONG-TERM COOPERATION

From their perspective, efficiency is the ratio between the utility value of the system for the customer and the costs paid for this utility value. That is why B:TECH is working hard towards this parameter. In real life, it is necessary to be very familiar with the needs of the customer, to design standardized technical solutions and to put together implementation teams, working at a high level of routine, professionalism and technical expertise. In this respect the strategy of putting together teams focussing on a narrow segment of customers with similar needs or on a specific product has proven good in the long term to B:TECH.

VIRTUAL POWER PLANT AS A BUILDING BLOCK OF "SMART GRIDS"

A virtual power plant is currently a concept associated rather with theory than with mass applications. The systems run here must be as open as possible to the exchange of data in all layers of controlling and reporting and must have a simple possibility of sharing information with the customer's IT structure. B:TECH had the chance to implement a project very close to this objective. In terms of technology, the project was a solution to exhaust firedamp and combust it in approximately 30 CHP units plus integrate it to central dispatching. Apart from the process level, taking care of the standard automation, it was a unique communication infrastructure composed of server components located in the data centre, the heart of which are two application servers working in the redundant mode and processing the communicated data. The software architecture which is fully redundant uses the terminal services enabling the variable connection of the operator's client PCs. The individual decentralized technologies are connected to the networks depending on the local conditions (LAN, GPRS, WIFI, etc.). The operation of the operator's panels and the operator's representatives can use pre-defined or user-defined variable data sets for the monitoring and technology management or for the managerial level of the entire operation control.



»Open technical solutions enable us to meet demanding technical objectives.«

Josef Stehno

Key Account Manager
B:TECH, a. s.

technical support web portal for our customers where the complete project documentation and the application software are stored and accessible after the right code is entered«, says Mr. Stehno.

RENEWABLE ENERGY SOURCES AND SMART DISTRIBUTION GRIDS ARE THE FUTURE OF ENERGY

Renewable sources and virtual plants are areas to which B:TECH is now allocating the capacities of their Technical Development department. »As to the mentioned firedamp project, we are preparing to extend its managerial level by the financial management level with a link to the energy stock exchange«, explains Mr. Stehno. B:TECH is involved in R&D projects focussed on the automation of other technologies from the field of renewable energy sources such as ORC for low-potential heat from the CHP units or gasification (production of synthetic gas in a managed combustion of various materials). ■

HIGH-QUALITY MAINTENANCE SERVICE TO ENSURE A HIGH OPERATION EFFICIENCY

High-quality maintenance services are absolutely key for a long-term efficient operation of technology, be it emergency or preventive maintenance and service. That is why B:TECH employs enough service engineers with the necessary knowledge and mainly practical skills. The maintenance and service must be considered at the stage of design as well so that the machine enables remote administration for the analysis and repair of errors as enabled by the Bachmann M1 system and as the transmission path was prepared. »We have set up a

Topology

