

## Press Release

July 16, 2024

### CIGRE 2024: Aucotec blazes a trail by bridging the worlds of hardware and software

- **Cooperation platform Engineering Base provides data backbone for the entire life cycle of substations**
- **Full integration of IEC 61850: engineering platform maps the substation's complete life cycle**
- **Seamless engineering solution for planning primary and secondary equipment hardware as well as configuring software for protection and control technology**

Decentralization, digitalization and decarbonization are key issues affecting the power industry. And that means they will also be major talking points at the CIGRE Paris Session. This global forum for sharing technical and scientific information on power systems and electric power transmission, distribution and supply is taking place on August 25 – 30, 2024. Aucotec AG will also be on hand at the Palais des Congrès (Level 1, S133) to demonstrate how its cooperation platform Engineering Base can speed up construction and upgrading of grid infrastructure on a sustained basis and therefore drive the radical overhaul that the industry requires.

#### **Going digital is indispensable for energy transition**

Experts, politicians and companies are for once in complete agreement: for the energy transition to succeed, the pace of power grid expansion with, among other things, new digital substations must be stepped up. There is an increasingly urgent need for new, modern and decentralized grid infrastructure. This is precisely why digital technologies and smart grids top the list of investment priorities of companies all over the world. According to the market research experts at Fortune Business Insights, the global market for substations, for example, is set to grow in value from around €135 billion in 2024 to nearly €192 billion in 2032.

#### **Merging the worlds of hardware and software**

This is therefore an important market, to which digitalization solutions such as Aucotec's Engineering Base are perfectly suited. "Engineering Base lays the foundations for tackling the challenge of power distribution in the future," states Michaela Imbusch, Product Manager for the Power Transmission & Distribution sector at Aucotec. "It is the single source of truth for primary and secondary equipment as well as for protection and control technology, and ensures exceptional consistency along with more efficient, secure working."

Engineering Base is a data backbone that merges data to create a complete digital twin of the plant and ensures it is constantly updated across all disciplines and departments throughout the plant's life cycle. This enables plant manufacturers, engineering firms and plant operators alike to efficiently manage the rapid increase in project volume in the energy sector. All disciplines, including protection and control technology, are able to access the consolidated data model. "This keeps everything up to date," points out Imbusch. "The tool and system landscape benefits from significant streamlining."

#### **IEC 61850 – pure digitalization**

Aucotec is set to carry out genuinely pioneering work this year as it breaks new ground globally by integrating the definition of control technology as per IEC 61850 directly into Engineering Base. After all, the cooperation platform makes it possible to map a substation's entire life cycle in software. "We are thereby bridging the divide between the worlds of hardware and software, i.e. between secondary equipment and control technology," says Imbusch. "Simply put, the plants' DNA is formed by IEC 61850, so it represents pure digitalization."

In addition, Engineering Base is the only system in the world capable of implementing all internationally required standards down to the finest detail: from IEC 81346 and 81355 governing the

structuring of plants and documents through to 61850 for device description and communication in substations.

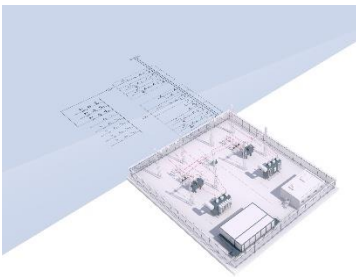
### **Link with 3D system Primtech**

The use of Engineering Base for primary equipment again demonstrates how seamless engineering takes top priority at Aucotec: the software platform can already be deployed for the single-line diagram – the key source document for primary equipment. This enables secondary equipment engineers to begin their detailed planning much more quickly and completely seamlessly once the first device is established. Consequently, users no longer have to wait until primary planning is complete or even repeat their work. Aucotec's booth at the CIGRE Session is located next to the Entegra GmbH booth – and for good reason: its 3D system Primtech already offers a facility for data exchange with Engineering Base.

### **Images\* and captions:**



[Michaela Imbusch](#), Product Manager for the Power Transmission & Distribution sector at Aucotec. (Image: Aucotec AG)



[Single line in Engineering Base](#): using Engineering Base for primary equipment as well makes it possible to work far more efficiently. In this way, the digital twin starts to grow from the very start. (Image: Aucotec AG)



That's [Engineering Base](#): all disciplines – including protection and control technology – are able to access the consolidated data model, keeping everything up to date and streamlining the tool and system landscape significantly. (Image: Aucotec AG)

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**Aucotec AG** has more than 35 years' experience in the development of engineering software designed for use throughout the life cycle of machinery, plant equipment and mobile systems. Solutions range from flow diagrams and process-control/electrical technology for large-scale plant systems to modular on-board power supply units designed for the automotive industry. Software supplied by Aucotec is currently in operation throughout the world. In addition to the headquarters in Hanover, the Aucotec Group includes six other locations in Germany as well as subsidiaries in China, India, Malaysia, South Korea, the Netherlands, France, Italy, Austria, Poland, Sweden, Norway and the USA. What is more, a global partner network ensures local support all over the world.

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