



SICAM PAS – the Key to Success

Power Automation fully compliant with IEC 61850 – and your existing system

Answers for energy.

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At Siemens Energy Automation Division, we drive innovation to benefit our customers. For that purpose, Energy Automation contributes largely to establishing international standards and their timely implementation.

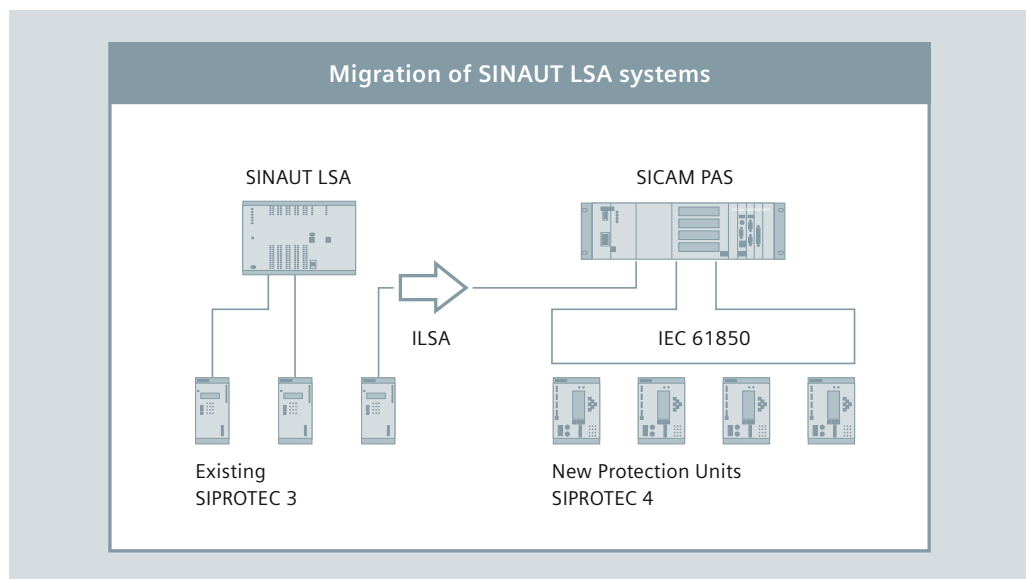


SICAM PAS – Power Automation Up-To-Date

A state-of-the-art system SICAM PAS (Power Automation System) fully complies with IEC 61850. Networking and IT capabilities, interoperable system structure and integration into existing systems are characteristics of SICAM PAS that make it a sound investment for the future.

SICAM PAS makes configuration and commissioning easy, saves you time, and helps increase the efficiency of operations management.

SICAM PAS will help you increase reliability and availability of your systems and contribute to a stable power supply, making it more economical. Today. Tomorrow. Always.



SICAM PAS – Tailor-Made Flexibility, Today and Tomorrow

Economic efficiency and constant availability of the supply of electric power is a challenge that energy providers and industries are facing worldwide. A broad range of concepts are in use each tailored to its specific application. With high scalability and modern architecture, SICAM PAS adapts to these concepts and offers room for future expansion. More than 1,000 substations equipped with SICAM PAS based on IEC 61850 are working successfully (January 2009). You also can profit from our wealth of experience.

IEC 61850 – the standard of success

Users and manufacturers joined forces in creating the new IEC 61850 standard adopted in early 2004. Experience gathered with the IEC 60870-5 series and with UCA.2 (developed in the USA) was pooled with optimized user benefit in mind. With Siemens participating directly in the standardization committees, SICAM PAS was developed with specific reference to the new standard. With more than 7,000 SICAM systems in use worldwide, today the incorporation of IEC 61850 now offers users the latest technology in power automation.

SICAM PAS – interoperable power automation

By using IEC 61850, the station unit of SICAM PAS now leads the way to a future-oriented interoperable system structure. Thus, SICAM PAS can integrate any manufacturer's bay control units using IEC 61850. The concept and settings of SICAM PAS support a direct exchange of data at the bay level, thus avoiding communication bottlenecks. Due to extremely fast Ethernet connections and a station unit optimized for data transfer and processing, SICAM PAS is a truly pioneering power automation system.

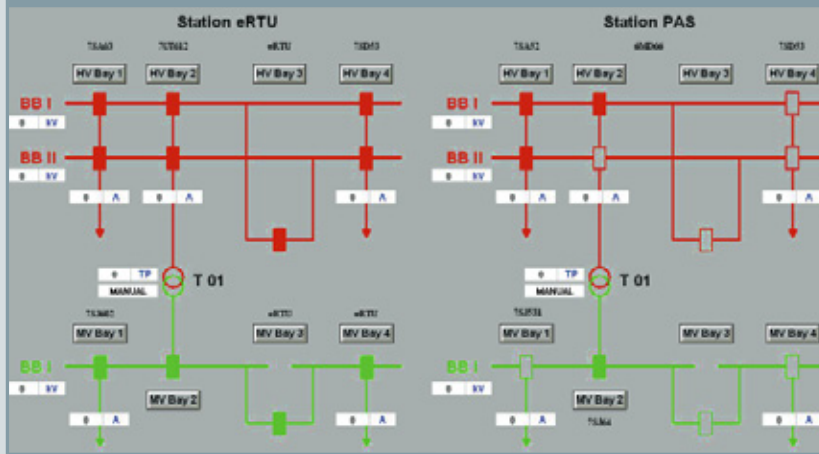
SICAM PAS – the ease of integration

For more than 20 years station control has been using a decentralized concept with SINAUT LSA. The SINAUT LSA protocol structure has been incorporated into SICAM PAS to allow existing systems to be integrated into the present world at low cost. Thanks to Profibus FMS or IEC 60870-5-103, existing systems belonging to the SICAM family can also be included in a concept based on IEC 61850 anytime. IEC 60870-5-101 and -104 are available for remote communication. Siemens collaborates in the STA (Seamless Telecommunications Architecture) standards project (aimed at system-wide use of IEC 61850 up to the network control center) in order to ensure this integration capability of SICAM PAS.

SICAM PAS – utmost transparency at any level

New standards from the IT and office sectors are applied. Networking capabilities and open data interfaces such as OPC (Object Linking and Embedding for Process Control) allow easy transfer of information to the office and industrial environments. Evaluations or plain display of power data, as are frequently needed by production coordinators in the industry, are an easy matter.

Process visualization with SICAM PAS CC



SICAM PAS – the Clever Choice

Regardless of how the requirements might appear, with its fine function grading and flexibility SICAM PAS can be adapted to suit them all. Be it relatively simple solutions for the user in a small or medium-sized industrial world or the demands typically encountered on the high and extra-high voltage levels, SICAM PAS masters these challenges with an ideal price/performance ratio. SICAM PAS also proves cost-effective in operation. Functions can be activated at any time within the scope of the standard. There is no need for bothersome additions at a later stage. Project-specific options can be added to boost the flexibility of your application at any time. Your investment remains secure thanks to strong standards, a wide variety in communication and sophisticated functionality.

SICAM PAS – for faster standard configuration

The intelligent settings engine SICAM PAS UI is structured in conformity with DIGSI and adopts configuration data directly from the bay level. XML data transfer is available for IEC 61850 and the SIPROTEC 4 relays. Standard configurations for protective devices of other manufacturers are available in a library which can be integrated into SICAM PAS as typicals, thus avoiding double inputs or input errors. SICAM PAS provides the configuration data needed for integration in an overall solution in XML format. This minimizes the effort needed to connect a local HMI especially for SICAM PAS CC or for interfacing with a network control center.

SICAM PAS – set for the future

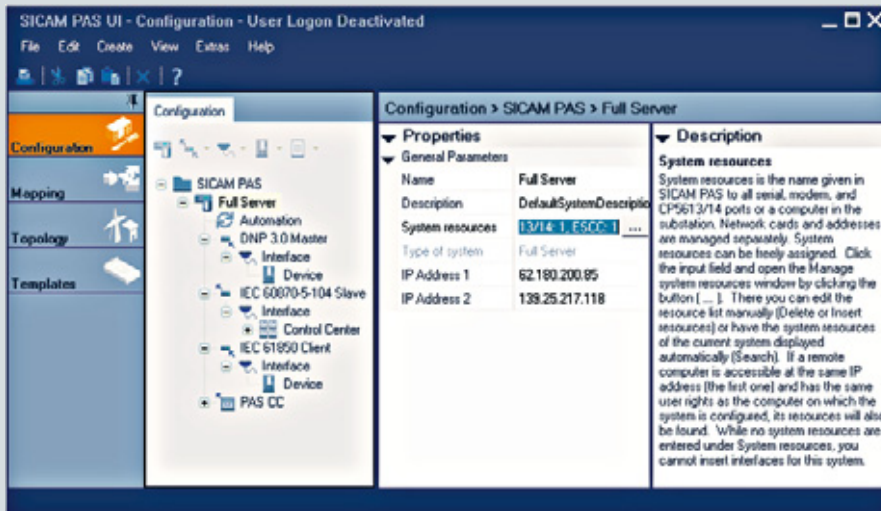
During the design of the SICAM PAS system, a high value was set on the usability of the parameter setting and diagnosis tools. By means of these unique tools integrated directly in the system, parameter setting and commissioning can be carried out easily and swiftly. What's more, no matter when changes, additions, or other work on the system are imminent, it already contains the right tools. There is no need for version checks of the parameter tools or for special test instruments.

SICAM PAS – centralised monitoring and control ...

Systems spread over wide areas call for a particular need to keep track of things. From the SICAM PAS CC (Control Center) you can monitor and control all parts of a system from a central point. The clear display of the operating situation allows you to react fast; you consequently reduce your operating costs and can quickly restore power in the event of malfunctions. As an integrated overall system, SICAM PAS supports you all the way from the bay level to the control center interface with fast data handling, with the flexibility of a programmable-logic controller and with the reliability philosophy of a classic tele-control unit.

... for decentralized systems!

Since the introduction of SINAUT LSA, decentralized system structuring has been asserting itself by virtue of its cost-optimized wiring and enhanced flexibility. This successful line of products continues with the SICAM SAS and SICAM PCC. Driven by the new optimization potentials of IEC 61850, SICAM PAS has been created as a symbiosis of both systems. In addition to present advantages it offers the user even higher reliability and even more security of investment. Availability and flexibility will help you create state-of-the-art control and protection concepts in power automation.



SICAM PAS – Setting and Serving New Standards

IEC 61850

Interoperability and integration capabilities facilitate supplier independent system integration and reduce planning efforts at the same time.

Future proof

Standardized protocols ensure interoperability without the need for expensive gateways. Networking capability and remote access also make for cost-optimized operating concepts.

Security is important

SICAM PAS development is according to upcoming security standard.

Straightforward system structure with optimum expandability

Thanks to high scalability, functionality can be adjusted to application-specific requirements. As such requirements grow, the system simply grows along with them – without the need for any reinstallation.

Enter your data only once

Regardless of the number and variety of functions, one central database makes sure that every piece of information only needs to be entered once into the system. This ensures data consistency and minimizes effort.

Simplified engineering

Easy handling in Windows™ environment means minimizing time to learn the system, thus ensuring highest productivity and reliability. Graphical configuration and automation contribute to straightforward parameter definition, thus reducing engineering times.

High-speed processing by means of distributed intelligence

A decentralized system structure with compact bay control devices reduces the complexity of wiring. At the same time, decentralized processing of switching interlocks boosts data throughput, shortens response time and thus improves system safety.

Networking capability offers new possibilities

Existing TCP/IP networks can be used economically to achieve high data transfer rates. Information can also be transferred to an office environment for evaluation.

Information available anywhere, anytime

Both locally and remotely, optimized diagnostic tools provide in-depth information on the process and system. Thanks to the clearly visualisation, you are getting the optimum picture and can come to the right decisions quickly and reliably.

Innovation combined with decades of experience

20 years of experience in power automation and 70 years of experience in telecontrol combined with the future-oriented IEC 61850 standard – that's SICAM PAS, a successful symbiosis of the SICAM family, a family with long tradition. Our know-how will provide a secure return on your investment – profit from it!

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