

SIEMENS

Ingenuity for life



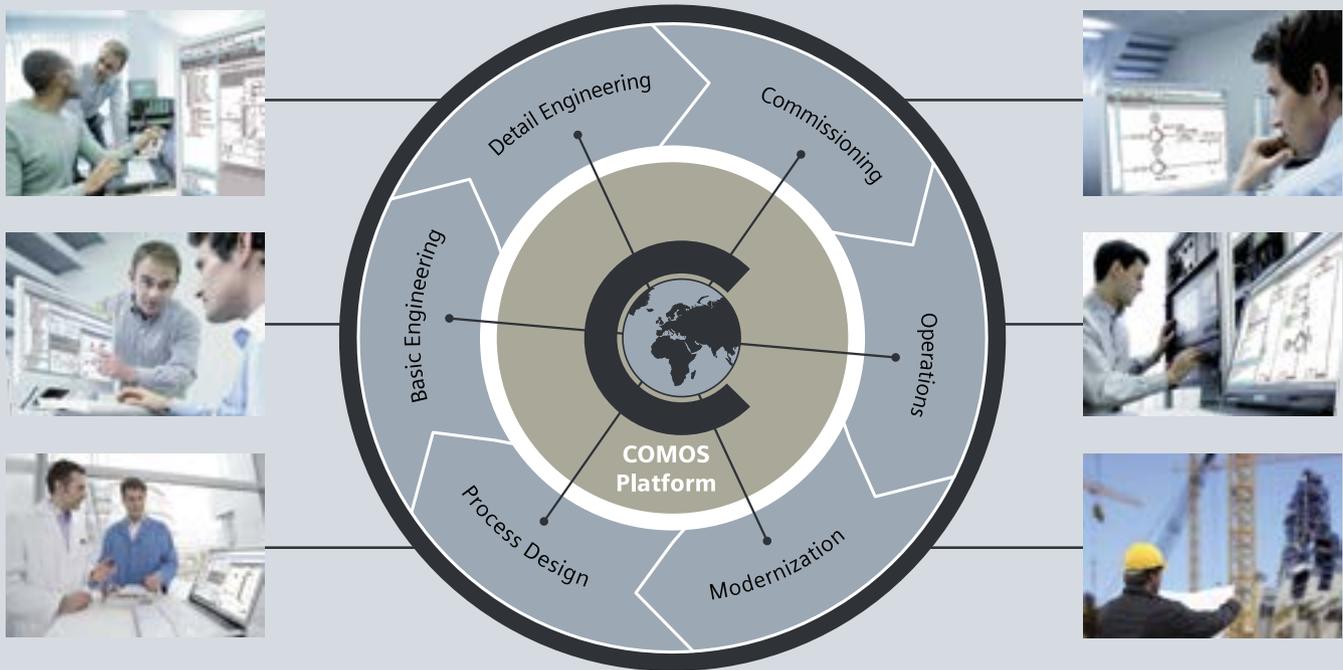
Software solutions from
Integrated Engineering to
Integrated Operations

COMOS – Making data work.

siemens.com/comos

COMOS – Making data work.

First choice for
comprehensive plant
project management



Global competition, shorter innovation cycles, increasingly stringent legal regulations for safety and environment protection, as well as a rising demand for individualized products pose enormous challenges for plant engineers and operators. This calls for innovative solutions like COMOS, which can economically optimize productivity, quality, and flexibility – throughout the entire plant lifecycle.

Efficiency through a common, up-to-date database

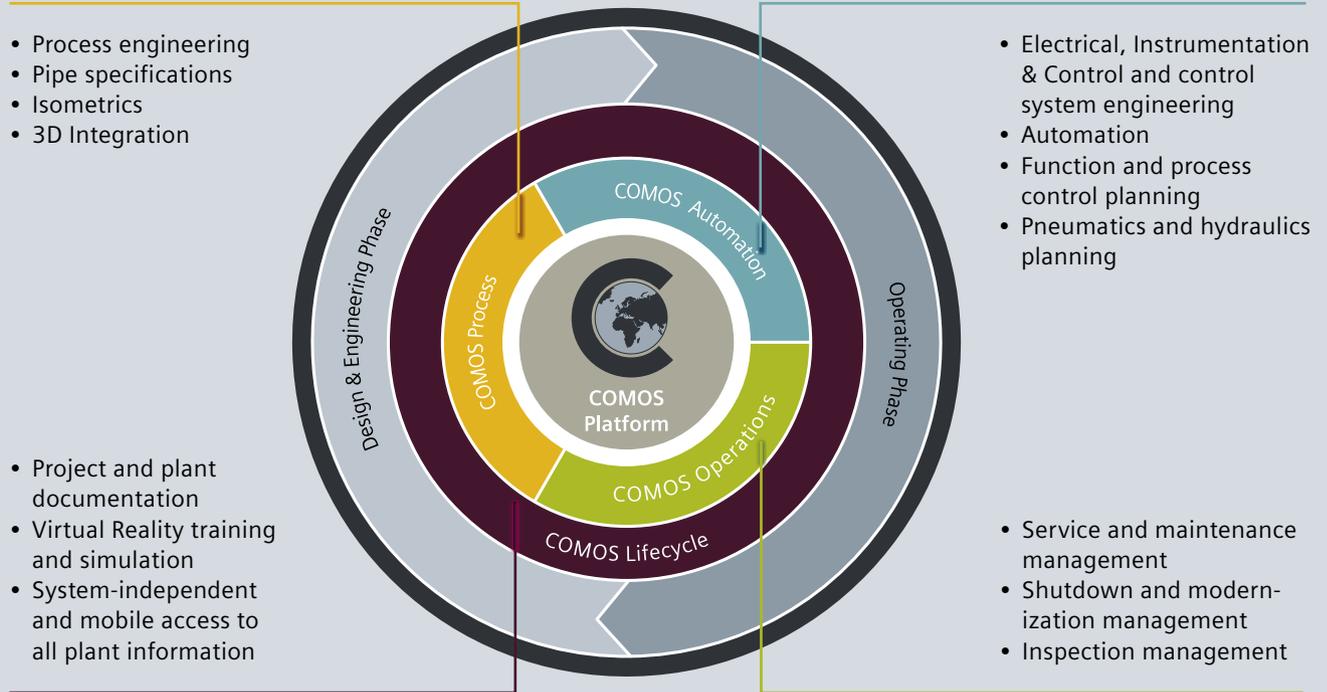
With COMOS, Siemens is the only company in the world to offer the process industry a software solution for the integrated management of plant projects – from engineering and operations to modernization as well as dismantling. COMOS ensures that engineers and operators can access all project-relevant data at all times, across all company levels and in all project phases.

COMOS offers a seamless flow of information by providing a common database. Because all data is always available and up-to-date, it depicts the actual as-built status of a plant at all times. In this way, COMOS lays the foundation for greater reliability in decision-making and more efficient processes throughout the entire plant – for a lasting improvement in competitiveness.

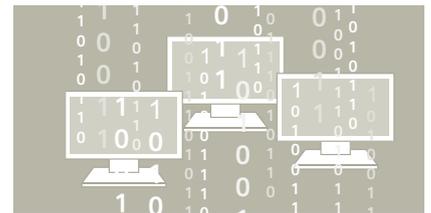
The COMOS portfolio is built as a modular structure. That means: All software solutions are integrated with each other and cover all lifecycle phases – from process design to basic and detail engineering to operation and modernization. They can be individually implemented, as required, or employed as stand-alone solutions.

COMOS is based on a uniform database which provides all information in an object-oriented manner. The open software architecture facilitates optimum integration of third-party systems and allows the seamless integration into existing EDP landscapes.

COMOS provides software solutions for every phase of the plant lifecycle



Integrated data management worldwide with COMOS Platform



The secure platform for efficient plant management – across all lifecycle phases

- Consistent and transparent interdisciplinary plant management with object orientation
- Parallel processing of engineering data with optimized workflows based on working layer technology
- Simple and intuitive user guidance for easy handling
- Information exchange between all involved parties through uniform data platform and open system architecture
- Optimized global collaboration through access to consistent, up-to-date data – anytime, anywhere
- Standard interfaces and easy-to-configure toolkits for the integration into existing system landscapes or the integration of foreign systems

COMOS Enterprise Server

- All data required for plant management available in one central location
- Automated data transfer between COMOS and other software systems
- Increased efficiency due to relocation of resource-intensive tasks

COMOS View, COMOS Web Server

- Emphasis on simple visualization of plant data
- Worldwide, system-independent and mobile access to all plant information

Consistent plant engineering with COMOS Process



Controlled plant engineering right from the start

- Reliable early plant engineering during the Front End Engineering & Design (FEED) phase
- Efficient creation of intelligent Process Flow Diagrams through reuse
- Integration of design data of the plant through interfaces to simulation programs
- Knowledge base for the definition and review of rules for the error-free creation of Process Flow Diagrams (PFDs)
- Conversion of PFDs into Piping and Instrumentation Diagrams (P&IDs) without data loss

Fast and easy generation of Piping and Instrumentation Diagrams with integrated and intelligent symbol technique

- Seamless integration of data from the FEED phase
- Consistent object-oriented P&ID generation based on comprehensive object libraries
- Intelligent connection technology and use of device libraries
- Revision management and tracking of changes
- Optimal connection to other COMOS solutions for basic and detail engineering as well as for plant operation through consistent data flows

Safely defining and managing pipes

- Easy creation and management of pipe classes based on international standards
- Versatile pipe part catalog for quick and quality-assured pipe spec design
- Consistent use of pipe specs across all disciplines
- Pipe spec integration on the P&ID

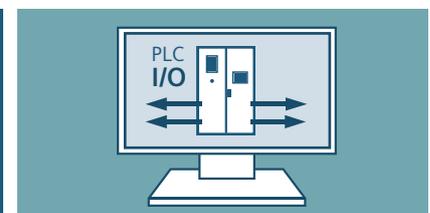
Interactive generation of isometrics from as-design to as-built status

- Data integration of pipe parts and pipe specs
- Automatic generation of a 3D model using the isometry
- Interfaces for the exchange with conventional third-party systems and file formats, such as IDF

Integrated 3D engineering without any media breaks

- Interlinking of P&ID, isometrics and 3D engineering
- Optimized plant documentation due to integration of all 3D layout documents and drawings
- Increased quality through rule-based determination of connection material
- Simplified material and parts list management

Fast & easy EI&C engineering with COMOS Automation



Optimized EI&C and control system engineering

- Easy and fast cabinet layout planning, including automation solutions
- Creation of cabling diagrams based on templates and autoloops
- Intelligent assembly group management based on eBlock technology

Optimum integration of all planning disciplines

- Interlinking with automation disciplines, fluidic planning and process engineering
- Fluid-specific equipment data management

Efficient graphical function engineering

- Creation of logical diagrams and operation charts for the graphical visualization of interlocks and sequencers
- Interfaces for the automatic handover to process control systems
- Simplified detail engineering through auto routing and auto connecting functions

Secure asset management with COMOS Operations



Targeted service and maintenance management

- Planning and organization of all maintenance, service and inspection tasks
- Optimum monitoring and control of resources
- Risk-based maintenance
- Analysis and automatic summary of processes and workflows for process optimization

Efficient planning and safe execution of plant shutdowns

- Complete shutdown planning, execution and analysis in one system
- Effective use of resources through optimized planning options

Easy and intuitive feedback directly from the plant

- Direct feedback on all maintenance tasks into the plant data
- Mobile data acquisition via handheld devices
- Central feedback via terminal stations in the plant with the use of card readers and barcode scanners

Intelligent service management

- Non-destructive material testing of components such as pipes, devices and containers
- Planning, implementation, analysis and documentation on one database

Comprehensive information management with COMOS Lifecycle



Structured project and plant documentation

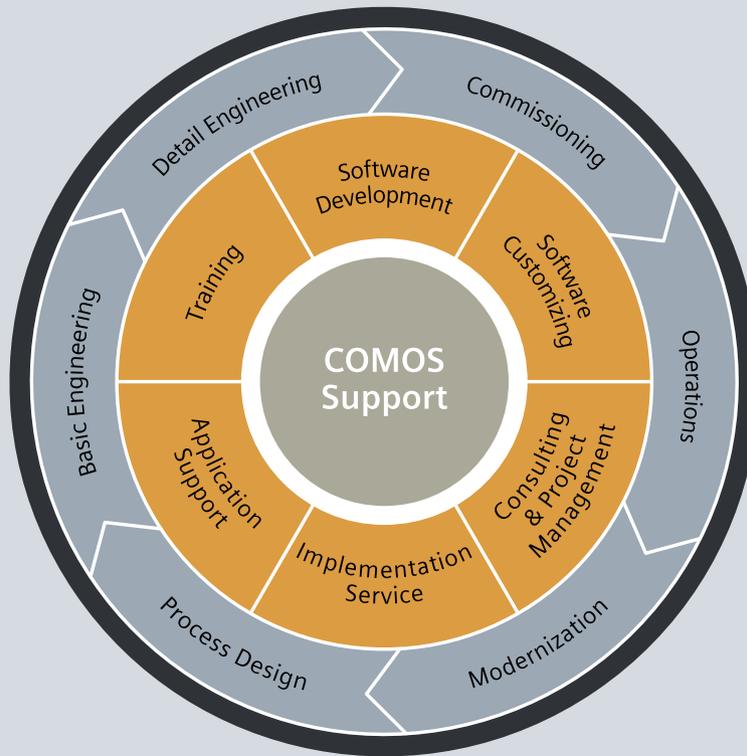
- Separation of project and plant documentation
- Mass processing of documents
- Risk-based compliance management
- Registration, verification and documentation of all changes
- Reliable and easy marking and approval of revisions

Efficient plant management during all lifecycle phases

- Global document management through mobile applications
- Worldwide, platform-independent access to all plant information through web-based services
- Location-independent access to COMOS documents through SharePoint integration

Powerful 3D Virtual Reality Visualization

- High-performance 3D visualization for design review, construction, commissioning, plant operation, simulation and training



As your reliable partner, we leverage our extensive experience in global markets and diverse industries in promoting your success. We provide support wherever you need us – with competent COMOS experts at numerous locations around the world. As a result, you benefit from high-quality service and expertise at all times. Our service solution spectrum is rounded off with expert support for the implementation of your customized system solution.

Training

Whether for basic, advanced or specialized knowledge, our training center offers an extensive range of courses – and definitely one ideally suited to your needs. Our experts provide directly applicable, comprehensive know-how and deepen existing knowledge. We can also specifically tailor trainings to your business needs and individual requirements.

Our complete range of courses is available for download on our website.

Or simply contact us directly at:

training.de.comos@siemens.com

Service & Support

Our COMOS software solution is used in numerous markets in the process industry and in a variety of different applications. As a result, service and support requirements vary accordingly.

Our multi-lingual online support portal can offer assistance for a variety of different needs. It is your first point of contact for optimal support:

- Inquiries can be made any time and are addressed quickly and conveniently
- Our competent team is available for you around the clock – 365 days a year and 24 hours a day

If you have any questions, contact the Industry Online Support:

<https://support.industry.siemens.com/My/ww/de/requests#createRequest>

You can also reach us over the regional support hotline – or via e-mail at:

support.automation@siemens.com



COMOS – Making data work. For you, too!

We are convinced that your system data and information are your greatest asset. Why do we feel that way? Have a personal talk with one of our experts and find out. Just give us a call. We are always happy to answer any questions you may have!

Feel free to contact us today for further information,
or visit our website at:

www.siemens.com/comos

For more
information,
scan the
QR code.



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Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions only form one element of such a concept.

Customer is responsible to prevent unauthorized access to its plants, systems, machines and networks. Systems, machines and components should only be connected to the enterprise network or the Internet if and to the extent necessary and with appropriate security measures (e.g. use of firewalls and network segmentation) in place.

Additionally, Siemens' guidance on appropriate security measures should be taken into account. For more information about industrial security, please visit <http://www.siemens.com/industrialsecurity>.

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends to apply product updates as soon as available and to always use the latest product versions. Use of product versions that are no longer supported, and failure to apply latest updates may increase customer's exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Security RSS Feed under <http://www.siemens.com/industrialsecurity>.