SpiritIT eXLerate
Automation solution for custody transfer of oil & gas
Measurement made easy

SpiritIT eXLerate is especially made for the control of oil & gas custody transfer systems. Operation, maintenance and management is highly automated. Measurement errors are automatically detected and even corrected.

Did you know?

Since 2003, over 1200 SpiritIT eXLerate supervisory systems have been installed worldwide!
Standard in custody transfer automation
Features specific for the oil & gas industry

Unlike the common HMI/SCADA packages, SpiritIT eXLerate has all the essential functions for making control metering systems robust, smart and efficient.

- Properly acquire & archive all measurement data
- Monitor & control the quality of measurement
- Apply self-diagnostics on both device and system level to warn the user in real-time for (upcoming) measurement issues
- Automatically correct errors, by utilizing the newest mis-measurement management technology
The clear graphical interface ensures the high usability of the software.
Gas & liquid calculations

The following gas & liquid calculations are available in our software:

- AGA3, AGA5, AGA7, AGA8, AGA9, AGA10 & AGA11
- ISO 5167 (all editions), ISO 6976 (all editions), NX19, SGERG, GOST, PTZ, GERG2004, GERG2008
- GPA 2172 / ASTM D3588, TP15, TP16, TP25, TP27
- IAPWS-IF97 steam and water
- NIST-1045, API 11.3.2.1 Ethylene (API-2565)
- ASTM D1550
- Time & flow weighted averages, periodic time series. Accurate period & accumulative totalizers and reporting.
- Linearization curves for correction of calibrated meters.
- Dynamic viscosity, isochoric heat capacity, isobaric heat capacity, isentropic, exponent, energy, entropy, and many other properties.

Optional features

- Virtual Flow Computing (VFC) functionality with detailed diagnostics.
- Validation and calibration procedures, ensuring real-time verification of field devices.
- Ultrasonic / Coriolis diagnostics & performance monitoring with Condition Based Monitoring-technology.
- Control features of proving, sampling and batching.
- Virtual printer management: possibility of retrieval, storage, processing & printing of fiscal flow computer reports.
- For custody transfer applications, the unique functionality of 100% redundancy and Mis-measurement Management.

Key benefits

- **Custody transfer reporting**
  High-quality reports are fully integrated and may be automatically or manually generated.

- **Embedded redundancy**
  Redundancy on communication link, device and server level is fully embedded in the software.

- **64-bit data**
  eXlerate aims for the highest accuracy and, wherever possible, data is communicated, processed and stored with 64-bit resolution.

- **Certified oil & gas calculations**
  eXlerate provides a rich set of certified flow and fluid property calculations.

- **Virtual flow computing**
  eXlerate provides embedded Virtual Flow Computing for continuous verification of the primary flow computers.

- **Accurate station totalizers**
  A programmable summary with current & past alarms and events is available.

- **On-line meter diagnostics**
  A database server is available with ready-to-use functions for easy integration and further analysis.
Automation intelligence
Maximize quality and results

100% Redundancy

For custody transfer-specific systems, Spirit®eXLerate is the first to ensure full availability with its 100% redundant system architecture.

With the use of multiple server computers, which synchronize and back-up all metering data, one point of failure will never lead to a total breakdown. Because our computers are capable of instantly taking over the role as Duty server in a ‘bumpless’ manner, data monitoring and control will never be interrupted.

As Spirit® eXLerate software offers the highest degree of redundancy in its systems, full data transparency and maintainability is realized on all connected computers.

MMM: Mis-Measurement Management

Up to now, detecting and solving software measurement errors has been time-consuming, expensive and not done by default.

Spirit®’s innovative Mis-measurement Management technology finally overcomes this inefficiency. Being the first to automatically detect and resolve all mis-measurement issues in (near) real-time, this technology incorporates extensive methods varying from basic checks to sophisticated algorithms. Furthermore, it includes a highly accurate and patented method based on API MPMS Chapters 21.2 and 21.2, to improve system uncertainty.

The MMM technology:
• Detects errors as early as possible;
• Allows the user to efficiently analyze the issue;
• Corrects errors as precisely as possible;
• Facilitates automatic billing corrections;
• Is both time- and money saving.
SpiritIT eXLerate architecture: scalable from small local systems to large corporate systems
From standard to custom
Suitable for every application

Not only is SpiritIT eXLerate suitable for a wide range of custody transfer applications, its scalability allows for everything from small local supervisory to large corporate control systems.

In large facilities, one standalone SpiritIT eXLerate-based application creates a solid, reliable HMI solution with more than adequate functionality.

For mission-critical systems where stability and availability are essential, SpiritIT eXLerate provides redundant system architectures.

Additionally, the system can be extended with multiple Client computers, that each act as fully functional operator station.
Service and support
Advice, assist and teach

Product licensing for integrators
System integrators may use Spirit™ eXLerate licenses for their own applications and projects. Engineering and consulting services can be provided on either a turnkey or project basis, including specific software development.

Technical support
We provide life-cycle management services to support the work of system integrators and equipment manufacturers. Conducted by a global network of trained experts, this includes strategic cooperation, consultancy and total project management.

Training
In order to make users feel confident with our software, we provide customized operator training to turn them into eXLerate- and metering specialists.
System integrator benefits
All you need to build a modern metering control system

Easy programmable
With our user-friendly and comprehensive MS Excel-oriented development environment, you will have full control over software configurations.

Integrated features
Powerful built-in wizards, tools and features will get you quickly up and running.

Training programs
ABB provides engineering training programs, that are tailored to your own specific needs and knowledge level in order to achieve optimum results.

Flexible license model
We offer licenses with various editions, sizes in number of I/O tags and operation modes. Each license can be configured to preference and specific project needs.

**LICENSE EDITION**

<table>
<thead>
<tr>
<th>STAND ALONE EDITION</th>
<th>SERVER EDITION</th>
<th>CLIENT EDITION</th>
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<tbody>
<tr>
<td>The Standalone Edition runs as one single server. It communicates with external equipment via serial or Ethernet interfaces.</td>
<td>The Server Edition runs in a redundant environment and is able to communicate with external equipment. Each server can run either as Duty or Standby.</td>
<td>The Client Edition computer is additional to the Server Edition and is connected to a duty server via one or more networks. It allows full control and operation, where all data and reports are obtained from a duty server.</td>
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**LICENSE SIZE**

<table>
<thead>
<tr>
<th>LITE</th>
<th>BASIC</th>
<th>STANDARD</th>
<th>EXTENDED</th>
<th>PRO</th>
<th>PLUS</th>
<th>LARGE</th>
<th>FULL</th>
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<tbody>
<tr>
<td>75 I/O</td>
<td>150 I/O</td>
<td>300 I/O</td>
<td>750 I/O</td>
<td>1500 I/O</td>
<td>3000 I/O</td>
<td>6000 I/O</td>
<td>32000 I/O</td>
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**RUNTIME MODE**

<table>
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<tr>
<th>RUNTIME ONLY</th>
<th>RUNTIME + DEVELOPMENT</th>
<th>DEVELOPMENT ONLY</th>
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<tr>
<td>The Runtime Only-license has the restriction that the user is not able to modify or inspect the application configuration.</td>
<td>This is a full-featured license, where modifications can be made on a runtime system, when the operator has sufficient security rights.</td>
<td>This license is available for system integrators who have completed our eXlerate training. The user can modify or inspect the application, but after a built-in timeout of one hour, communications are terminated.</td>
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Additional hardware-based protection
Spirit® eXlerate supports two kinds of dongles: a Maintenance dongle, which allows an engineer to enter the Development mode on a Runtime Only system, and a Runtime dongle, which allows easy transfer of a license from one computer system to another.