AVEVA

AVEVA and PowerRunner

Introducing PowerRunner on AVEVA™ PI System™

PowerRunner on AVEVA PI System provides the utility industry with granular, temporal, and locational situational awareness to support both the growing complexities that face utilities and the evolving requirements of the bi-directional distribution grid.

The solution is designed as a fully integrated and extensible operational data infrastructure with highly configurable analytics that help you configure and reconfigure solutions to meet the changing requirements of an industry in transition.

Benefits

The PowerRunner on PI System offers you the following benefits:

Fully integrated data infrastructure with data management

Built upon the AVEVA PI System, the industry-leading time-series database infrastructure, the PowerRunner on PI System extends the value of data and context you already get from the PI System for the growing distribution network.

Additionally, integrating operational data from AMI, SCADA, and other sensors offers configurable PowerRunner data management and governance layers to create a trusted, near realtime, single source of truth.

Speed to value

PowerRunner on PI System implementation is accelerated by the application of existing AVEVA interfaces and by integration via the PowerRunner-PI gateway, so you can start enterprise deployments in just weeks.

Value-added use cases

As a fully integrated solution with dozens of in-production business use cases, the PowerRunner on PI System delivers out-of-the-box functionality that adds immediate value.

Minimal business risks

PowerRunner on PI System is a proven, scalable, extensible, and configurable operational data solution designed to meet your unique business and operational requirements. The solution's ease of implementation and out-of-the-box use cases provide immediate, day-one value to utilities. The extensibility of the solution also allows you to configure and reconfigure analytics to address your uniquely changing business requirements.

PowerRunner on PI System provides the mature integration layers of both technologies, giving you a data infrastructure solution that joins time-series operational data with scalar commercial data to create a fully integrated operational data solution.

Business applications
- Measure data operations
- Exception analytics
- Theshold alarming with notifications and workflow
- AI/ML forecast modeling

User configurations
- Ad hoc data querying
- Custom and ad hoc reporting
- Watchlists and notifications
- Configurable analytics

Scalable data infrastructure
- Time-series database architecture
- Accelerated I/O engine for real-time grid situational awareness
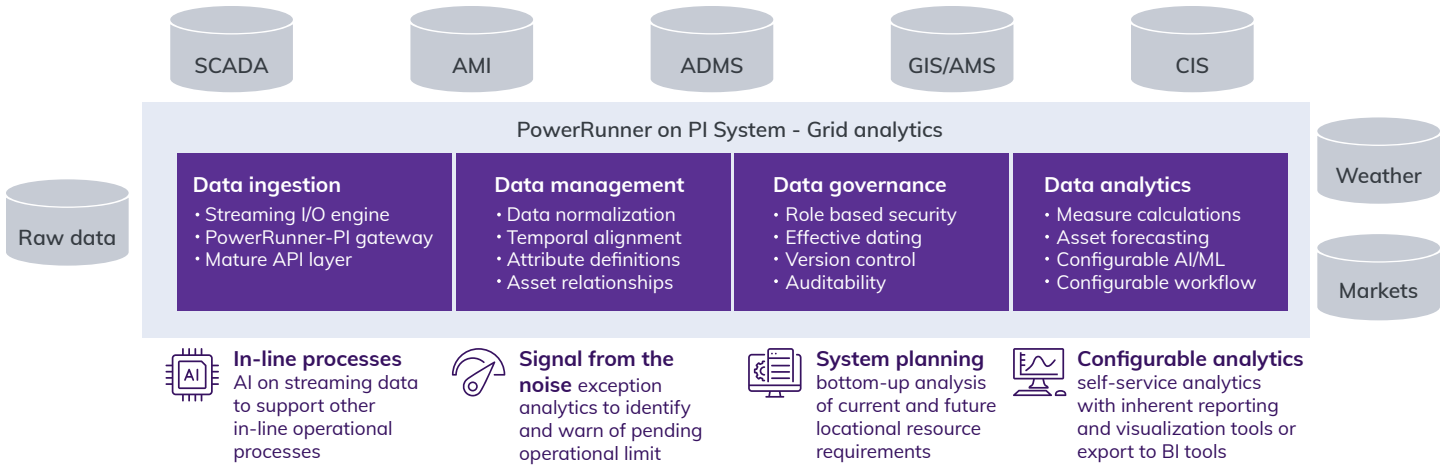- Native interfaces and adapters

Data governance
- Multi-source data querying
- Data and attribute versioning
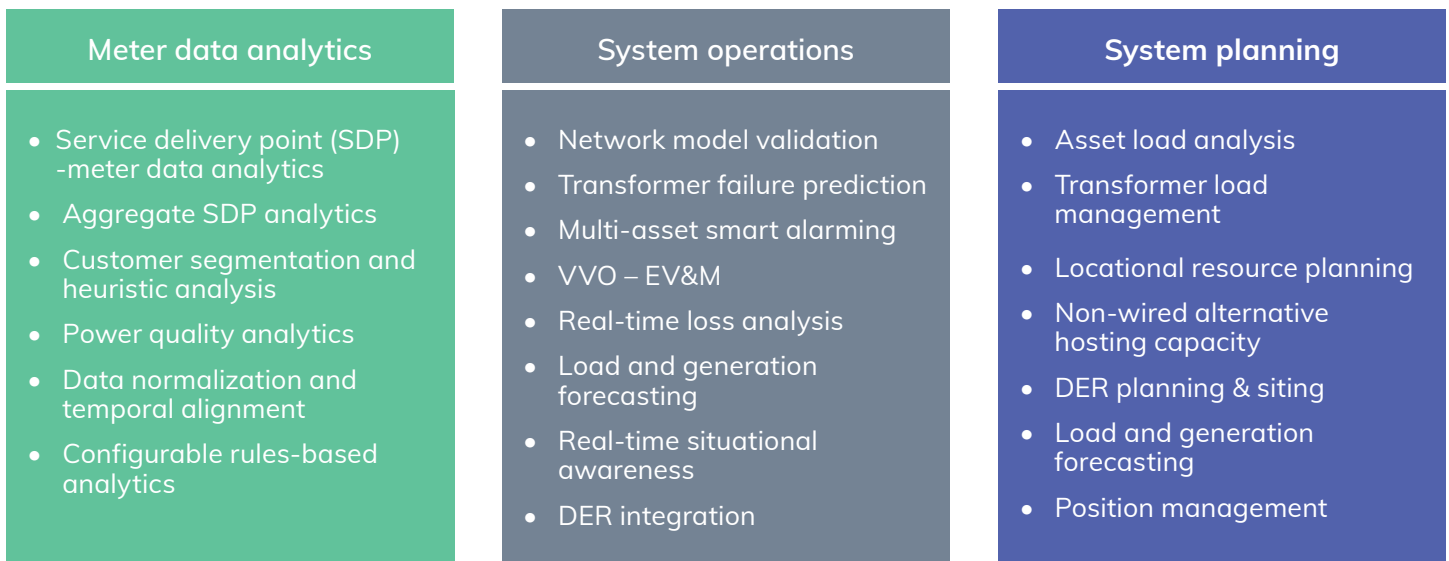- Data and attribute auditing
- Role-based security

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SCADA AMI ADMS GIS/AMS CIS

Weather

Raw data

PowerRunner on PI System - Grid analytics

Data ingestion
- Streaming I/O engine
- PowerRunner-PI gateway
- Mature API layer

Data management
- Data normalization
- Temporal alignment
- Attribute definitions
- Asset relationships

Data governance
- Role based security
- Effective dating
- Version control
- Auditability

Data analytics
- Measure calculations
- Asset forecasting
- Configurable AI/ML
- Configurable workflow

Markets

In-line processes AI on streaming data to support other in-line operational processes

Signal from the noise exception analytics to identify and warn of pending operational limit

System planning bottom-up analysis of current and future locational resource requirements

Configurable analytics self-service analytics with inherent reporting and visualization tools or export to BI tools

AMI – Grid analytics

Meter data analytics

- Service delivery point (SDP) -meter data analytics
- Aggregate SDP analytics
- Customer segmentation and heuristic analysis
- Power quality analytics
- Data normalization and temporal alignment
- Configurable rules-based analytics

System operations

- Network model validation
- Transformer failure prediction
- Multi-asset smart alarming
- VVO – EV&M
- Real-time loss analysis
- Load and generation forecasting
- Real-time situational awareness
- DER integration

System planning

- Asset load analysis
- Transformer load management
- Locational resource planning
- Non-wired alternative hosting capacity
- DER planning & siting
- Load and generation forecasting
- Position management

For more information, please contact

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