



SAS® BookRunner®

Proactively capture, analyze and simulate energy risk

Overview

Any firm that buys or sells energy commodities such as electric power, natural gas, coal, crude oil or emissions is exposed to fluctuating prices, increasing regulatory constraints, and other market, credit and physical risks.

Today more than ever, it is critical for executives in energy companies to analyze credit and market exposures with speed and granularity.

SAS® BookRunner® 12, developed on top of the robust SAS 9.2 software release, offers modules for commodity capture, portfolio risk management and advanced analytics using a single Web-based graphical interface. The flexibility of the modular approach allows for easy integration into most environments.

The advanced analytical and data integration capabilities of SAS provide a premier energy trading and risk management (ETRM) solution. This solution offers deal capture capabilities for the full range of energy commodities and transaction types. It provides physical and financial position reporting as well as advanced risk analysis for market and credit risk management. In addition, SAS BookRunner is uniquely positioned to support green initiatives, and it provides the ability to model renewable energy generation assets such as solar farms, wind turbines and biodiesel.



ETRM challenges

- Deals and positions are in different systems or spreadsheets, making it a slow, manual process to consolidate exposures.
- Current systems lack the advanced analytics required to simulate a consolidated portfolio.
- It is difficult to generate ad hoc analytical reports needed to support both internal and external regulatory compliance.
- Potential future effects on portfolio valuation are not reflected in risk reporting systems.
- Too much reliance on error-prone spreadsheets for risk reporting.
- Business analysts and executives do not have ready access to information.



An end-to-end ETRM solution for managing commodity portfolios

The SAS® Solution

SAS BookRunner proactively captures, analyzes and simulates market and credit risks associated with energy commodity price volatility through an integrated ETRM framework that provides a portfolio-level view to measure, manage and control energy risk. This front-to-back-office solution includes:

- Deal capture capabilities.
- Leading data integration and data cleansing features.
- Advanced predictive analytics.
- Compliance reporting.
- A full suite of sophisticated risk modeling tools.

Benefits

Consolidate exposures across business units and trading books

- Leveraging SAS/ACCESS® engines, risk managers can consolidate positions from a variety of disparate transaction and market data sources into a common risk data store for centralized risk modeling and reporting.
- Generate consolidated net position reports by running analytics to substantially augment risk management capabilities.

Support compliance for internal policies and external regulations

- Prebuilt audit and analysis capabilities support effective and efficient regulatory compliance for an energy market participant.
- Support for Microsoft integration allows critical proprietary algorithms previously stored in spreadsheets to be registered within SAS BookRunner's secure and auditable database. You get the flexibility of spreadsheets without the business control issues.

Track current and potential exposures with integrated risk analytics

- Using SAS BookRunner Advanced Analytics, energy clients can quantify and run exposure analysis metrics, including Value-at-Risk, Earnings-at-Risk, Cash-Flow-at-Risk, Gross-Margin-at-Risk and Potential Future Exposure, on their portfolios.

- Market and credits analysts can run ad hoc analyses for senior management risk reporting, including asset modeling, risk factor sensitivity analysis, market scenario analysis, portfolio stress testing and what-if predeal risk analytics.
- Being able to view the results of advanced analytics gives executives an accurate and timely measure of their firm's exposures. This is a requirement that boards and senior management demand for portfolio-based decision making that surrounds hedging and asset optimization.

Decrease reliance on spreadsheets for risk modeling and reporting

- A robust and auditable environment (not based on spreadsheets) supports risk modeling and reporting best practices.
- Powerful analytical and data integration capabilities enable energy clients to operate a holistic solution around commodity risk.
- Risk analysts can create analytics ranging from portfolio valuations to ad hoc market sensitivity analysis reports.
- Powerful analytic capabilities and a powerful position and market data store are integrated into a unified energy commodity risk platform.

Capabilities

Deal capture

SAS BookRunner Commodity Capture is a complete solution for managing multiple commodity portfolios of any size or complexity. It handles deal capture (any energy commodity, any transaction or trading in any region) and physical and financial position reporting. Its market risk and credit risk analytics help risk managers monitor their overall exposure, and it includes an array of reporting options. It also contains specialized features for crude oil and electricity markets.

Advanced analytics

Based on the powerful SAS risk engine, SAS BookRunner provides world-class advanced analytics not typically found in ETRM solutions. With this solution, organizations can accurately model and assess market and credit risk in a company-specific framework. SAS BookRunner Advanced Analytics also provide simulation capabilities unsurpassed in the market.

Advanced modeling functions enable firms to measure and monitor risk metrics associated with physical or financial energy assets and contracts, including Value-at-Risk, Cash-Flow-at-Risk and Potential Future Exposure, and run risk factor sensitivity analysis, portfolio stress testing, market scenario analysis and what-if predeal trade analytics. Analysts with SAS experience can easily add and modify analytics within the system.

Risk portfolio management

SAS BookRunner Analytics Workbench provides analysts with a graphical tool to run analytics and build credit and market risk models in a centralized environment. This module lets you quickly access data in virtually any format (spreadsheets, relational databases and proprietary data stores). You can also cleanse your data, perform analyses and create business models. But the SAS BookRunner Analytics Workbench doesn't just build models. It builds solutions, including credit risk and cross-commodity spread analytics, generation asset modeling, and trading limit and hedge-compliance management. It also provides a powerful drill-down tool that creates mobility for risk executives with dashboards that publish to any desktop or smart handheld device.

The SAS® Difference

- **Central store for commodity trading data.** Many trading organizations tend to have best-of-breed approaches to commodity trading. SAS BookRunner provides a data model capable of storing all commodity trades and physical positions.
- **Support for industry standards.** SAS BookRunner provides XML upload and download facilities accessible from SOAP Web services, making it SOA-compliant. This eases integration with other systems.
- **Easy-to-use, thin-client interface.** The user interface is written as a Rich Internet Application (RIA). This provides thick-client functionality inside of a Web browser, which means a user-friendly, thin-client interface that requires no software installed on the user's machine. In addition, the Web-based, point-and-click interface lets users view dashboards for a quick overview of issues and problems; access the latest information on key indicators; drill down to performance trends; and disseminate strategic information across the organization.
- **The power of SAS advanced analytics.** SAS BookRunner takes full advantage of advanced, out-of-the-box analytics powered by the SAS risk engine. SAS BookRunner also provides an interface for other SAS Analytics to be used within the solution.

Related SAS® offerings

- **SAS® Risk Dimensions®** enables users to perform firmwide risk management and provides them with an open, flexible and extensible means of measuring and managing credit, market and operational risks in a manner that is the most appropriate for an organization's unique needs.
- **SAS Forecast Server** generates large quantities of high-quality forecasts quickly and automatically, allowing organizations to plan more effectively for the future.
- **SAS for Sustainability Management** enables an organization to measure, manage and report on environmental, social and economic indicators, and determine business strategies that reduce risk and increase shareholder value.
- **SAS Grid Computing** delivers enterprise-class capabilities that enable many SAS solutions to automatically leverage a centrally managed grid infrastructure and provides high availability for critical services and business processes. It allocates computing-intensive SAS applications appropriately across hardware resources for improved business continuity.

About SAS

SAS is the leader in business analytics software and services, and the largest independent vendor in the business intelligence market. Through innovative solutions delivered within an integrated framework, SAS helps customers at more than 45,000 sites improve performance and deliver value by making better decisions faster. Since 1976 SAS has been giving customers around the world THE POWER TO KNOW®.

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