

INTEGRATED SOLUTIONS

SATURN offers an enterprise-wide integrated ETRM system (front, mid, back office) with decision support capabilities and additional unique tools that offer solutions to key business functions. It helps realize significant benefits and gain unique and sustainable competitive advantages.

Market Simulation



- Power, Fuels, EAs, Weather, IR, FX, Other
- Spot & Forward, Volatility Term Structure
- GBM, MR, MRJD, AR, ARJD, Indexed, Hybrid
- All In and Basis, Hourly Profiles
- Multivariate Spot & Forward Correlation Factors

Parameters Estimation



- Historic Prices, Recent Market Quotes
- Historic and Implied Volatility, Uncertainty
- Volatility Term Structures and Proxy Markets
- Decay Factors, Simple and EWMA Estimation
- MRR, Jumps, Hourly Profiles, Correlations

Generation Management



- Thermal, Storage, Renewable
- Unit Commitment and Economic Dispatch
- Ancillary Services, Emissions, Start Costs
- Ramp Rates, Min Run/Down Times, Outages
- Limits (Emission, Cycles, On Hours, Other)

Retail Management



- Electric and Gas, Load Types (Class, Group)
- Relationships (Hour, Day, Weather, Groups)
- Regression Analysis (R^2 , MAPE, SE, MAD)
- Capacity and REC Requirements, Migration
- Fixed and Indexed Costing and Pricing

Trade Capture



- Standard Agreements, Contracts, Templates
- Power, Fuels, EAs, Load, All Other Commodities
- Confirmation, Limits, Accounting, Netting
- Forward/Future, Call/Put, Strangle/Straddle
- Spread, Swap, Exotics, Structured Trades

Trade Valuation



- Power, Fuels, EAs, Load, Gas Storage
- Weather, IR, FX, Insurance, Credit
- Transmission, Transportation, Other
- MTM, Greeks, VAR (Parametric, Simulation)
- Hedge Analysis, Positions, Backtesting

Credit Management



- Credit Rating, Rating Transition Matrix
- Default Probability, Loss Given Default, MAC
- A/P, A/R, Margins, Controls, Limits, Netting
- Counterparty, Contract, Exposure, Collateral
- Current and Potential Future Exposure

Financial Analysis



- KPIs, Targets, Budgets, P&L, Key Ratios
- Income Statement, Balance Sheet
- Taxes, Depreciation, Amortization, Dividend
- Margin, EBIT, EBITDA, Net Income, EPS
- FFO, FCF, Net Cash, ROI, ROE, SVA

Business Intelligence



- Markets (Spot, Forward, Price, Vol, MRR)
- Weather (Temp, THI, DD, Wind, Rain, Snow)
- Generation (Production, Cap Factors, On Hours)
- Outages (FOR, EFOR, Duration, Distribution)
- Value, Trend, Distribution, Correlations, Other

Market Integration



- ISOs, RTOs, Pipelines, Exchanges, Brokers
- Generation, Loads, Prices, Weather, Credit
- Scheduling, Nomination, Settlement, Clearing
- Confirmation, Reconciliation, Dispute Resolution
- Corporate Databases, Web Scrapping, Other

Risk Management



- Cash Flow At Risk (FFO, Net Cash, FCF)
- Earning At Risk (EBIT, Net Income, Other)
- Credit At Risk (Expected/Unexpected Loss)
- VAR and MTM (Realized/Unrealized Gains)
- Risk Tolerance and Capital Allocation

Portfolio Management



- Existing & Potential Portfolio Risk & Return
- Risk/Return Positions and Tradeoffs
- Efficient Frontier Portfolio Optimization
- Decision Analysis and Support
- Sensitivity & Scenario Analysis, Stress Test

DIFFERENTIATING FEATURES

Fully Integrated ETRM

- Generation/Trades/Loads/Weather
- Wholesale Trading/Retail Management
- Transactional Management, Risk Management
- Simulation/Optimization/Valuation

Unparalleled Performance

- Modern 64-bit Architecture, J2EE, ORACLE
- Multi-Threaded, Multi-Core, AJAX, N-Tier
- Grid Computing, Parallel Processing, SOA
- Dynamic Hardware Configuration

Broad Applications

- Market Simulation/Generation Management
- Credit Management/Financial Analysis
- Wholesale Trading/Retail Management
- Risk Management/Portfolio Management

Rapid Deployment

- Rapid Implementation and Customization
- Software As A Service (SaaS)
- Internal, External, and Third Party Hosting
- On-Demand Non-Disruptive Scalability

Regulatory Compliance

- Configurable & Flexible Regulatory Compliance
- Dodd-Frank Act, Sarbanes Oxley Act
- FASB Compliance, IAS Compliance
- Fair Value Management, Financial Management

Enterprise Services

- Users Forum, Newsletters, News Feeds
- Corporate Collaboration & Database
- Archiving and Document Management
- Changes Auditing and Use Tracking & Analysis

Benefits



Modular Architecture

- Modules, ETRM, or Fully Integrated Framework
- Multi Commodity (Power, Fuels, EA, Other)
- Comprehensive Vertical & Horizontal Scalability
- Regional/National/Global Configuration

Advanced Analytics

- Optimized Generation Analysis
- Unparalleled Operating Limits Optimization
- Multivariate Forward/Spot Stochastic Simulation
- Flexible Parameters Estimation & Load Modeling

Seamless Integration

- Multi User/Group/Geography
- Short/Mid/Long Term
- Data/Analysis/Reporting/Presentation
- Productivity Tools (EXCEL, PowerPoint)

Intuitive Interface

- Standardized Web Based Interface
- Data Validation, On-Line Help, FAQs
- Configurable Display, Templates, Bookmarks
- Intuitive Navigation/UI, Customized Display

Extensive Reporting

- Extensive Filtering, Aggregation, & Drill-Downs
- Different Granularities, Extensive Statistics
- Datagrids, Charts, Dashboards, EXCEL, Other
- Configurable Reporting and Presentation

Access Anywhere Anytime

- Secure Web Based Interface
- Authentication, Authorization
- Data Integrity, Data Management
- Messaging, Email Notification

Testimonials

PSEG

SATURN enables enterprise risk management with an unprecedented mix of analytics, ease, and speed.
Steven B. Oster, Director, Quantitative Analysis

SCOTTISHPOWER

SATURN has performed 20 times faster than our tools. It is an easy-to-use next generation system.
Richard Cook, Generation Planning Manager

UTILIPPOINT®
International Inc.

... broad and deep functionality ... emphasis on integration and data mining ... somewhat unique.
Gary M. Vasey, Ph.D., Vice President, Europe

the DESK

... offers layer upon layer of sophisticated portfolio management functionality we've not yet seen.
John Sodergreen, Editor-in-Chief

Recipient of Gartner's Prestigious
"2009 Cool Vendor" Award