TIBCO® Statistica™

Benefits

Empower Everyone to Collaborate

Leverage the creativity of the entire cross-functional team, including citizen data scientists, data engineers, business experts, and developers — not just a few data scientists. Use an intuitive web-browser interface or comprehensive desktop client that make it easy to share, comment, and markup while maintaining transparency, security, version control, and auditability. TIBCO Data Science is the best solution for bringing machine learning, data, processes, and people together to create operational solutions for the business.

Reuse Data Science and Extend Your Power

Extend the power of data science by creating reusable machine learning templates that can be easily shared, deployed, monitored, and controlled in production help business users, data engineers, developers, citizen data scientists, and data scientists collaborate and understand complex business issues and analytic approaches. Stop reinventing the wheel. Standardize and develop best practices while providing the flexibility and extensibility required for innovation.

Simplify Big Data Analytics

Algorithms, big data, edge processing, and serverless technologies can be complex and overwhelming. TIBCO Data Science simplifies the end-to-end analytics lifecycle within hybrid and big data ecosystems like Spark and Hadoop. Automate data prep and predictive analytic workflows to run and scale directly within a cluster. Automating the analytics process, scheduling jobs, monitoring, and accelerating big data analytic projects amplifies the benefits of data science and increases efficiency and productivity across the entire organization.

Operationalize Data Science

Many organizations struggle to deploy analytics into production environments. As data drifts and models decay, being able to retrain, refresh, and automatically deploy new analytic models at the edge or directly within business systems lets you understand and act on trustworthy results.

Make Innovating Easy

Create innovative models with the latest deep learning, predictive, prescriptive, AI, and analytical techniques—and drive a culture of analytics for all. Rapidly prototype new techniques with Python, R, Scala, and built-in analytics that provide flexibility and fast exploration of models. Uncover new business opportunities, revenue streams, and asset monetization for a sustained competitive advantage.

Move from Data to Insights Fast

We offer a full suite of capabilities so you can achieve current and future business goals. Integrate with other TIBCO products to create business solutions: Start analyzing in Spotfire Data Science, and export to Spotfire for visualization. Use TIBCO StreamBase® for streaming analytics, TIBCO Flogo® for edge analytics, and TIBCO Cloud™ LiveApps to provide self-service creation of business apps.

Capabilities

Full Spectrum Analytics

Enable your workforce with built-in smarts and thousands of functions and algorithms. Predictive analytics, regression, clustering, time-series, decision trees, neural networks, machine learning, data mining, multivariate statistics, statistical process control (SPC), design of experiments (DOE), graph/network analysis, and text analytics are easily accessed via built-in nodes.

Machine Learning for Big Data

Automate analytical models with algorithms that iteratively learn from data and optimize performance. With available machine learning algorithms for big data, you can put your computers to work finding new patterns and insights without explicitly programming them where to look.

Team Collaboration

Make collaboration easy, allowing business experts, data scientists, citizen data scientists, data engineers, and developers to infuse algorithms within business systems. Easily create data prep, analytic, and scoring pipelines with an intuitive drag-and-drop user interface. Team members share and annotate data, scripts, models, and workflows.

Monitoring, Management, Deployment

Create ensemble models and compare model efficacy with champion-challenger testing. Monitor and create alerts for model-drift and easily refresh models when they decay. Deploy entire workflows, not just models. Set workflows to run on a regular schedule, and push PMML or PFA real-time scoring models to Cloud Foundry, AWS, or Google App Engine. Build models on EMR or Redshift and deploy on-premises to Oracle or Teradata. Push models into real-time scoring engines at the click of a button.

Security, Governance, Auditability

Deploying analytics solutions against Kerberos, Ranger, and Sentry can be challenging; many open-source implementations aren't suited. TIBCO Data Science interacts with secured clusters, enabling advanced analytics on Hive and Spark to operate within IT data security policies. Define users and roles for role-based security on any asset within the system. Built-in version control, audit logs, and approval processes.

Open, Flexible, Extensible

Extend analytic workflows by seamlessly integrating open source R, Jupyter Notebooks, Python, C#, and Scala scripts as workflow nodes and custom operators that can run directly in-database or at the edge.

Product Bundles

Find the edition that's right for you.

As the need for traditional data scientists outpaces the available supply, citizen data scientists—nontechnical line of business users—will increasingly become the driving force behind analytics initiatives. In addition, with distributed data repositories and a huge surge in data volumes from the Internet of Things (IoT), being able to deploy machine learning pipelines and score streaming data in real-time leads to competitive advantage.

TIBCO Statistica™ helps solve these challenges by allowing data scientists to create and deploy data science workflows to data discovery tools like TIBCO Spotfire® or real-time scoring engines like TIBCO StreamBase® and TIBCO Flogo® Enterprise. Workflows improve collaboration among citizen data scientists, data scientists, and developers, allowing your organization to automate, orchestrate, and govern data science across the organization.

	Desktop	**Analyst**	**Modeler**	**Data Scientist**	**Compre-hensive**
	For scientists, and data analysts who understand the value of data and need an intuitive interface for simplified data prep, analytics, and dashboards.	*For manufacturing/industrial engineers who aren't programmers, but use analytics for quality control, SPC, process monitoring, and process optimization.*	*For data scientists or statisticians who may or may not be programmers, but need machine learning, Python and R scripting, and reusable templates.*	*For data scientists, executives, and managers who need a comprehensive analytics platform to run their businesses and make strategic decisions.*	*For organizations who need it all.*
Empowering Data Scientists and Citizen Data Scientists					
Simplified data prep, mashup, and aggregation	√	√	√	√	√
R, Python, and C# scripting	√	√	√	√	√
Time-stamped and/ or batch-stamped data mashup capability		√	√	√	√
Web-based access to view and run workflows*		√	√	√	√
Automatic model building and comparison			√	√	√

Integration with Algorithm and App Marketplaces					
Azure ML, Apervita, Algorithmia, and H20.ai	√	√	√	√	√
Reporting					
Report templates*		√	√	√	√
Analytics					
Descriptive statistics, forecasting, regression, and exploratory data analysis	√	√	√	√	√
Quality control, multivariate SPC, and design of experiments	√	√	√	√	√
Machine learning, data mining, and automated neural networks			√	√	√
Analysis of research designs with both fixed and random effects		√		√	√
Deep learning*		√	√	√	√
Text Mining		√		√	√

Network (entity) analytics and automated model building*				√	√
Model Management & Deployment Options					
Model management and version control*		√	√	√	√
Reusable workflow templates*		√	√	√	√
Batch scoring*			√	√	√
Model deployment code generation in PMML			√	√	√
Model deployment code generation in Java, C#, SQL, database stored procedure, and SAS				√	√
IoT: deploy data prep and analytic workflows on edge devices and gateways*				√	√
Business rules builder (conditional execution of models and rules, if/elseif/else)		√	√	√	√

Real-time monitoring and alerting*		√	√	√	√
Real-time live scoring*				√	√

Compliance, Security, and Governance

User/role-based security, audit trails, version, approvals, and electronic signatures*		√	√	√	√
Validatable analytics and reporting for regulated industries* (FDA CFR Part 11, IHC, SOX, and Basel II)		√	√	√	√

Industry-specific Analytic Add-ons

OSI PI connector		√		√	√
Validated data entry*		√	√	√	√
Stability and shelf-life analytics*					√
Product traceability analytics*					√

*Requires server add-on for Analyst, Modeler, or Data Scientist. Server is included in Comprehensive.