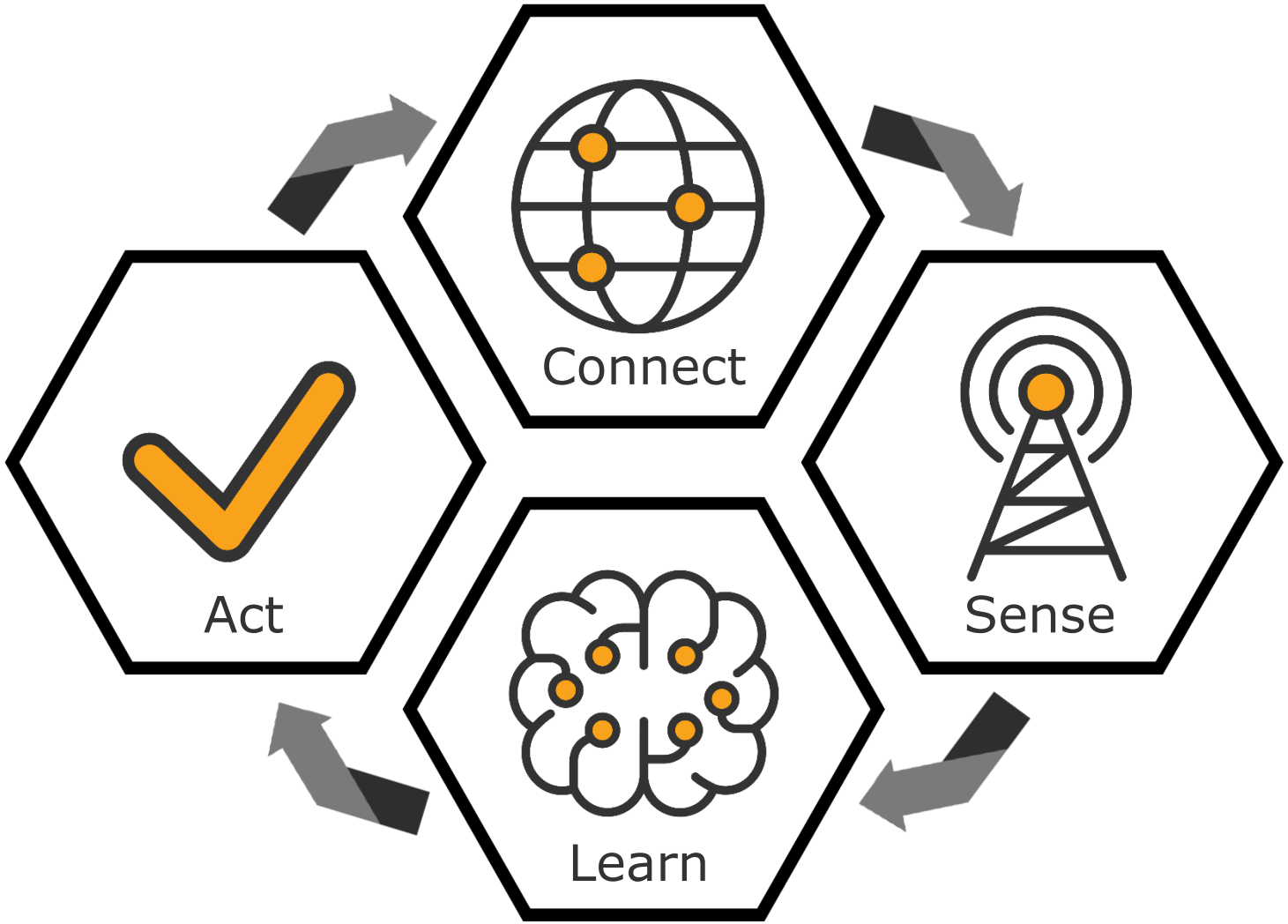
CONNECTED
INTELLIGENCE

Intro to Statistica 13.3

TIBCO Analytics

23 Oct 2017

Connected Intelligence



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AUGMENT
INTELLIGENCE

Visual analytics

Streaming analytics

CONNECTED INTELLIGENCE

Embedded Analytics

APIs

People and processes

INTERCONNECT
EVERYTHING

Connected Intelligence connects businesses to their data, wherever it is, and augments their ability to understand, decide, and act on their context.

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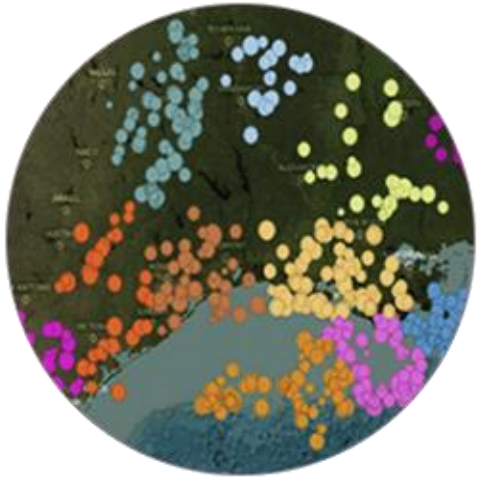
One stop shop for actionable insights

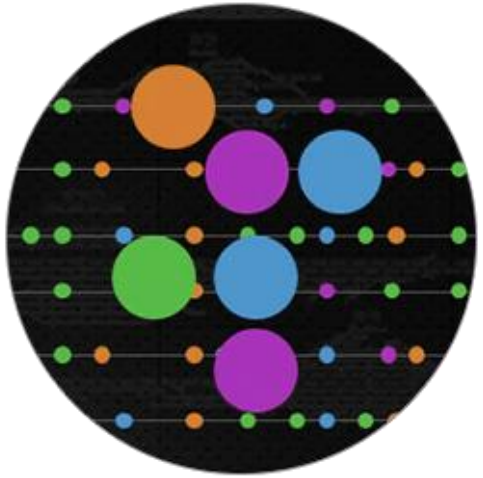
BI & ANALYTICS

AI-driven visualization to gain insight to find actionable insights



DATA SCIENCE

Create analytics that can predict the future based on history



STREAMING ANALYTICS

Provide analytics and take action on real time streaming data

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TIBCO Statistica™

Established in 1984

Deep understanding of analytics

Open Standards

Avoids vendor lock

World Class Customers

All industries, across all sectors

Comprehensive & Integrated

Thousands of built-in functions

Easy to Use

Empowers all experts and non-experts alike

Flexible & extensible

Not a black-box, fits in your environment

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TIBCO®

Comprehensive Analytics Platform

Easy to use predictive analytics

with built-in smarts to enable your workforce

Access and prepare, any data, anywhere

Using databases, cloud, and Apache® Hadoop® sources

Open, flexible, & extensible

R, Python, Scala, in-database or at the edge

Real-time analytics

to process high-volume, streaming data

Collaborate & share

insights and best practices across geographies

Combine rules & analytics

to make prescriptive business decisions

Security & governance

for a well managed approach to analytics.

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Analytics are used everywhere for competitive advantage

ENERGY	FINANCE & INSURANCE	HEALTHCARE	PHARMACEUTICAL	MANUFACTURING
Optimize exploration, production, and operations while anticipating demands	**Reduce risks and detect fraud**	**Improve quality of care and efficiency**	**Ensure safety and product quality**	**Optimize processes, improve quality, and monitor suppliers**
• Demand forecasting • Distribution optimization • Emissions reduction • Ground composition analysis • Predictive maintenance • Reservoir characterization • and more	• Credit scoring • Customer analytics • Fraud detection • Risk management • Churn analysis • SOX • Scorecard • and more	• Fraud detection • Claims management • Patient safety • Risk mitigation • Personalized medicine • and more	• Product traceability • Stability & shelf life Analysis • Validated reporting & analytics • Compliance • Manufacturing analytics • and more	• Improve yields • Reduce scrap, rework, & recalls • Detect warranty fraud • Regulatory compliance & safety • Predict & equipment failures • and more

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Statistica™: 30+ Years of Business Use

50% Reduction in Time to Create and Deploy Models

Predict critical mfg process excursions

Deployment time ↓ from 9 months to 1 day with Citizen Data Scientists

$100M+ saved, # of users ↑ from 200 to 400

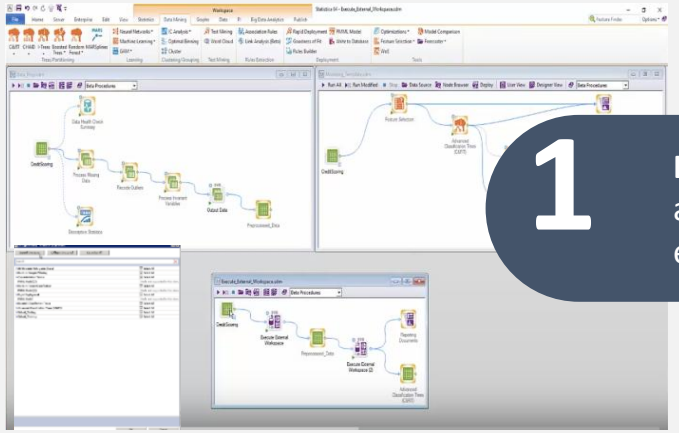
Insurance claims prediction & fraud detection

Predictive and preventative maintenance

Scale Analytics with Reusable Data Science

Facilitate reusable data science backed by governance

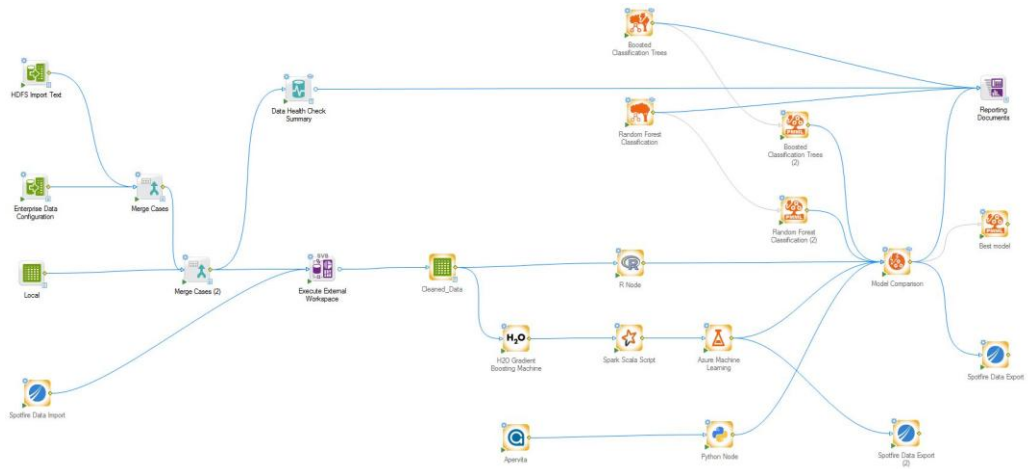
- Create reusable templates
  - Build complex analytic and data prep workflows once, then share with others
- Automate the mundane
  - Automated data health check, data mining recipes, and simplified deployment
- Collaborate and share
  - Annotate workflows and ensure trust, security, and privacy with model management and governance



1 **Designer** creates reusable template and decides which parameters to expose in a workflow

2 **Citizen Data Scientist**
Selects analysis and items of interest, runs analysis workflow

STATISTICA WORKSPACE



Accelerate Innovation with Data Science

Make innovation easy with smart, flexible, and comprehensive analytics

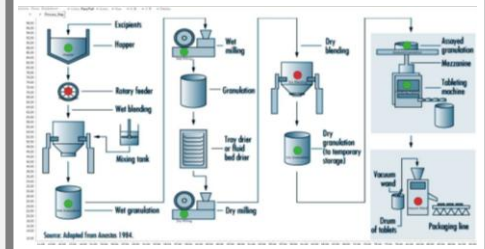
- Create innovative models
  - Use the latest deep learning, predictive, prescriptive, AI, and analytical technique
- Rapidly prototype new techniques
  - Use one of the thousands of built-in analytics, code in open source, or access algorithm marketplaces
- Capabilities
  - Thousands - of drag and drop nodes
  - Algorithmia – marketplace for algorithms
  - Apervita® – democratizing healthcare analytics
  - Microsoft Azure® ML – cloud based analytics
  - Microsoft® Cognitive Toolkit – deep learning framework
  - Open Source - R, Python, Scala, C#
  - Apache Spark™ MLlib
  - H20 and Sparkling Water
  - Amazon S3™

Infuse Algorithms Everywhere

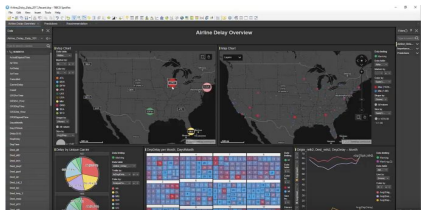
Deploy deep insights for a competitive advantage

- Tell data-driven stories
  - Compelling visualizations that the business can trust, understand, and act upon
- Use a common platform
  - Ingest, clean, prepare, model, visualize, operationalize, and monitor analytics
- Deliver actionable insights at the point of impact
  - Deploy insights in hybrid ecosystems: on premise, in the cloud, and in IoT environments

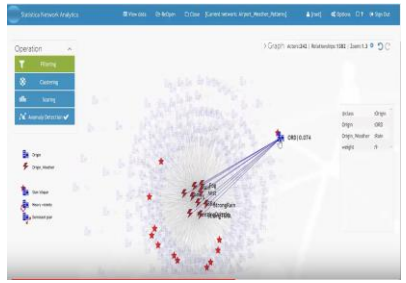
PROCESS FLOW VISUALIZATION



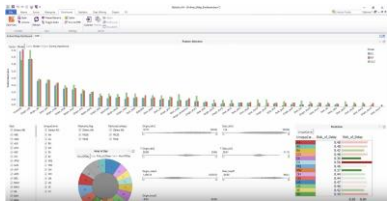
GEOSPATIAL DASHBOARD



NETWORK ANALYTICS



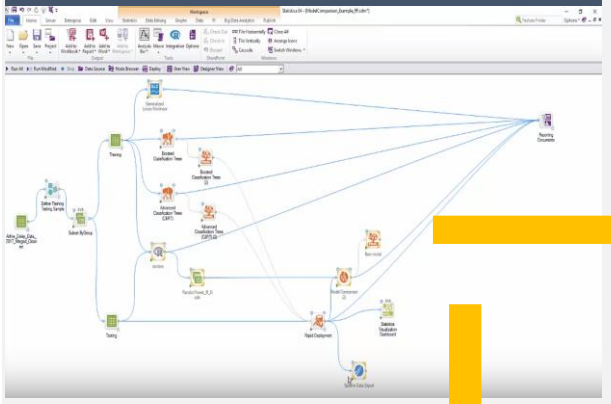
BUSINESS DASHBOARD



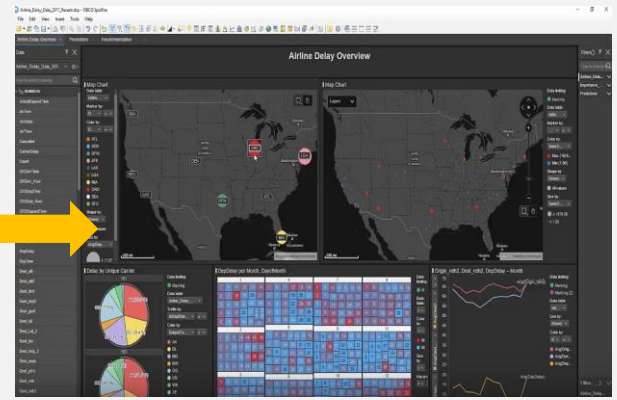
What's New: Statistica 13.3

- **Integration with TIBCO**
  - Ability to read/write TIBCO Spotfire® SPDF files
  - TIBCO StreamBase® integration
- **Analytics**
  - H20 Distributed Random Forest, K-Means, Principal Components Analysis, Deep Learning
  - Spark Decision Tree Classifier, Decision Tree Regressor, Feature Selection, Generalized Linear Model, Linear Regression, Logistic Regression, Random Forest, SVM
  - Fit Johnston Distribution by CPM - used to accurately characterize a process
  - Correspondence Analysis - simple and multiple correspondence analysis (MCA) can analyze data with fractional weights
  - Alternating Least Squares - matrix factorization method designed to handle big data
    - Used for recommender systems, text mining, impute missing data
  - Weight of Evidence node enhancements
- **General**
  - PI Asset Framework integration
  - Model Comparison node
  - Improved reporting capability
  - Dynamic filtering capability in Enterprise Manager

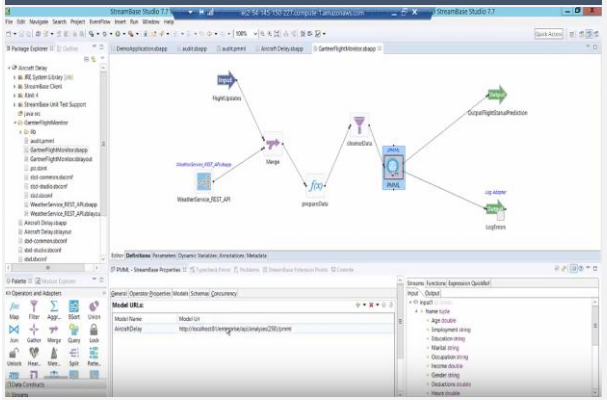
Spotfire® Node



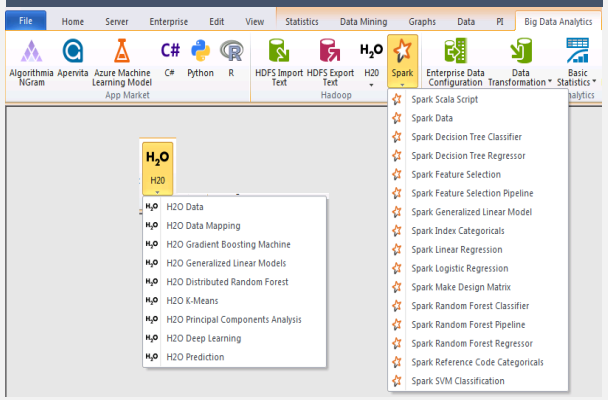
Spotfire Dashboard



Statistica Model in StreamBase®



H2O & Spark Nodes



Scale Data Science with Statistica

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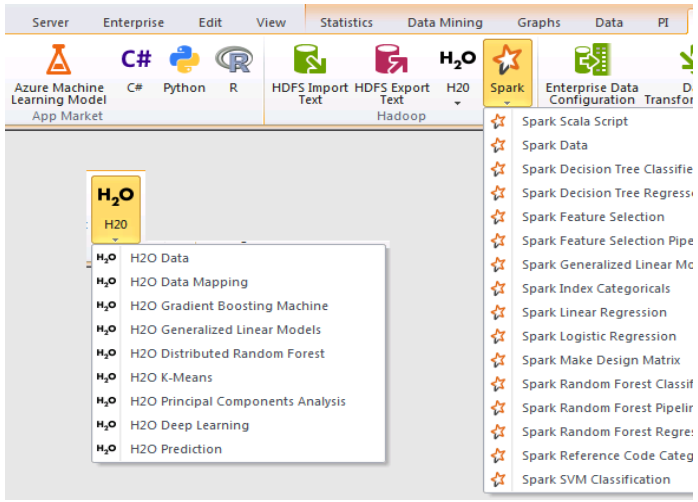
Make innovation easy with smart, flexible, and comprehensive analytics

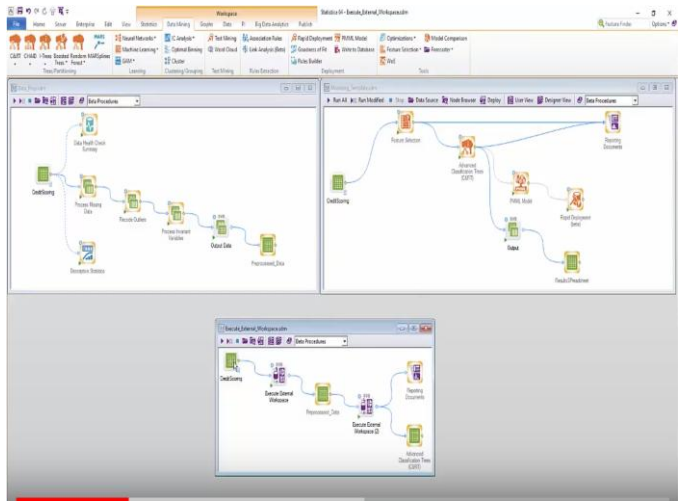
Scale Advanced Analytics Across the Business

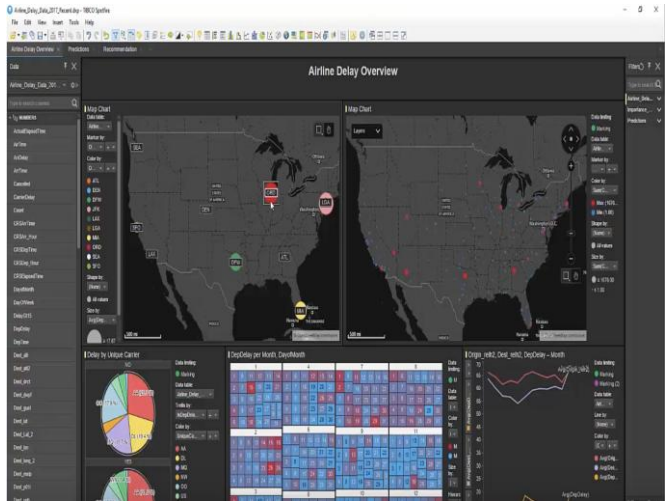
Facilitate reusable data science fortified with governance

Infuse Algorithms Everywhere

Deploy deep insights for a competitive advantage.







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Thank You!

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