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Modeler 15: a better view on persons and relations

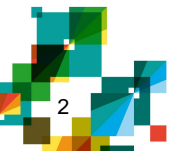Damiaan Zwietering

IBM SPSS

zwietering@nl.ibm.com

30 october 2012
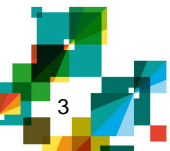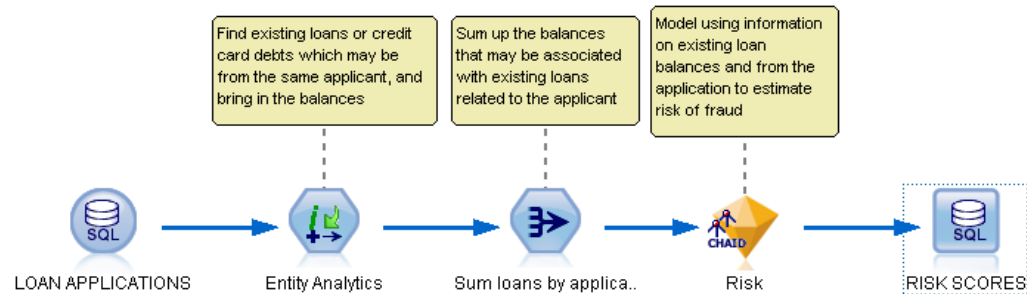
Agenda: using available data

- What do you know of your customer?
  - Demographics
  - Transactions

- Additional data
  - People and organizations
  - Interactions

- Availability
  - Various sources and formats
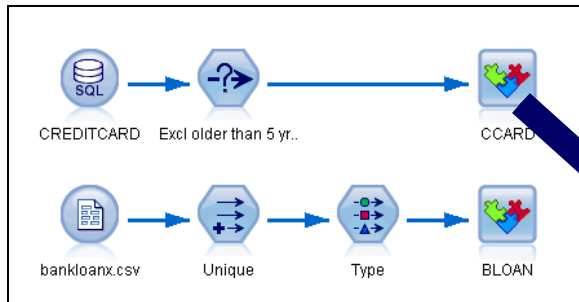 - Large volumes, complex queries

Entity Analytics in Modeler

- Fraud
  - loan applications made by the same individual
  - insurance claims made by the same individual

- Data cleaning
  - de-duplication
  - individuals & organizations

- Security
  - compare individuals with watch lists
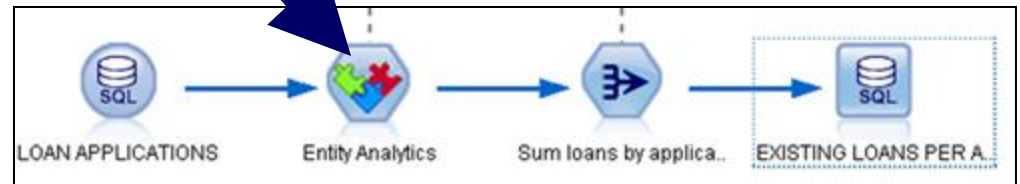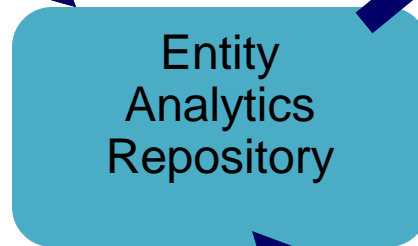 - track shipping movements
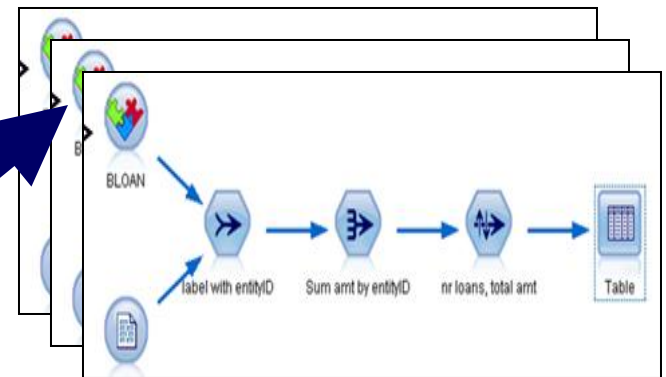
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Modeler's central memory

Load

Analyze

Entity
Analytics
Repository

Real-time scoring

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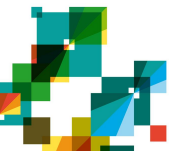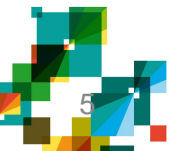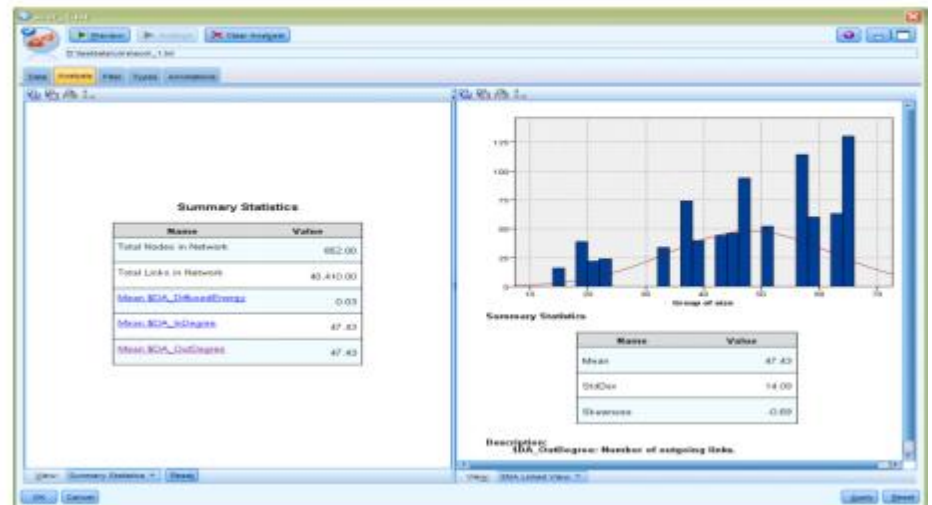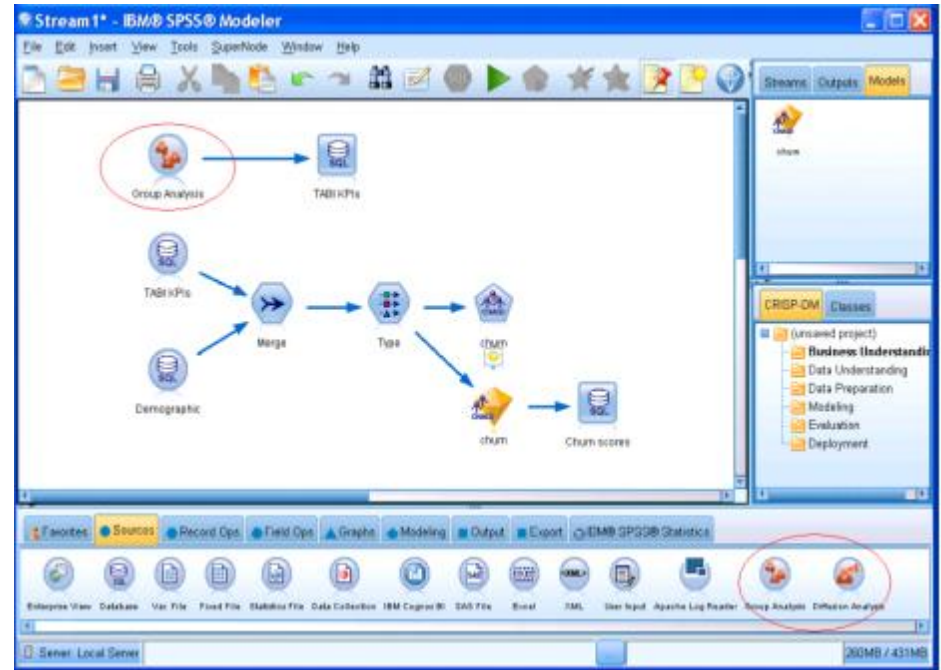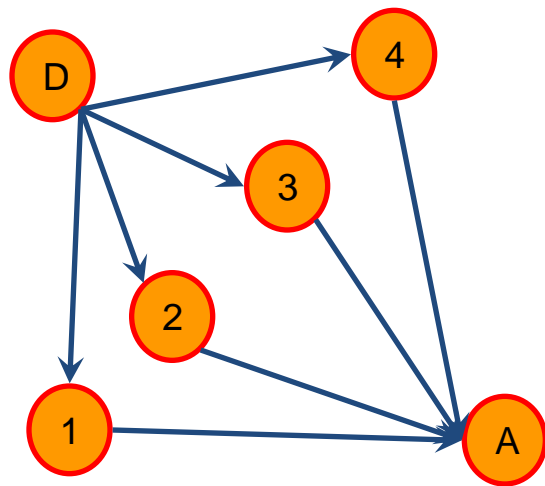
Social Network Analysis

- Processes interactions to produce social analysis

- Focuses around identifying groups, leaders and probabilities that behavior will be followed, based on influence

- Enhances existing predictions

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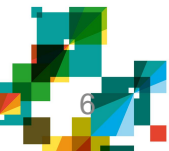
Group Analysis

Types of Group Leaders

- If we move along the edges we will discover that A is an authority

- Walking in the opposite direction will show that D spreads the information
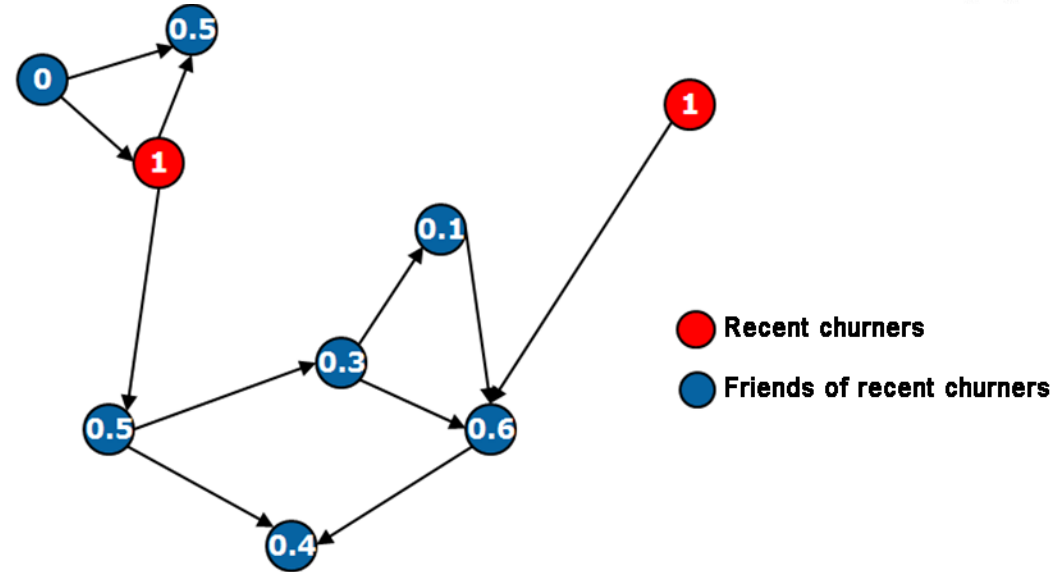
A is called the **authority** leader

D is called the **disseminating** leader

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Diffusion Analysis

Predicts influence that behaviour may have on others


Recent churners

Friends of recent churners

✓ Will Mark's friends listen to Mark's advice to switch carriers?
✓ If Mark recently churned, what effect would Mark's behavior have on his friends?

Influence from a recent churner is quantified using the notion of diffusion energy.

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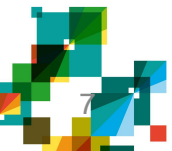
Using all data

- Support for additional In Database Algorithms
  - Netezza…
    - Support for Netezza via Helper Applications
    - Netezza Time Series Node
    - Netezza Generalized Linear Node
  - … and others (Teradata, DB2, …)
    - Data format support
    - Algorithm support

- SPSS Algorithms to be scored via Scoring Adapter
  - Database UDFs (User Defined Functions)

- Support for SQL in Expression Builder

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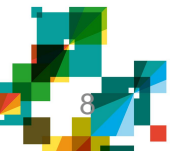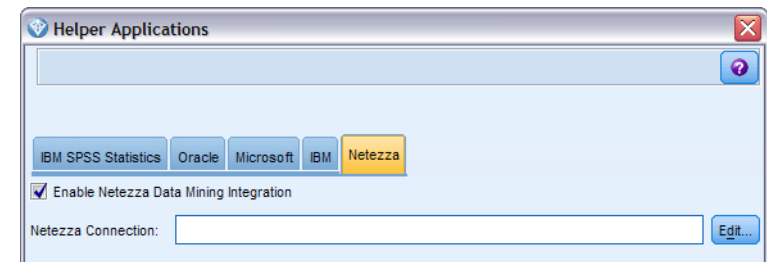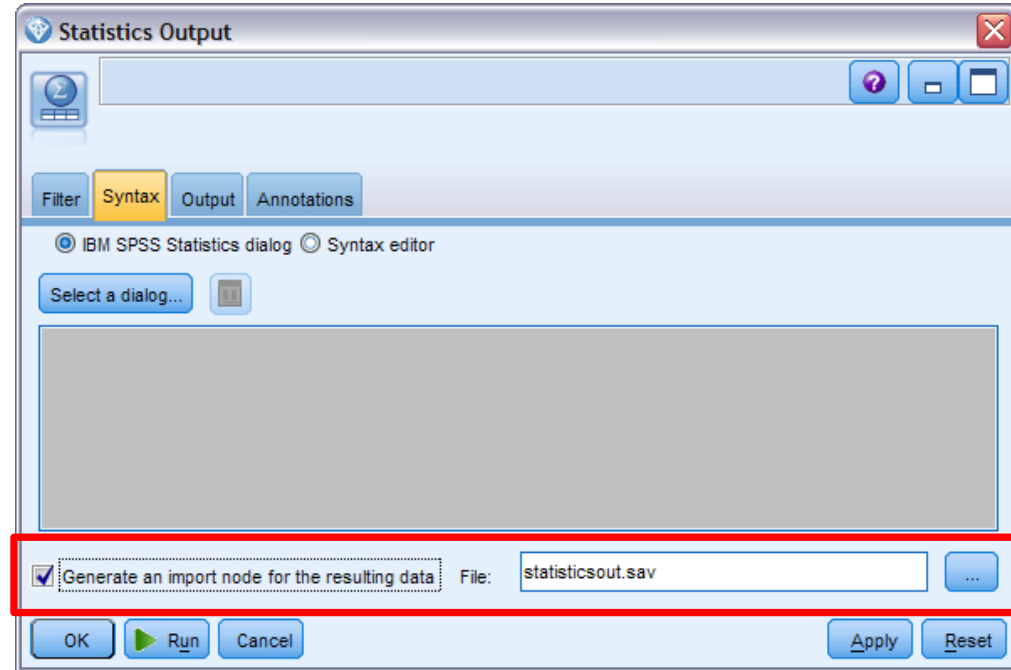
Mapping & UI

- Plot analysis results on geographic maps
  - Target, forecast, and plan by geographic area
    - Use prebuilt templates to create map types
    - Map utility to convert ESRI files

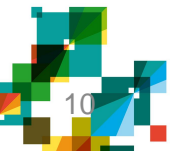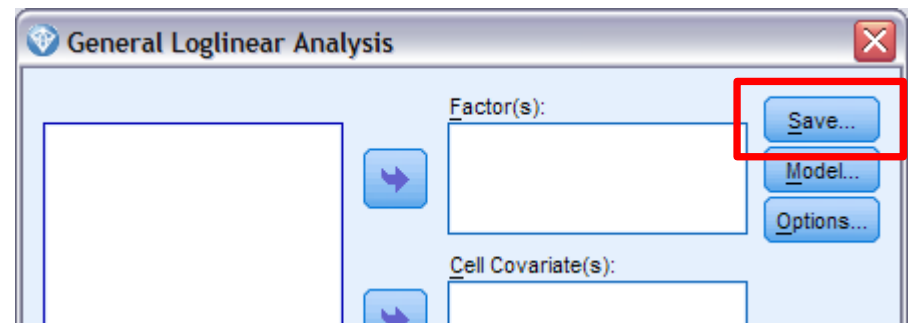- Zoom, preview & copy from canvas

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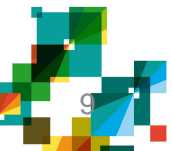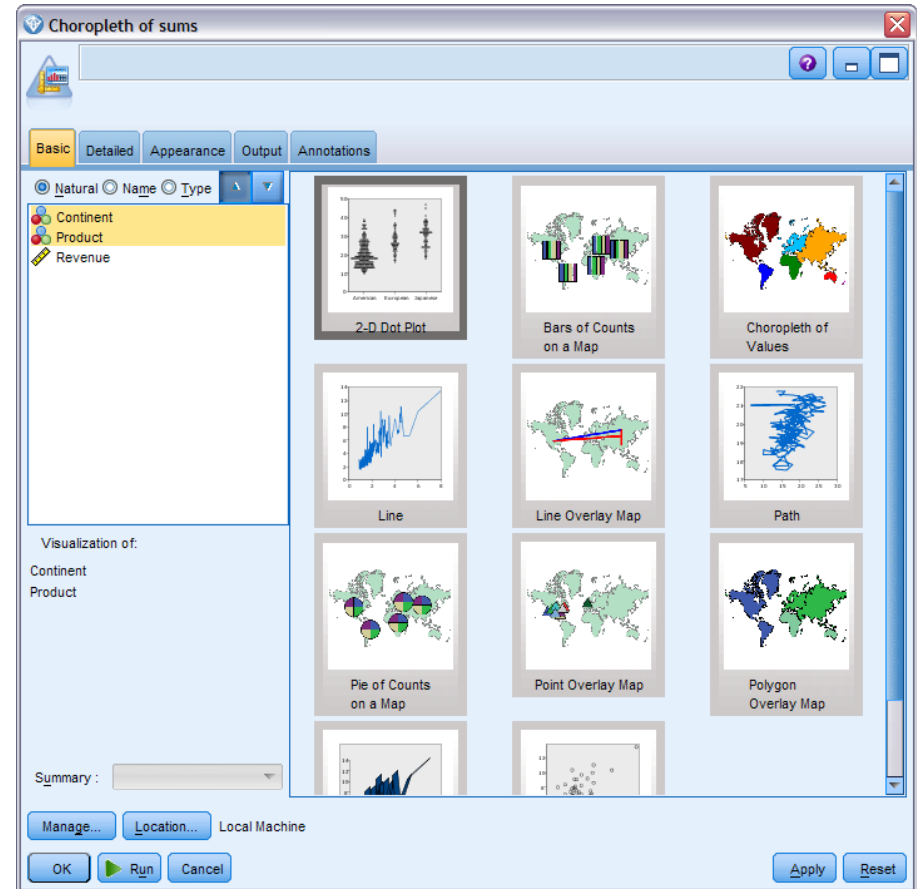
Enhanced Statistics Integration

- **Statistics Output Node Enhancements:**
  - Create an import node of active dataset
  - Added support for additional statistics functions

- **Save buttons in Statistics dialogs opened through Modeler**

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Questions and Answers