Analytic Solver Basic

Limited Size Products

Full Sized Products

<table>
<thead>
<tr>
<th>Platform</th>
<th>Windows</th>
<th>Windows</th>
<th>Windows</th>
<th>Windows</th>
</tr>
</thead>
<tbody>
<tr>
<td>301 x 200</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>501 x 200</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>1,000 x 1,000</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Unlimited x Unlimited</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Optimization Problem Types and Sizes

- Linear Problems
- Nonlinear Problems (Interval Global)
- Non-Smooth Problems
- Probabilistic and Chance Constraints

Global Optimization

- Non-Smooth Problems
- Nonlinear Problems
- Non-Smooth Problems (Non-Interval)
- Global Optimization (General Non-Linear)

Advanced Stochastic Optimization

- Stochastic programming
- Ant colony optimization
- Particle swarm optimization
- Differential evolution

Uncertainty Report

- Uncertainty quantification
- Uncertainty propagation
- Sensitivity analysis
- Risk analysis

Simulation Report

- Simulation and Monte Carlo simulation
- Simulation optimization
- Simulation and Optimization

Sensitivity Report

- Sensitivity analysis
- Sensitivity analysis for optimization

Answer Report

- Answer report
- Answer report for optimization

Solver Reports

- Solver report
- Solver report for optimization

Chaining Capabilities

- Chaining and linking
- Dynamic linking
- Static linking

Solutions Report

- Solution report
- Solution report for optimization

Uncertainty Report

- Uncertainty report
- Uncertainty report for optimization

Simulation Optimization Variables and Constraints

- Simulation optimization problem size limits
- Simulation optimization size limits

Analytic Solver Comprehensive

- Analytic Solver
- Analytic Solver Basic
- Analytic Solver Upgrade
- Analytic Solver Simulation
- Analytic Solver Optimization
- Analytic Solver Comprehensive

Analytic Solver Basic

- Basic size limits for simulation, data mining
- Basic size limits for optimization, data mining

Analytic Solver Upgrade

- Expanded size limits for optimization
- Full size limits for simulation

Analytic Solver Simulation

- Full size limits for optimization, data mining
- Basic size limits for optimization, data mining

Analytic Solver Optimization

- Full size limits for data mining
- Basic size limits for simulation, data mining

Analytic Solver Comprehensive

- Full size limits for all features
## Data Mining Capabilities

<table>
<thead>
<tr>
<th>Limited Size Products</th>
<th>Full Sized Products</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fitting</strong></td>
<td></td>
</tr>
<tr>
<td>Original Data: 65,000 Records</td>
<td>Original Data: Unlimited Records</td>
</tr>
<tr>
<td>Output: 50 Variables</td>
<td>Output: Unlimited Variables</td>
</tr>
<tr>
<td><strong>Sample from Worksheet</strong></td>
<td></td>
</tr>
<tr>
<td>Original Data: 50,000 Records</td>
<td>Original Data: Unlimited Records</td>
</tr>
<tr>
<td>Sample Output: 50 Variables (Stratified: 30)</td>
<td>Output: Unlimited Variables</td>
</tr>
<tr>
<td><strong>Sample from Database</strong></td>
<td></td>
</tr>
<tr>
<td>Original Data: 1,000,000</td>
<td>Original Data: Unlimited Records</td>
</tr>
<tr>
<td>Sample Output: 50 Variables (Stratified: 30)</td>
<td>Output: Unlimited Variables</td>
</tr>
<tr>
<td><strong>Text Mining</strong></td>
<td></td>
</tr>
<tr>
<td>100 Documents, 5,000 Characters, 50 Terms, 1 Test Variable</td>
<td>100 Documents, Unlimited Characters, Unlimited Terms, Unlimited Test Variables</td>
</tr>
<tr>
<td><strong>Handling Missing Values</strong></td>
<td></td>
</tr>
<tr>
<td>(Rows x #Missing Values to be treated at one time)</td>
<td></td>
</tr>
<tr>
<td>65,000 Records, 50 Variables</td>
<td>Unlimited Records, Unlimited Variables</td>
</tr>
<tr>
<td><strong>Binning Continuous Data</strong></td>
<td></td>
</tr>
<tr>
<td>(Rows x #Columns in output)</td>
<td></td>
</tr>
<tr>
<td>65,000 Records, 50 Variables</td>
<td>Unlimited Records, Unlimited Variables</td>
</tr>
<tr>
<td><strong>Transform Categorical Data</strong></td>
<td></td>
</tr>
<tr>
<td>(Rows x #Columns)</td>
<td></td>
</tr>
<tr>
<td>65,000 Records, 50 Variables</td>
<td>Unlimited Records, Unlimited Variables</td>
</tr>
<tr>
<td><strong>Feature Selection</strong></td>
<td></td>
</tr>
<tr>
<td>10,000 Rows, 50 Variables, 30 Distinct Classes</td>
<td>10,000 Records, 50 Variables, 30 Distinct Classes</td>
</tr>
<tr>
<td><strong>Time Series</strong></td>
<td></td>
</tr>
<tr>
<td>(Rows)</td>
<td></td>
</tr>
<tr>
<td>1,000 Rows</td>
<td>1,000 Rows</td>
</tr>
<tr>
<td><strong>Classification and Prediction</strong></td>
<td></td>
</tr>
<tr>
<td>(Rows)</td>
<td></td>
</tr>
<tr>
<td>Training: 10,000</td>
<td>Training: Unlimited Records</td>
</tr>
<tr>
<td>Training + Validation: 65,000 Scoring 10,000</td>
<td>Training + Validation: Unlimited Scoring   Unlimited</td>
</tr>
<tr>
<td><strong>Data Exploration &amp; Reduction</strong></td>
<td></td>
</tr>
<tr>
<td>(Rows x #Columns)</td>
<td></td>
</tr>
<tr>
<td>65,000 x 50</td>
<td>65,000 x 50</td>
</tr>
<tr>
<td><strong>Charts (Rows x #Columns)</strong></td>
<td></td>
</tr>
<tr>
<td>65,000 x 50</td>
<td>65,000 x 50</td>
</tr>
</tbody>
</table>

### Full Sized Products

- **Data Mining Capabilities**
  - **Fitting**
    - Original Data: Unlimited Records
    - Output: Unlimited Variables
  - **Sample from Worksheet**
    - Original Data: Unlimited Records
    - Sample Output: Unlimited Variables
  - **Text Mining**
    - 100 Documents, Unlimited Characters, Unlimited Terms, Unlimited Test Variables
  - **Handling Missing Values**
    - (Rows x #Missing Values to be treated at one time)
      - Unlimited Rows
  - **Binning Continuous Data**
    - (Rows x #Columns in output)
      - Unlimited Rows
  - **Transform Categorical Data**
    - (Rows x #Columns)
      - Unlimited Rows, Unlimited Variables
  - **Feature Selection**
    - 10,000 Rows, 50 Variables, 30 Distinct Classes
  - **Time Series**
    - (Rows)
      - 1,000 Rows
  - **Classification and Prediction**
    - (Rows)
      - Training: Unlimited Records
      - Training + Validation: Unlimited Scoring Unlimited
  - **Data Exploration & Reduction**
    - (Rows x #Columns)
      - Unlimited x Unlimited
  - **Charts (Rows x #Columns)**
    - Unlimited x Unlimited

### Limited Size Products

- **Data Mining Capabilities**
  - **Fitting**
    - Original Data: 65,000 Records
    - Output: 50 Variables
  - **Sample from Worksheet**
    - Original Data: 50,000 Records
    - Sample Output: 50 Variables
  - **Text Mining**
    - 100 Documents, 5,000 Characters, 50 Terms, 1 Test Variable
  - **Handling Missing Values**
    - (Rows x #Missing Values to be treated at one time)
      - 65,000 Records, 50 Variables
  - **Binning Continuous Data**
    - (Rows x #Columns in output)
      - 65,000 Records, 50 Variables
  - **Transform Categorical Data**
    - (Rows x #Columns)
      - 65,000 Records, 50 Variables
  - **Feature Selection**
    - 10,000 Rows, 50 Variables, 30 Distinct Classes
  - **Time Series**
    - (Rows)
      - 1,000 Rows
  - **Classification and Prediction**
    - (Rows)
      - Training: 10,000
      - Training + Validation: 65,000 Scoring 10,000
  - **Data Exploration & Reduction**
    - (Rows x #Columns)
      - 65,000 x 50
  - **Charts (Rows x #Columns)**
    - 65,000 x 50