STATE OF THE ART ANALYTICS

sas forum
SWITZERLAND 2009 baden

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SAS Technology Practice

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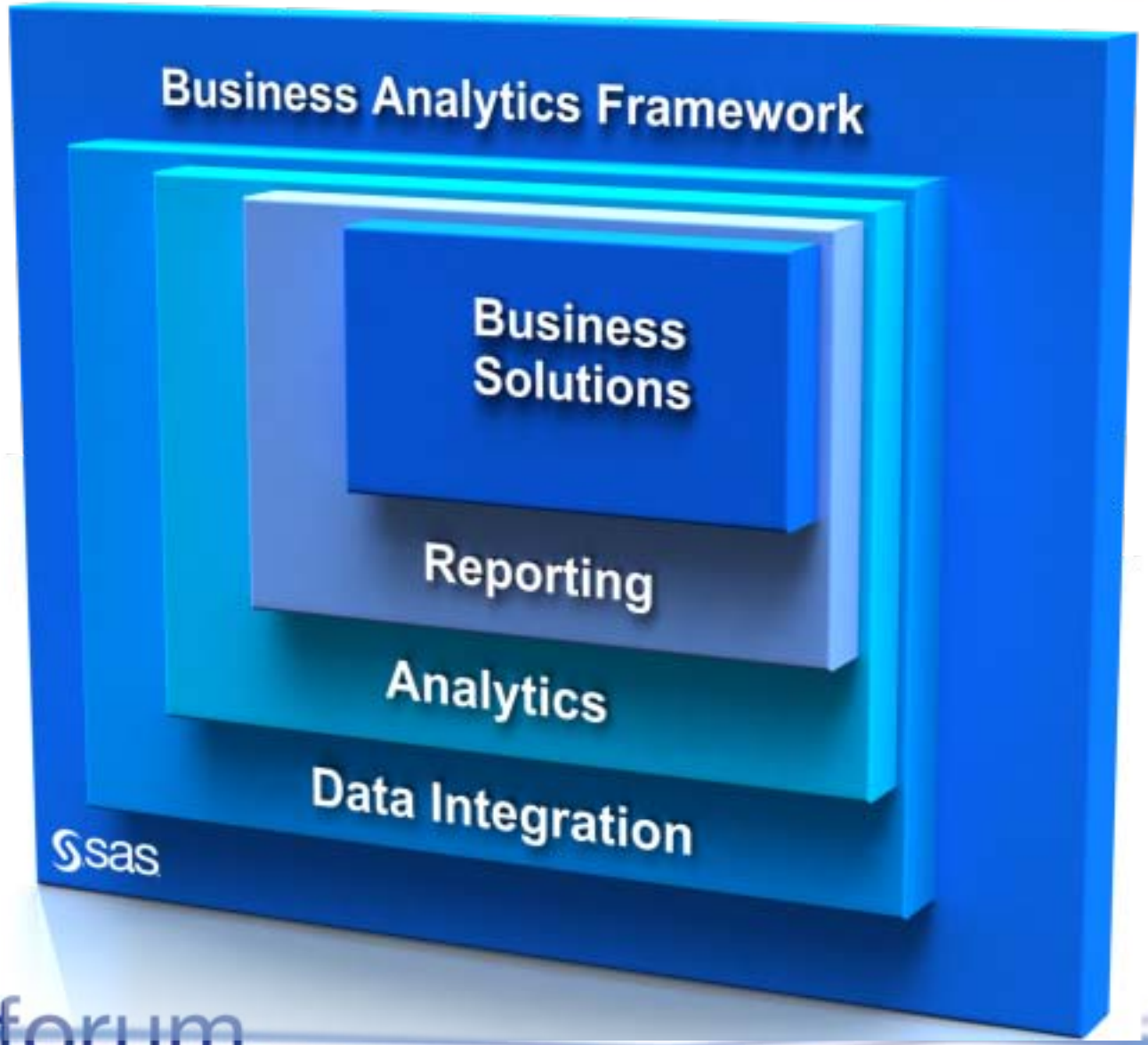

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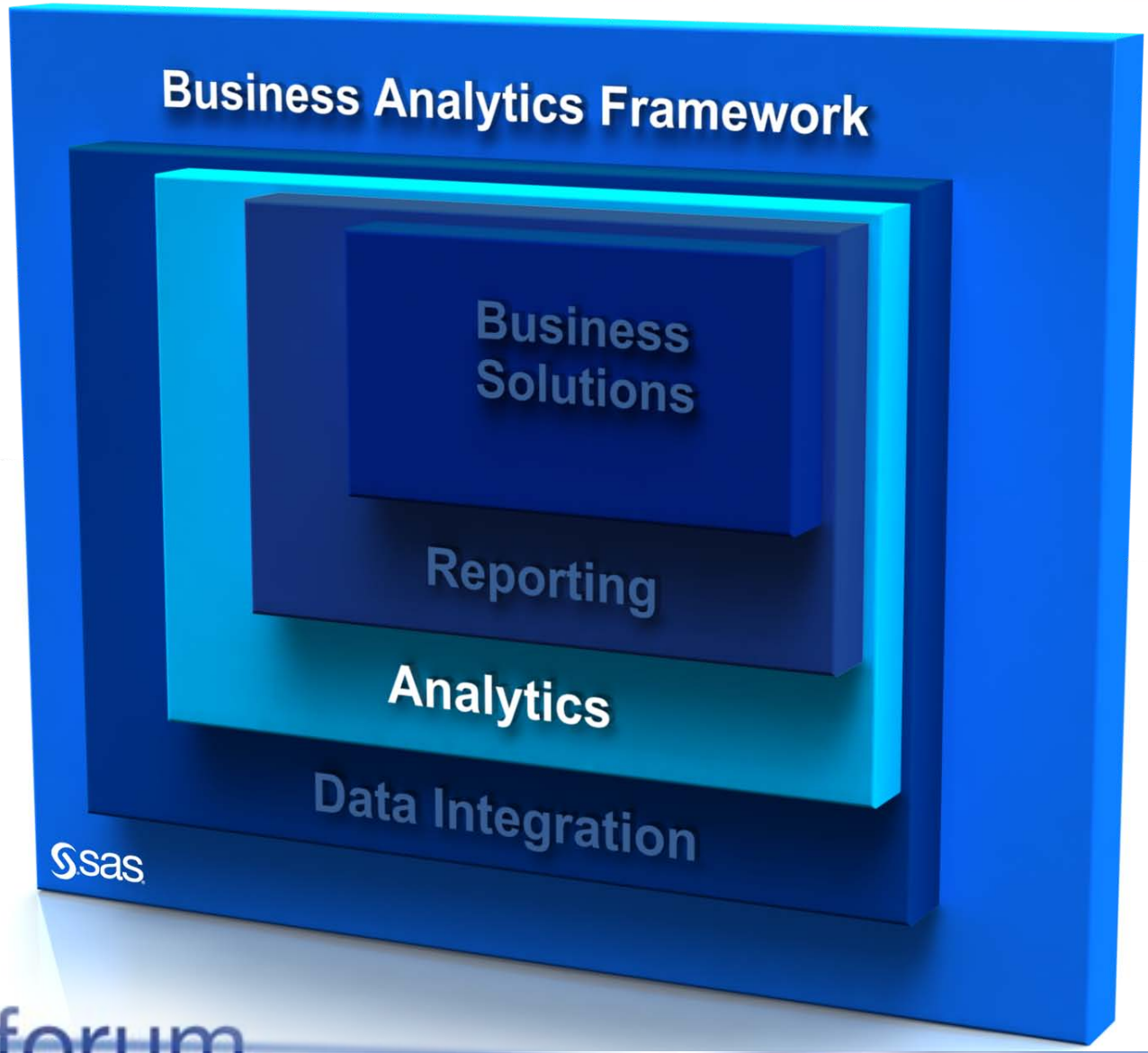

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EIGHT LEVELS OF ANALYTICS

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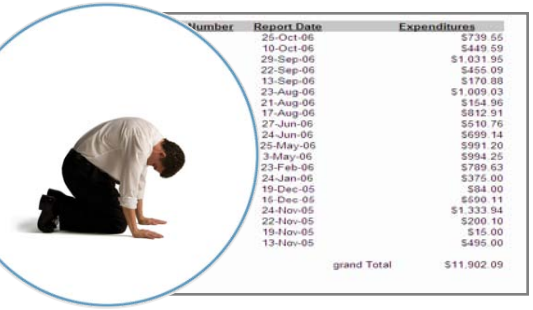
1

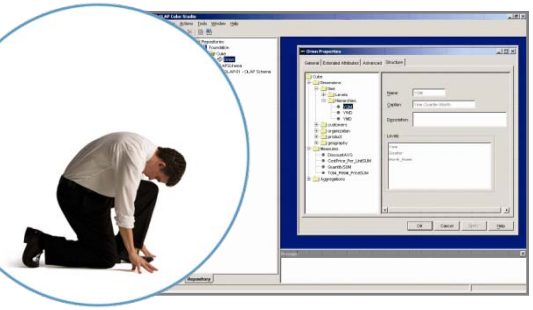


STANDARD REPORTS

Answer the questions: What happened? When did it happen?

Example: Monthly or quarterly financial reports

2



AD HOC REPORTS

Answer the questions: How many? How often? Where?

Example: Custom reports that describe the number of hospital patients for every diagnosis code for each day of the week

3

QUERY DRILLDOWN (OR OLAP)

Answer the questions: Where exactly is the problem? How do I find the answers?

Example: Sort and explore data about different types of cell phone users and their calling behaviors

4

ALERTS

Answer the questions: When should I react? What actions are needed now?

Example: Sales executives receive alerts when sales targets are falling behind

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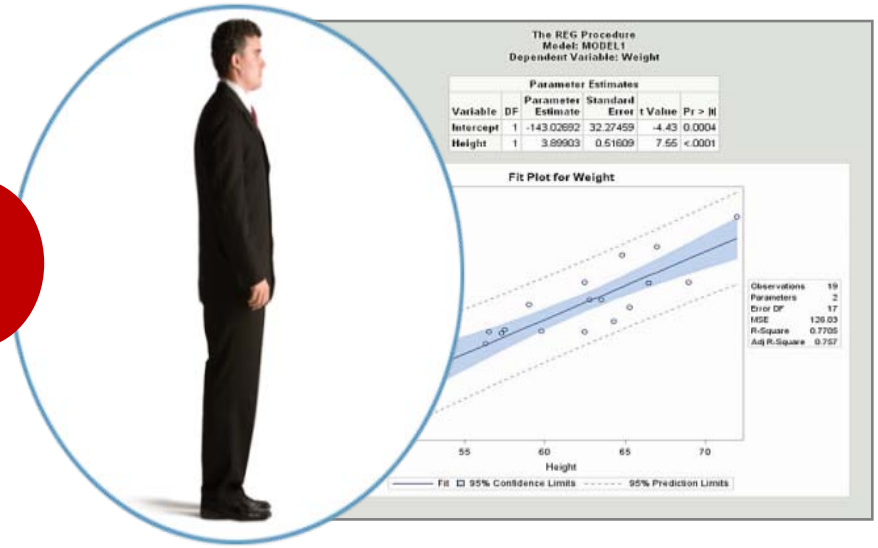

STATISTICAL ANALYSIS

Answer the questions: Why is it happening? What opportunities am I missing?

Example: Banks can discover why an increasing number of customers are refinancing their homes.

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SAS Visual Data Discovery

Advanced analytics and exploratory data analysis with statistical graphics

Interactive, non-programming environment

Robust solution for data management and running statistical analysis in batch

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High-End Data Analysts

Innovative problem-solvers familiar with SAS

Statisticians, researchers, and scientists

- Complex data
- Problems too difficult for standard models

Need richer SAS programming environment

- “I want to run SAS/STAT procedures from SAS/IML"
- "I want to implement an algorithm that goes beyond what is available in any SAS procedure – for example methods available in R.”

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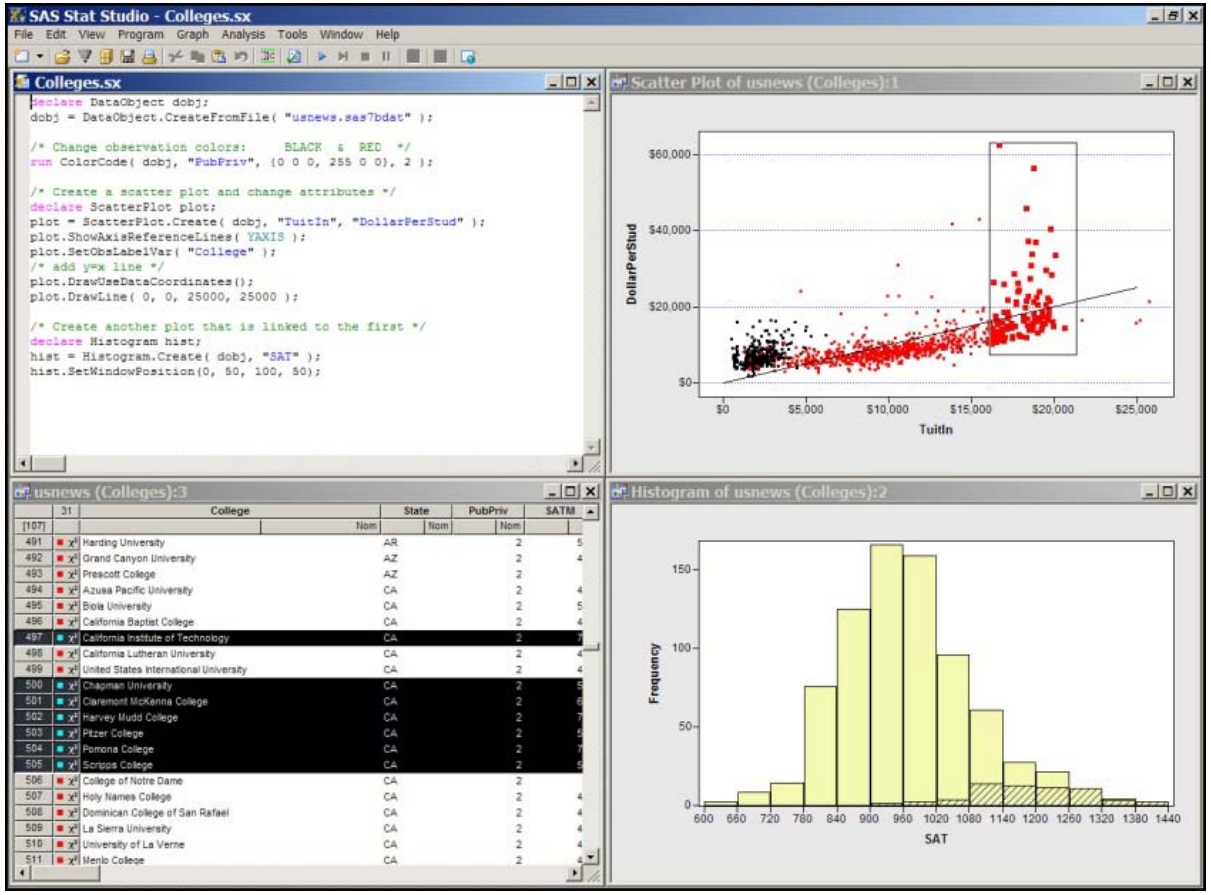
SAS/IML Studio 3.2



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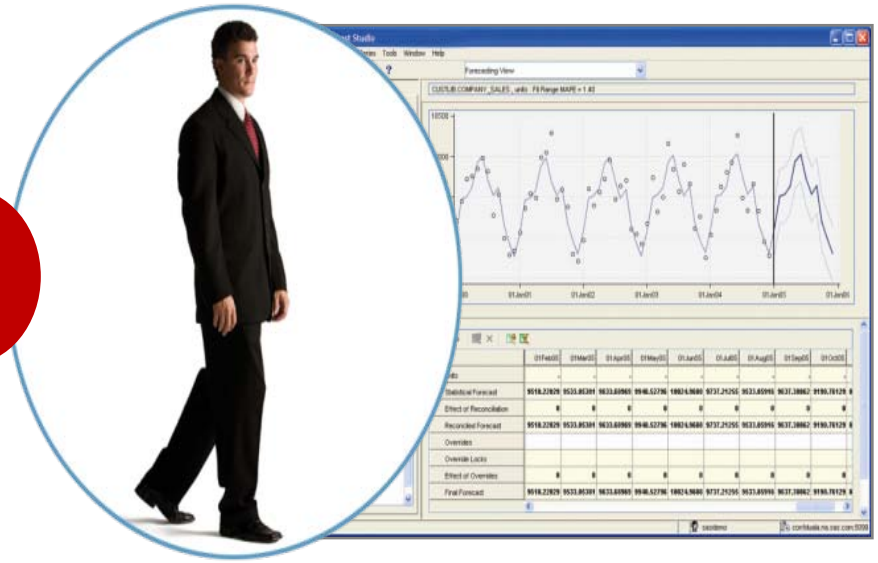
FORECASTING

6



Answer the questions:

What if these trends continue? How much is needed? When will it be needed?

Example: Retailers can predict how demand for individual products will vary from store to store

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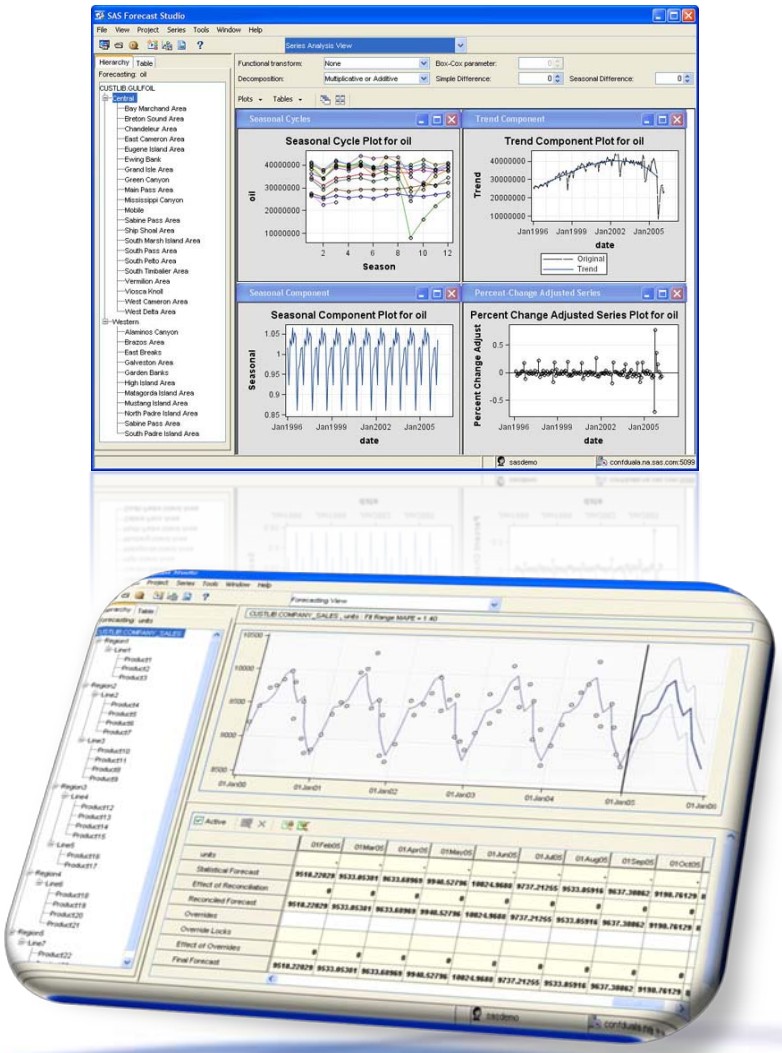
SAS Forecast Server

- Enterprise environment for large-scale automated forecasting
- Work interactively using SAS Forecast Studio or run in a batch
- Enhances forecasting process – lets analysts focus on exceptions



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What's New in Forecast Server 3.1? Highlights

Integration with SAS 9.2

User Interface enhancements for

- Forecasting View
- Model View
- Series View

Scenario Analysis

Enhanced project management

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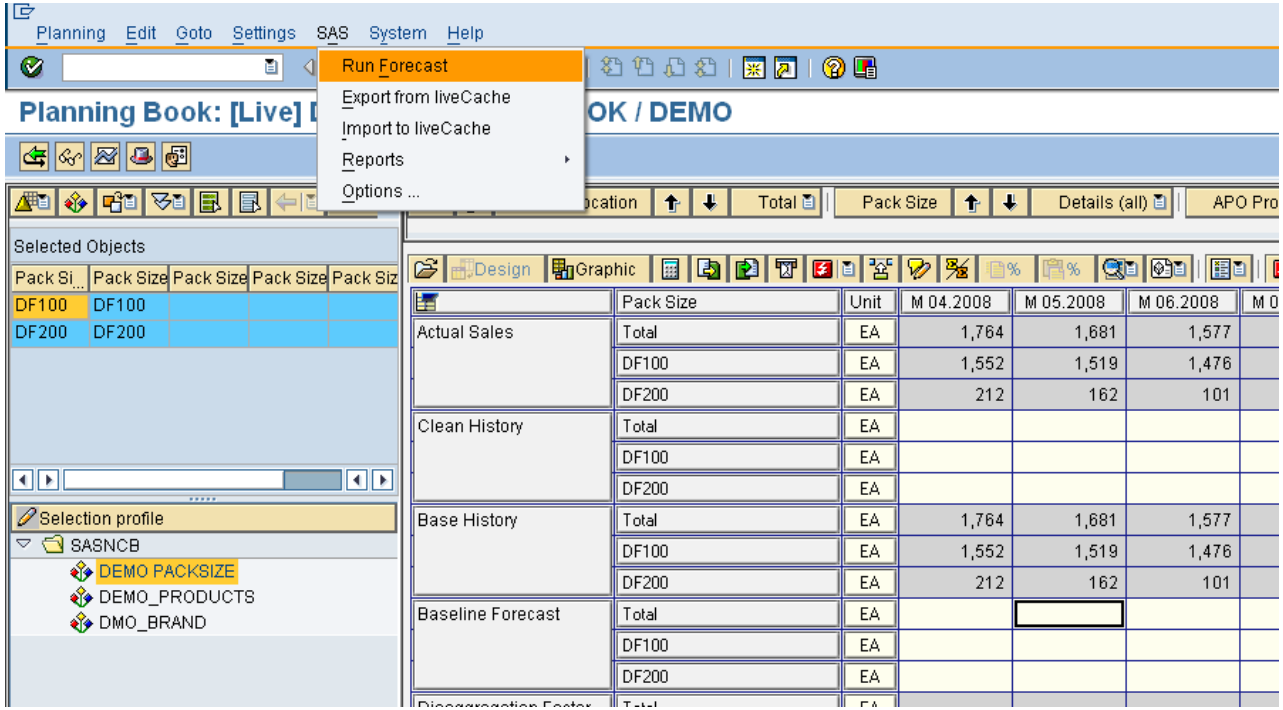
Complementing SAP-APO with SAS Forecasting



SAS Forecasting for SAP APO seamlessly integrates with SAP-APO providing businesses with a ***balance*** of forecasting functionality and integration of planning components.

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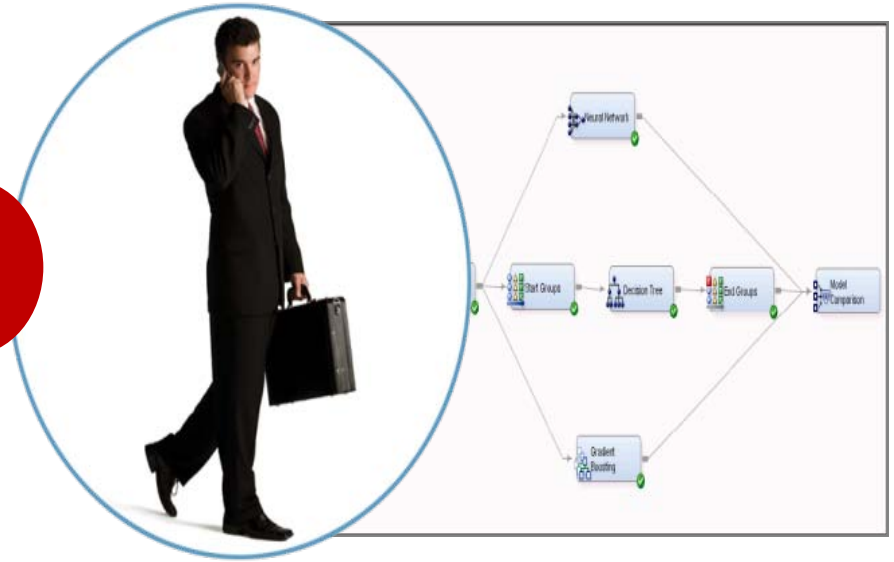
PREDICTIVE MODELING

7



Answer the questions:

What will happen next? How will it affect my business?

Example: Hotels and casinos can predict which VIP customers will be more interested in particular vacation packages

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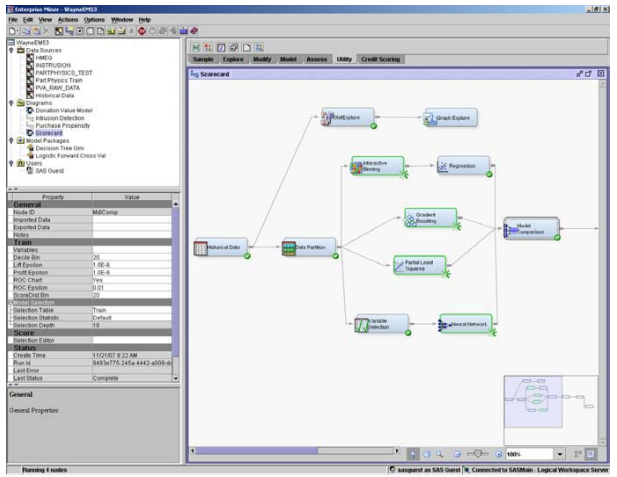
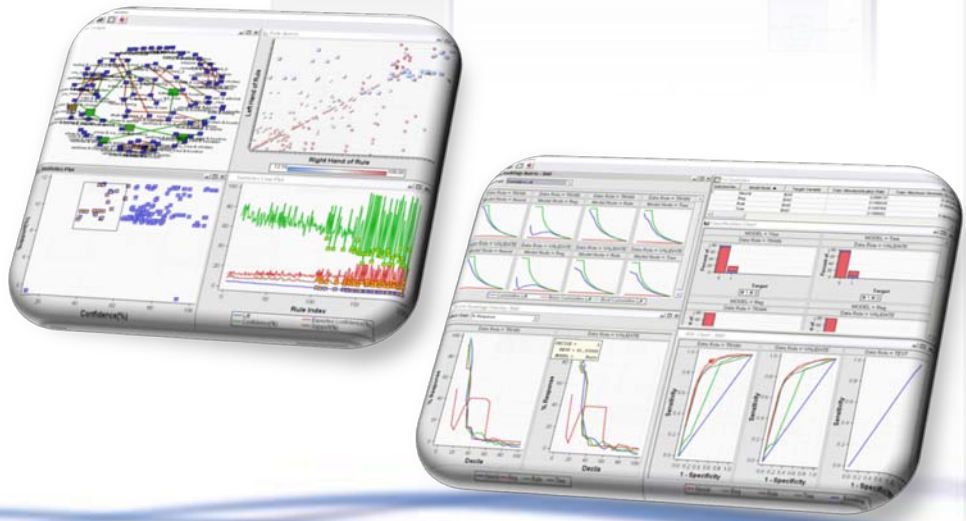
SAS Enterprise Miner

- Modern, distributable data mining system suited for large enterprises
- Unmatched suite of modeling techniques and methods
- High-performance grid-enabled workbench
- Open, extensible design for ultimate flexibility





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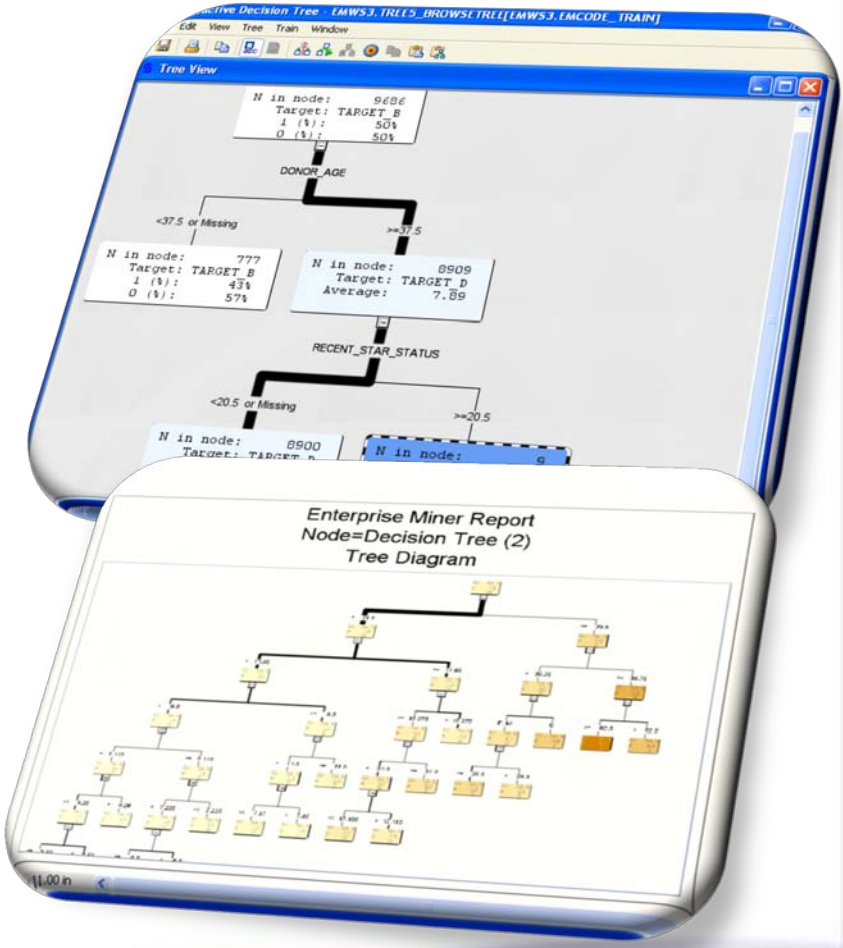
What's New in SAS Enterprise Miner 6.1? Highlights

- Integration with SAS 9.2
- Extended data import capabilities
- New modeling methods
- Native Interactive Tree
- Analysis Ready Report
- Optimize the scoring code



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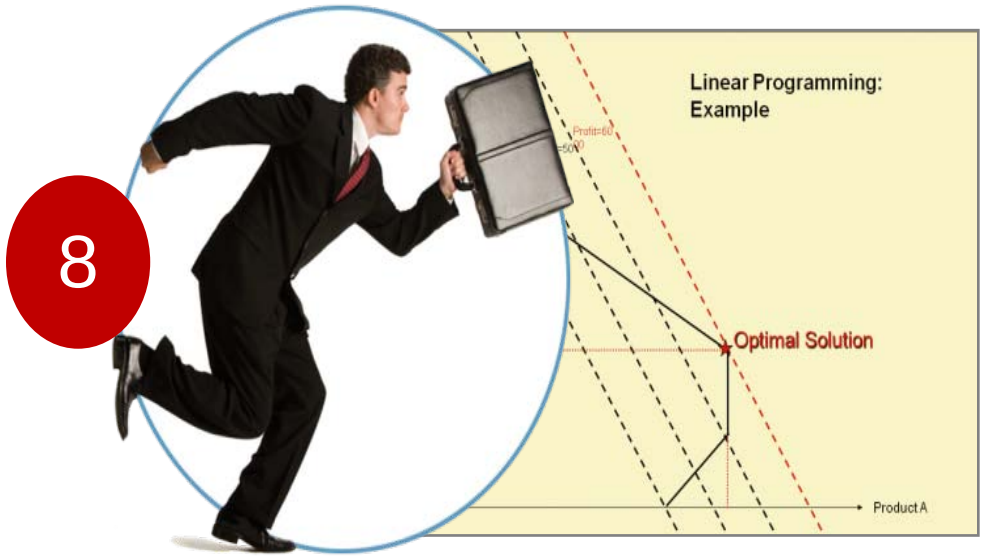
OPTIMIZATION



Answer the questions:

How do we do things better? What is the best decision for a complex problem?

Example: Given business priorities, resource constraints and available technology, determine the best way to optimize your IT platform to satisfy the needs of every user

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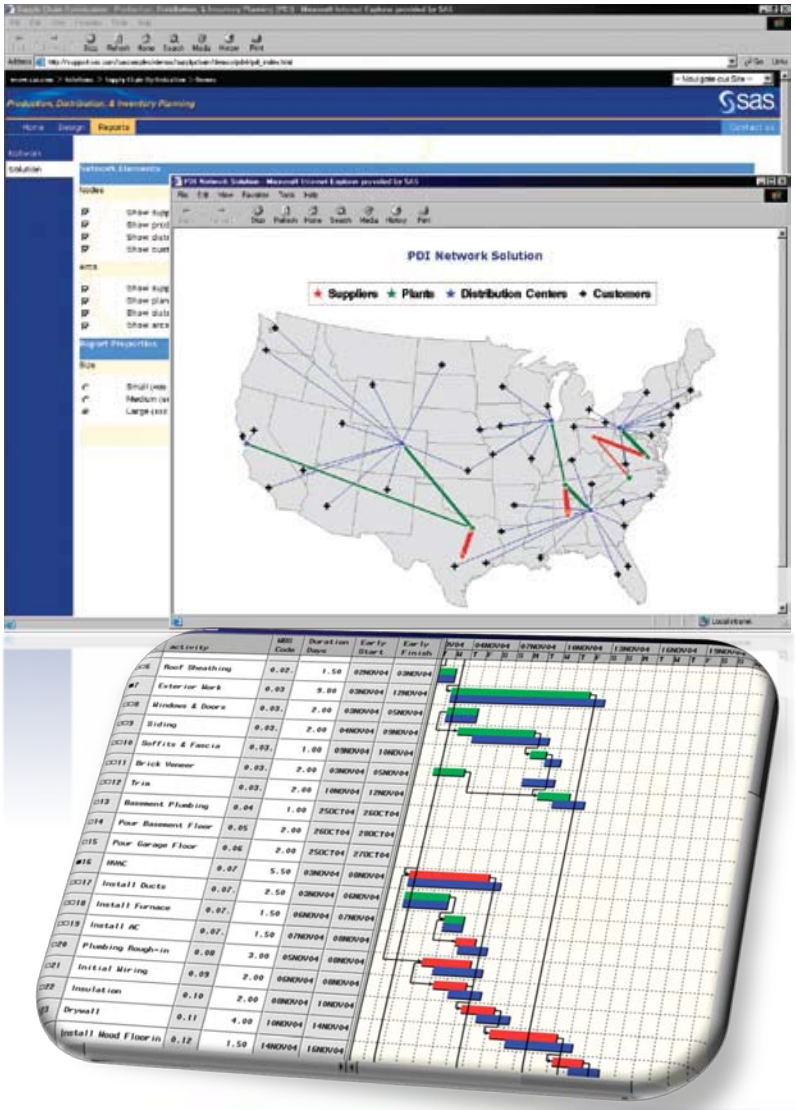
SAS/OR

Brings together essential

- Optimization
- Scheduling
- Discrete Event Simulation

modeling and solution capabilities in an integrated and adaptable environment



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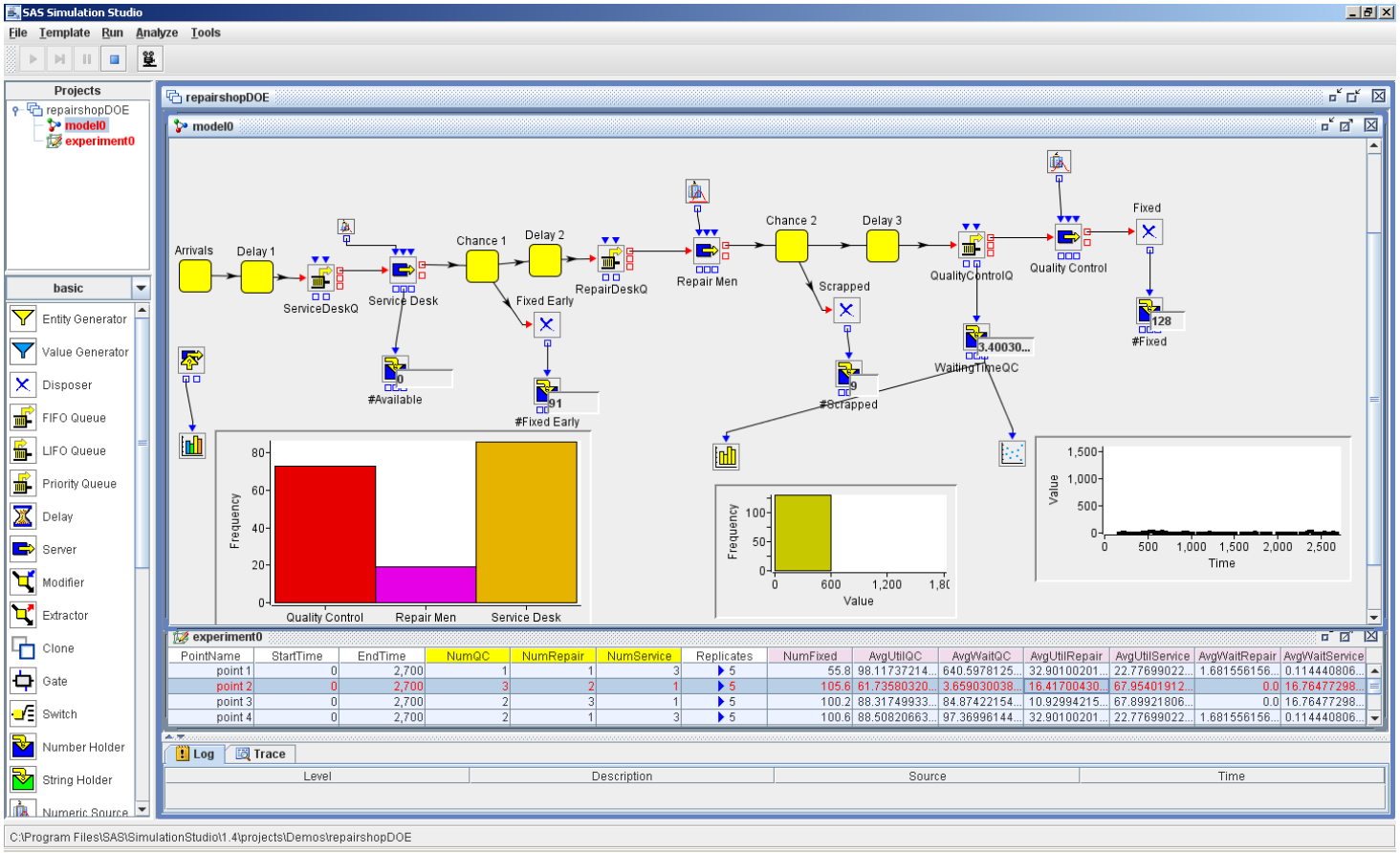
SAS Simulation Studio 1.5



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The best analytics for your business problem

Majority of analytic offerings available today report historical data

When looking for predictive insight, you need to look at the second half of the spectrum

By identifying what type of analytics to use for every individual situation, you'll really be increasing your chances for true business analytics

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