



**Flexibility for 'uncertain' data  
IBM SPSS Statistics 21**

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**Monte Carlo Simulation**



A Monte Carlo simulation is a computer experiment involving **random sampling from probability distributions of the inputs** to obtain approximate solutions to problems.



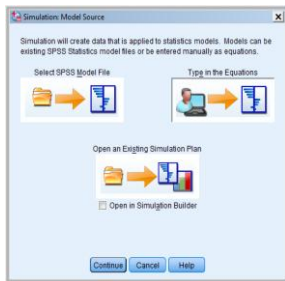
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**Unique analytics approach to  
Monte Carlo Simulation**



Used across many sectors:

- **Finance:** Understand uncertainty associated with investment planning.
- **Manufacturing:** Determine how the cost of materials affects profit.
- **Advertising/marketing/professional services:** Simulate various advertising budget amounts to see the effect on total sales.
- **Energy and utilities:** See how temperature impacts energy usage.
- **Healthcare:** Modeling treatment duration for diabetes patients



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**Data File Comparison Tool**



Pivot table output for Generalized Linear Mixed Models

One click descriptive information from the Data Editor

Import Cognos BI Data

Improved file merging

Export output to Excel 2007/2010 (.xlsx)

Programming in IBM SPSS Statistics with Java plugin

Improved Pivot tables

Single Sign On between client and server

Password protection of data and output files (encryption)

Client and Server can now be on different release levels



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**IBM SPSS Statistics:  
What's New**



*New tools and features to help you accelerate and simplify your analysis*



**Highlights**

**Added in IBM SPSS Statistics 20**

- Pre-built map templates and support for ESR1 files in SPSS Statistics Base
- Faster pivot table output
- GLMM procedure in IBM SPSS Advanced Statistics can be run with ordinal values
- Non-graphical, programmatic method for specifying models in IBM SPSS Base
- Run IBM SPSS Statistics Server jobs offline by disconnecting the SPSS Statistics client.
- Compress temporary files created by the sort procedure within SPSS Statistics Server to save disk space when sorting large files.

Analytics plays an increasingly important role in helping your organization achieve its objectives. The IBM® SPSS® Statistics family delivers the core capabilities needed for end-to-end analytics. To ensure that the most techniques are available to a broader group of analysts and users, we have made enhancements to the features and capabilities of SPSS Statistics Base and its many specialized modules.

SPSS Statistics 21 continues to increase accessibility to advanced

capabilities needed for end-to-end analytics. To ensure that the most

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**Demonstration**



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