

Audit Commander Linear Regression

Audit task in brief

Linear regression.

Data source(s)

- Text File

Typical Audit Uses

Part of the analytical review process, to determine if a linear relationship exists between two variables, e.g. Cost and Sales.

Description of Output

Output is a report which is produced by the “R” Statistical analysis system.

Form Image

The screenshot shows a window titled "Linear Model Regression" with the following fields and controls:

- Input File:** C:\Program Files\EZS\AC\data\stepwise1.bt
- Report File:** C:\Program Files\EZS\AC\data\stepwise1.rep
- Formula:** Earnings ~ Revenues + Employees
- Output Text:**
Residual standard error: 20.69 on 14 degrees of freedom
Multiple R-squared: 0.9662, Adjusted R-squared: 0.9614
F-statistic: 200 on 2 and 14 DF, p-value: 5.052e-11

> proc.time()
user system elapsed
- Buttons:** Exit, Process

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How to complete the form and run it

1. Click on the input file button and select the text file to be analyzed.
2. Click on the report file and specify the name of the file where the report is to be stored (or use the default file name provided).
3. Specify the relationship to be tested. This is done by specifying the dependent variable name followed by a tilde “~” and then one or more independent variable names separated by a plus sign. All of the variable names must be contained on the first row of the input text file.
4. Click on the process button.
5. Once all linear regression tests have been performed, click the “Exit” button to close the form and return to the main menu.

Example Output

Linear Model Regression

Input File: C:\Test\R\Stepwise1.txt

Report File: C:\Test\R\Stepwise1.rep

Formula: Earnings ~ Revenues + GSA + CEOSalary + Employees

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 20.69 on 14 degrees of freedom
Multiple R-squared: 0.9662, Adjusted R-squared: 0.9614
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Exit Process

Output

Output will be that of the “R” Statistical program which will include all the detail information as to the results of the linear regression analysis.