

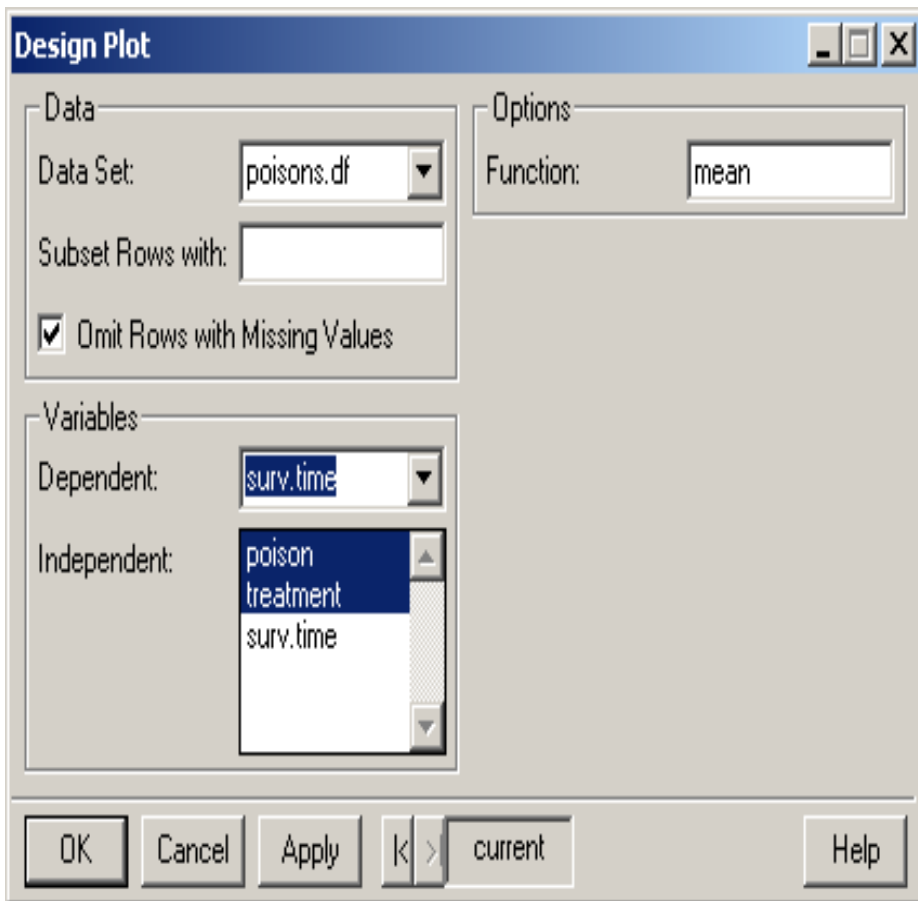
Γραφικές παραστάσεις: μια ματιά στα δεδομένα

The screenshot displays the S-PLUS Object Explorer2 software interface. The main window title is "S-PLUS - Object Explorer2". The menu bar includes File, Edit, View, Insert, Format, Data, Statistics, Graph, Options, Window, and Help. The Statistics menu is open, showing options like Data Summaries, Compare Samples, Power and Sample Size, Design, Regression, ANOVA, Mixed Effects, Generalized Least Squares, Survival, Tree, Compare Models..., Cluster Analysis, Multivariate, Quality Control Charts, Resample, Smoothing, and Time Series. The Design sub-menu is also open, listing options: Factorial Design..., Orthogonal Array Design..., Design Plot... (highlighted), Factor Plot..., and Interaction Plot... The Object Explorer2 pane on the left shows a tree view with folders for Data, Graphs, Reports, and Scripts. Below the tree is a list of objects with their names, counts, and types. The main workspace on the right shows a text area with the path "C:\Program Files\sp2000\users\Adminis".

Object Name	Count	Type
CLS.aov	1	aov
CLS.df	1	data.frame
com1	1	double
com2	1	double
cw	1	double
cw.aov	1	aov
cw.des	1	design
cw.df	1	data.frame
cw.l	1	list
depres	1	double
df	1	data.frame
drug.uni	1	data.frame
DS1	1	data.frame
examiner	1	character
FE23.aov	1	aov


>plot.design(poisons.df)

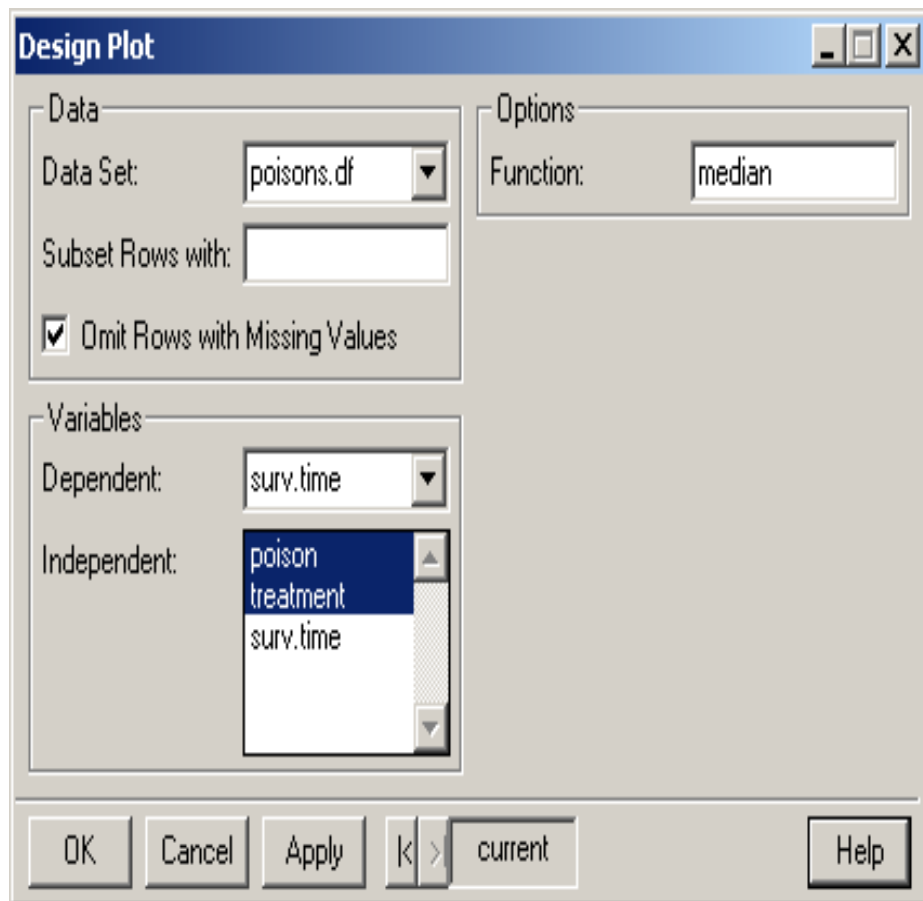
>plot.design(poisons.df,fun=median)



The 'Design Plot' dialog box is shown with the following settings:


- Data:** Data Set: poisons.df
- Options:** Function: mean
- Variables:** Dependent: surv.time; Independent: poison, treatment, surv.time
- Omit Rows with Missing Values

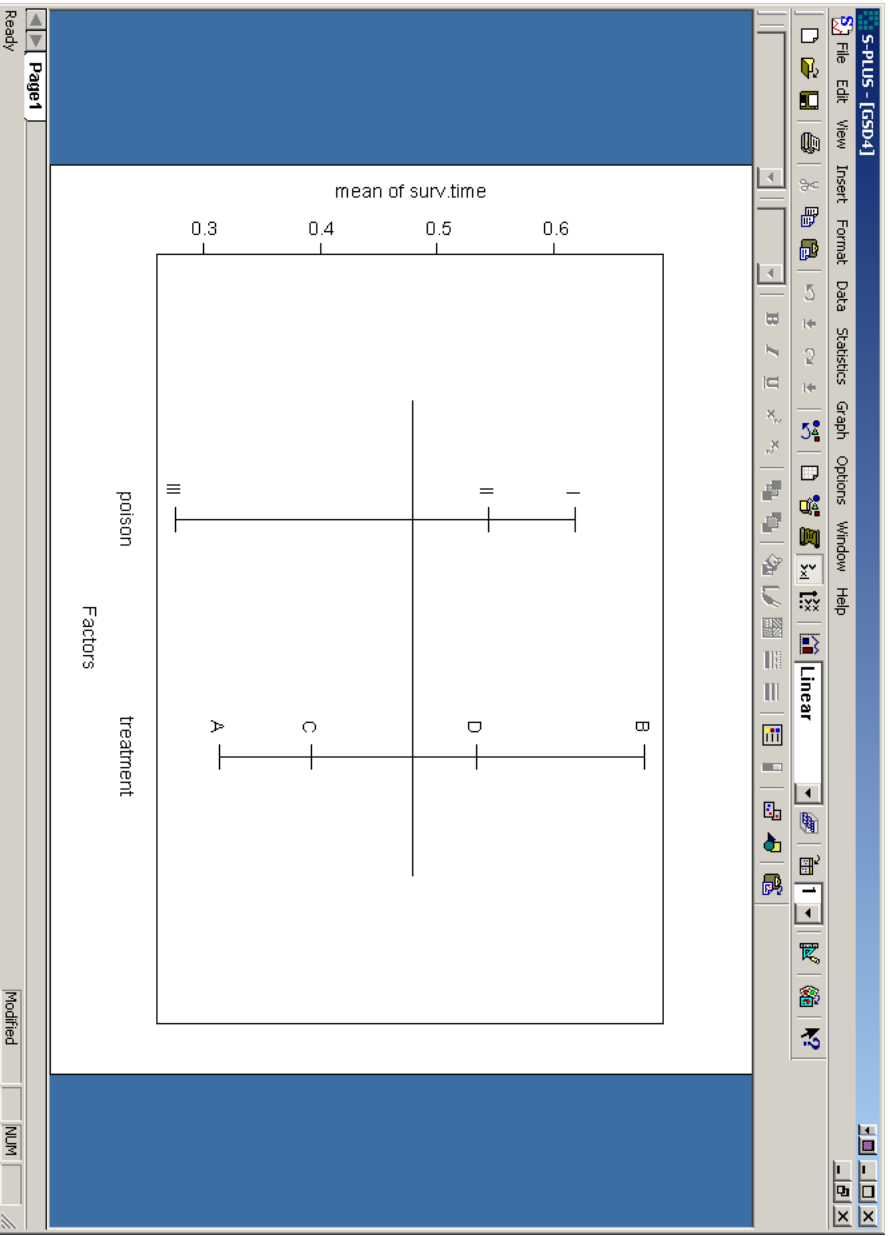
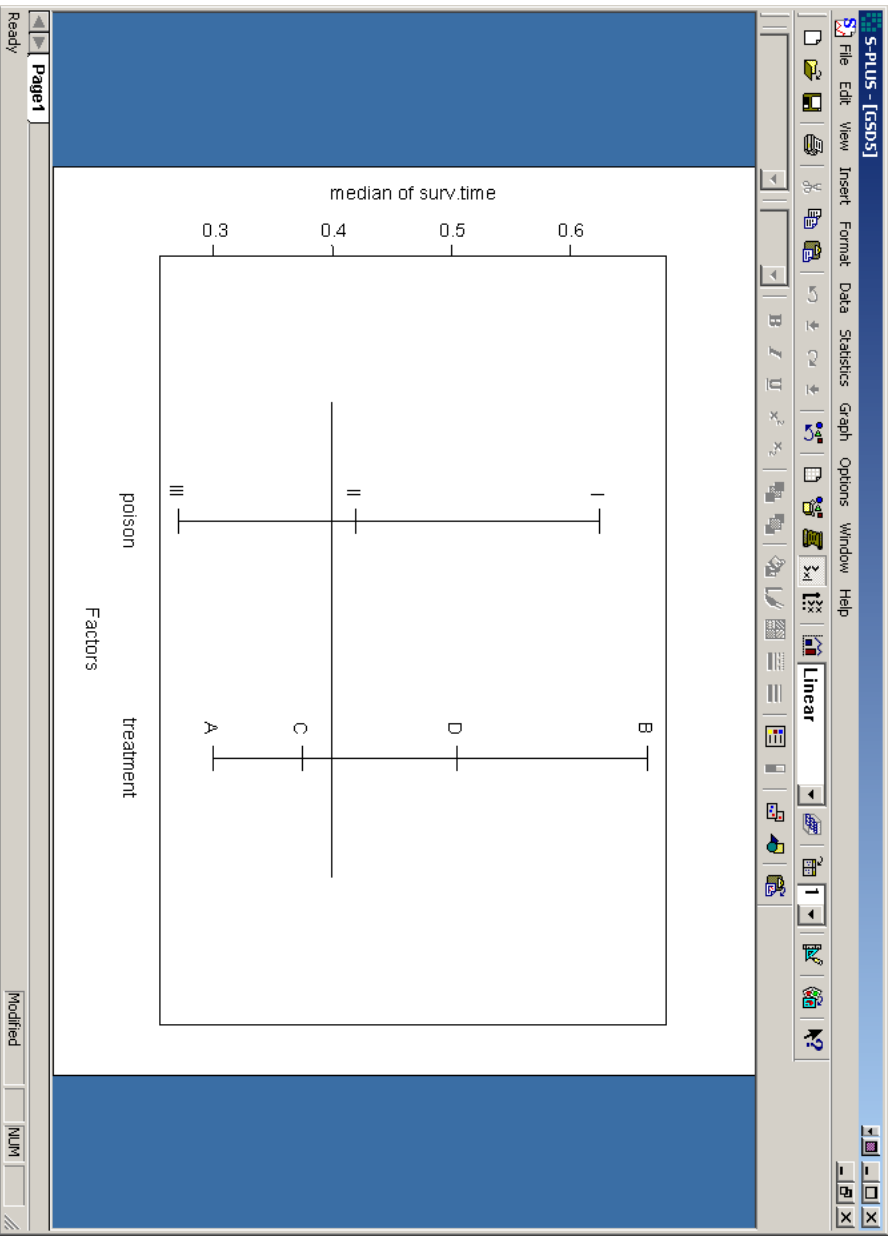
Buttons at the bottom: OK, Cancel, Apply,  current, Help



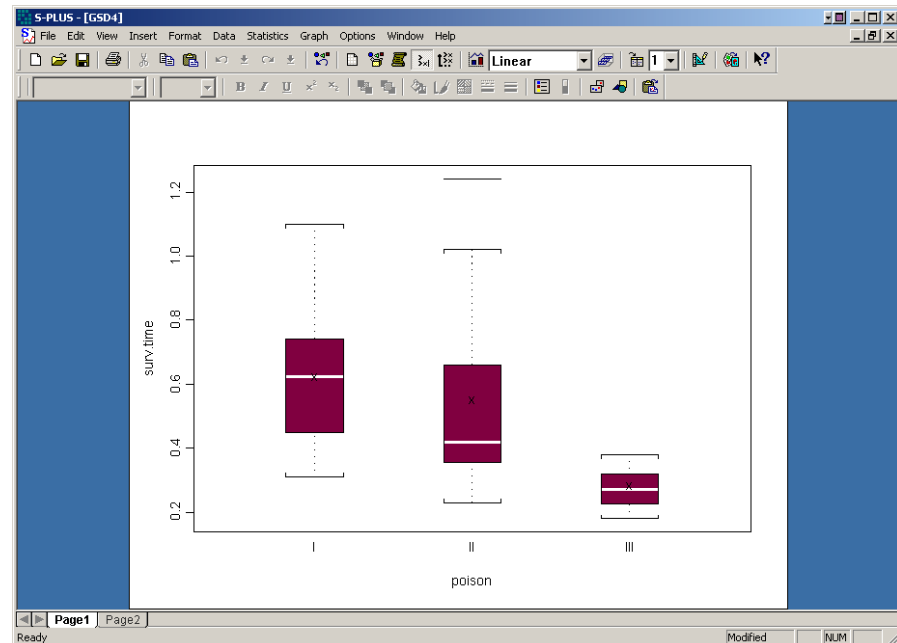
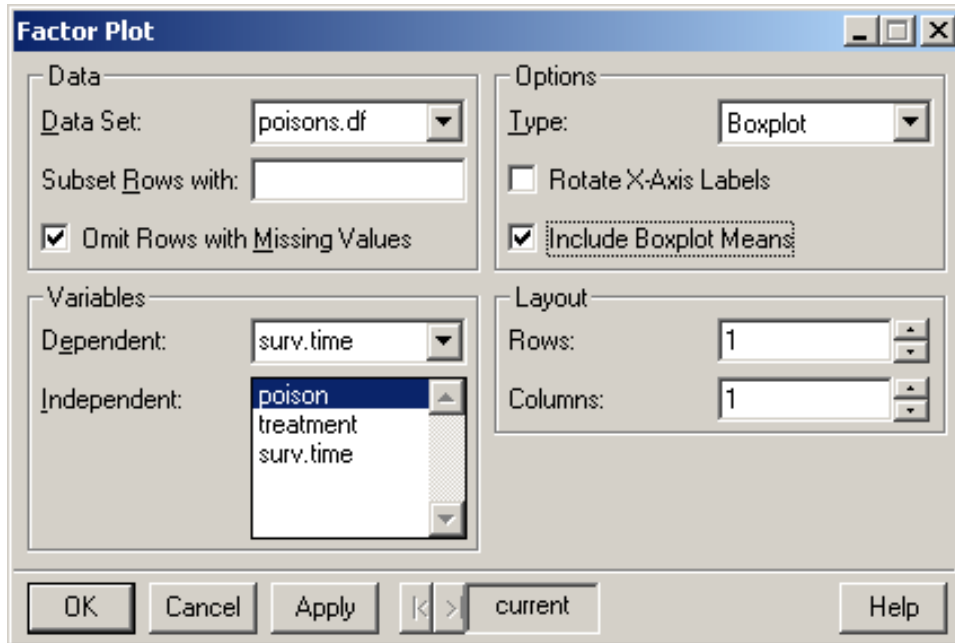
The 'Design Plot' dialog box is shown with the following settings:

- Data:** Data Set: poisons.df
- Options:** Function: median
- Variables:** Dependent: surv.time; Independent: poison, treatment, surv.time
- Omit Rows with Missing Values

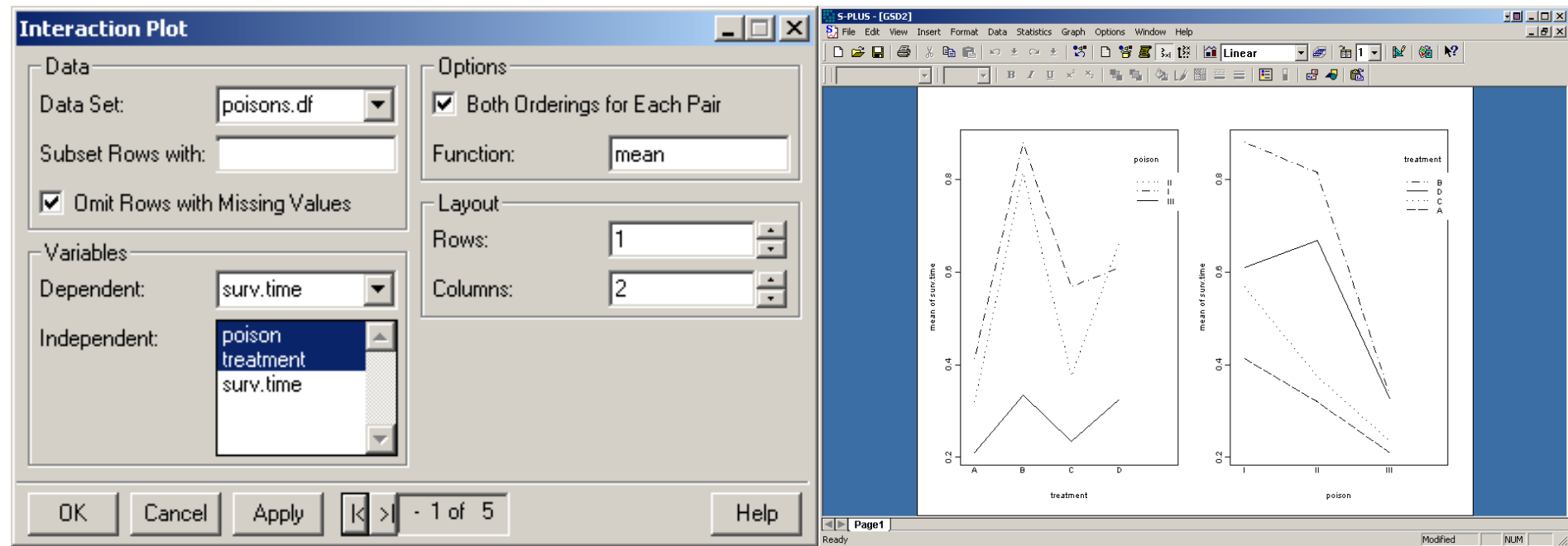
Buttons at the bottom: OK, Cancel, Apply,  current, Help



> plot.factor(poisons.df, boxmeans=T)



- > `par(mfrow=c(1,2))`
- > `attach(poisons.df)`
- > `interaction.plot(treatment,poison,surv.time)`
- > `interaction.plot(poison,treatment,surv.time,fun=median)`
- > `detach()`

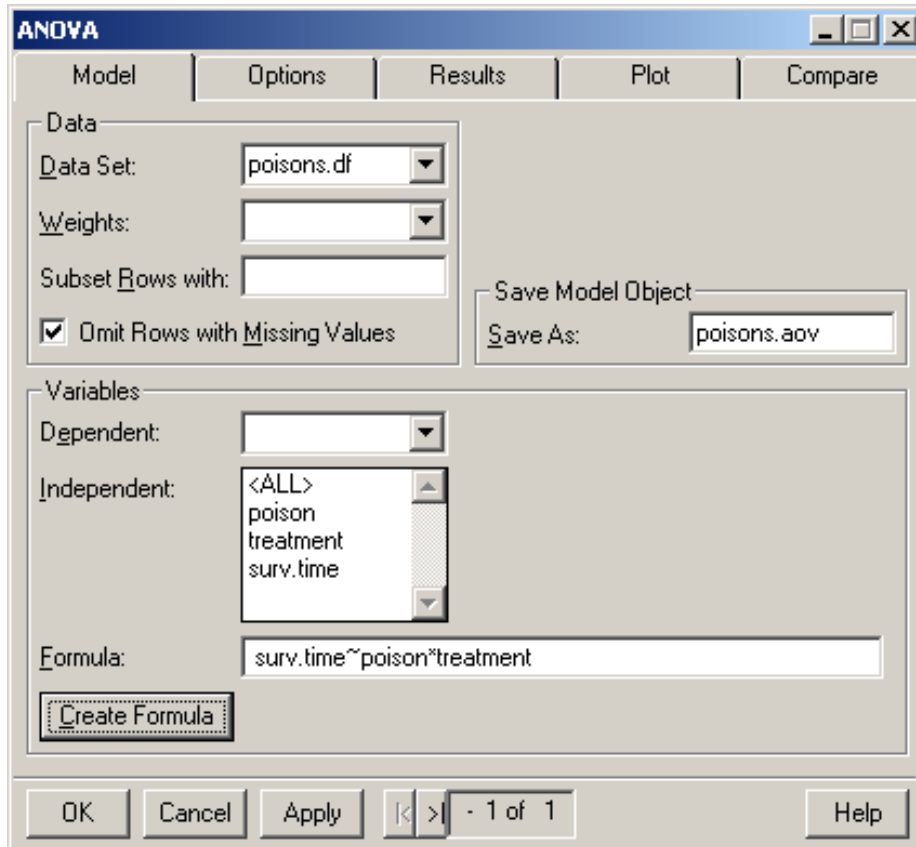


Ανάλυση Διασποράς με σταθερές επιδράσεις

The screenshot displays the SAS software interface, specifically the Object Explorer2 window. The menu bar includes File, Edit, View, Insert, Format, Data, Statistics, Graph, Options, Window, and Help. The Statistics menu is open, showing options like Data Summaries, Regression, ANOVA, and others. The ANOVA option is selected, and a sub-menu is visible with options: Fixed Effects..., Random Effects..., and Multiple Comparisons... The Multiple Comparisons... option is highlighted. Below the menu, a table lists various data objects with their positions, data classes, and dimensions.

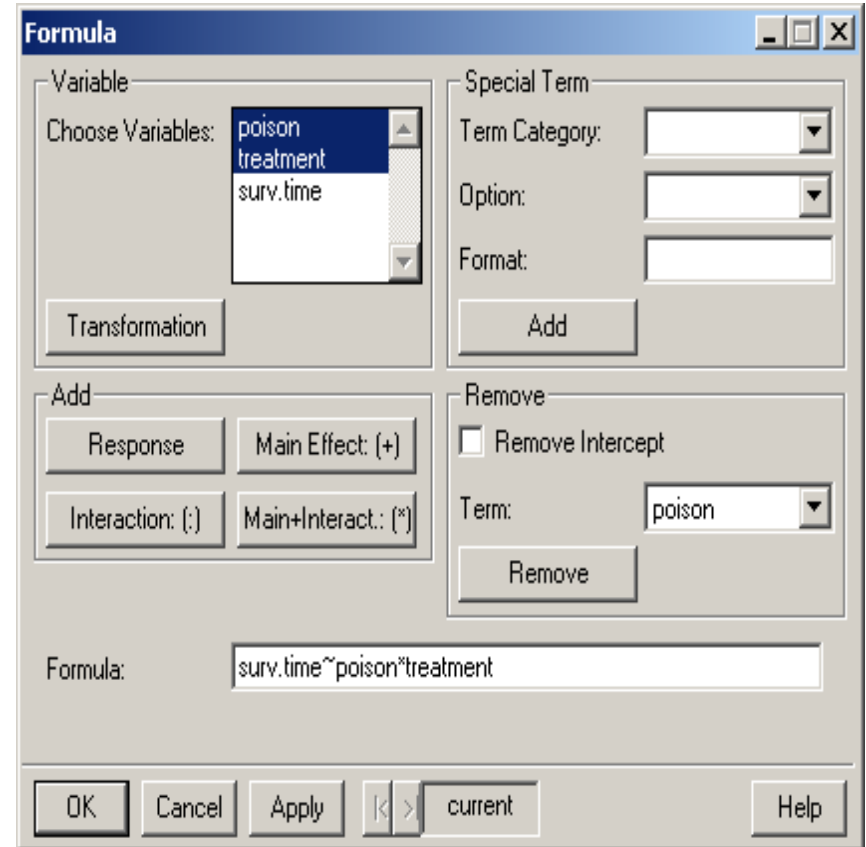
Pos	Data Class	Dimension
1	list	3
1	raov	14
1	data.frame	30x3
1	lm	11
1	aov	11
1	data.frame	24x4
1	design	12x2
1	double	24
1	double	12
1	aov	14
1	data.frame	80x5
1	double	11
1	aov	11
1	data.frame	32x6
1	double	16
1	double	16
1	double	24
1	aov	11
1	design	24x4
1	data.frame	24x5
1	list	4
1	double	30
1	data.frame	23x3
1	data.frame	24x6
1	data.frame	16x4

>poisons.aov_aov(surv.time~poison*treatment,poisons.df)



The ANOVA dialog box is shown with the following settings:

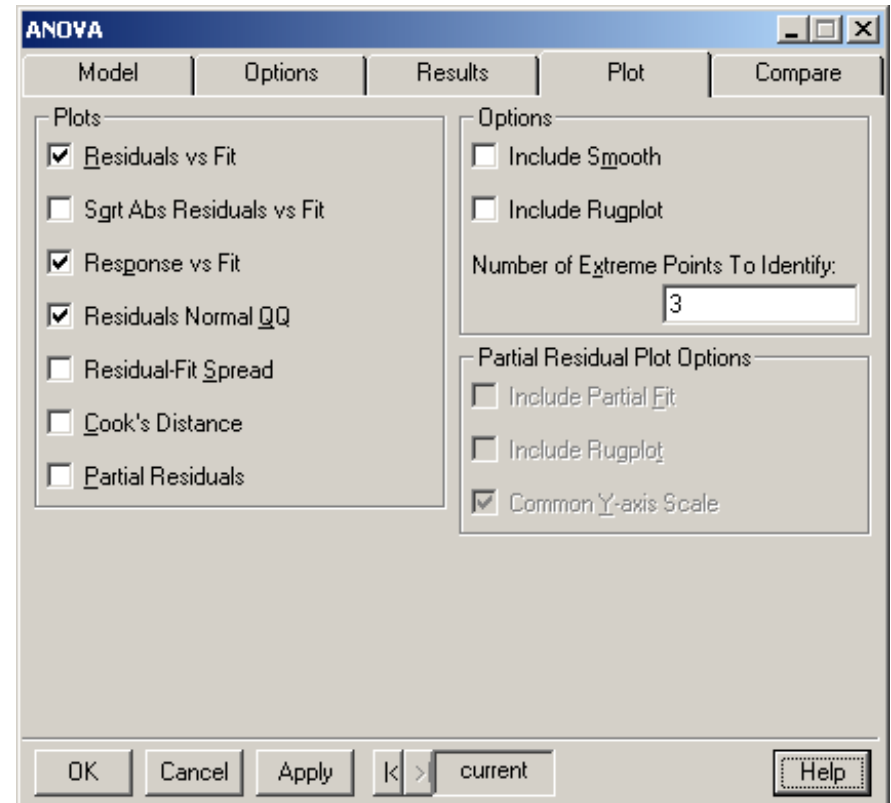
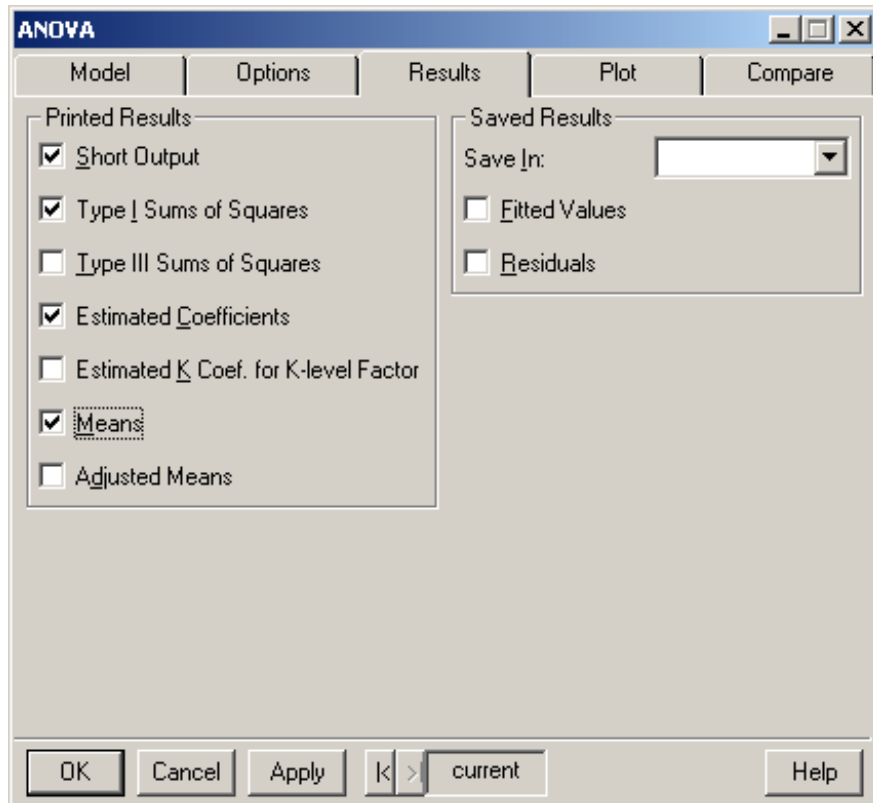
- Model:** Options, Results, Plot, Compare
- Data:** Data Set: poisons.df; Weights: (empty); Subset Rows with: (empty); Omit Rows with Missing Values; Save Model Object: Save As: poisons.aov
- Variables:** Dependent: (empty); Independent: <ALL>, poison, treatment, surv.time; Formula: surv.time~poison*treatment;
- Buttons:** OK, Cancel, Apply, < >, - 1 of 1, Help



The Formula dialog box is shown with the following settings:

- Variable:** Choose Variables: poison, treatment, surv.time; Transformation: (empty)
- Special Term:** Term Category: (empty); Option: (empty); Format: (empty);
- Add:** Response, Main Effect: (+), Interaction: (:), Main+Interact.: (*)
- Remove:** Remove Intercept; Term: poison;
- Formula:** surv.time~poison*treatment
- Buttons:** OK, Cancel, Apply, < >, current, Help

- > **summary(poisons.aov)**
- > **summary.lm(poisons.aov)**
- > **model.tables(poisons.aov,type="means")**
- > **plot(fitted(poisons.aov),resid(poisons.aov))**
- > **qqnorm(resid(poisons.aov))**



- > `mca.poisons_multicomp(poison.aov, focus="treatment")`
- > `plot(mca.poisons)`
- > `mca.poisons`

Multiple Comparisons

Model Selection

Model Object: `poisons.aov`

Name String Match:

Variable

Levels Of: `treatment`

Comparison Type: `mca`

Compare To Level:

Results

Save As:

Print Results

Plot Intervals

Options

Method: `Tukey`

Confidence Level: `0.95`

Bounds: `upper and lower`

Error Type: `family-wise`

Adjust For:

Contrast Matrix:

Critical Point:

Simulation Size:

Scheffe Rank:

Validity Check

Estimability Check

OK Cancel Apply `<` `>` current Help

