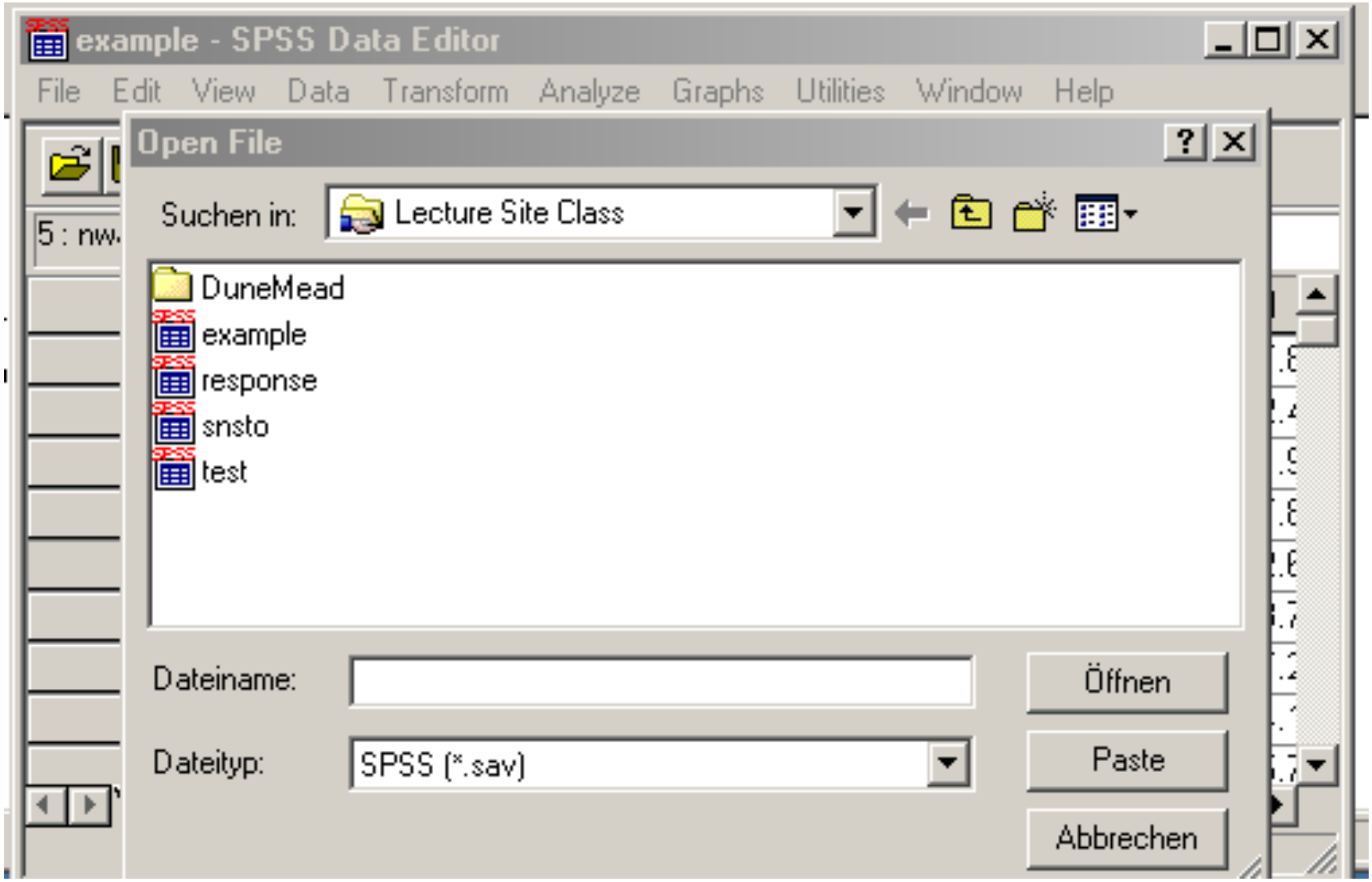
INTRO SPSS


example - SPSS Data Editor
File Edit View Data Transform Analyze Graphs Utilities Window Help
Open File
Suchen in:
Lecture Site Class
DuneMead
example
response
snsto
test
Dateiname:
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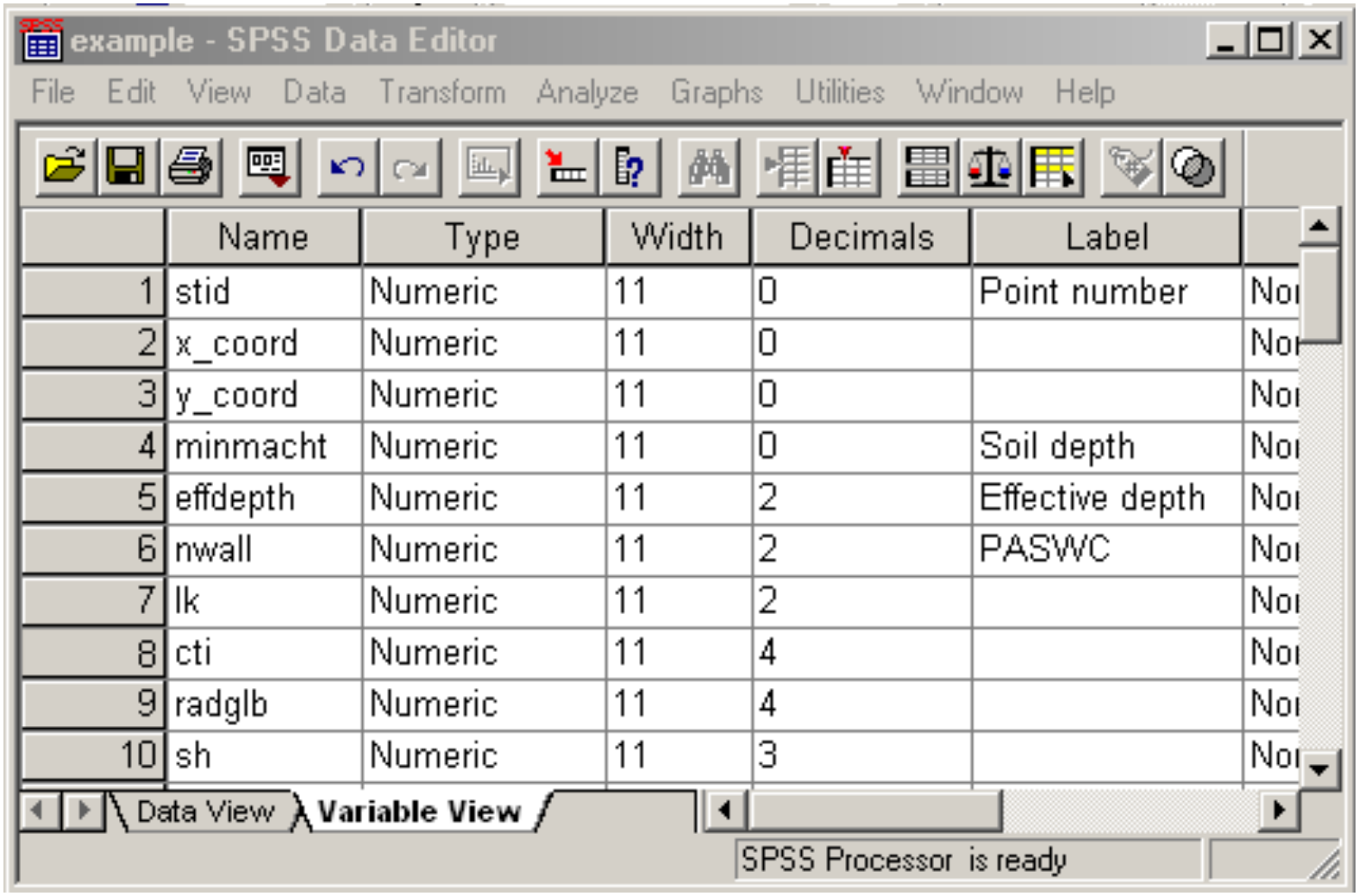
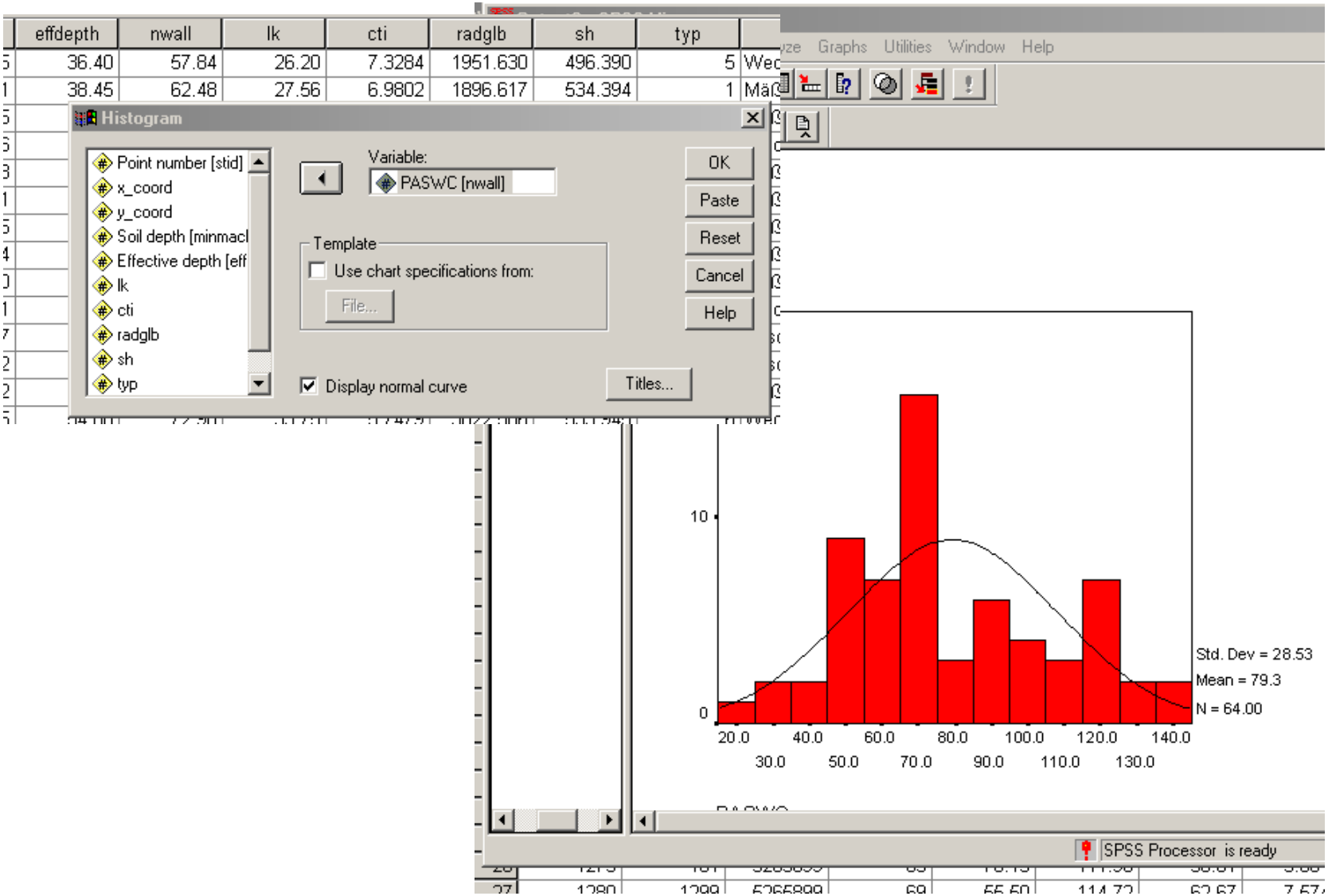
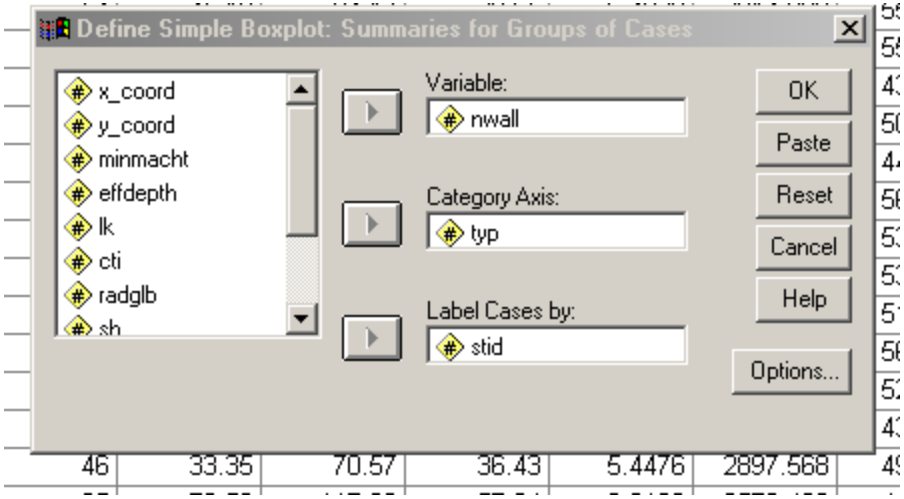
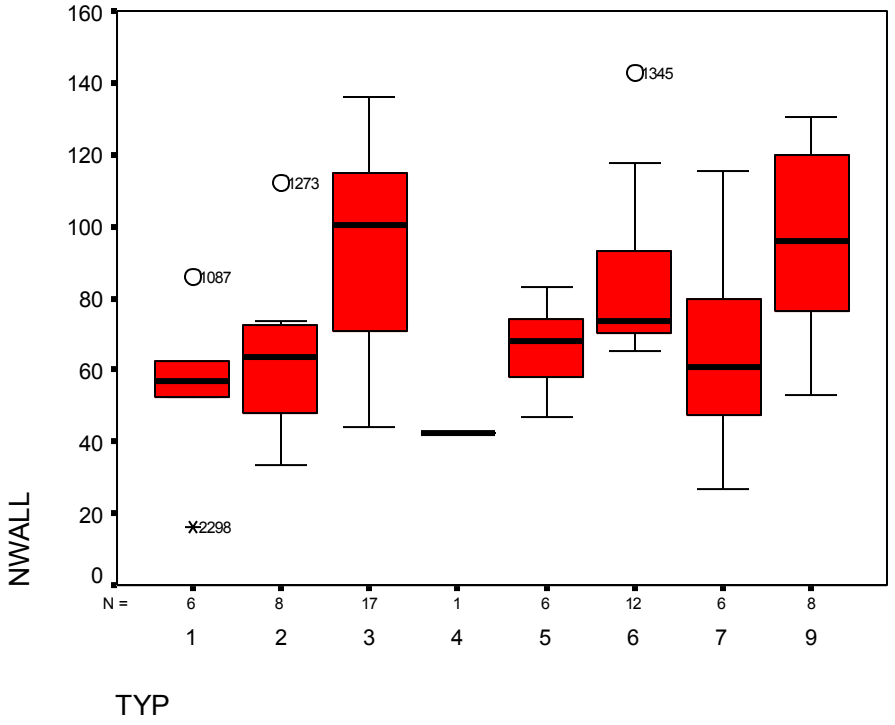
SPSS (*.sav)
Öffnen
Paste
Abbrechen


example - SPSS Data Editor
File Edit View Data Transform Analyze Graphs Utilities Window Help
Name Type Width Decimals Label
1 stid Numeric 11 0 Point number
2 x_coord Numeric 11 0
3 y_coord Numeric 11 0
4 minmacht Numeric 11 0 Soil depth
5 effdepth Numeric 11 2 Effective depth
6 nwall Numeric 11 2 PASWC
7 lk Numeric 11 2
8 cti Numeric 11 4
9 radglb Numeric 11 4
10 sh Numeric 11 3
Data View
Variable View
SPSS Processor is ready


effdepth
nwall
lk
cti
radglb
sh
typ
36.40
57.84
26.20
7.3284
1951.630
496.390
5
38.45
62.48
27.56
6.9802
1896.617
534.394
1
Histogram
Point number [stid]
x_coord
y_coord
Soil depth [minmacl
Effective depth [eff
lk
cti
radglb
sh
typ
Variable:
PASWC [nwall]
Template
Use chart specifications from:
File...
Display normal curve
OK
Paste
Reset
Cancel
Help
Titles...
Graphs
Utilities
Window
Help
10
0
20.0
30.0
40.0
50.0
60.0
70.0
80.0
90.0
100.0
110.0
120.0
130.0
140.0
Std. Dev = 28.53
Mean = 79.3
N = 64.00
SPSS Processor is ready





Simple Boxplot: Summaries for Groups of Cases

A single numeric variable is summarized within categories of another variable. Each box shows the median, quartiles, and extreme values within a category.

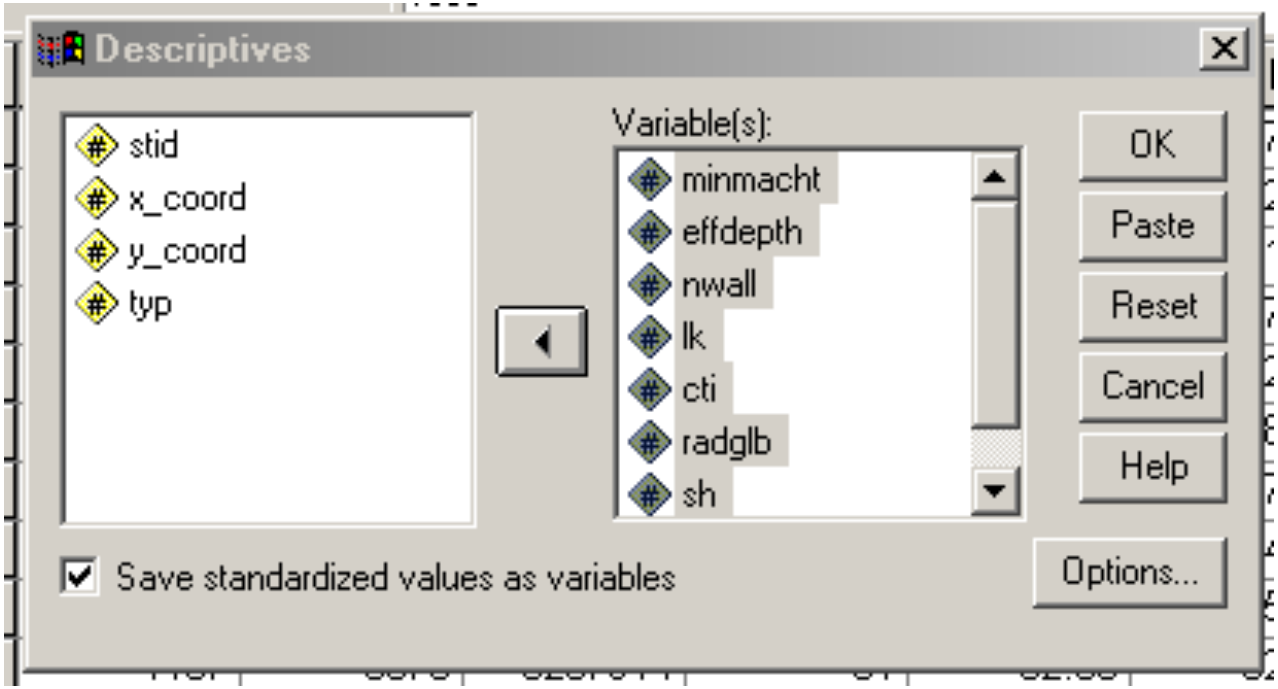
Minimum specifications: A numeric summary variable. A Category Axis variable.

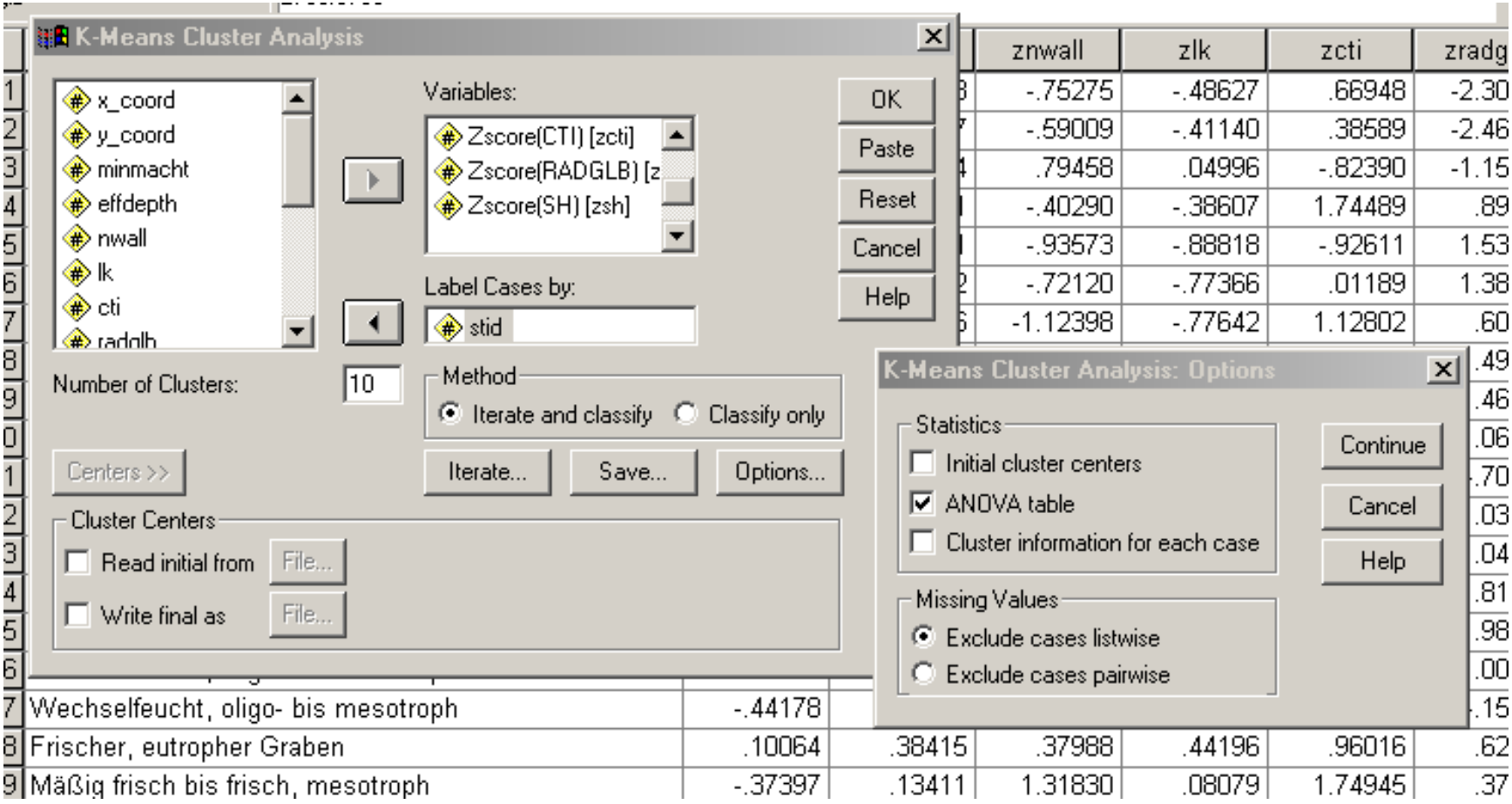
Outlier (Box plots/Explore)

Cases with values between 1.5 and 3 box lengths from the upper or lower edge of the box. The box length is the interquartile range.

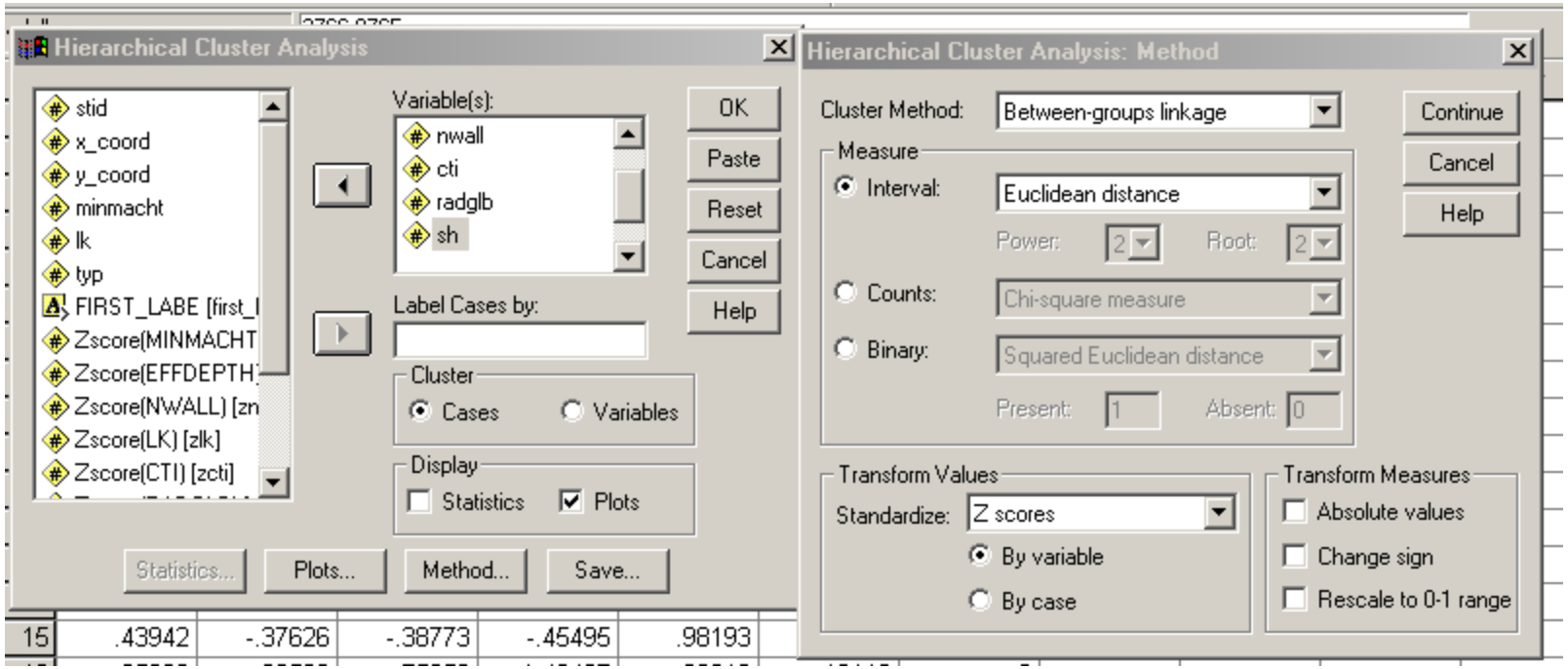
Extremes (Box plots)

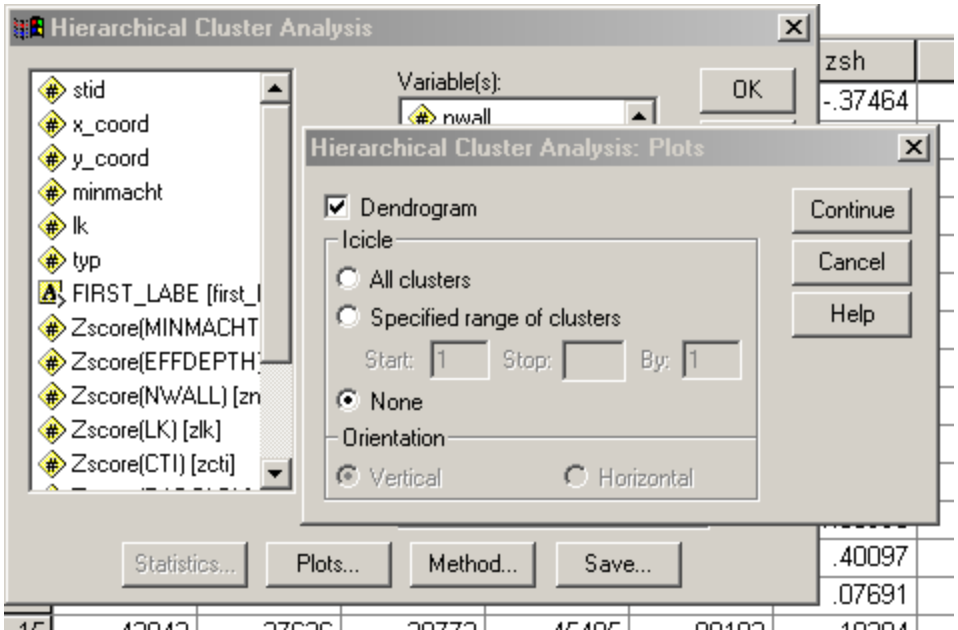
Cases with values more than 3 box lengths from the upper or lower edge of the box. The box length is the interquartile range.

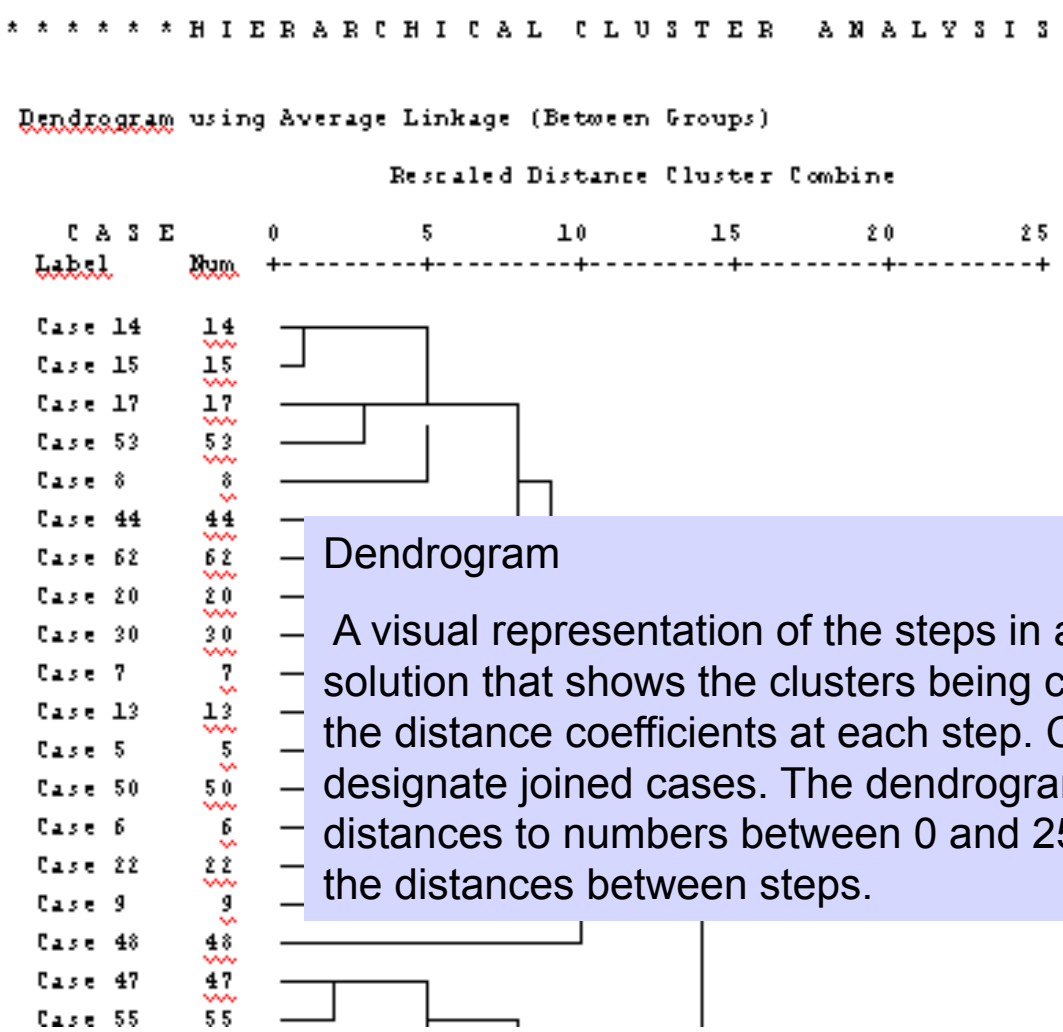

Descriptives
stid
x_coord
y_coord
typ
Variable(s):
minmacht
effdepth
nwall
lk
cti
radglb
sh
OK
Paste
Reset
Cancel
Help
Save standardized values as variables
Options...



				znwall	zlk	zcti	zradg
1				-.75275	-.48627	.66948	-2.30
2				-.59009	-.41140	.38589	-2.46
3				.79458	.04996	-.82390	-1.15
4				-.40290	-.38607	1.74489	.89
5				-.93573	-.88818	-.92611	1.53
6				-.72120	-.77366	.01189	1.38
7				-1.12398	-.77642	1.12802	.60
7	Wechselfeucht, oligo- bis mesotroph	-.44178					.15
8	Frischer, eutropher Graben	.10064	.38415	.37988	.44196	.96016	.62
9	Mäßig frisch bis frisch, mesotroph	-.37397	.13411	1.31830	.08079	1.74945	.37

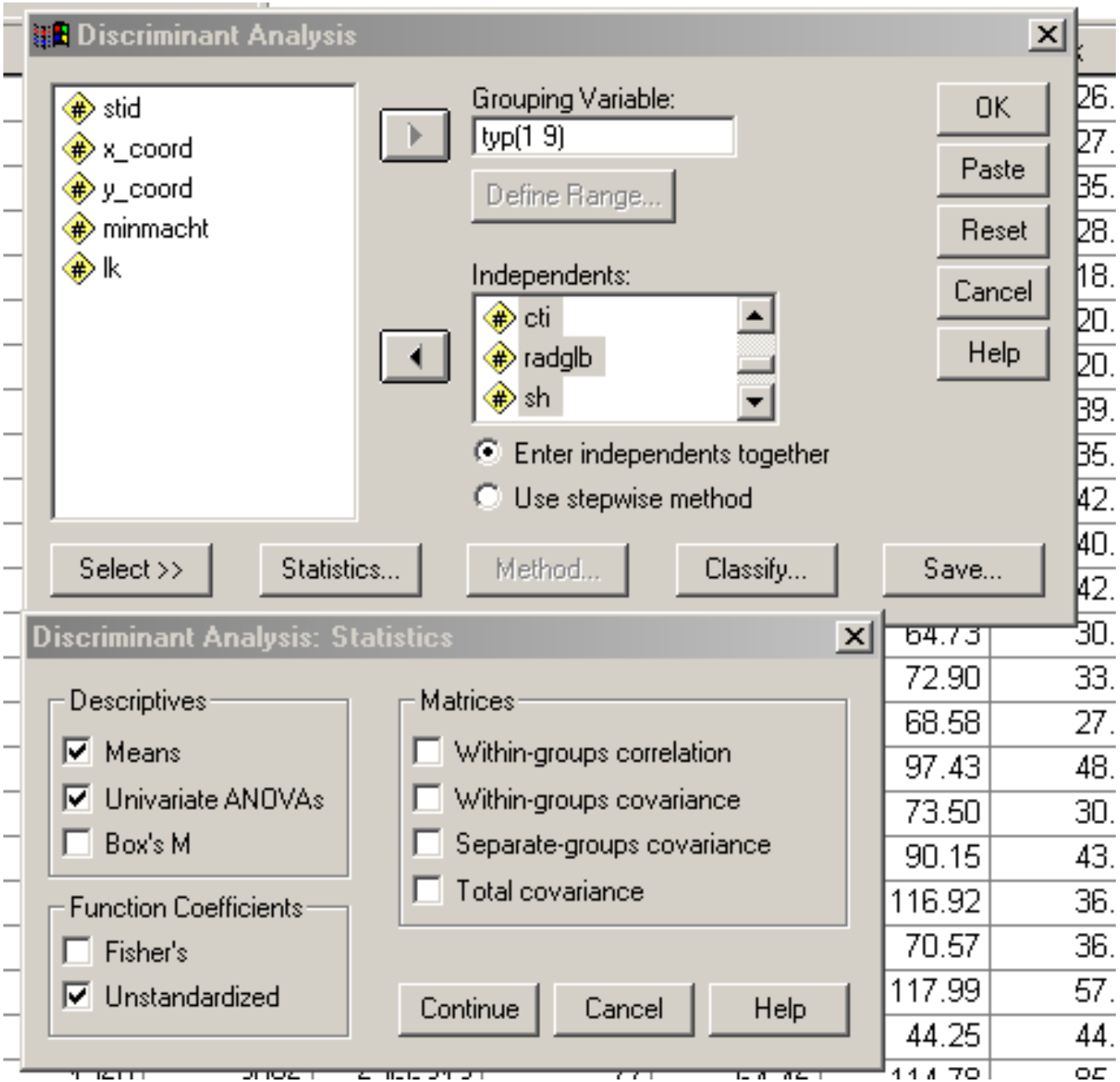

Hierarchical Cluster Analysis
stid
x_coord
y_coord
minmacht
lk
typ
FIRST_LABE [first_l
Zscore(MINMACHT
Zscore(EFFDEPTH
Zscore(NWALL) [zn
Zscore(LK) [zlk]
Zscore(CTI) [zcti]
Variable(s):
nwall
cti
radglb
sh
Label Cases by:
Cluster
Cases
Variables
Display
Statistics
Plots
OK
Paste
Reset
Cancel
Help
Statistics...
Plots...
Method...
Save...
Hierarchical Cluster Analysis: Method
Cluster Method:
Between-groups linkage
Measure
Interval:
Euclidean distance
Power:
2
Root:
2
Counts:
Chi-square measure
Binary:
Squared Euclidean distance
Present:
1
Absent:
0
Transform Values
Standardize:
Z scores
By variable
By case
Transform Measures
Absolute values
Change sign
Rescale to 0-1 range
Continue
Cancel
Help
15
.43942
-.37626
-.38773
-.45495
.98193

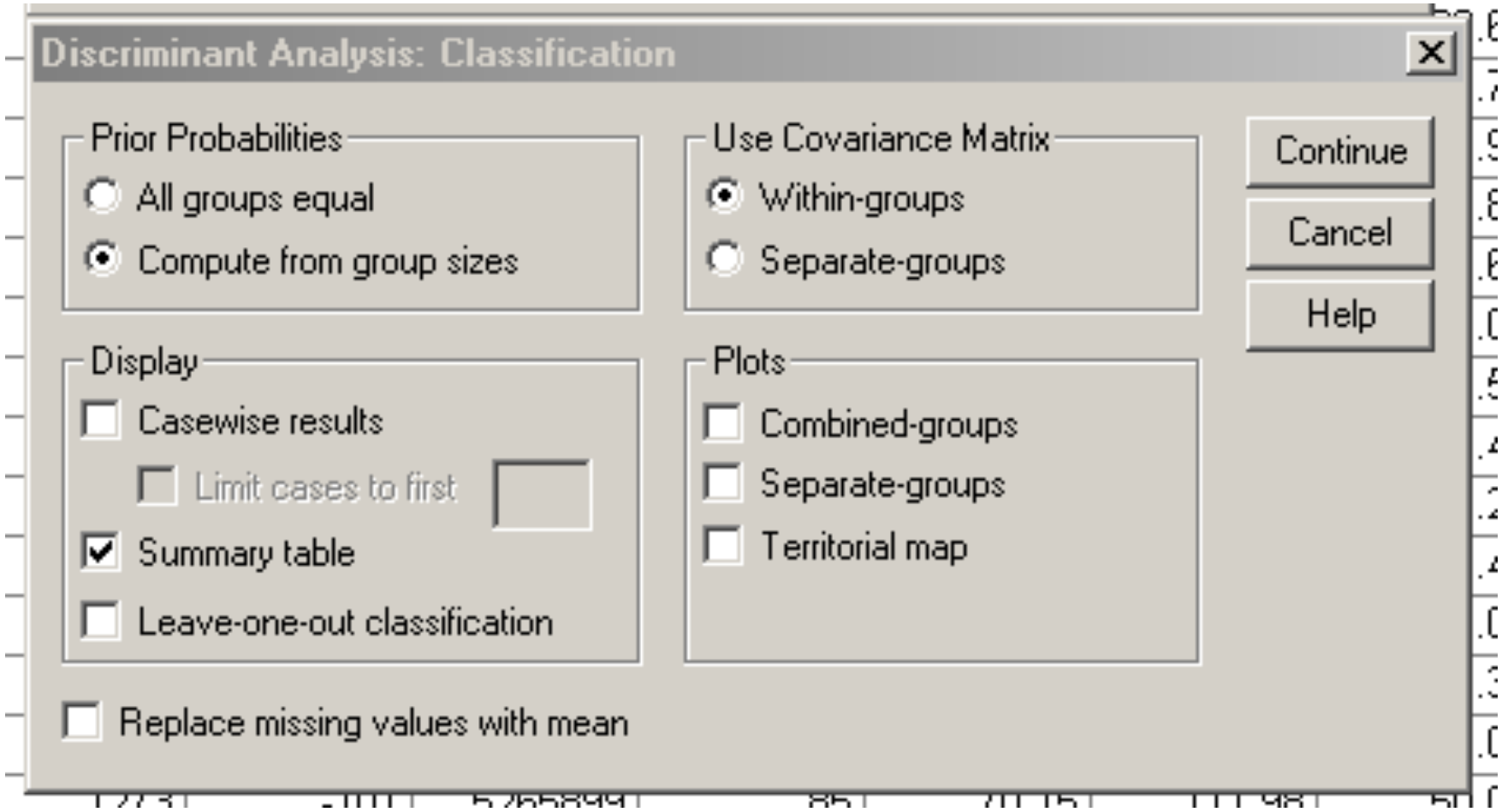

Hierarchical Cluster Analysis
stid
x_coord
y_coord
minmacht
lk
typ
FIRST_LABE [first_l
Zscore(MINMACHT
Zscore(EFFDEPTH
Zscore(NWALL) [zn
Zscore(LK) [zlk]
Zscore(CTI) [zcti]
Variable(s):
nwall
OK
Statistics...
Plots...
Method...
Save...
Hierarchical Cluster Analysis: Plots
Dendrogram
Icicle
All clusters
Specified range of clusters
Start:
1
Stop:
By:
1
None
Orientation
Vertical
Horizontal
Continue
Cancel
Help
zsh
-.37464
.40097
.07691



Dendrogram

A visual representation of the steps in a hierarchical clustering solution that shows the clusters being combined and the values of the distance coefficients at each step. Connected vertical lines designate joined cases. The dendrogram rescales the actual distances to numbers between 0 and 25, preserving the ratio of the distances between steps.


Discriminant Analysis
stid
x_coord
y_coord
minmacht
lk
Grouping Variable:
typ(1 9)
Define Range...
Independents:
cti
radglb
sh
Enter independents together
Use stepwise method
OK
Paste
Reset
Cancel
Help
Select >>
Statistics...
Method...
Classify...
Save...
Discriminant Analysis: Statistics
Descriptives
Means
Univariate ANOVAs
Box's M
Function Coefficients
Fisher's
Unstandardized
Matrices
Within-groups correlation
Within-groups covariance
Separate-groups covariance
Total covariance
Continue
Cancel
Help


Discriminant Analysis: Classification
Prior Probabilities
All groups equal
Compute from group sizes
Use Covariance Matrix
Within-groups
Separate-groups
Continue
Cancel
Help
Display
Casewise results
Limit cases to first
Summary table
Leave-one-out classification
Plots
Combined-groups
Separate-groups
Territorial map
Replace missing values with mean

Group Statistics

TYP		Mean	Std. Deviation	Valid N (listwise) Unweighted	Valid N (listwise) Weighted
1	EFFDEPTH	26.708333	10.983006	6	6.000
	NWALL	55.068333	22.551320	6	6.000
	CTI	5.919100	.928535	6	6.000
	RADGLB	2666.204	549.595310	6	6.000
	SH	588.3580	48.867916	6	6.000
2	EFFDEPTH	34.393750	16.128578	8	8.000
	NWALL	64.141250	23.592317	8	8.000
	CTI	5.789600	1.282789	8	8.000
	RADGLB	2761.779	401.340152	8	8.000

Tests of Equality of Group Means

	Wilks' Lambda	F	df1	df2	Sig.
EFFDEPTH	.619	4.928	7	56	.000
NWALL	.694	3.521	7	56	.003
CTI	.824	1.703	7	56	.127
	.931	.597	7	56	.756
	.591	5.528	7	56	.000

Summary of Canonical Discriminant Functions

Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.932[a]	53.0	53.0	.694
2	.571[a]	32.5	85.6	.603
3	.156[a]	8.9	94.4	.367
4	.061[a]	3.5	97.9	.241
5	.036[a]	2.1	100.0	.187

a. First 5 canonical discriminant functions were used in the analysis.

Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1 through 5	.259	76.292	35	.000
2 through 5	.501	39.093	24	.027
3 through 5	.786	13.570	15	.558
4 through 5	.909	5.389	8	.715
5	.965	2.019	3	.568

Standardized Canonical Discriminant Function Coefficients

	Function				
	1	2	3	4	5
EFFDEPTH	-.660	1.401	-.022	-.473	-.320
NWALL	.130	-1.214	1.019	.277	.282
CTI	-.202	.013	-.297	.541	.825
RADGLB	.137	.091	-.062	.906	-.458
SH	.670	.364	.596	.041	.391

Canonical Discriminant Function Coefficients

	Function				
	1	2	3	4	5
EFFDEPTH	-.042	.088	-.001	-.030	-.020
NWALL	.005	-.048	.040	.011	.011
CTI	-.171	.011	-.251	.458	.698
RADGLB	.000	.000	.000	.003	-.001
SH	.010	.005	.009	.001	.006
(Constant)	-3.575	-4.042	-5.654	-9.816	-3.910

Unstandardized coefficients

Functions at Group Centroids

TYP	Function				
	1	2	3	4	5
1	1.434	-.419	-.255	-6.04E-02	.202
2	.671	-.452	-.372	-3.65E-02	-.388
3	-.242	-.823	.387	4.679E-02	4.428E-02
4	2.655	1.356	.271	.967	.263
5	-1.42E-02	5.597E-02	-.635	-.205	.275
6	-.724	.567	-.170	.318	-2.75E-02
7	1.144	1.308	.553	-.257	-6.56E-02
9	-1.325	.473	2.464E-02	-.268	-6.01E-03

Unstandardized canonical discriminant functions evaluated at group means

Classification Results[a]

			Predicted Group Membership								
		TYP	1	2	3	4	5	6	7	9	Total
Original	Count	1	2	2	1	0	1	0	0	0	6
		2	1	2	3	0	1	0	1	0	8
		3	1	1	12	0	0	3	0	0	17
		4	0	0	0	1	0	0	0	0	1
		5	1	0	1	0	1	3	0	0	6
		6	0	0	3	0	0	9	0	0	12
		7	1	0	0	0	0	1	4	0	6
		9	0	0	1	0	1	2	0	4	8
	%	1	33.3	33.3	16.7	.0	16.7	.0	.0	.0	100.0
		2	12.5	25.0	37.5	.0	12.5	.0	12.5	.0	100.0
		3	5.9	5.9	70.6	.0	.0	17.6	.0	.0	100.0
		4	.0	.0	.0	100.0	.0	.0	.0	.0	100.0
		5	16.7	.0	16.7	.0	16.7	50.0	.0	.0	100.0
		6	.0	.0	25.0	.0	.0	75.0	.0	.0	100.0
		7	16.7	.0	.0	.0	.0	16.7	66.7	.0	100.0
		9	.0	.0	12.5	.0	12.5	25.0	.0	50.0	100.0

a. 54.7% of original grouped cases correctly classified.