

Obs	assay	lab	calcium
1	1	1	10.9
2	1	1	10.9
3	1	2	10.5
4	1	2	9.8
5	1	3	9.7
6	1	3	10.0
7	2	1	11.3
8	2	1	11.7
9	2	2	10.2
10	2	2	9.4
11	2	3	9.2
12	2	3	8.8
13	3	1	11.8
14	3	1	11.2
15	3	2	10.0
16	3	2	10.7
17	3	3	10.7
18	3	3	10.4

The Mixed Procedure

Model Information	
Data Set	WORK.EX17_3
Dependent Variable	calcium
Covariance Structure	Variance Components
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
assay	3	1 2 3
lab	3	1 2 3

Dimensions	
Covariance Parameters	4
Columns in X	1
Columns in Z	15
Subjects	1
Max Obs Per Subject	18

Number of Observations	
Number of Observations Read	18
Number of Observations Used	18
Number of Observations Not Used	0

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	45.21306808	
1	1	31.89139593	0.00000000

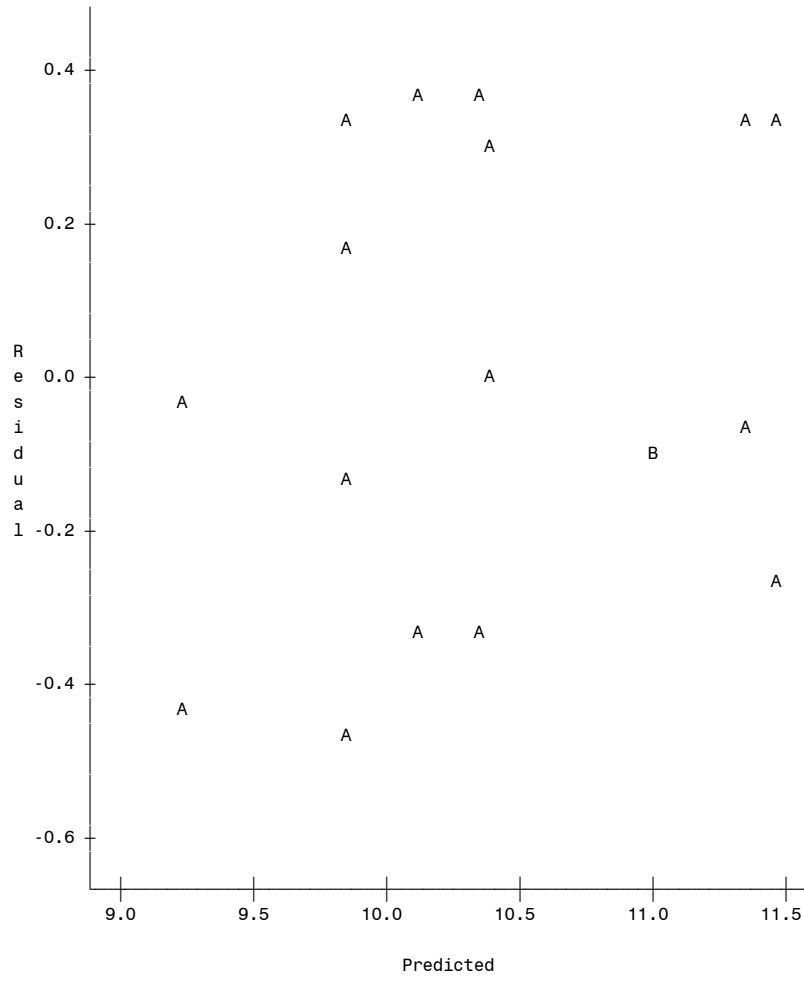
The Mixed Procedure

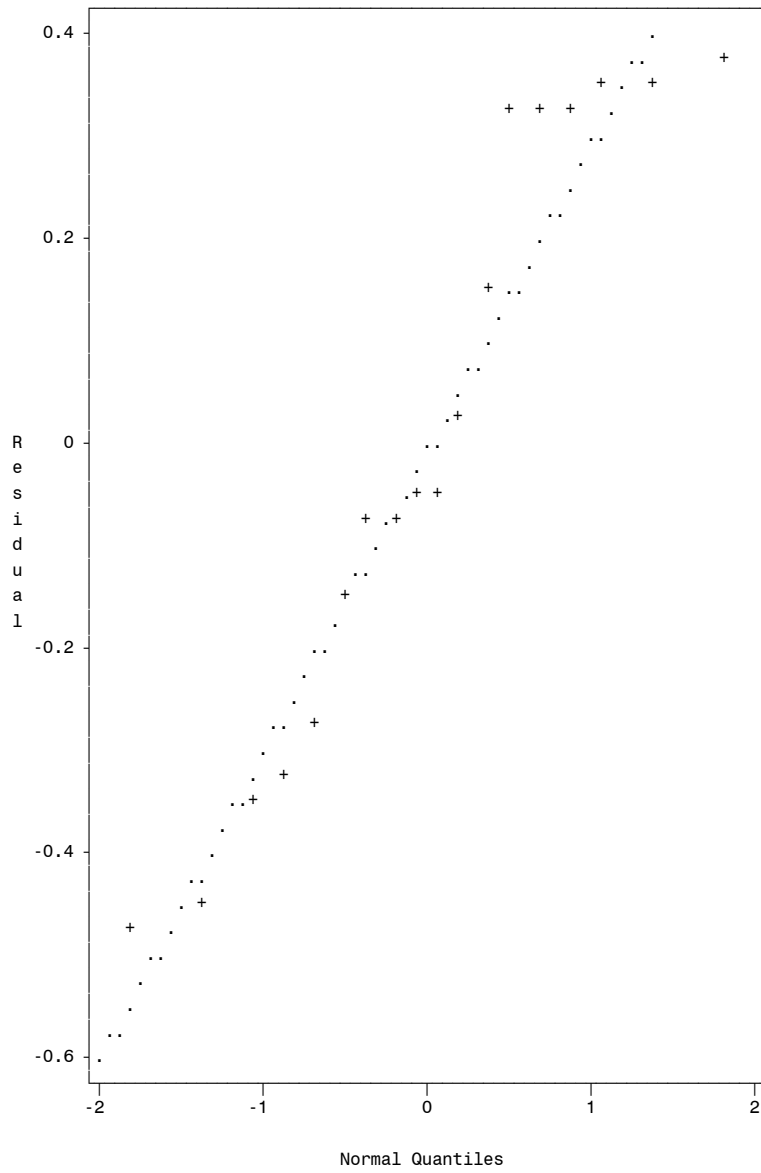
Convergence criteria met.

Covariance Parameter Estimates	
Cov Parm	Estimate
assay	0.06167
lab	0.5617
assay*lab	0.1361
Residual	0.1378

Fit Statistics	
-2 Res Log Likelihood	31.9
AIC (smaller is better)	39.9
AICC (smaller is better)	43.2
BIC (smaller is better)	36.3

Plot of Resid*Pred. Legend: A = 1 obs, B = 2 obs, etc.





The GLM Procedure

Class Level Information		
Class	Levels	Values
assay	3	1 2 3
lab	3	1 2 3

Number of Observations Read	18
Number of Observations Used	18

The GLM Procedure

Dependent Variable: calcium

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	10.76000000	1.34500000	9.76	0.0013
Error	9	1.24000000	0.13777778		
Corrected Total	17	12.00000000			

R-Square	Coeff Var	Root MSE	calcium Mean
0.896667	3.569080	0.371184	10.40000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
assay	2	1.56000000	0.78000000	5.66	0.0256
lab	2	7.56000000	3.78000000	27.44	0.0001
assay*lab	4	1.64000000	0.41000000	2.98	0.0803

Source	DF	Type III SS	Mean Square	F Value	Pr > F
assay	2	1.56000000	0.78000000	5.66	0.0256
lab	2	7.56000000	3.78000000	27.44	0.0001
assay*lab	4	1.64000000	0.41000000	2.98	0.0803

The GLM Procedure

Source	Type III Expected Mean Square
assay	$\text{Var}(\text{Error}) + 2 \text{Var}(\text{assay*lab}) + 6 \text{Var}(\text{assay})$
lab	$\text{Var}(\text{Error}) + 2 \text{Var}(\text{assay*lab}) + 6 \text{Var}(\text{lab})$
assay*lab	$\text{Var}(\text{Error}) + 2 \text{Var}(\text{assay*lab})$

The GLM Procedure
Tests of Hypotheses for Random Model Analysis of Variance

Dependent Variable: calcium

Source	DF	Type III SS	Mean Square	F Value	Pr > F
assay	2	1.560000	0.780000	1.90	0.2627
lab	2	7.560000	3.780000	9.22	0.0318
Error: MS(assay*lab)	4	1.640000	0.410000		

Source	DF	Type III SS	Mean Square	F Value	Pr > F
assay*lab	4	1.640000	0.410000	2.98	0.0803
Error: MS(Error)	9	1.240000	0.137778		