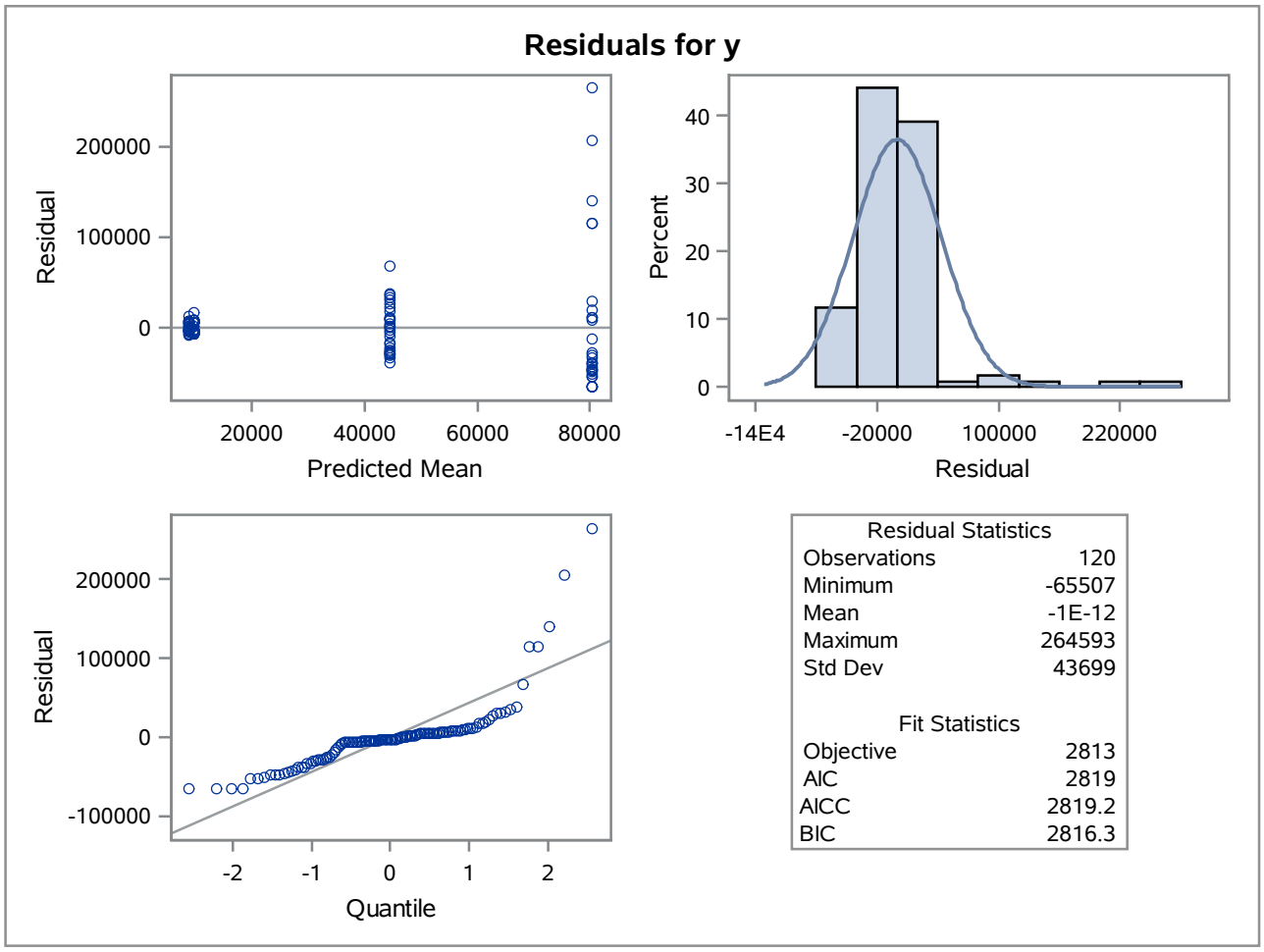



| Model Information | |
|---|---|
| **Data Set** | WORK.BASHOR |
| **Dependent Variable** | logy |
| **Covariance Structure** | Variance Components |
| **Estimation Method** | Type 3 |
| **Residual Variance Method** | Factor |
| **Fixed Effects SE Method** | Model-Based |
| **Degrees of Freedom Method** | Containment |

| Class Level Information | | |
|---|---|---|
| **Class** | **Levels** | **Values** |
| **day** | 3 | 1 2 3 |
| **location** | 4 | 1 2 3 4 |

| Dimensions | |
|---|---|
| **Covariance Parameters** | 3 |
| **Columns in X** | 5 |
| **Columns in Z** | 15 |

| Dimensions | |
|---|---|
| Subjects | 1 |
| Max Obs per Subject | 120 |

| Number of Observations | |
|---|---|
| Number of Observations Read | 120 |
| Number of Observations Used | 120 |
| Number of Observations Not Used | 0 |

**Type 3 Analysis of Variance**

| Source | DF | Sum of Squares | Mean Square | Expected Mean Square | Error Term | Error DF | F Value | Pr > F |
|---|---|---|---|---|---|---|---|---|
| location | 3 | 97.865388 | 32.621796 | Var(Residual) + 10 Var(day*location) + Q(location) | MS(day*location) | 6 | 43.17 | 0.0002 |
| day | 2 | 2.787355 | 1.393677 | Var(Residual) + 10 Var(day*location) + 40 Var(day) | MS(day*location) | 6 | 1.84 | 0.2375 |
| day*location | 6 | 4.533565 | 0.755594 | Var(Residual) + 10 Var(day*location) | MS(Residual) | 108 | 1.38 | 0.2303 |
| Residual | 108 | 59.254946 | 0.548657 | Var(Residual) | . | . | . | . |

| Covariance Parameter Estimates | |
|---|---|
| Cov Parm | Estimate |
| day | 0.01595 |
| day*location | 0.02069 |
| Residual | 0.5487 |

| Fit Statistics | |
|---|---|
| -2 Res Log Likelihood | 277.0 |
| AIC (Smaller is Better) | 283.0 |
| AICC (Smaller is Better) | 283.2 |
| BIC (Smaller is Better) | 280.2 |

**Type 3 Tests of Fixed Effects**

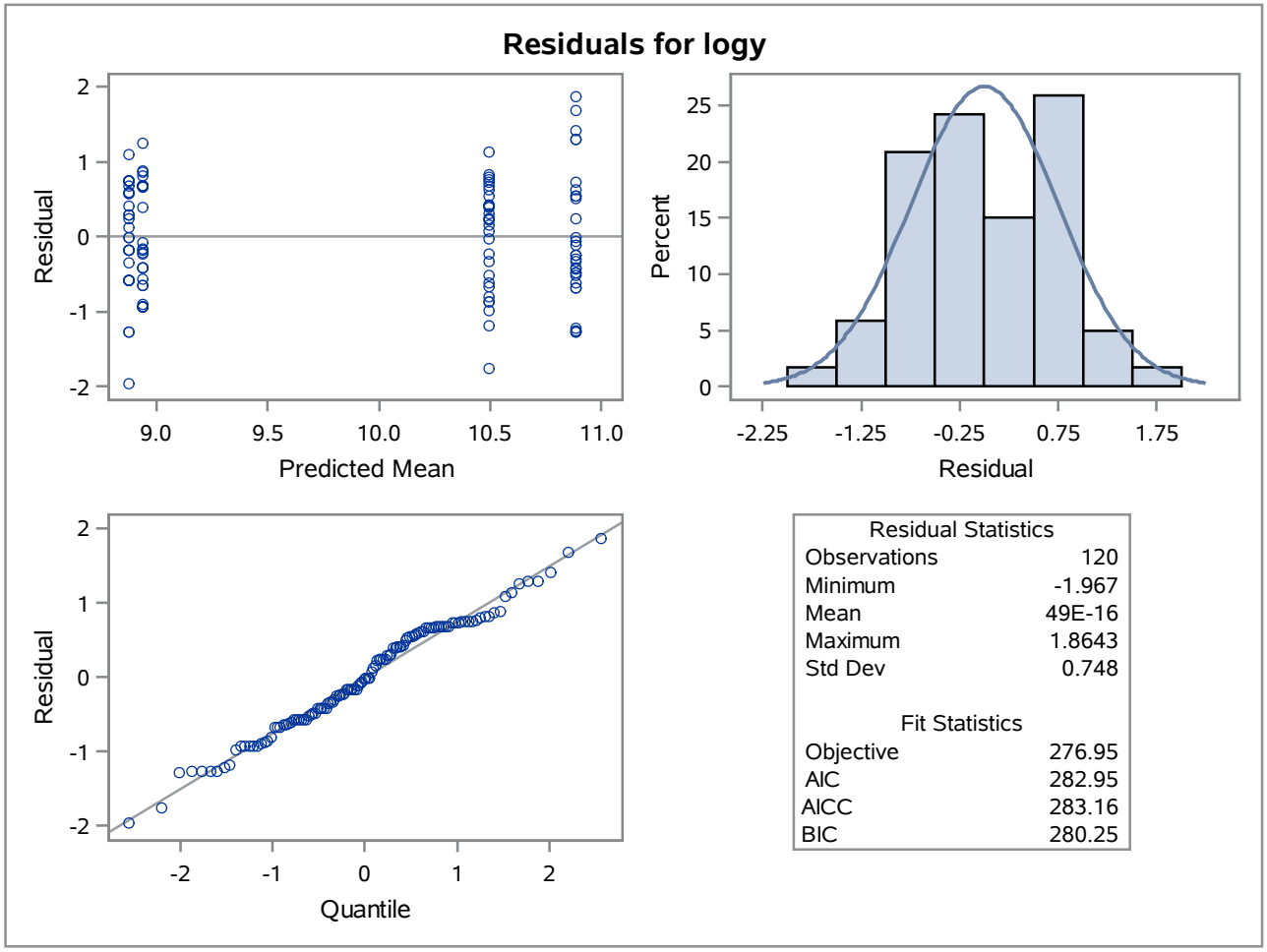
| Effect | Num DF | Den DF | F Value | Pr > F |
|---|---|---|---|---|
| location | 3 | 6 | 43.17 | 0.0002 |

**Least Squares Means**

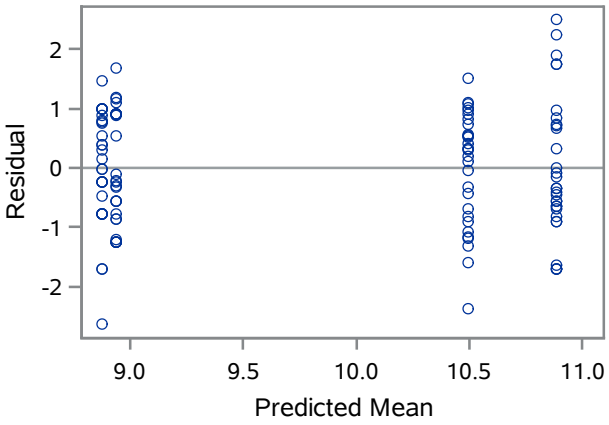
| Effect | location | Estimate | Standard Error | DF | t Value | Pr > \|t\| | Alpha | Lower | Upper |
|---|---|---|---|---|---|---|---|---|---|
| location | 1 | 10.8870 | 0.1747 | 6 | 62.33 | <.0001 | 0.05 | 10.4596 | 11.3144 |
| location | 2 | 10.4953 | 0.1747 | 6 | 60.09 | <.0001 | 0.05 | 10.0680 | 10.9227 |
| location | 3 | 8.8745 | 0.1747 | 6 | 50.81 | <.0001 | 0.05 | 8.4472 | 9.3019 |
| location | 4 | 8.9394 | 0.1747 | 6 | 51.18 | <.0001 | 0.05 | 8.5120 | 9.3668 |

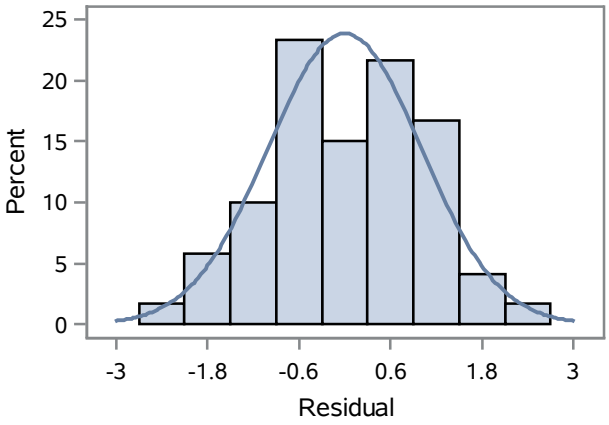
**Differences of Least Squares Means**

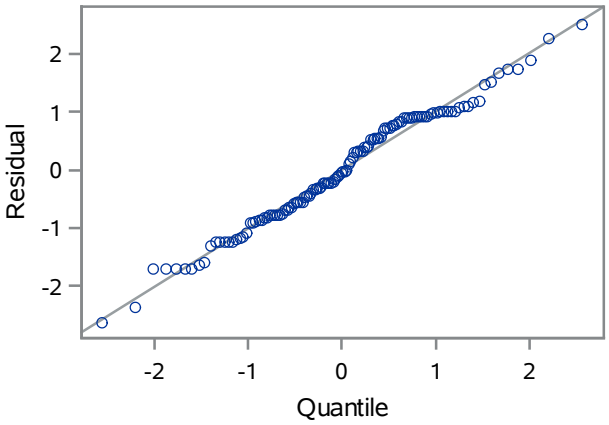
| Effect | location | _location | Estimate | Standard Error | DF | t Value | Pr > \|t\| | Adjustment | Adj P | Alpha | Lower | Upper | Adj Lower | Adj Upper |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| location | 1 | 2 | 0.3917 | 0.2244 | 6 | 1.75 | 0.1316 | Tukey-Kramer | 0.3801 | 0.05 | -0.1575 | 0.9409 | -0.3853 | 1.1686 |
| location | 1 | 3 | 2.0125 | 0.2244 | 6 | 8.97 | 0.0001 | Tukey-Kramer | 0.0004 | 0.05 | 1.4633 | 2.5617 | 1.2355 | 2.7894 |
| location | 1 | 4 | 1.9476 | 0.2244 | 6 | 8.68 | 0.0001 | Tukey-Kramer | 0.0005 | 0.05 | 1.3984 | 2.4968 | 1.1707 | 2.7245 |
| location | 2 | 3 | 1.6208 | 0.2244 | 6 | 7.22 | 0.0004 | Tukey-Kramer | 0.0015 | 0.05 | 1.0716 | 2.1700 | 0.8439 | 2.3977 |
| location | 2 | 4 | 1.5559 | 0.2244 | 6 | 6.93 | 0.0004 | Tukey-Kramer | 0.0018 | 0.05 | 1.0067 | 2.1051 | 0.7790 | 2.3329 |
| location | 3 | 4 | -0.06488 | 0.2244 | 6 | -0.29 | 0.7823 | Tukey-Kramer | 0.9907 | 0.05 | -0.6141 | 0.4843 | -0.8418 | 0.7121 |



## Studentized Residuals for logy



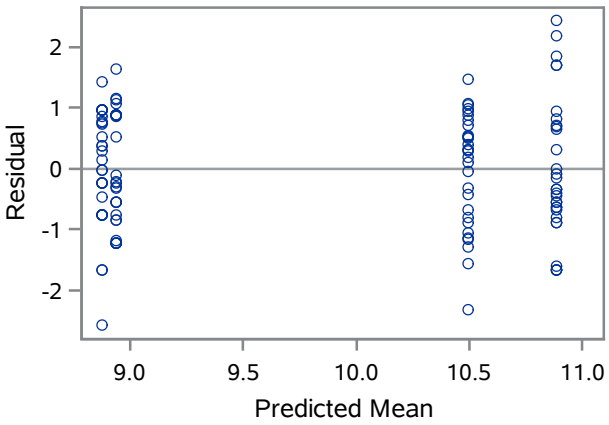



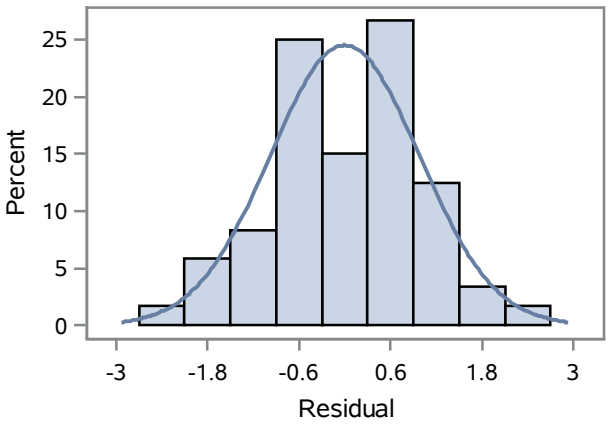



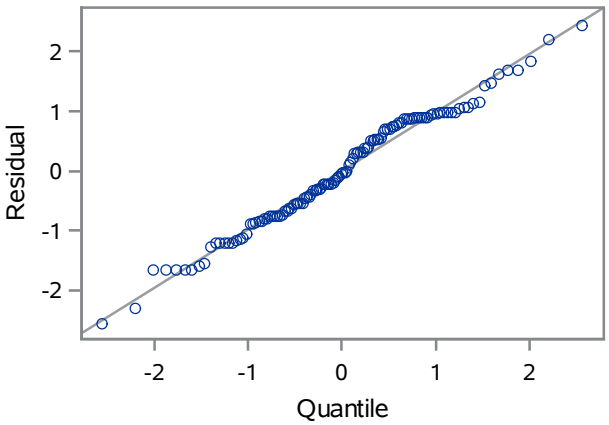

| Residual Statistics | |
|---|---|
| Observations | 120 |
| Minimum | -2.64 |
| Mean | 66E-16 |
| Maximum | 2.5029 |
| Std Dev | 1.0042 |

| Fit Statistics | |
|---|---|
| Objective | 276.95 |
| AIC | 282.95 |
| AICC | 283.16 |
| BIC | 280.25 |

## Pearson Residuals for logy



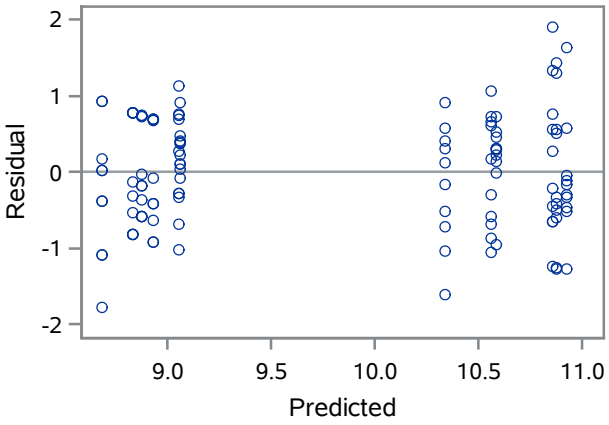



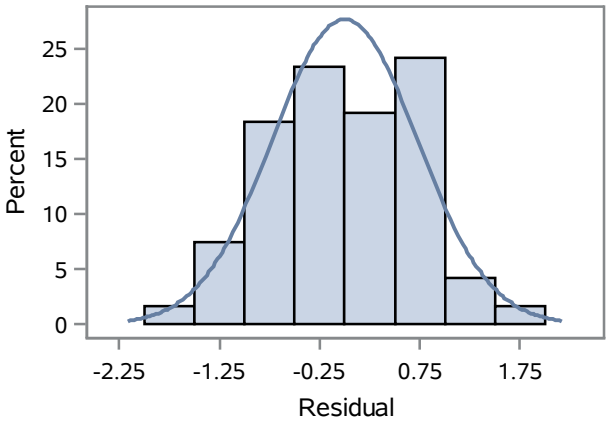



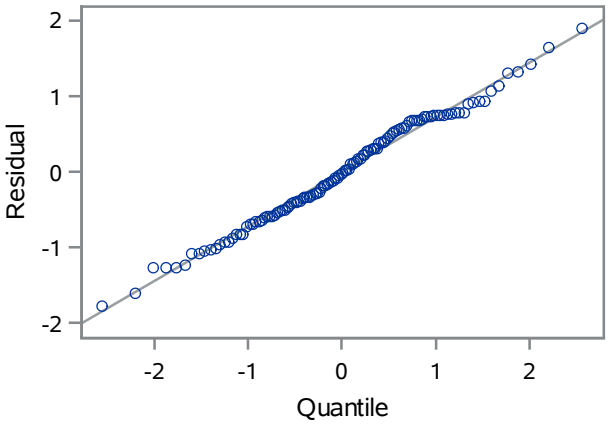

| Residual Statistics | |
|---|---|
| Observations | 120 |
| Minimum | -2.571 |
| Mean | 64E-16 |
| Maximum | 2.4368 |
| Std Dev | 0.9777 |

| Fit Statistics | |
|---|---|
| Objective | 276.95 |
| AIC | 282.95 |
| AICC | 283.16 |
| BIC | 280.25 |

## Conditional Residuals for logy



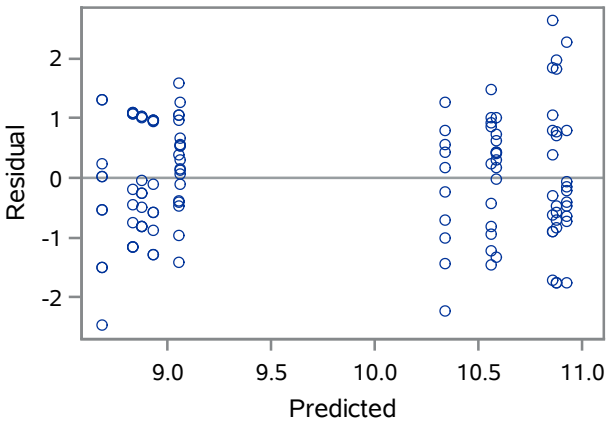



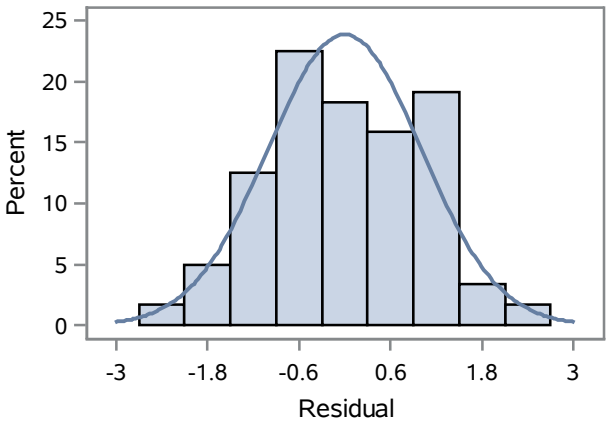



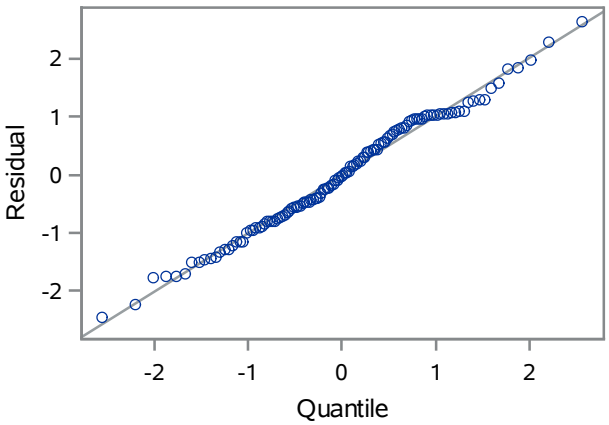

| Residual Statistics | |
|---|---|
| Observations | 120 |
| Minimum | -1.775 |
| Mean | 15E-16 |
| Maximum | 1.8956 |
| Std Dev | 0.7223 |

| Fit Statistics | |
|---|---|
| Objective | 276.95 |
| AIC | 282.95 |
| AICC | 283.16 |
| BIC | 280.25 |

## Conditional Studentized Residuals for logy



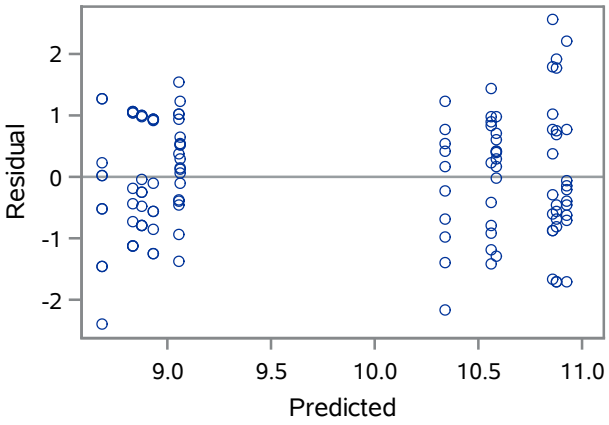



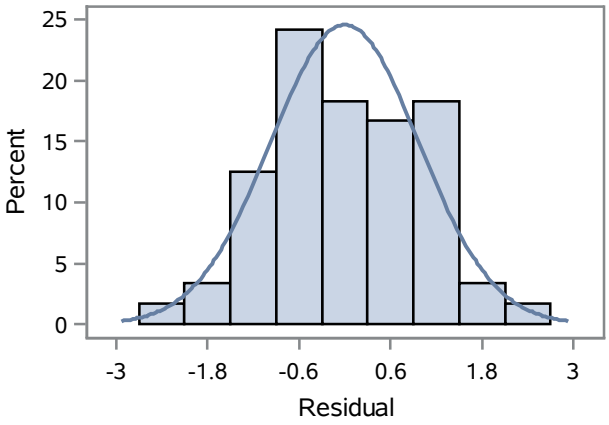



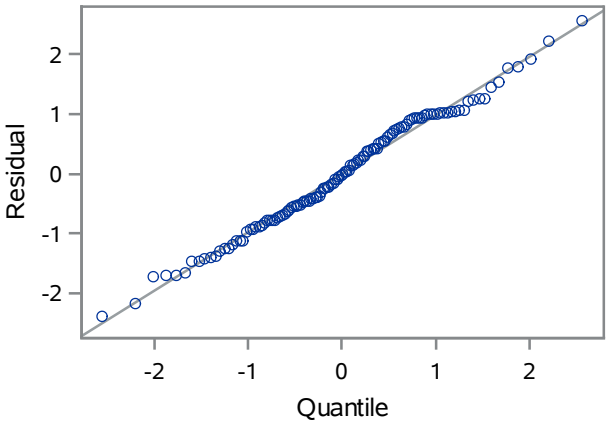

| Residual Statistics | |
|---|---|
| Observations | 120 |
| Minimum | -2.468 |
| Mean | 21E-16 |
| Maximum | 2.6356 |
| Std Dev | 1.0042 |

| Fit Statistics | |
|---|---|
| Objective | 276.95 |
| AIC | 282.95 |
| AICC | 283.16 |
| BIC | 280.25 |

## Conditional Pearson Residuals for logy



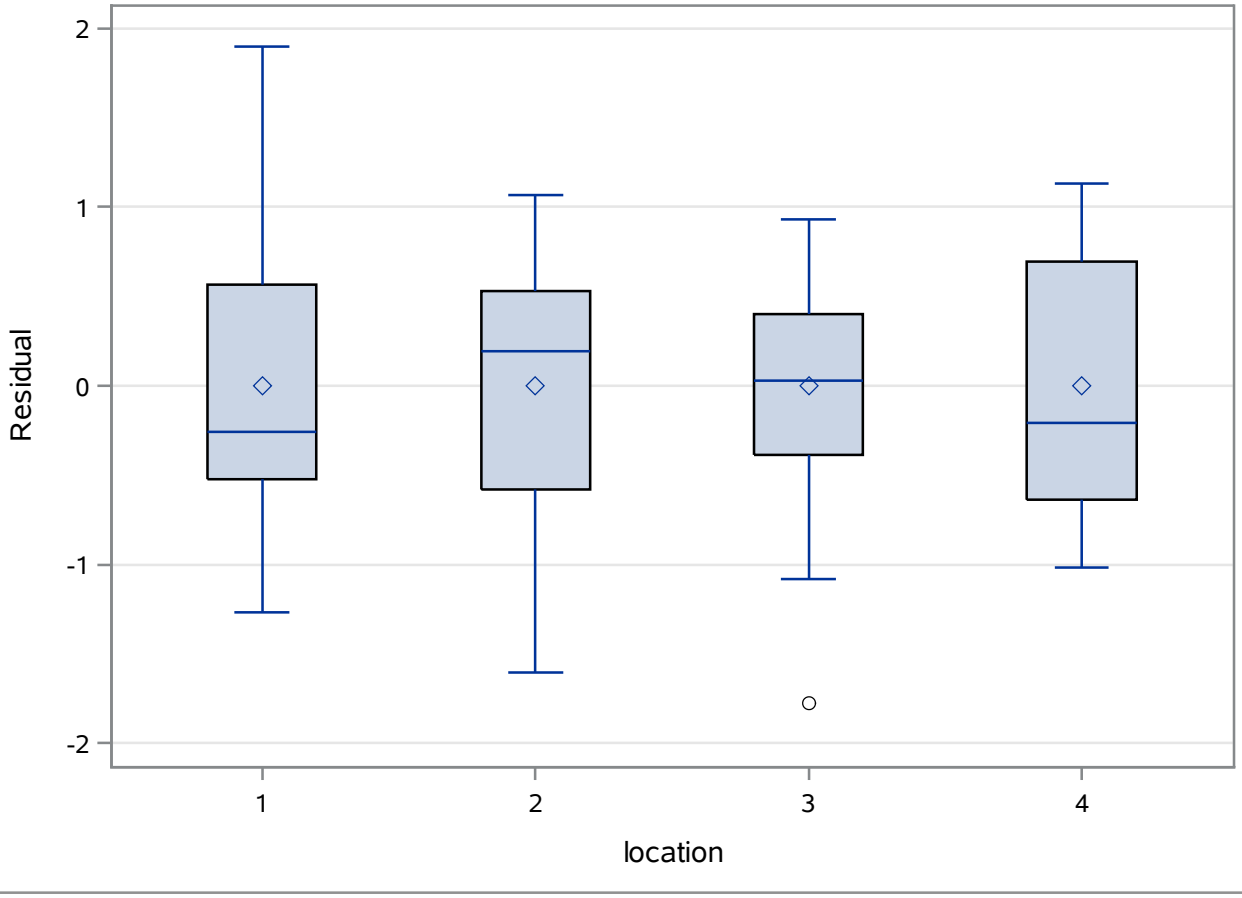



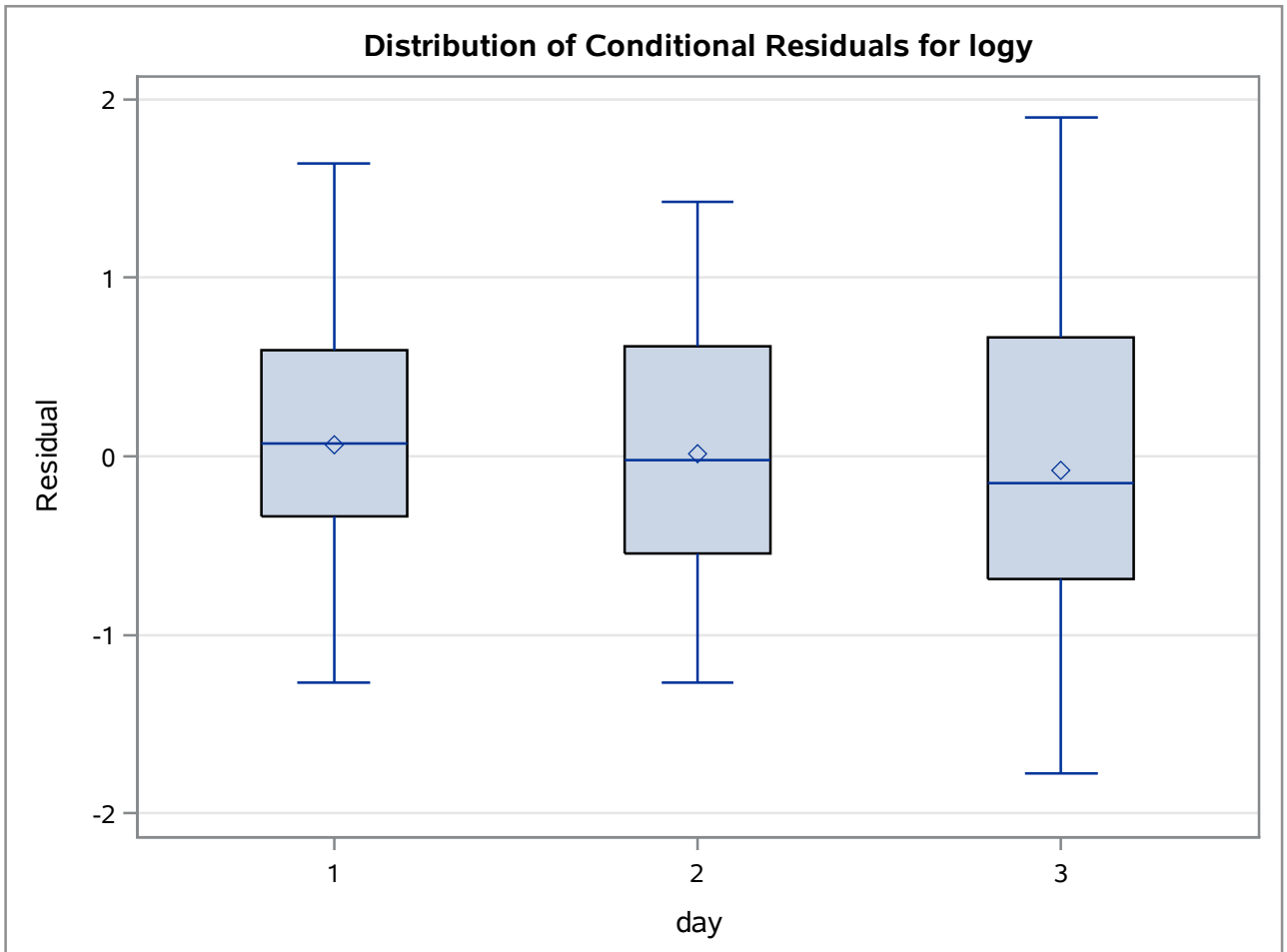



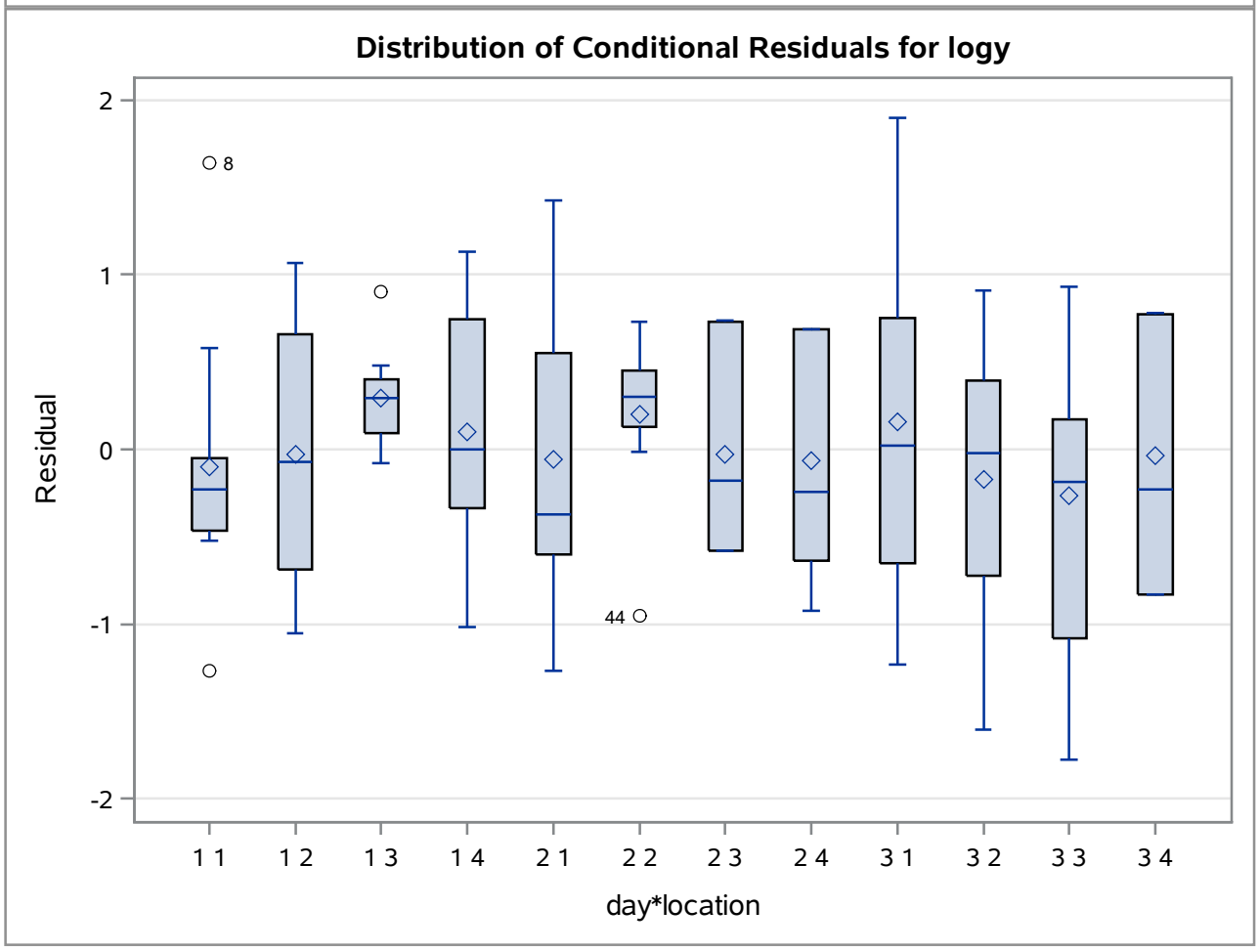

| Residual Statistics | |
|---|---|
| Observations | 120 |
| Minimum | -2.397 |
| Mean | 2E-15 |
| Maximum | 2.5592 |
| Std Dev | 0.9751 |

| Fit Statistics | |
|---|---|
| Objective | 276.95 |
| AIC | 282.95 |
| AICC | 283.16 |
| BIC | 280.25 |

## Distribution of Conditional Residuals for logy




Distribution of Conditional Residuals for logy
Residual
2
1
0
-1
-2
1
2
3
day


Distribution of Conditional Residuals for logy
Residual
2
1
0
-1
-2
8
44
1 1
1 2
1 3
1 4
2 1
2 2
2 3
2 4
3 1
3 2
3 3
3 4
day*location