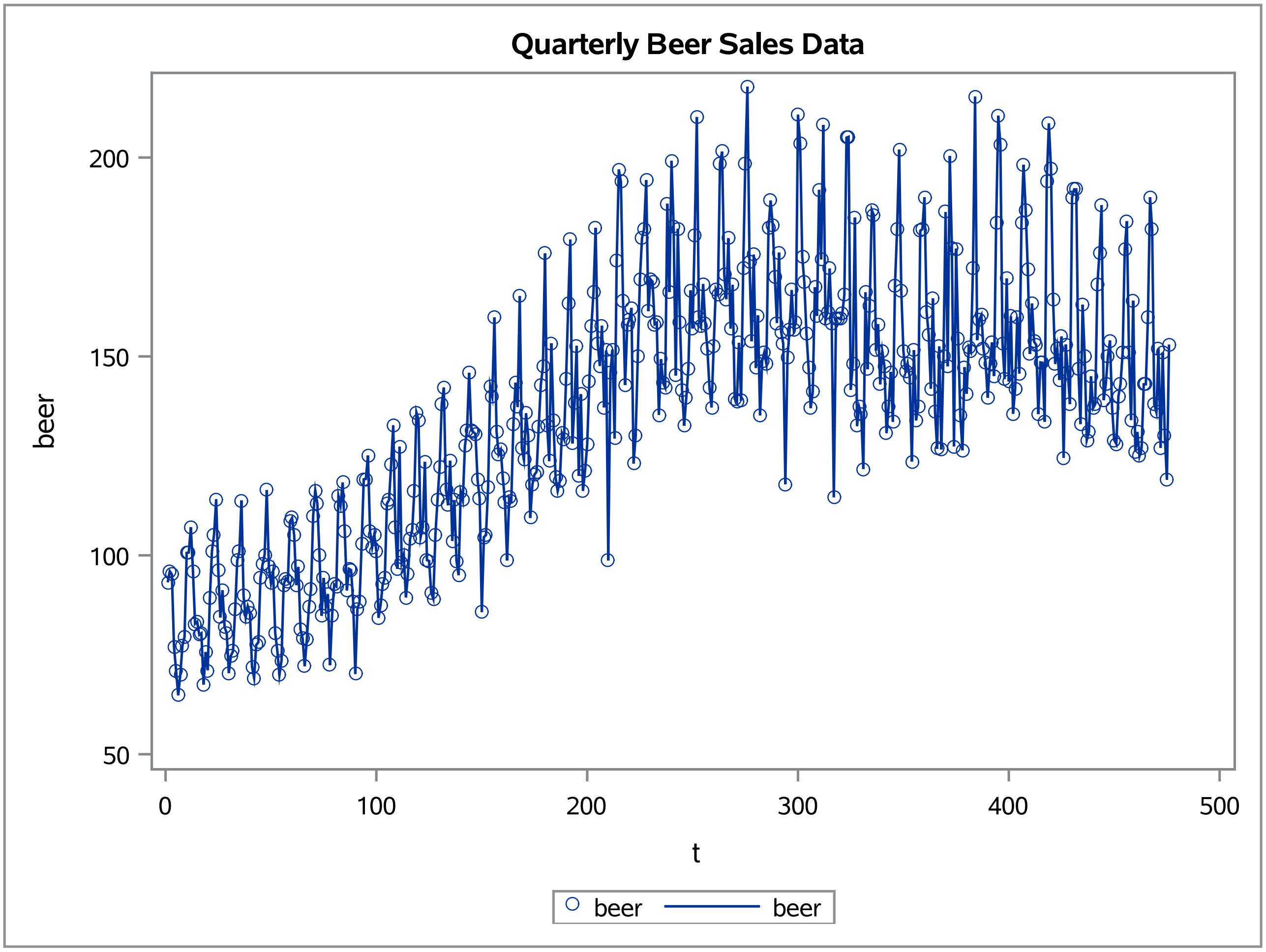
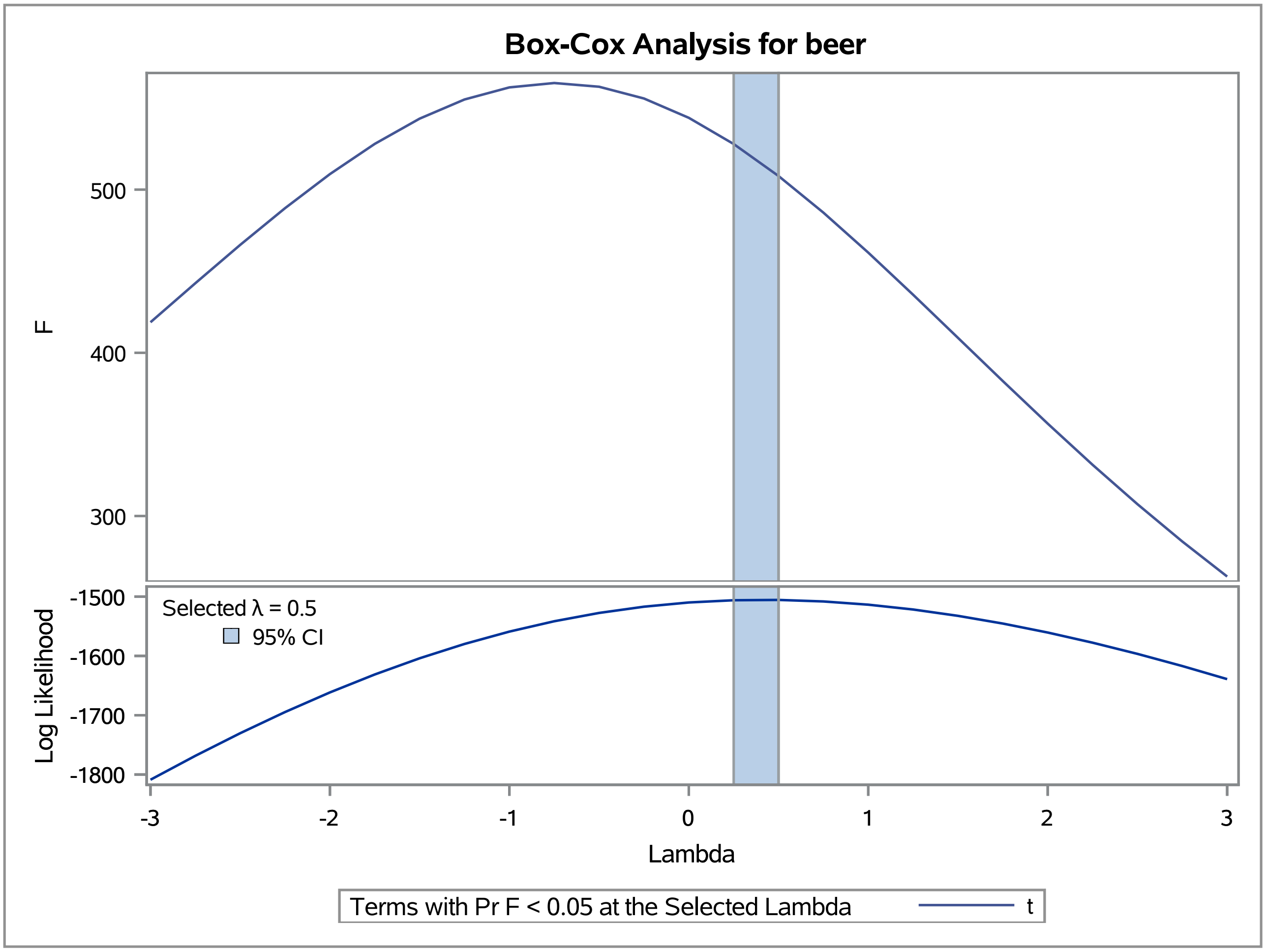

Quarterly Beer Sales Data
beer
200
150
100
50
0
100
200
300
400
500
t
beer
beer

The MEANS Procedure

Variable	Minimum	Maximum	Median
Month	-1461.00	12996.00	5767.50
beer	64.8000000	217.8000000	139.1500000
t	1.0000000	476.0000000	238.5000000

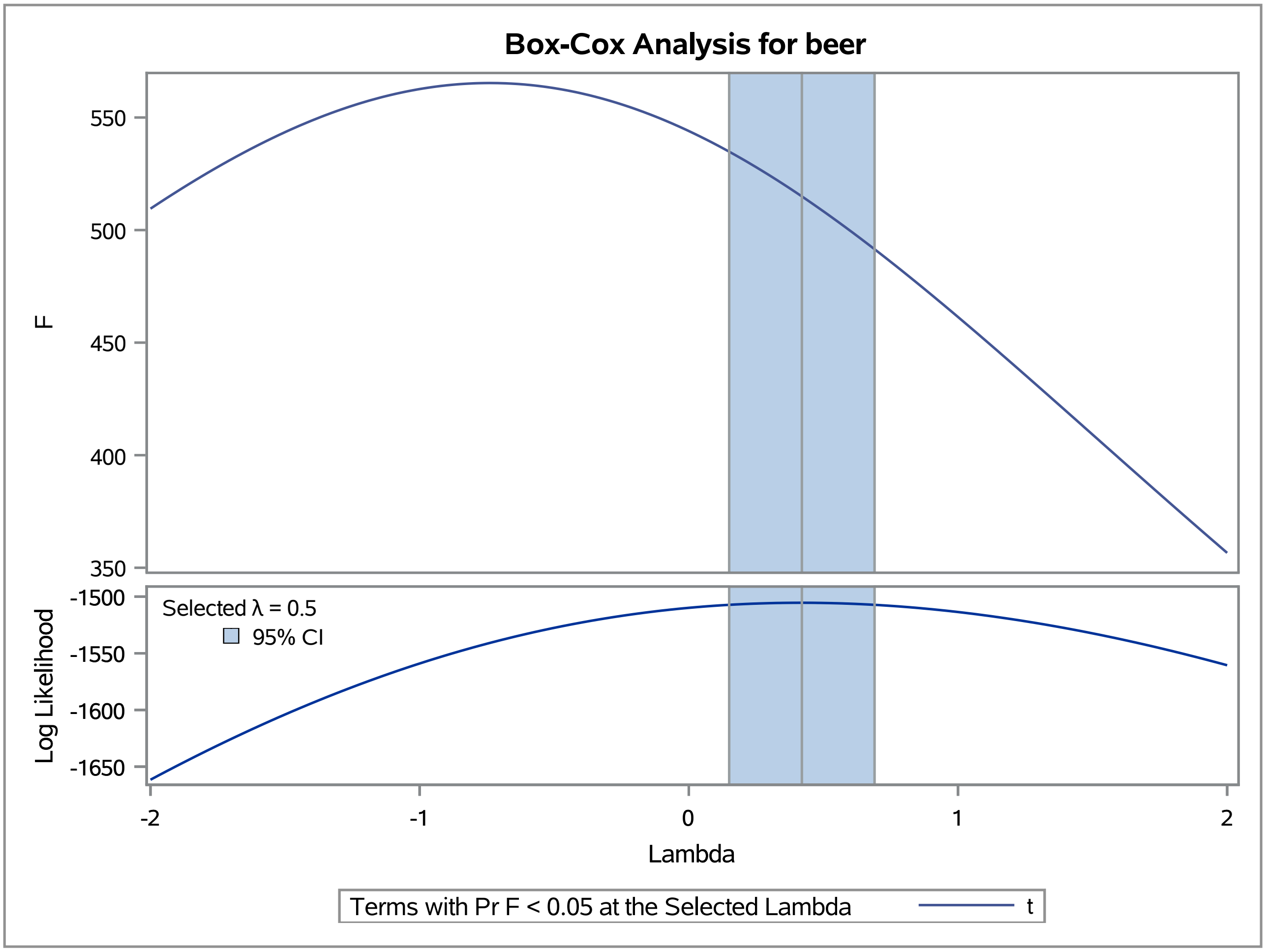
Quarterly Beer Sales Data
Defaults no graphs

The TRANSREG Procedure



Quarterly Beer Sales Data
Defaults no graphs

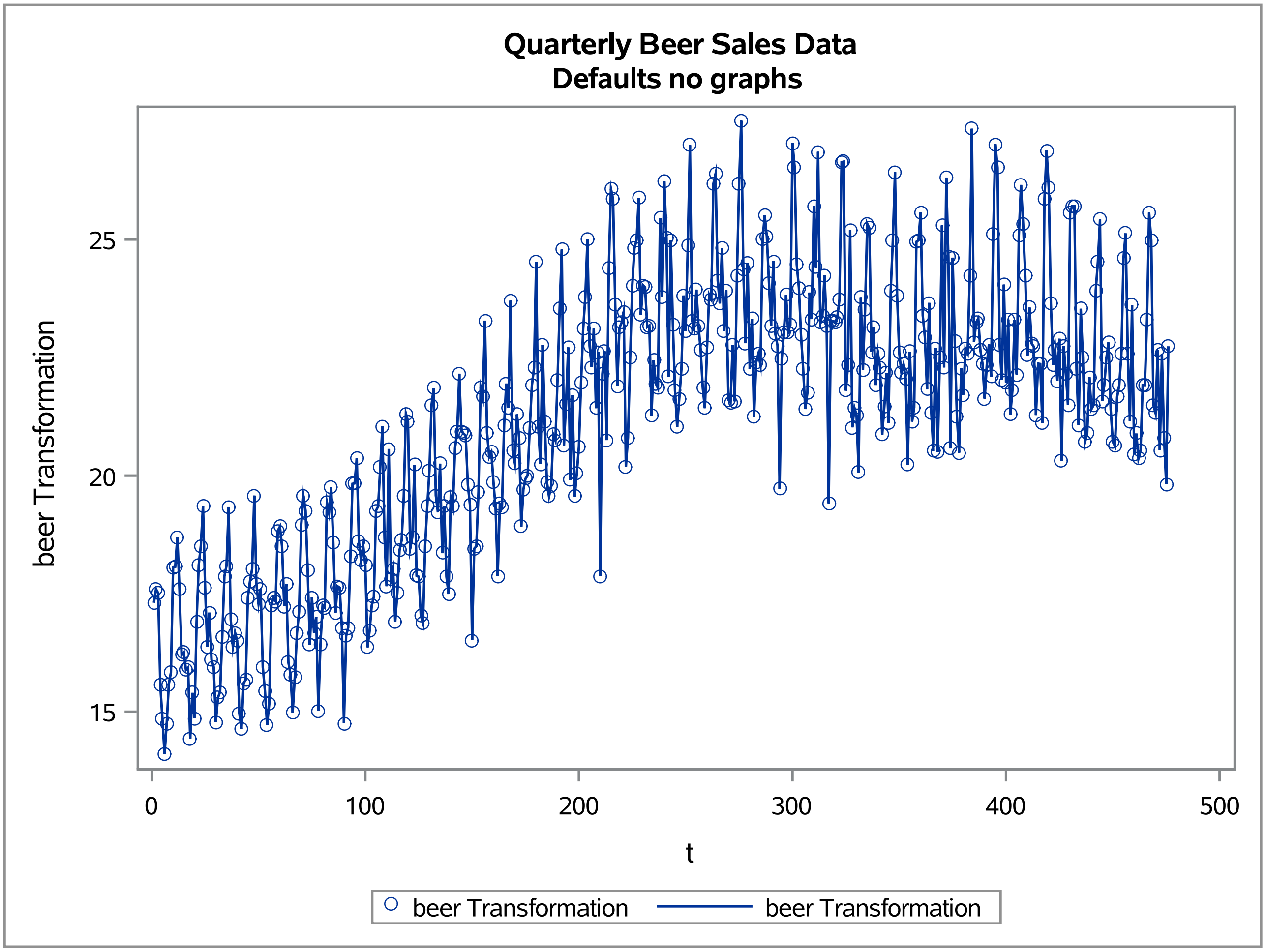
The TRANSREG Procedure



Quarterly Beer Sales Data
Defaults no graphs

The TRANSREG Procedure

Model Statement Specification Details				
Type	**DF**	**Variable**	**Description**	**Value**
Dep	1	BoxCox(beer)	Lambda Used	0.5
			Lambda	0.42
			Log Likelihood	-1505.4
			Conv. Lambda	0.5
			Conv. Lambda LL	-1505.6
			CI Limit	-1507.4
			Alpha	0.05
			Options	Convenient Lambda Used
Ind	1	Identity(t)	DF	1


Quarterly Beer Sales Data
Defaults no graphs
beer Transformation
25
20
15
0
100
200
300
400
500
t
beer Transformation
beer Transformation

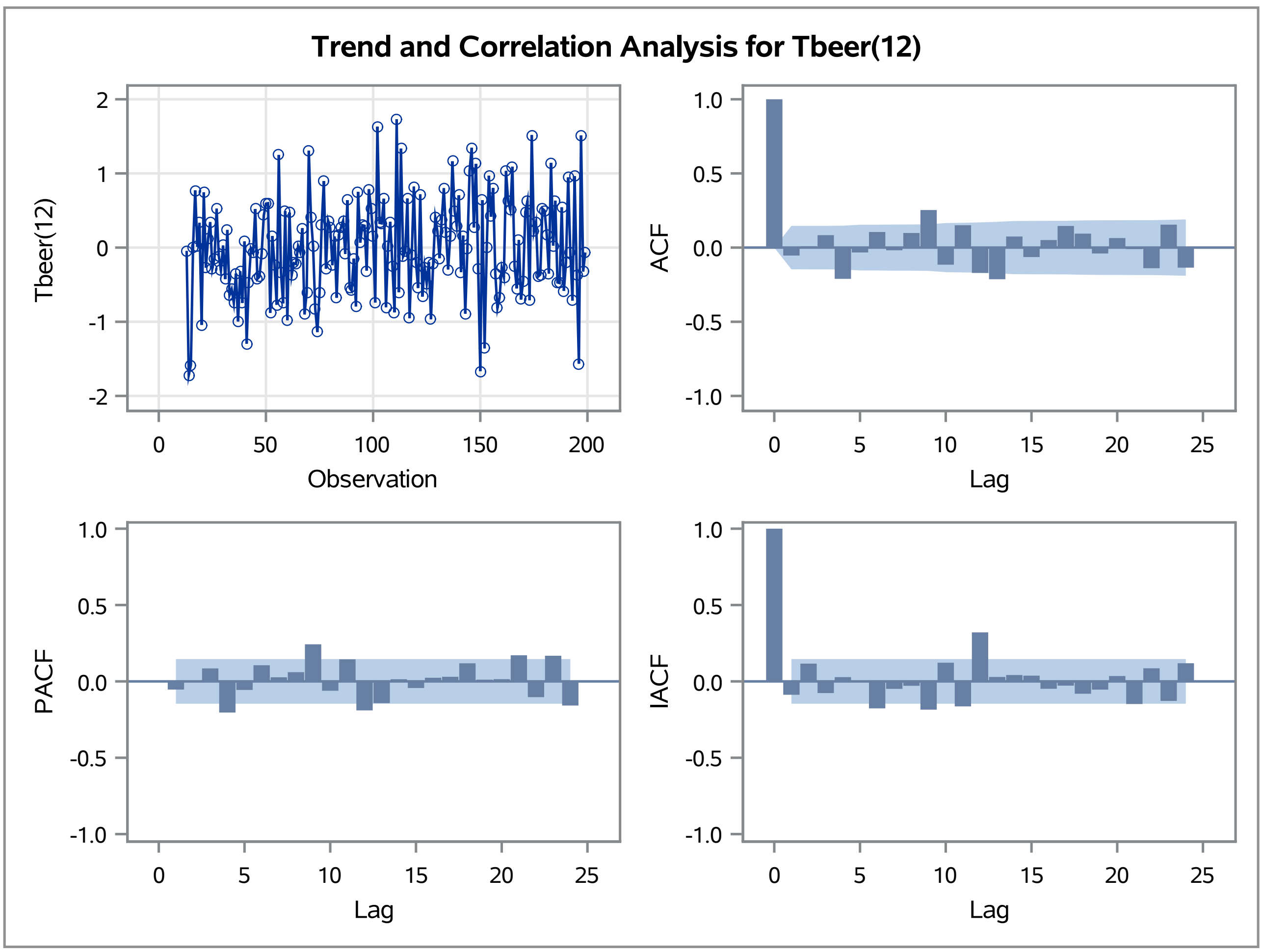
Quarterly Beer Sales Data
Defaults no graphs

The ARIMA Procedure

Name of Variable = Tbeer	
Period(s) of Differencing	12
Mean of Working Series	0
Standard Deviation	0.663261
Number of Observations	187
Observation(s) eliminated by differencing	12

Autocorrelation Check for White Noise

To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	12.85	6	0.0454	-0.054	0.009	0.084	-0.211	-0.033	0.105
12	40.64	12	<.0001	-0.018	0.098	0.253	-0.115	0.151	-0.171
18	58.65	18	<.0001	-0.213	0.075	-0.064	0.051	0.146	0.094
24	73.13	24	<.0001	-0.040	0.064	-0.010	-0.139	0.155	-0.135



Quarterly Beer Sales Data
Defaults no graphs

The ARIMA Procedure

Maximum Likelihood Estimation					
Parameter	**Estimate**	**Standard Error**	**t Value**	**Approx Pr > |t|**	**Lag**
MA1,1	-0.24836	0.06554	-3.79	0.0002	11
MA1,2	0.65755	0.06951	9.46	<.0001	12
AR1,1	0.03972	0.07240	0.55	0.5833	1
AR1,2	0.03352	0.07372	0.45	0.6493	2
AR1,3	0.16671	0.07544	2.21	0.0271	3

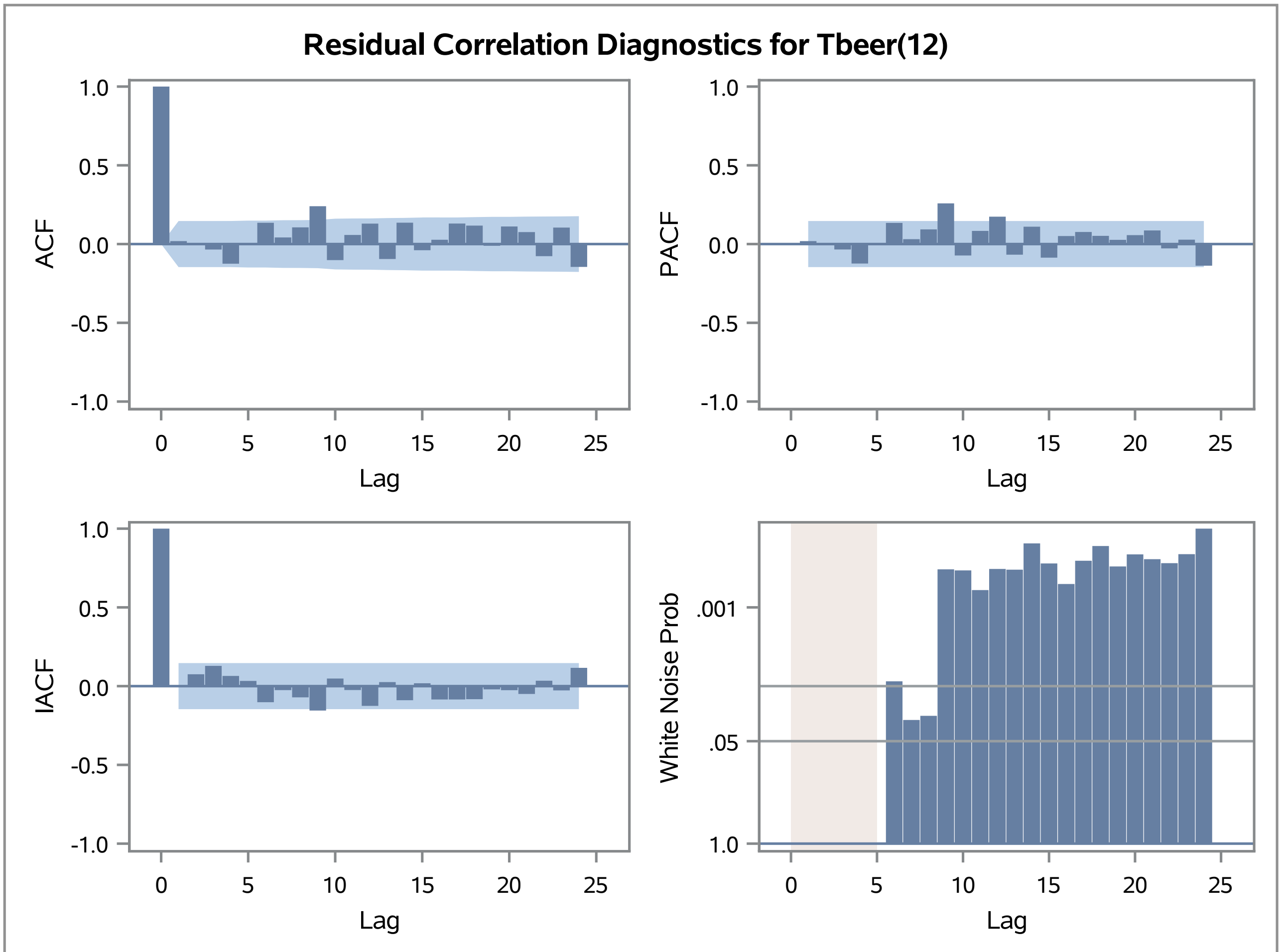
Variance Estimate	0.340036
Std Error Estimate	0.583126
AIC	343.4754
SBC	359.6309
Number of Residuals	187

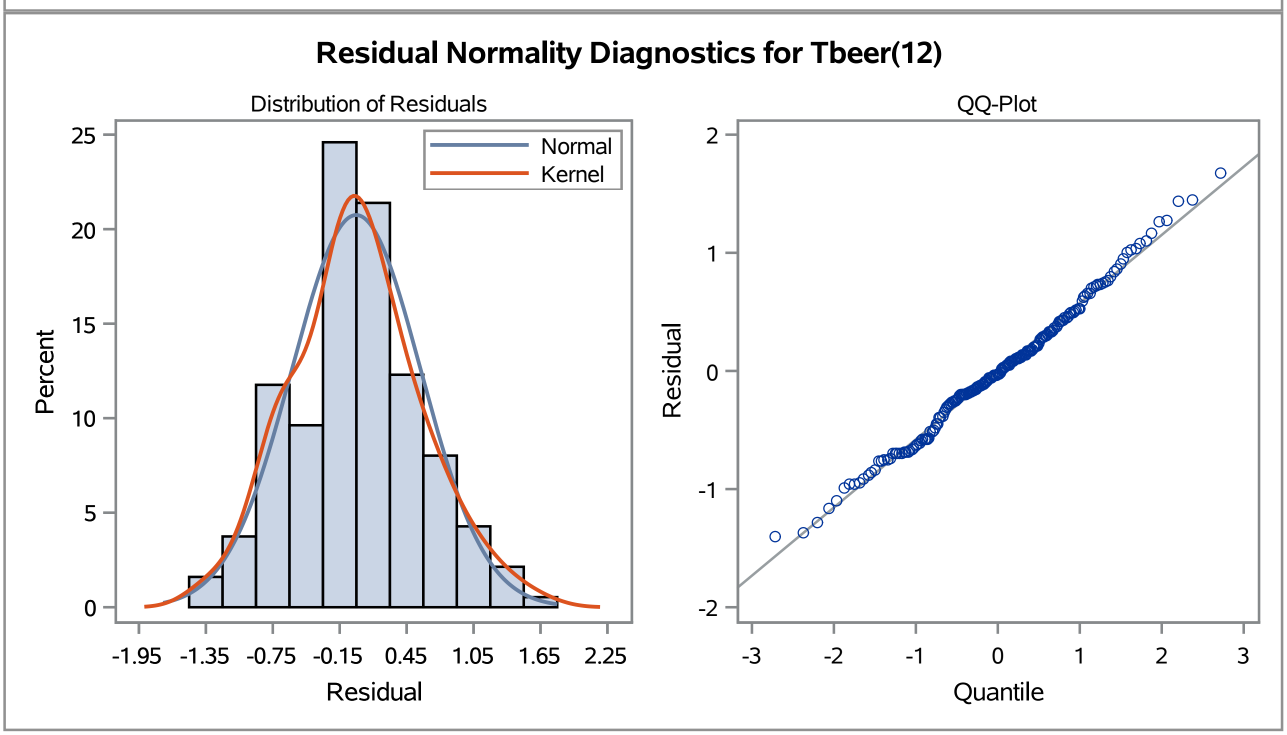
Correlations of Parameter Estimates					
Parameter	**MA1,1**	**MA1,2**	**AR1,1**	**AR1,2**	**AR1,3**
MA1,1	1.000	-0.067	-0.127	0.242	0.125
MA1,2	-0.067	1.000	0.129	-0.053	0.257
AR1,1	-0.127	0.129	1.000	-0.083	-0.021
AR1,2	0.242	-0.053	-0.083	1.000	-0.035
AR1,3	0.125	0.257	-0.021	-0.035	1.000

Autocorrelation Check of Residuals									
To Lag	**Chi-Square**	**DF**	**Pr > ChiSq**	**Autocorrelations**					
6	6.89	1	0.0087	0.019	-0.008	-0.035	-0.125	0.002	0.135
12	27.06	7	0.0003	0.042	0.106	0.240	-0.102	0.058	0.130
18	39.50	13	0.0002	-0.095	0.136	-0.039	0.027	0.130	0.117
24	51.57	19	<.0001	-0.011	0.112	0.076	-0.077	0.105	-0.145
30	68.30	25	<.0001	0.047	0.232	0.107	0.014	0.025	-0.087
36	86.44	31	<.0001	-0.006	0.160	-0.002	0.158	0.081	-0.146

Quarterly Beer Sales Data
Defaults no graphs

The ARIMA Procedure





Quarterly Beer Sales Data
Defaults no graphs

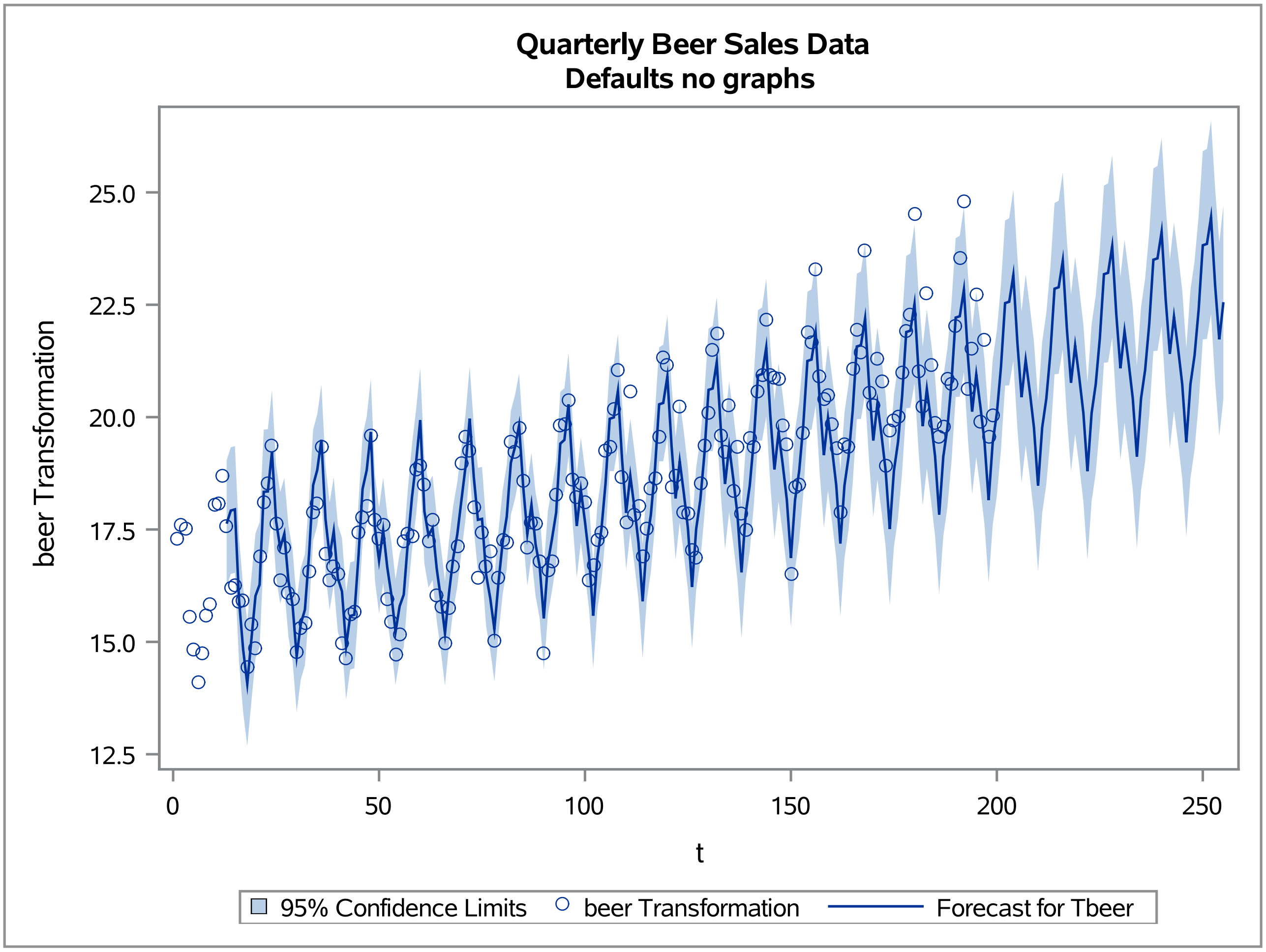
The ARIMA Procedure

Model for variable Tbeer	
Data have been centered by subtracting the value	0.321709
Period(s) of Differencing	12

No mean term in this model.

Autoregressive Factors	
Factor 1:	1 - 0.03972 B**(1) - 0.03352 B**(2) - 0.16671 B**(3)

Moving Average Factors	
Factor 1:	1 + 0.24836 B**(11) - 0.65755 B**(12)


Quarterly Beer Sales Data
Defaults no graphs
beer Transformation
25.0
22.5
20.0
17.5
15.0
12.5
0
50
100
150
200
250
t
95% Confidence Limits
beer Transformation
Forecast for Tbeer