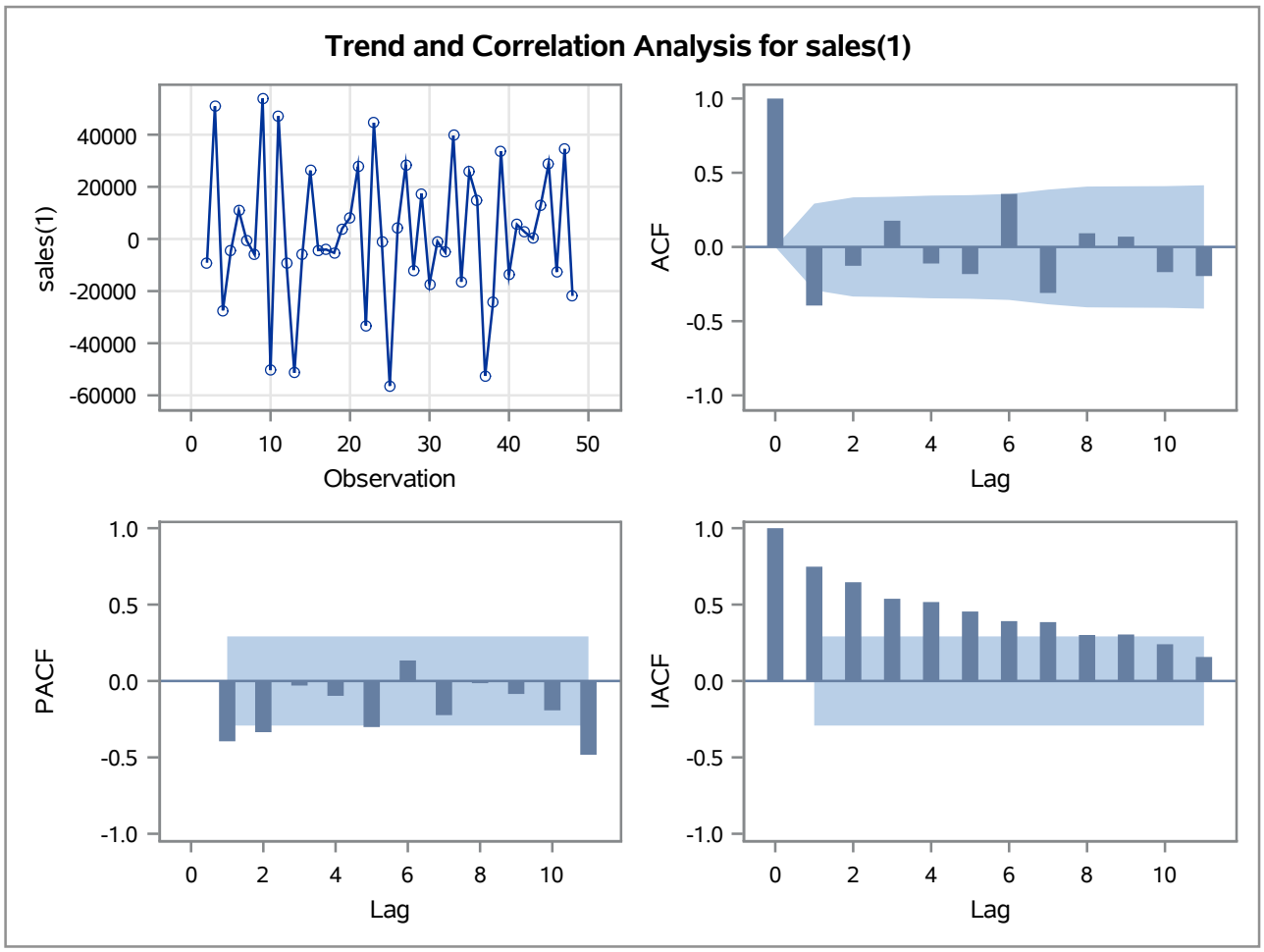
Name of Variable = sales	
Period(s) of Differencing	1
Mean of Working Series	1628.263
Standard Deviation	26754.34
Number of Observations	47
Observation(s) eliminated by differencing	1

Autocorrelation Check for White Noise									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	19.93	6	0.0029	-0.395	-0.127	0.177	-0.112	-0.183	0.357



Warning: The model defined by the new estimates is unstable. The iteration process has been terminated.

Warning: Estimates may not have converged.

ARIMA Estimation Optimization Summary	
Estimation Method	Maximum Likelihood
Parameters Estimated	3
Termination Criteria	Maximum Relative Change in Estimates
Iteration Stopping Value	0.001
Criteria Value	61.36743

ARIMA Estimation Optimization Summary	
Maximum Absolute Value of Gradient	2.4154E8
R-Square Change from Last Iteration	0.069487
Objective Function	Log Gaussian Likelihood
Objective Function Value	-531.344
Marquardt's Lambda Coefficient	0.00001
Numerical Derivative Perturbation Delta	0.001
Iterations	11
Warning Message	Estimates may not have converged.

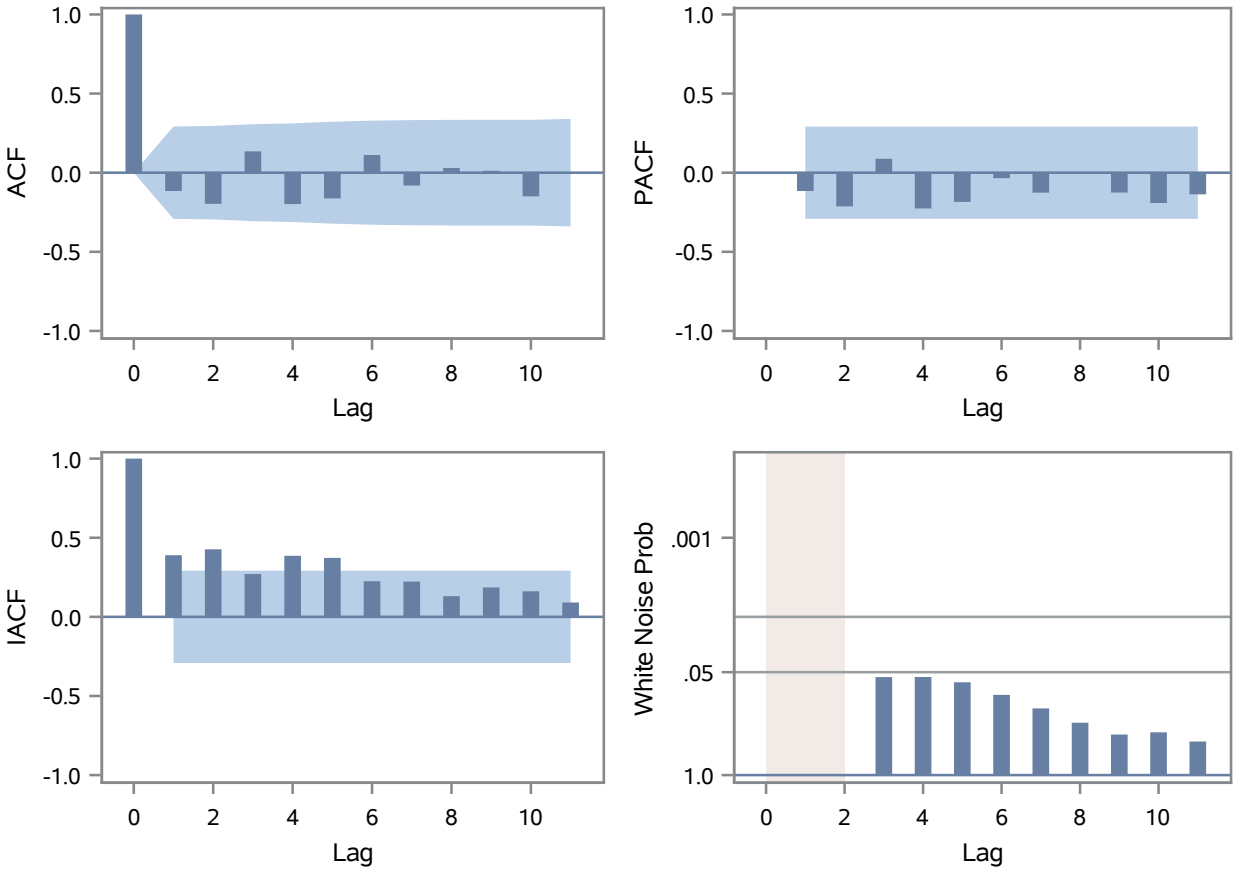
Maximum Likelihood Estimation					
Parameter	**Estimate**	**Standard Error**	**t Value**	**Approx Pr > |t|**	**Lag**
MU	1414.7	2537.9	0.56	0.5772	0
MA1,1	-0.99950	110.42335	-0.01	0.9928	12
AR1,1	-0.41815	0.11510	-3.63	0.0003	1

Constant Estimate	2006.274
Variance Estimate	2.7403E8
Std Error Estimate	16553.78
AIC	1068.689
SBC	1074.239
Number of Residuals	47

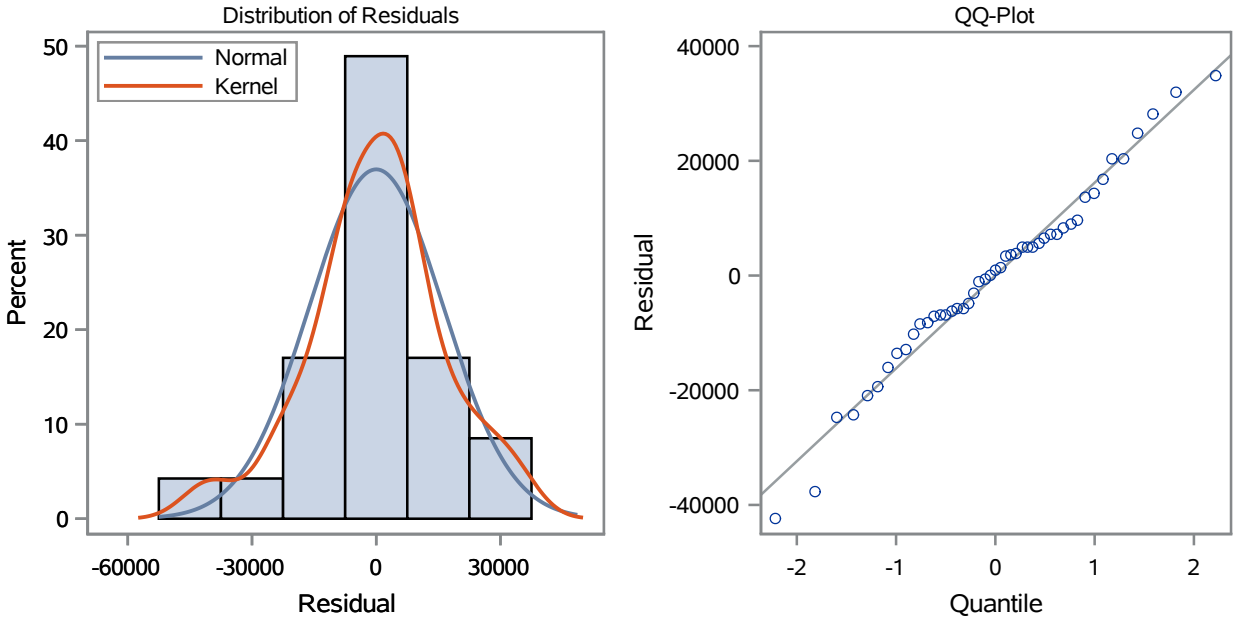
Correlations of Parameter Estimates			
Parameter	**MU**	**MA1,1**	**AR1,1**
MU	1.000	0.054	-0.030
MA1,1	0.054	1.000	-0.022
AR1,1	-0.030	-0.022	1.000

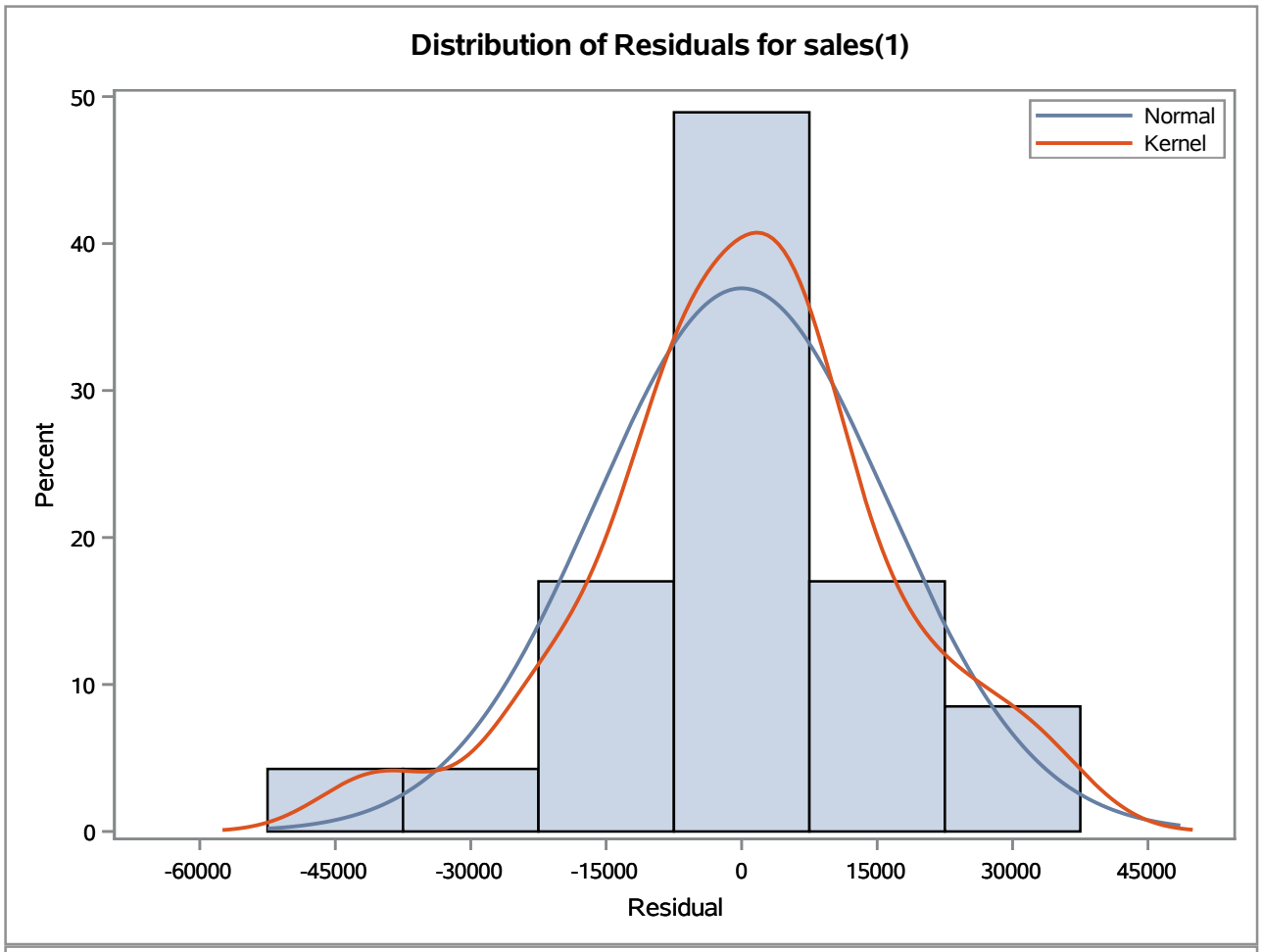
Autocorrelation Check of Residuals									
To Lag	**Chi-Square**	**DF**	**Pr > ChiSq**	**Autocorrelations**					
6	7.86	4	0.0969	-0.116	-0.197	0.135	-0.198	-0.162	0.112
12	11.79	10	0.2991	-0.081	0.029	0.012	-0.149	-0.005	0.179
18	14.05	16	0.5948	0.059	-0.114	-0.056	-0.016	0.014	0.104
24	28.36	22	0.1642	-0.129	0.071	-0.017	-0.145	-0.034	0.323

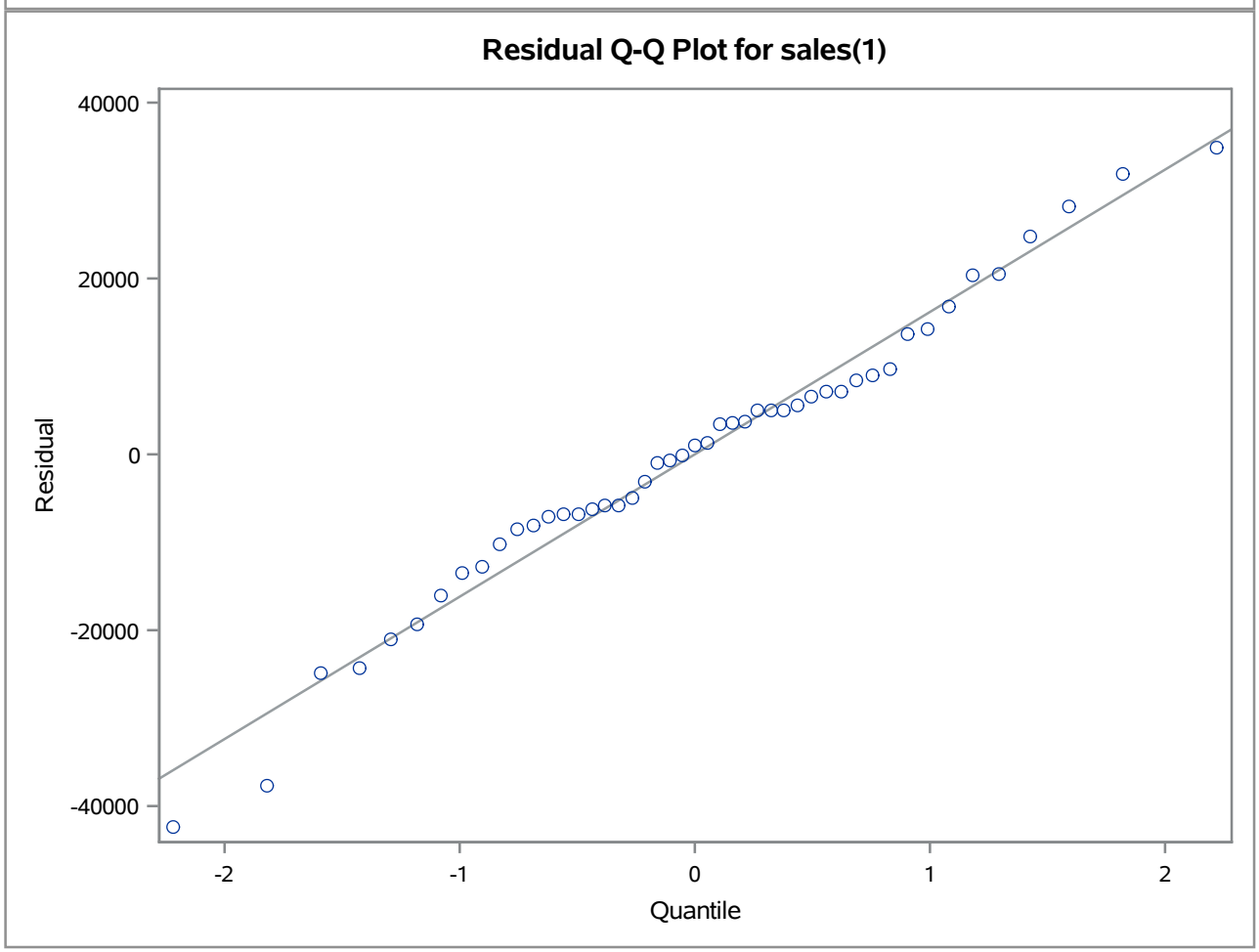
Residual Correlation Diagnostics for sales(1)



Residual Normality Diagnostics for sales(1)




Distribution of Residuals for sales(1)
Normal
Kernel
Percent
50
40
30
20
10
0
-60000
-45000
-30000
-15000
0
15000
30000
45000
Residual


Residual Q-Q Plot for sales(1)
Residual
40000
20000
0
-20000
-40000
-2
-1
0
1
2
Quantile

Model for variable sales	
Estimated Mean	1414.707
Period(s) of Differencing	1

Autoregressive Factors	
Factor 1:	1 + 0.41815 B**(1)

Moving Average Factors	
Factor 1:	1 + 0.9995 B**(12)

Warning: The ID value for observation 3 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

Warning: There are gaps in the interval for observation 5 according to ID variable ORDER_DATE.

Warning: The ID value for observation 6 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

Warning: There are gaps in the interval for observation 8 according to ID variable ORDER_DATE.

Warning: The ID value for observation 9 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

Warning: There are gaps in the interval for observation 10 according to ID variable ORDER_DATE.

Warning: The ID value for observation 12 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

Warning: There are gaps in the interval for observation 13 according to ID variable ORDER_DATE.

Warning: The ID value for observation 15 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

Warning: There are gaps in the interval for observation 16 according to ID variable ORDER_DATE.

Warning: The ID value for observation 18 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

Warning: There are gaps in the interval for observation 19 according to ID variable ORDER_DATE.

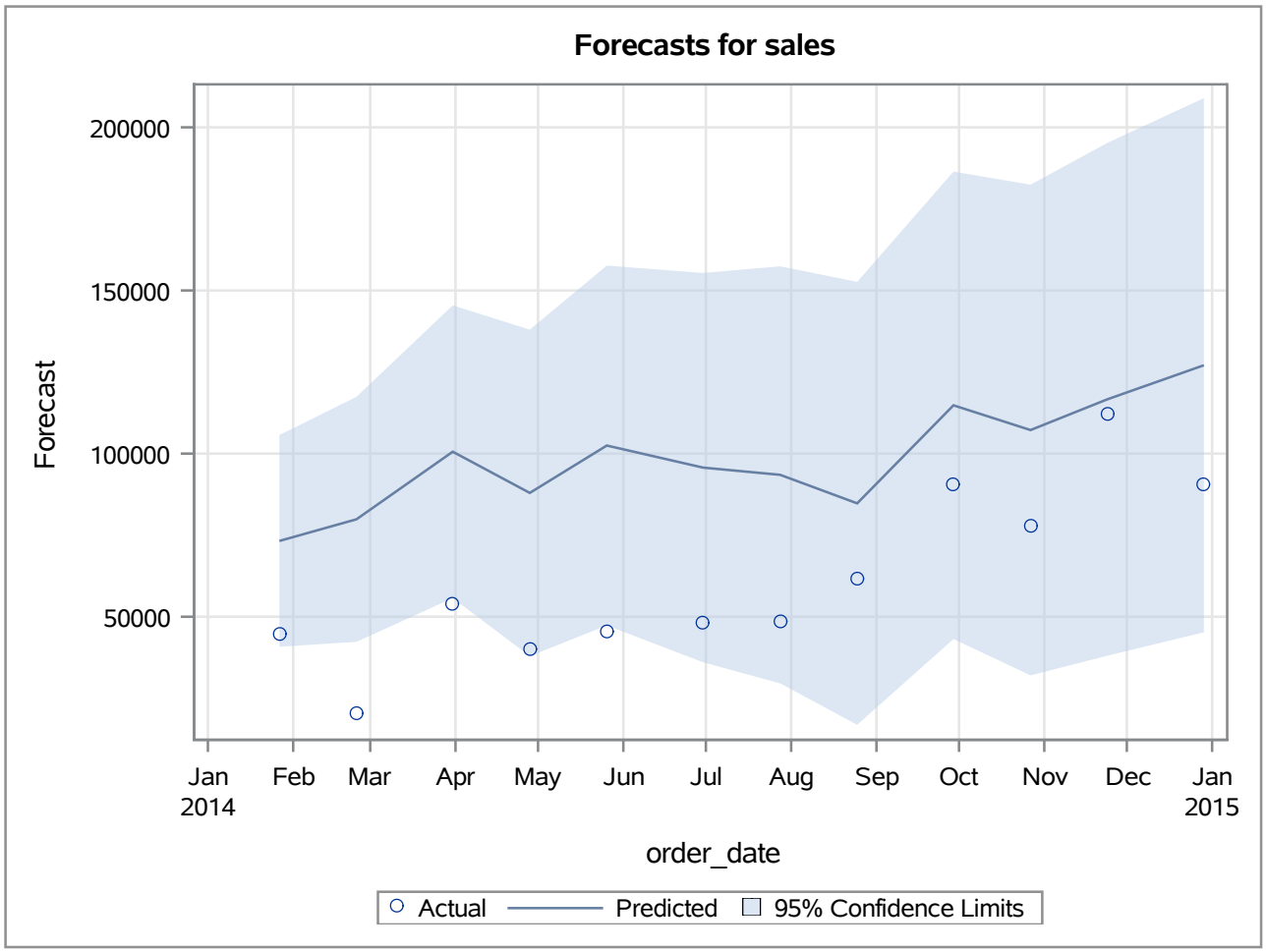
Note: Further warnings will not be printed.

Warning: The ID value for observation 21 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

Warning: The ID value for observation 27 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

Warning: The ID value for observation 30 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

Forecasts for variable sales						
Obs	**Forecast**	**Std Error**	**95% Confidence Limits**		**Actual**	**Residual**
37	73242.7675	16553.782	40797.9516	105687.5834	44703.1420	-28539.6255
38	79859.3423	19151.975	42322.1618	117396.5229	20283.5134	-59575.8289
39	100574.8920	22884.589	55721.9209	145427.8631	53908.9620	-46665.9300
40	87960.1104	25529.466	37923.2761	137996.9447	40112.4209	-47847.6895
41	102475.0777	28133.844	47333.7572	157616.3981	45651.2362	-56823.8415
42	95701.9297	30435.401	36049.6396	155354.2197	48259.7487	-47442.1810
43	93493.4902	32606.393	29586.1342	157400.8463	48428.3650	-45065.1252
44	84759.4374	34629.116	16887.6182	152631.2566	61516.0860	-23243.3514
45	114800.0372	36544.980	43173.1927	186426.8816	90488.7220	-24311.3152
46	107219.7370	38363.321	32029.0095	182410.4645	77793.7552	-29425.9818
47	116662.1274	40100.080	38067.4151	195256.8397	112326.4710	-4335.6564
48	127079.3967	41764.363	45222.7499	208936.0436	90474.6008	-36604.7959



Outlier Detection Summary	
Maximum number searched	1
Number found	1
Significance used	0.05

Outlier Details				
Obs	**Type**	**Estimate**	**Chi-Square**	**Approx Prob>ChiSq**
36	Additive	32318.7	11.27	0.0008

Obs	rmse	mae	mape
1	27163.08	21008.47	59.6565