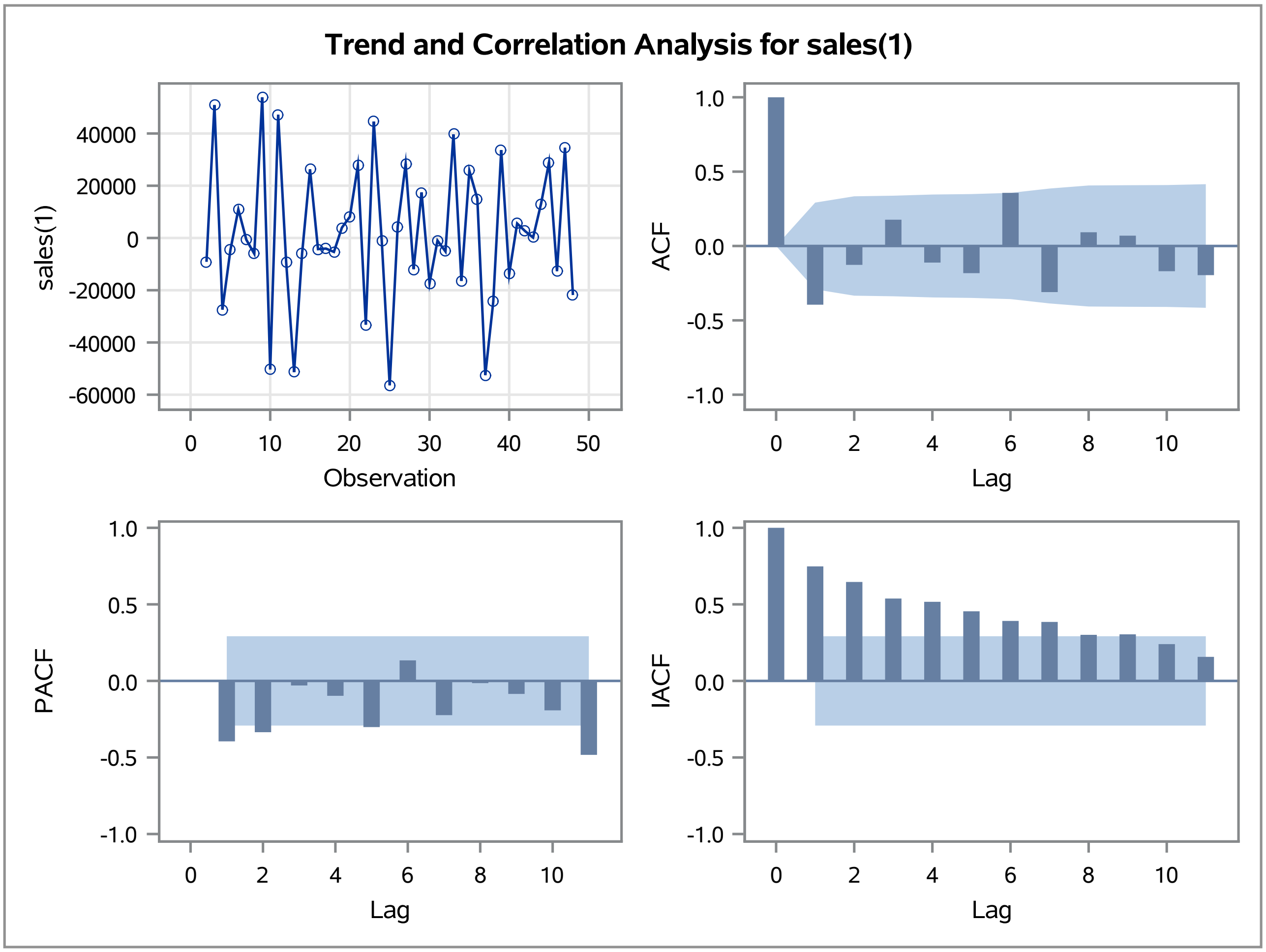
Name of Variable = sales	
Period(s) of Differencing	1
Mean of Working Series	1628.263
Standard Deviation	26754.34
Number of Observations	47
Observation(s) eliminated by differencing	1

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	4
Termination Criteria	Maximum Relative Change in Estimates
Iteration Stopping Value	0.001
Criteria Value	273.5215

ARIMA Estimation Optimization Summary	
Maximum Absolute Value of Gradient	1.116E10
R-Square Change from Last Iteration	0.627006
Objective Function	Log Gaussian Likelihood
Objective Function Value	-532.366
Marquardt's Lambda Coefficient	0.00001
Numerical Derivative Perturbation Delta	0.001
Iterations	8
Warning Message	Estimates may not have converged.

Maximum Likelihood Estimation

Parameter	Estimate	Standard Error	t Value	Approx Pr > |t|	Lag
MU	1031.4	1375.2	0.75	0.4532	0
MA1,1	0.99996	296.69179	0.00	0.9973	1
AR1,1	0.78049	0.34670	2.25	0.0244	1
AR2,1	0.34948	0.14307	2.44	0.0146	12

Constant Estimate	147.2819
Variance Estimate	4.151E8
Std Error Estimate	20373.95
AIC	1072.733
SBC	1080.133
Number of Residuals	47

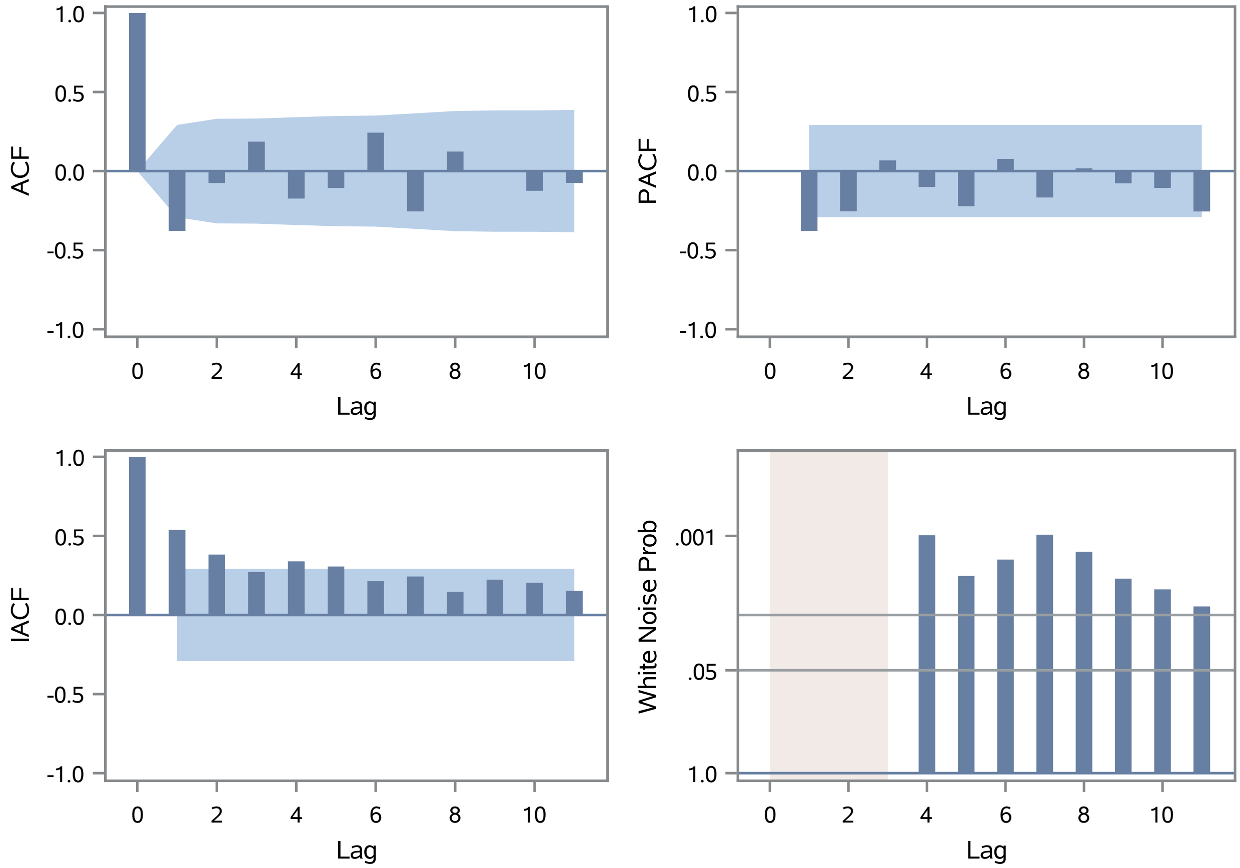
Correlations of Parameter Estimates

Parameter	MU	MA1,1	AR1,1	AR2,1
MU	1.000	-0.768	-0.615	0.013
MA1,1	-0.768	1.000	0.855	-0.025
AR1,1	-0.615	0.855	1.000	0.149
AR2,1	0.013	-0.025	0.149	1.000

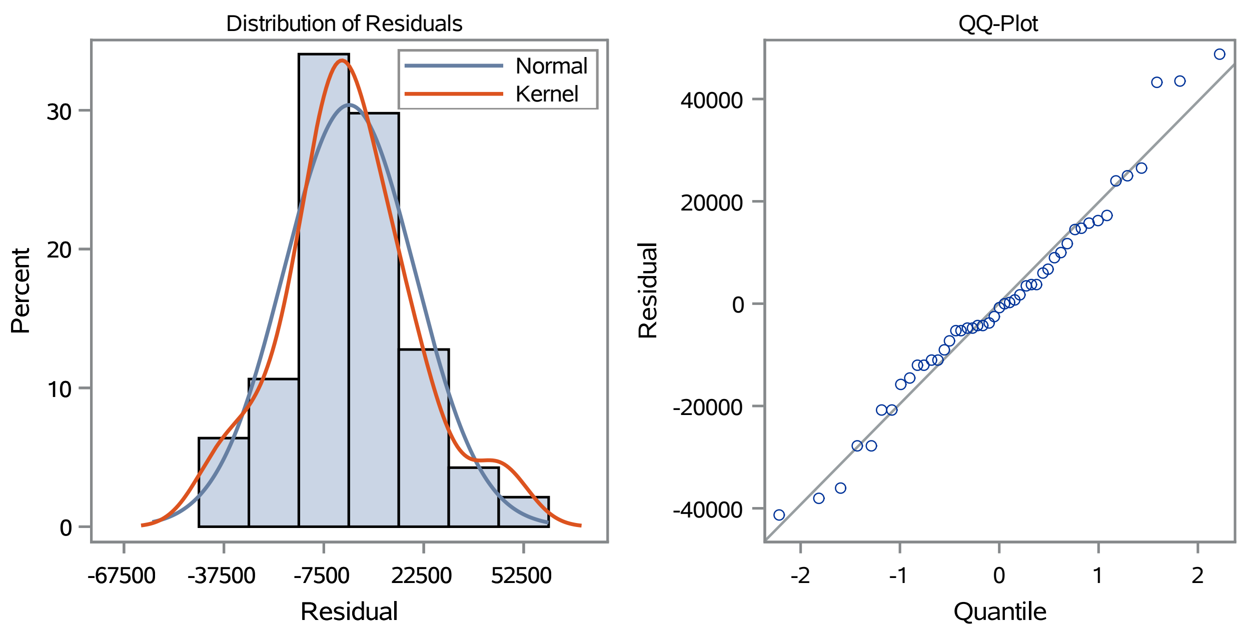
Autocorrelation Check of Residuals

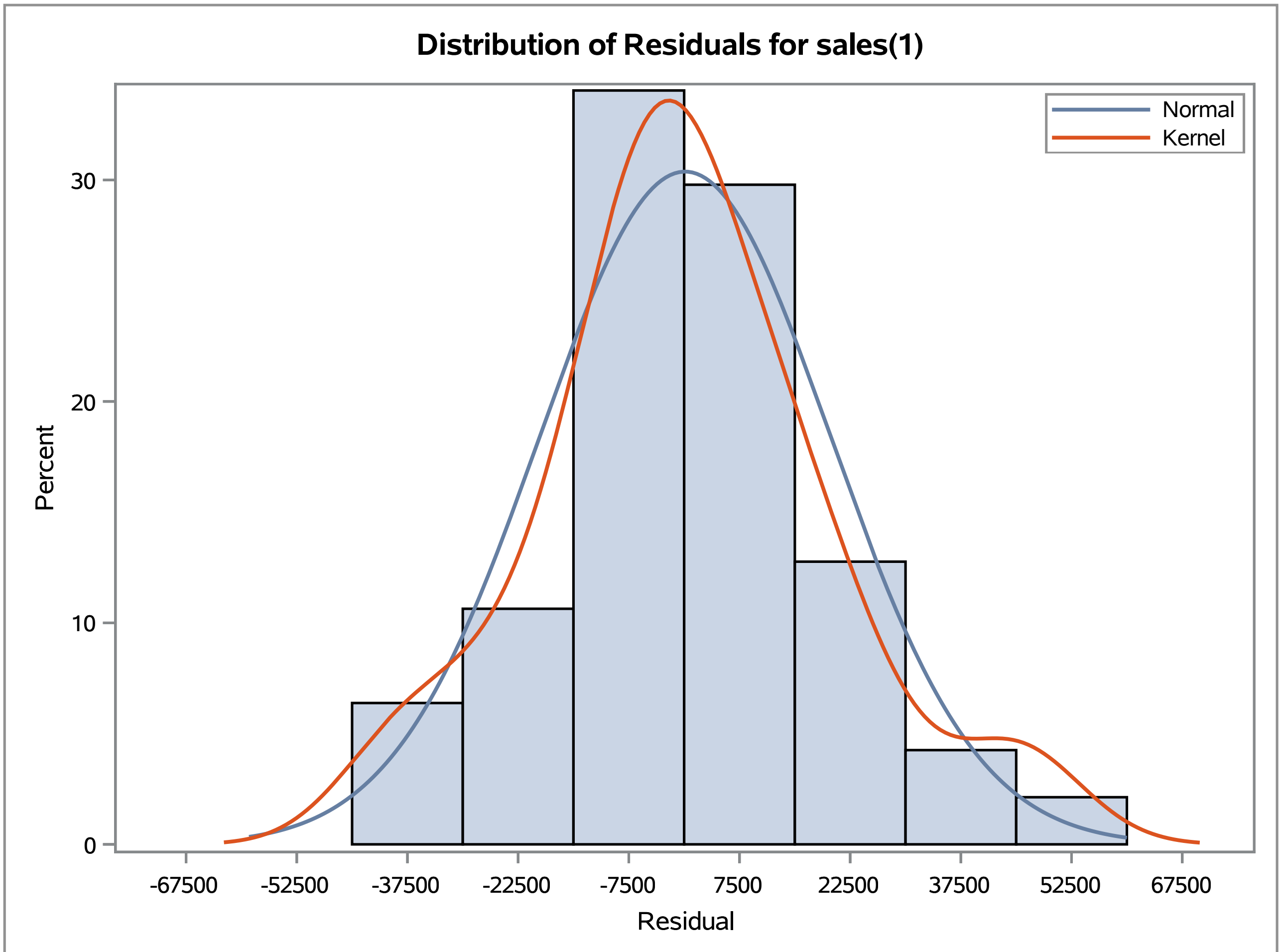
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	14.79	3	0.0020	-0.378	-0.076	0.186	-0.174	-0.107	0.243
12	27.01	9	0.0014	-0.255	0.123	0.006	-0.125	-0.075	0.308
18	31.76	15	0.0069	-0.042	-0.108	0.044	-0.053	-0.071	0.197
24	44.69	21	0.0019	-0.213	0.103	0.001	-0.104	-0.070	0.261

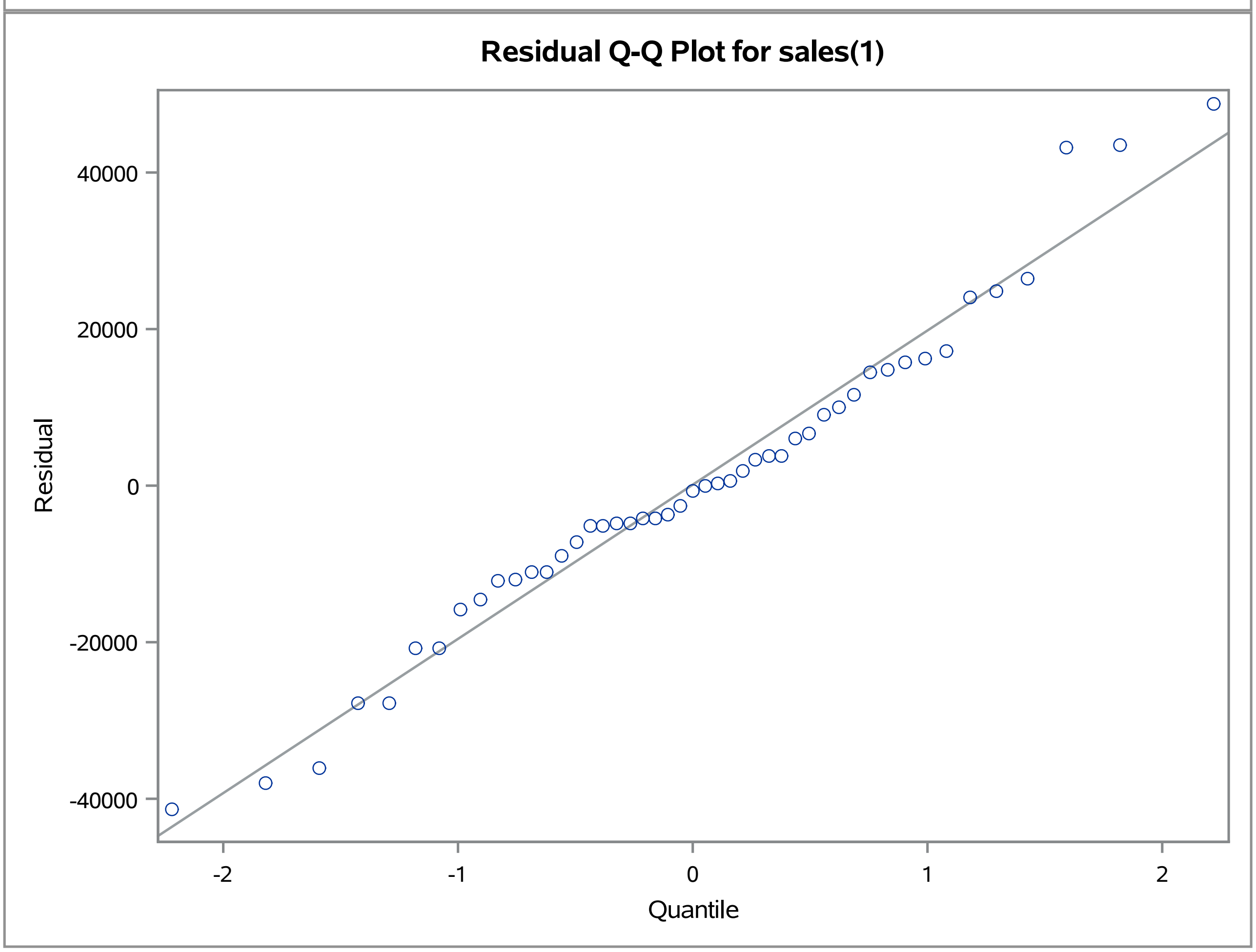
Residual Correlation Diagnostics for sales(1)



Residual Normality Diagnostics for sales(1)




Distribution of Residuals for sales(1)
Normal
Kernel
Percent
0
10
20
30
-67500
-52500
-37500
-22500
-7500
7500
22500
37500
52500
67500
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	1031.402
Period(s) of Differencing	1

Autoregressive Factors	
Factor 1:	1 - 0.78049 B**(1)
Factor 2:	1 - 0.34948 B**(12)

Moving Average Factors	
Factor 1:	1 - 0.99996 B**(1)

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.

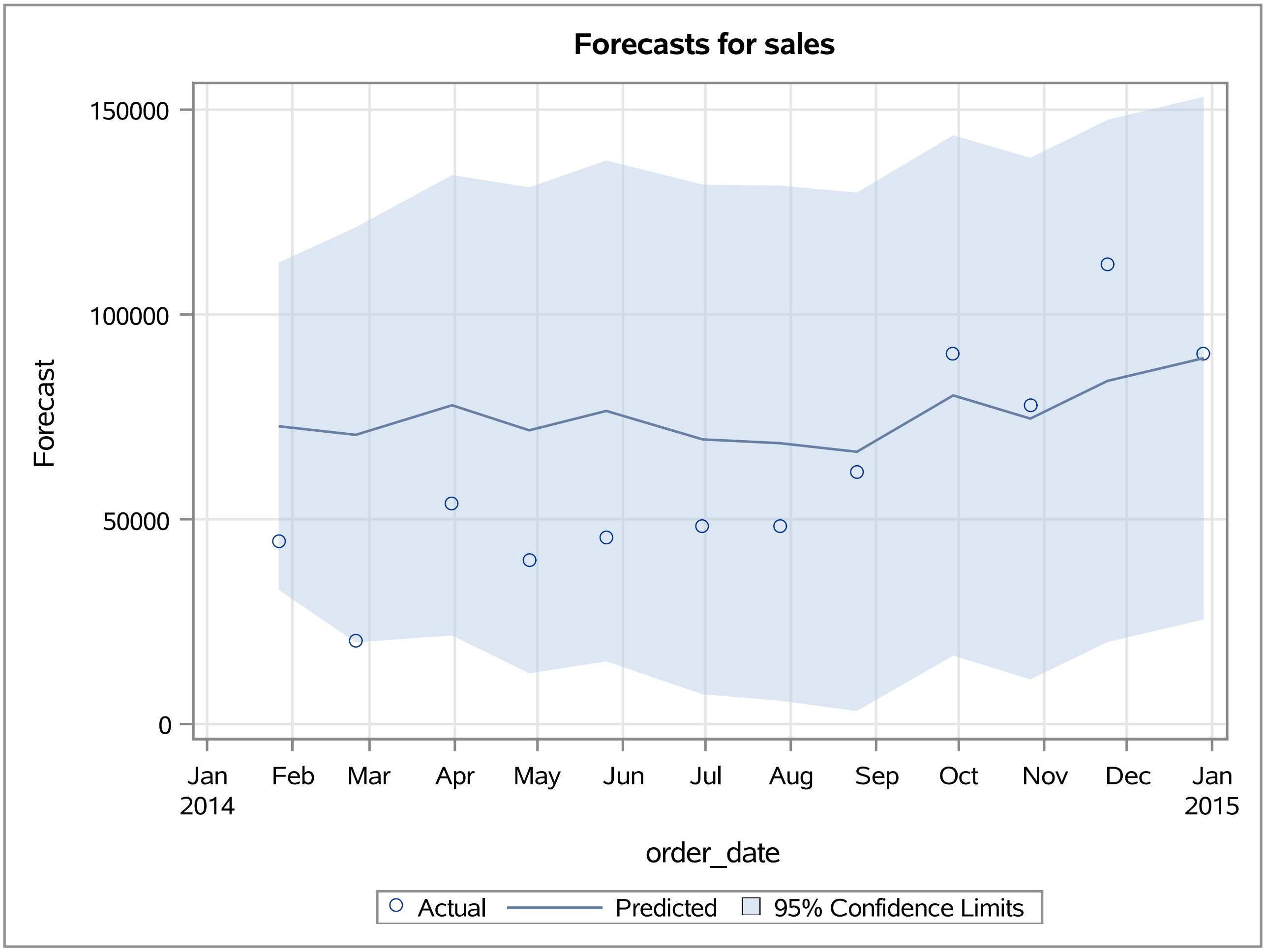
Note: Further warnings will not be printed.

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	72714.0233	20373.954	32781.8068	112646.2399	44703.1420	-28010.8813
38	70610.3533	25845.417	19954.2672	121266.4394	20283.5134	-50326.8399
39	77832.7342	28671.505	21637.6161	134027.8523	53908.9620	-23923.7722
40	71720.7432	30264.244	12403.9156	131037.5709	40112.4209	-31608.3223
41	76449.6573	31194.846	15308.8820	137590.4326	45651.2362	-30798.4211
42	69497.8561	31748.521	7271.8986	131723.8136	48259.7487	-21238.1074
43	68581.5618	32081.234	5703.4982	131459.6253	48428.3650	-20153.1968
44	66475.0140	32282.322	3202.8251	129747.2030	61516.0860	-4958.9280
45	80244.0494	32404.278	16732.8319	143755.2670	90488.7220	10244.6726
46	74577.6092	32478.400	10921.1143	138234.1041	77793.7552	3216.1460
47	83779.7556	32523.514	20034.8397	147524.6716	112326.4710	28546.7154
48	89349.1396	32550.999	25550.3539	153147.9254	90474.6008	1125.4612



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

Outlier Details

Obs	Type	Estimate	Chi-Square	Approx Prob>ChiSq
9	Additive	41501.0	10.11	0.0015

Obs	rmse	mae	mape
1	22536.59	16898.68	48.4435