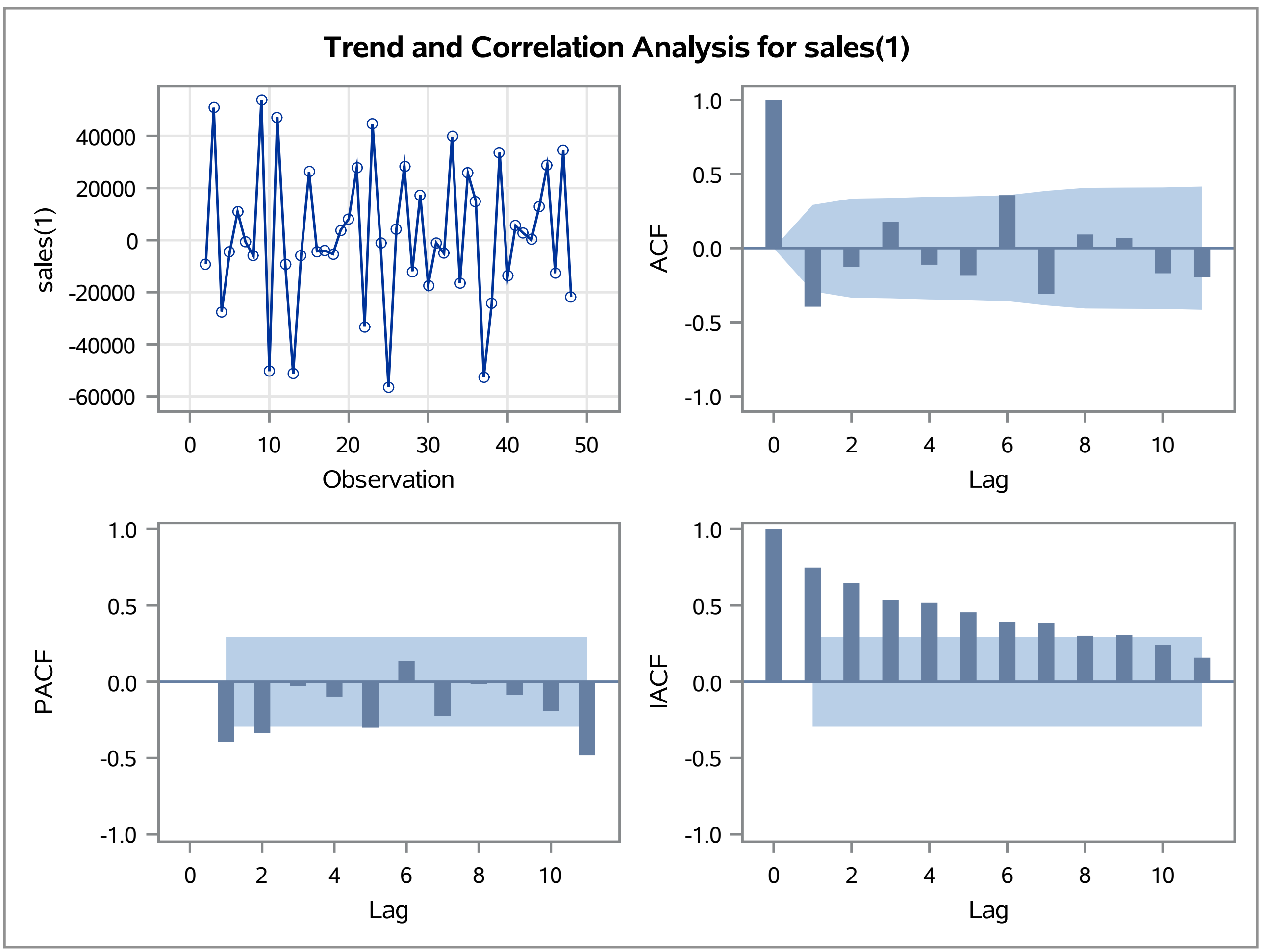
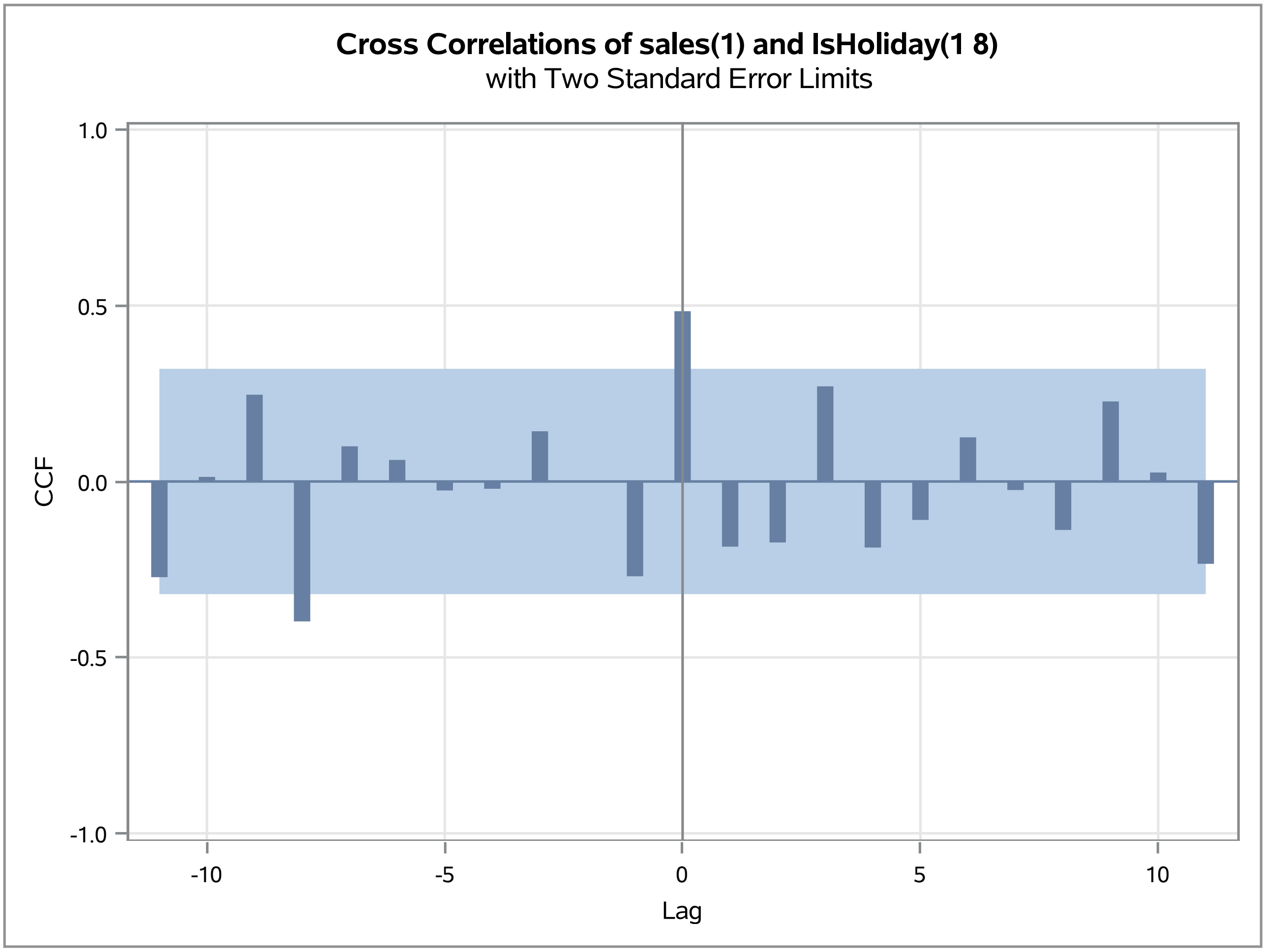
Name of Variable = sales	
Period(s) of Differencing	1
Mean of Working Series	1628.263
Standard Deviation	26754.34
Number of Observations	47
Observation(s) eliminated by differencing	1

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

Variable IsHoliday has been differenced.

Correlation of sales and IsHoliday	
Period(s) of Differencing	1,8
Variance of input =	1.307035
Number of Observations	39
Observation(s) eliminated by differencing	9



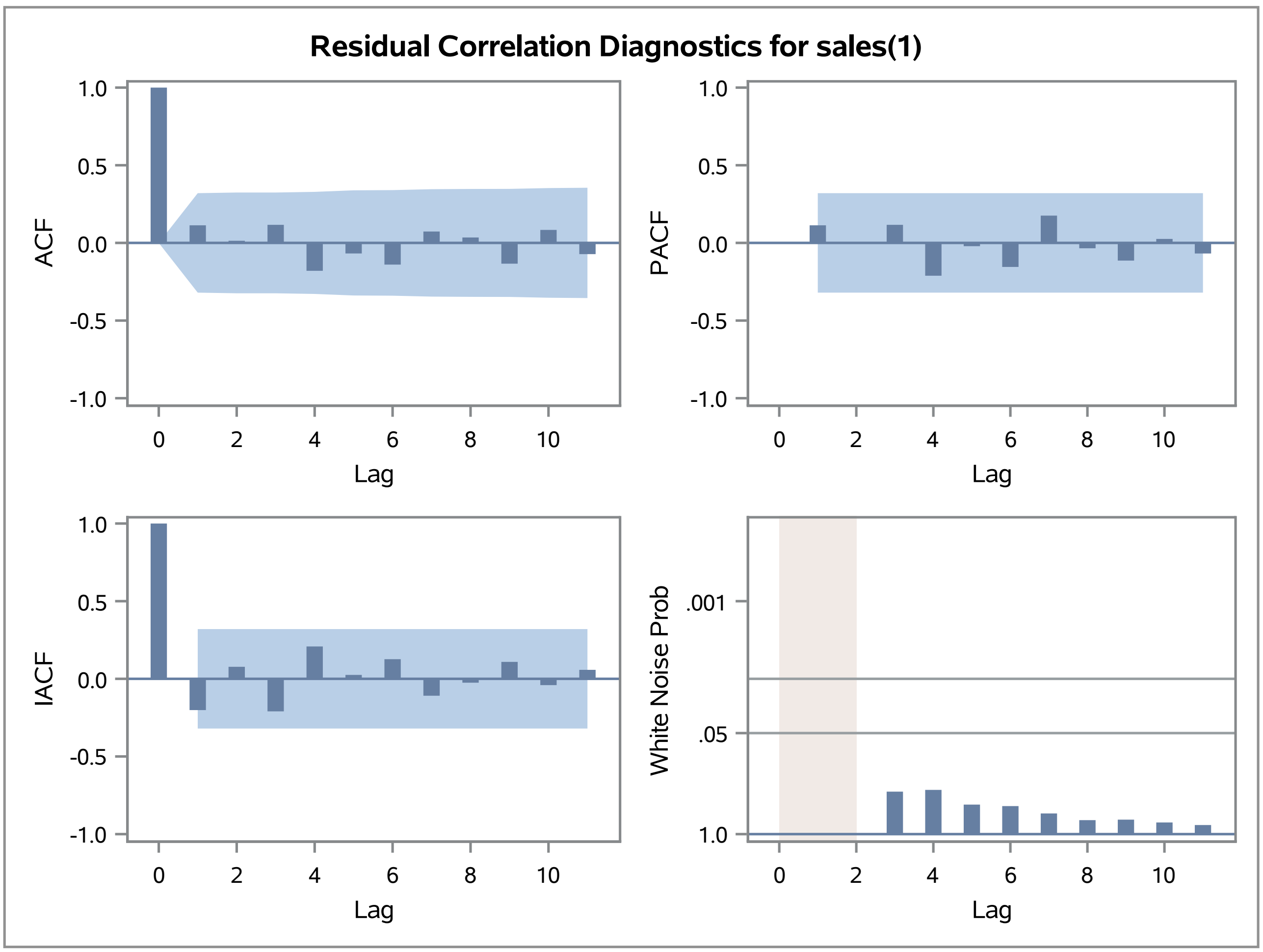


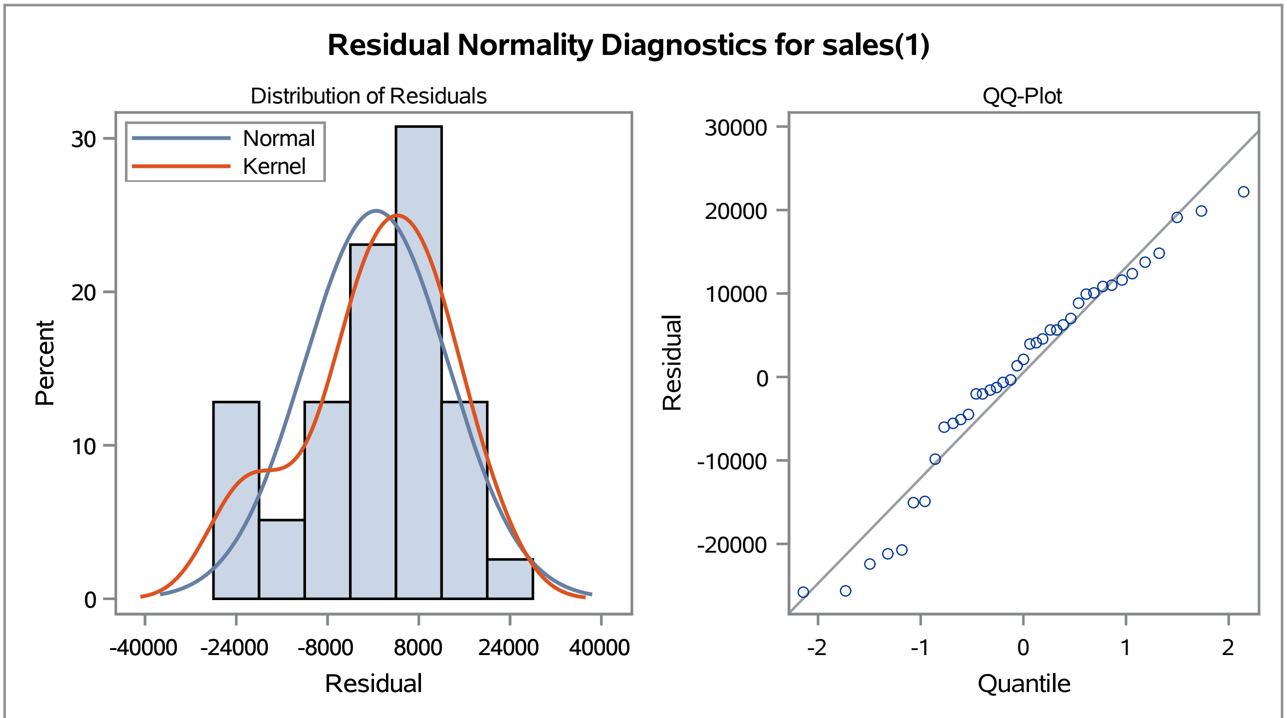
Maximum Likelihood Estimation							
Parameter	**Estimate**	**Standard Error**	**t Value**	**Approx Pr > |t|**	**Lag**	**Variable**	**Shift**
MU	430.62308	2049.7	0.21	0.8336	0	sales	0
MA1,1	0.63184	0.11322	5.58	<.0001	1	sales	0
AR1,1	0.84035	0.07292	11.52	<.0001	12	sales	0
NUM1	2252.0	3571.1	0.63	0.5283	0	IsHoliday	0

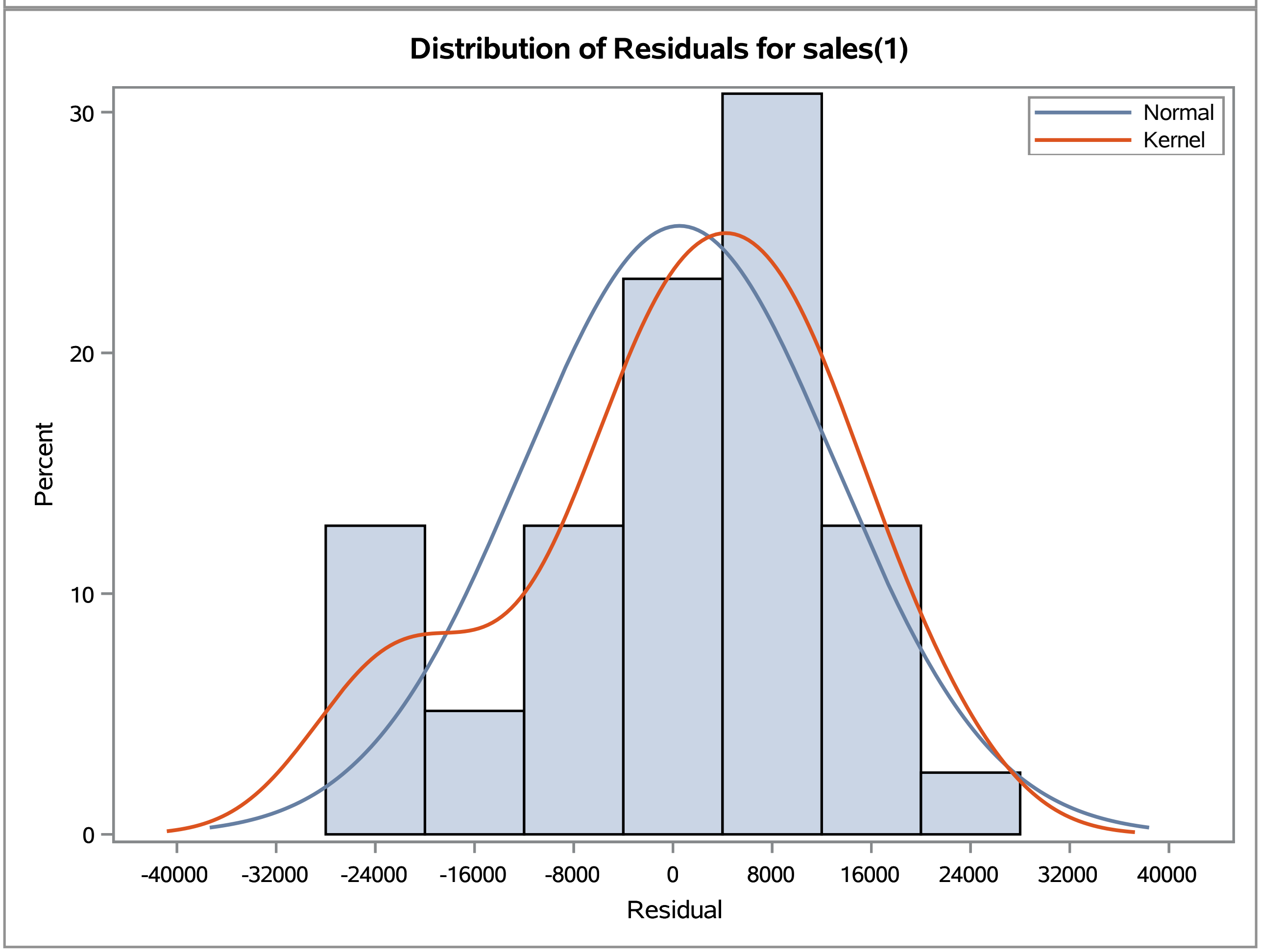
Constant Estimate	68.75087
Variance Estimate	1.7338E8
Std Error Estimate	13167.5
AIC	869.5266
SBC	876.1809
Number of Residuals	39

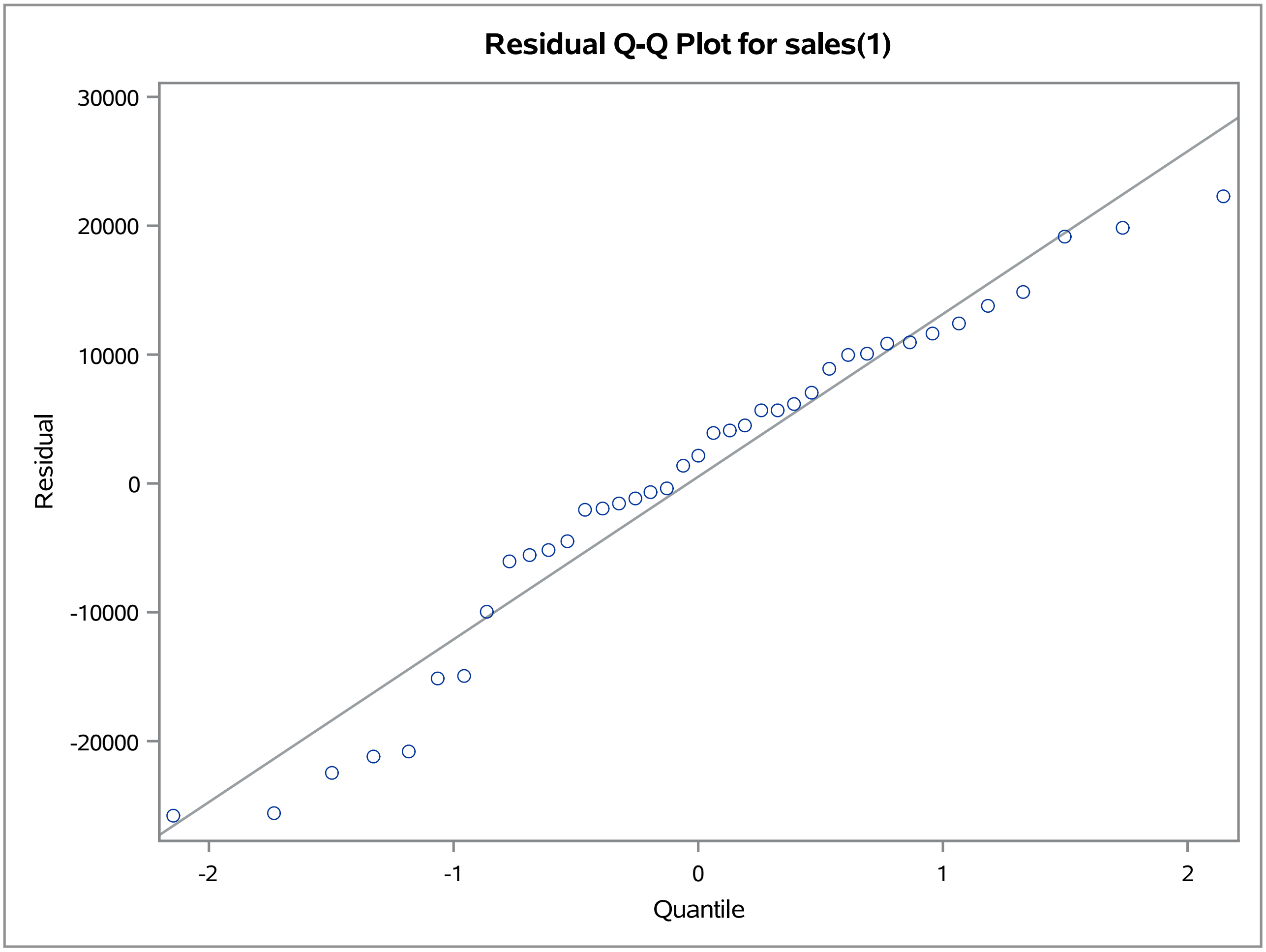
Correlations of Parameter Estimates					
Variable	Parameter	sales MU	sales MA1,1	sales AR1,1	IsHoliday NUM1
sales	**MU**	1.000	-0.264	0.111	0.057
sales	**MA1,1**	-0.264	1.000	-0.020	-0.154
sales	**AR1,1**	0.111	-0.020	1.000	-0.162
IsHoliday	**NUM1**	0.057	-0.154	-0.162	1.000

Autocorrelation Check of Residuals									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	3.73	4	0.4441	0.119	0.017	0.118	-0.175	-0.064	-0.136
12	6.89	10	0.7354	0.076	0.039	-0.128	0.089	-0.064	-0.145
18	10.88	16	0.8166	0.037	-0.153	-0.054	-0.067	-0.040	0.153
24	13.13	22	0.9293	-0.123	0.027	-0.006	0.084	0.042	0.036




Residual Normality Diagnostics for sales(1)
Distribution of Residuals
Normal
Kernel
Percent
30
20
10
0
-40000
-24000
-8000
8000
24000
40000
Residual
QQ-Plot
Residual
30000
20000
10000
0
-10000
-20000
-2
-1
0
1
2
Quantile


Distribution of Residuals for sales(1)
Normal
Kernel
Percent
30
20
10
0
-40000
-32000
-24000
-16000
-8000
0
8000
16000
24000
32000
40000
Residual



Model for variable sales	
Estimated Intercept	430.6231
Period(s) of Differencing	1

Autoregressive Factors	
Factor 1:	1 - 0.84035 B**(12)

Moving Average Factors	
Factor 1:	1 - 0.63184 B**(1)

Input Number 1	
Input Variable	IsHoliday
Period(s) of Differencing	1,8
Overall Regression Factor	2252.002

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.

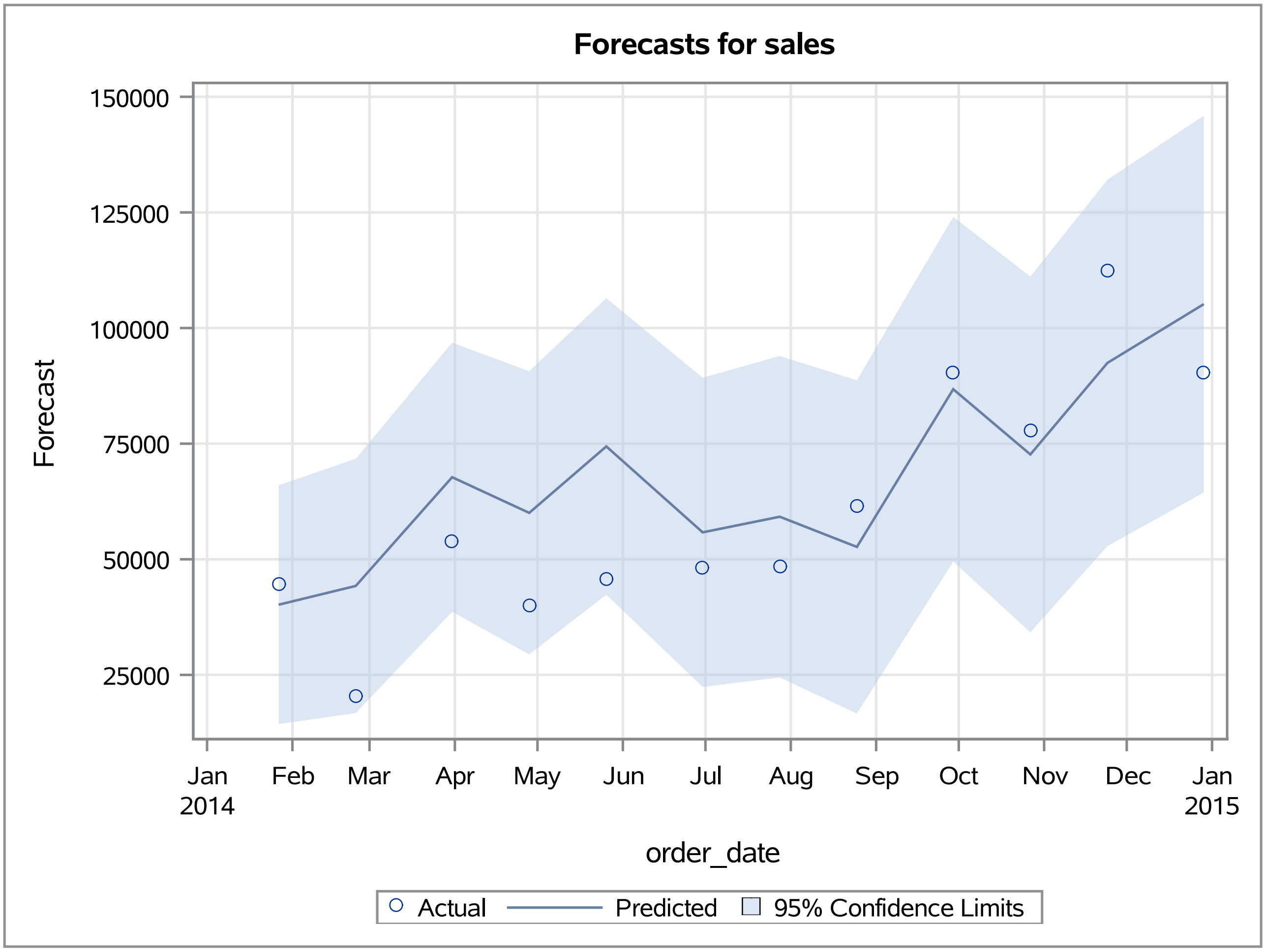
Warning: The ID value for observation 21 is the same as the ID value for the last observation according to ID variable ORDER_DATE.

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	40177.4618	13167.501	14369.6341	65985.2895	44703.1420	4525.6802
38	44240.4343	14031.548	16739.1061	71741.7624	20283.5134	-23956.9209
39	67746.9751	14845.389	38650.5471	96843.4032	53908.9620	-13838.0131
40	60035.9979	15616.876	29427.4826	90644.5131	40112.4209	-19923.5770
41	74402.9215	16352.005	42353.5801	106452.2629	45651.2362	-28751.6853
42	55822.3130	17055.478	22394.1907	89250.4354	48259.7487	-7562.5643
43	59203.8454	17731.062	24451.6017	93956.0891	48428.3650	-10775.4804
44	52671.6458	18381.834	16643.9132	88699.3784	61516.0860	8844.4402
45	86772.9187	19010.341	49513.3347	124032.5026	90488.7220	3715.8033
46	72662.6618	19618.724	34210.6700	111114.6537	77793.7552	5131.0934
47	92460.3670	20208.799	52851.8483	132068.8857	112326.4710	19866.1040
48	105172.1966	20782.127	64439.9756	145904.4176	90474.6008	-14697.5958



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

Outlier Details

Obs	Type	Estimate	Chi-Square	Approx Prob>ChiSq
29	Additive	20515.3	4.98	0.0256

Series	Model	Holdback Periods	MAPE	MAE	MSE	RMSE
sales	work.SARIMAX_1_8	48	31.59%	10193.97	233929713.99	15294.76