

```
830 0 OUTPUT ACTIVATE MAEOutput.  
830 0 M> OUTPUT ACTIVATE MAEOutput.  
831 0 TITLE 'MAE'.  
831 0 M> TITLE 'MAE'.
```

MAE

```
832 0 GET DATA /TYPE=TXT /FILE='D:\DATA ANALYSIS\N Time Series Tests and Fo
recasting\MAE\dataset.csv' /ENCODING='UTF8' /DELCASE=L
      INE /DELIMITERS=', ' /QUALIFIER='"' /ARRANGEMENT=DELIMITED /FIRSTCA
SE=2
832 0 M> GET DATA /TYPE=TXT /FILE='D:\DATA ANALYSIS\N Time Series Tests and
Forecasting\MAE\dataset.csv' /ENCODING='UTF8' /DELCAS
      E=LINE /DELIMITERS=', ' /QUALIFIER='"' /ARRANGEMENT=DELIMITED /F
IRSTCASE=2
833 0 /VARIABLES=school A8 sex A8 age F8.0 address A8 famsize A8 Pstatus A
8 Medu F8.0 Fedu F8.0 Mjob A16 Fjob A16 reason A16 gua
      rdian A16 traveltime F8.0 studytime F8.0 failures F8.0 schoolsup A
8 famsup A8 paid A8 activities A8 nursery A8 higher A8
      internet A8 romantic A8 famrel F8.0 freetime F8.0 goout F8.0 Dalc
F8.0 Walc F8.0 health F8.0 absences F8.0 G1 F8.0 G2 F
      8.0 G3 F8.0.
833 0 M> /VARIABLES=school A8 sex A8 age F8.0 address A8 famsize A8 Pstatu
s A8 Medu F8.0 Fedu F8.0 Mjob A16 Fjob A16 reason A16
      guardian A16 traveltime F8.0 studytime F8.0 failures F8.0 schoo
lsup A8 famsup A8 paid A8 activities A8 nursery A8 hig
      her A8 internet A8 romantic A8 famrel F8.0 freetime F8.0 goout
F8.0 Dalc F8.0 Walc F8.0 health F8.0 absences F8.0 G1
      F8.0 G2 F8.0 G3 F8.0.
834 0 DATASET NAME MAEData.
834 0 M> DATASET NAME MAEData.
835 0 COMPUTE time_index=$CASENUM.
835 0 M> COMPUTE time_index=$CASENUM.
836 0 EXECUTE.
836 0 M> EXECUTE.
837 0 * BEGIN METHOD-SPECIFIC SPSS WORKFLOW.
837 0 M> * BEGIN METHOD-SPECIFIC SPSS WORKFLOW.
838 0 COMPUTE forecast=LAG(G3).
838 0 M> COMPUTE forecast=LAG(G3).
839 0 COMPUTE absolute_error=ABS(G3-forecast).
839 0 M> COMPUTE absolute_error=ABS(G3-forecast).
840 0 DESCRIPTIVES VARIABLES=absolute_error /STATISTICS=MEAN STDDEV MIN MAX
SUM.
840 0 M> DESCRIPTIVES VARIABLES=absolute_error /STATISTICS=MEAN STDDEV MIN
MAX SUM.
```

Descriptives

MAE

Notes

Output Created		18-JUL-2026 15:53:10
Comments		
Input	Data	D:\DATA ANALYSIS\N Time Series Tests and Forecasting\MAE\dataset.csv
	Active Dataset	MAEData
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	649
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=absolute_err or /STATISTICS=MEAN STDDEV MIN MAX SUM.
Resources	Processor Time	00:00:00.06
	Elapsed Time	00:00:00.08

[MAEData]

Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
absolute_error	648	.00	19.00	1920.00	2.9630	2.85321
Valid N (listwise)	648					

```

841  0  * END METHOD-SPECIFIC SPSS WORKFLOW.
841  0 M> * END METHOD-SPECIFIC SPSS WORKFLOW.
842  0  SAVE OUTFILE='D:\DATA ANALYSIS\N Time Series Tests and Forecasting\MA
E\SPSS_Output\sav\mae_spss_ready_data.sav' /COMPRESSED
.
842  0 M> SAVE OUTFILE='D:\DATA ANALYSIS\N Time Series Tests and Forecasting
\MAE\SPSS_Output\sav\mae_spss_ready_data.sav' /COMPRES
SED.

```

MAE

```
843 0 ECHO 'MAE'.
843 0 M> ECHO 'MAE'.
MAE
844 0 ECHO 'Method type: forecast_accuracy_metric'.
844 0 M> ECHO 'Method type: forecast_accuracy_metric'.
Method type: forecast_accuracy_metric
845 0 ECHO 'Design: Mean absolute error of the one-step naive forecast.'.
845 0 M> ECHO 'Design: Mean absolute error of the one-step naive forecast.'.
.
Design: Mean absolute error of the one-step naive forecast.
846 0 ECHO 'Formula: MAE=(1/n)*sum(|y_t-yhat_t|)'.
846 0 M> ECHO 'Formula: MAE=(1/n)*sum(|y_t-yhat_t|)'.
Formula: MAE=(1/n)*sum(|y_t-yhat_t|)
847 0 ECHO 'Series order: source-row order'.
847 0 M> ECHO 'Series order: source-row order'.
Series order: source-row order
848 0 ECHO 'mae = 2.962962962962963'.
848 0 M> ECHO 'mae = 2.962962962962963'.
mae = 2.962962962962963
849 0 ECHO 'evaluated_forecasts = 648'.
849 0 M> ECHO 'evaluated_forecasts = 648'.
evaluated_forecasts = 648
850 0 ECHO 'median_absolute_error = 2.0'.
850 0 M> ECHO 'median_absolute_error = 2.0'.
median_absolute_error = 2.0
851 0 ECHO 'maximum_absolute_error = 19.0'.
851 0 M> ECHO 'maximum_absolute_error = 19.0'.
maximum_absolute_error = 19.0
852 0 ECHO 'zero_error_percent = 13.425925925925927'.
852 0 M> ECHO 'zero_error_percent = 13.425925925925927'.
zero_error_percent = 13.425925925925927
853 0 ECHO 'Cross-check status: pass'.
853 0 M> ECHO 'Cross-check status: pass'.
Cross-check status: pass
854 0 OUTPUT SAVE OUTFILE='D:\DATA ANALYSIS\N Time Series Tests and Forecas
ting\MAE\SPSS_Output\spv\mae_spss_output.spv'.
854 0 M> OUTPUT SAVE OUTFILE='D:\DATA ANALYSIS\N Time Series Tests and Fore
casting\MAE\SPSS_Output\spv\mae_spss_output.spv'.
```

MAE

```
855  0  OUTPUT EXPORT /CONTENTS EXPORT=ALL LAYERS=PRINTSETTING MODELVIEWS=PRI
NTSETTING /PDF DOCUMENTFILE='D:\DATA ANALYSIS\N Time S
      eries Tests and Forecasting\MAE\SPSS_Output\pdf\mae_spss_output.pdf'.
f'.
855  0 M> OUTPUT EXPORT /CONTENTS EXPORT=ALL LAYERS=PRINTSETTING MODELVIEWS=
PRINTSETTING /PDF DOCUMENTFILE='D:\DATA ANALYSIS\N Tim
      e Series Tests and Forecasting\MAE\SPSS_Output\pdf\mae_spss_out
put.pdf'.
```