Weka

Output/Visualization

[Output] [Train future pred.]

1959-05-01	420
1959-06-01	472
1959-07-01	548
1959-08-01	559
1959-09-01	463
1959-10-01	407
1959-11-01	362
1959-12-01	405
1960-01-01	417
1960-02-01	391
1960-03-01	419
1960-04-01	461
1960-05-01	472
1960-06-01	535
1960-07-01	622
1960-08-01	606
1960-09-01	508
1960-10-01	461
1960-11-01	390
1960-12-01	432
1961-01-01*	447.5099

=== Evaluation on training data ===

Target	1-step-ahead

passenger_numbers

N	132
Mean absolute error	8.3983
Root mean squared error	10.6337

Total number of instances: 144

1960-03-01	419
1960-04-01	461
1960-05-01	472
1960-06-01	535
1960-07-01	622
1960-08-01	606
1960-09-01	508
1960-10-01	461
1960-11-01	390
1960-12-01	432
1961-01-01*	441.1992

=== Evaluation on training data ===

Target	1-step-ahead

passenger_numbers

N	103
Mean absolute error	7.0827
Root mean squared error	8.5459

Total number of instances: 115

=== Evaluation on test data ===

Target	1-step-ahead

passenger_numbers

N	29
Mean absolute error	17.6701
Root mean squared error	20.4839

Total number of instances: 29

1960-03-01	419
1960-04-01	461
1960-05-01	472
1960-06-01	535
1960-07-01	622
1960-08-01	606
1960-09-01	508
1960-10-01	461
1960-11-01	390
1960-12-01	432
1961-01-01*	448.0962

=== Evaluation on training data ===

Target	1-step-ahead

passenger_numbers

N	103
Mean absolute error	6.9732
Root mean squared error	8.442

Total number of instances: 115

=== Evaluation on test data ===

Target	1-step-ahead

passenger_numbers

N	29
Mean absolute error	17.588
Root mean squared error	20.438

Total number of instances: 29

How does the MAE and RMSE compare to those from Step 4? Why is it so?
The error is larger and almost doubled now since only 0.2 of the sample is used for training. The classier is less accurate at predicting.

Little differences as the features are mostly useful, to help the classier perform better. After removing the feature selection, the performance got worst.