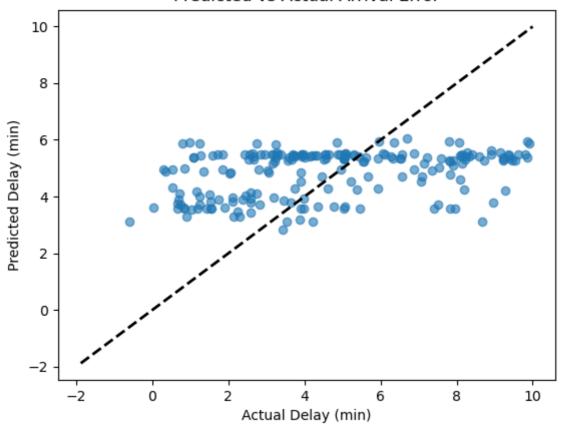
Predicted vs Actual Arrival Error



Interpretation of the plot

- X-axis: Actual delay, ground truth
- Y-axis: Predicted delay from a linear model
- The dashed line is the identity line (perfect prediction)

Positives

PROF

- As actual delay increases, predictions increase slightly
- Prediction variance is reasonably tight

Negatives

- For actual_delay > 6 predictions cluster near 5–6 min, not growing linearly
- For actual_delay < 2 predictions cluster near 3-4 min, too high

This means we are biased towards the mean

Model coefficients

```
0 hour 0.065893
1 dayofweek -0.010351
```

- 2 is_weekend -0.263213
 3 direction_Linden 1.416742
- direction_Linden = 1.41: Linden-bound trains are consistently ~1.4 min more delayed than Howard-bound.
- is_weekend = -0.26: Weekend trains are more punctual. This might be due to the lack of data.
- hour and dayofweek: Effect is minimal, suggests that these have no effect.