

Found - \$150 million in new sales: a consequence of short term retail forecasting

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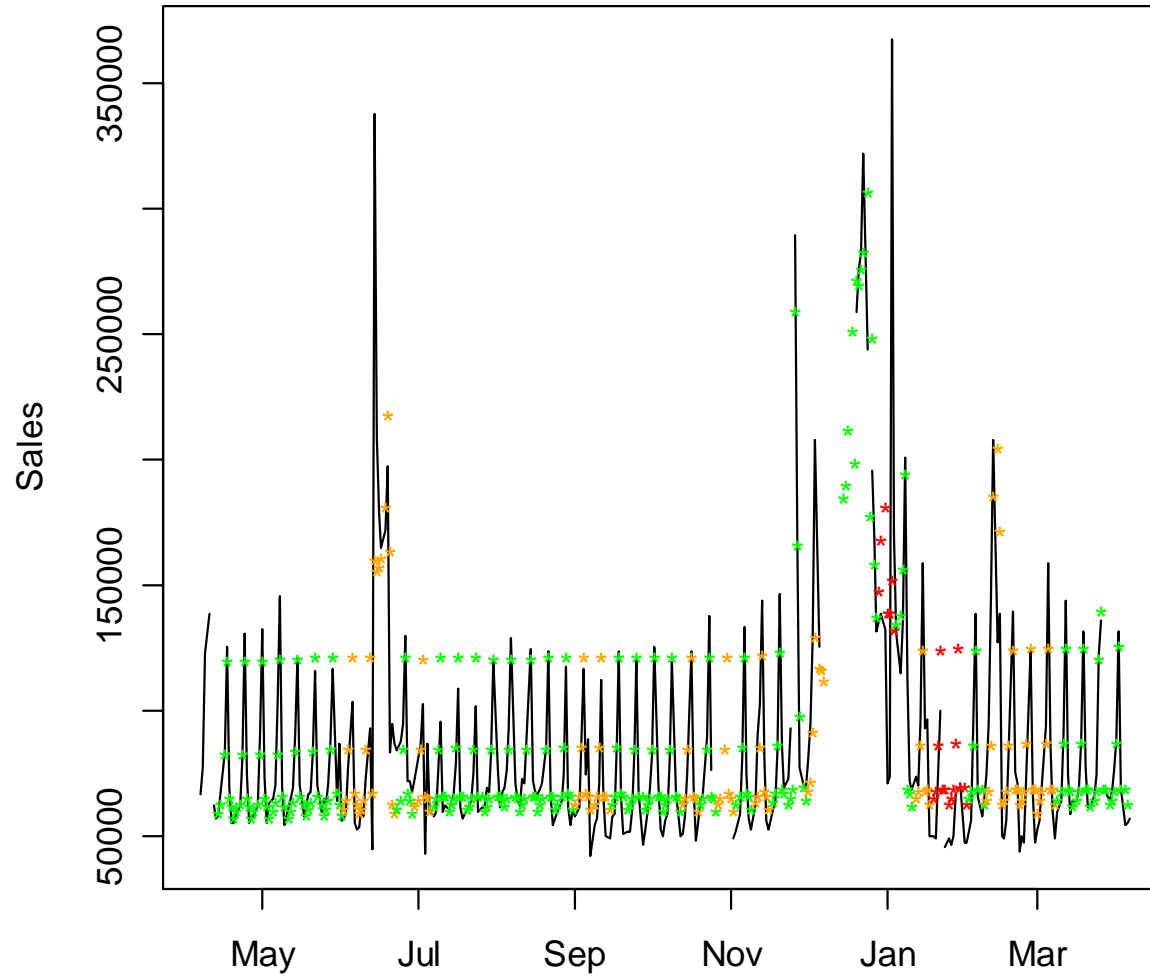
Goal: short term sales forecasts

- 14 days, use last 7
- Given net sales (bad!)
- Use to set staffing targets in scheduling application
- Target: 10% Mean Abs % Error (MAPE) on daily basis
 - Very difficult to achieve in fashion/discretionary market

Approach

- Keep it simple and accessible to managers
- Regression on calendar
 - Special days dummy creator very important
 - Piecewise linear “sales times” over short intervals
 - Yearly nonlinear pattern – “hockey stick”
 - No exogenous variables (need to forecast them!)

vall.txt Forecasts by iterated unified LM - 7:14 ahead/loop



All Week estimation after 20040406

Tools

- R
 - Linear modelling – `lm()`
 - Make sure singular models can be handled as there are many “factor” (dummy) variables
 - Wrote own scripts
- Gnumeric / `ssconvert`
 - Makes it easier to move tables in and out of R
 - Client wants to supply and receive xls files