

Metropolis

A modern beamer theme

Alfonso R. Reyes

April 21, 2019

Oil Gains Analytics LLC

Outline

1. Well modeling and batch automation
2. Statistical analysis
3. Network Analysis

Well modeling and batch automation

Why automating well modeling?

- Modeling takes a long time
- It is laborious to calibrate and modify each model
- It is easy for ten wells
- But very hard on 25, 50, 100, 200+ wells
- And when you finish the first batch of well tests ...
- ... it comes another ...
- One production optimization cycle could take months

Statistical analysis

Statistical Analysis makes a difference

- All wells data get into a tabular format: dataframe
- Every well is a row (observation)
- Well parameters become columns or variables
- Tables make easier to spot problems with the data
- Well scanning can be done on a directory or drive
- Well variables (columns) are selectable

Network Analysis



In the network optimizer

- Retrieve all the solver variables
- Put the variables in a dataframe
- Calculate new variables as KPIs
- Statistically compare the KPIs
- Arrange the wells by best and worst KPI
- Run additional scenarios

KPI: Key Performance Indicators

