

RevSim

Projecting small scale B2B MRR with a
simulated sales force





The problem space

We are talking about modeling revenue in companies that sell a product or service to other organizations:

- Not consumer-focused.
- Many customers (not just a handful).
- Customers pay monthly, on a recurring basis.
- A sales team is engaged with each customer to close deals.



Why bother?

- Considering an investment?
 - What will they really earn?
- Operating a startup?
 - Identify bottlenecks.
 - Pivot early.



Spreadsheets suck

- Most small companies create revenue projections with spreadsheets.
- The models are usually ... ahem ... optimistic.
- It's not easy to model real-world constraints.



Human constraints (sales team)

- How many calls/day can a rep really make?
- What about weekends, holidays, vacations, sick days?
- How long until new reps are 100% productive?
- Reps don't stick around forever.
 - When will they quit and how long to replace them?



Customer constraints

- Customers don't usually start at 100% of their revenue potential:
 - Need to model MRR ramp-up time.
- At any given time, a custom might stop:
 - Need to model monthly attrition.



Collections

- Do you automatically charge the customer's credit card?
 - ... then you will pay a processing fee (~3%).
- Do you send invoices and wait for payment?
 - ... then revenue will be delayed.



Sales process

- How many calls before reaching a decision maker?
 - There is time lag between calls.
 - Reps can only make so many calls daily.
- Sales goes through stages:
 - There is attrition at each stage.
 - More time lag between stages.



Market saturation

Selling into a finite population of prospective customers?

- Every time a prospect says “no,” you have to back off for a period of time.
- You can quickly run out of organizations to sell into.



Odds and ends

- Model multiple products / services:
 - Each with its own prices, customer attrition, etc.
- Multi-stage sales process:
 - Possibly handing off from cold callers to closers.
- Non-revenue staff:
 - Show where else the company burns cash.



Random events

- Prospect win / rejection during sales process.
- Delays between calls and sales stages.
- Customer attrition over time.
- Sales rep departure and replacement.
- Vacation schedules.
- Actual MRR per customer and ramp-up time.



How it works

- RevSim is a command-line program.
- Edit a text file that specifies all the input parameters.
- Run the simulator to get text files:
 - Total, per-rep monthly costs, revenue.
 - Monthly counters (wins, losses, customers, etc.).
 - Event log (what the heck happened, in detail).



Technology

- Runs on Linux:
 - Someone could probably port to Windows, MacOS.
- No real user interface:
 - A great project for anyone who wants to.
 - Web UI to edit configuration.
 - Add graphs, charts to the output.
 - Run repeatedly (Monte Carlo simulation).
- Will push to GitHub shortly.



Demo