



---

# Introduction to System Dynamics with Vensim

**Tom Fiddaman**  
**2023**

# Logistics

- **Download the course material folder and unzip to a convenient location**
  - Source: <http://vensim.com/conference>
  - Choose a location you control, i.e. not locked by your operating system
- **Install Vensim 10**
  - There's a 60-day DSS license at the link above
  - You can use PLE or any earlier version for much of the material

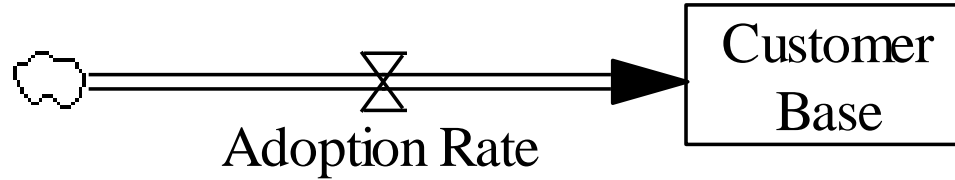
# Road Map

Vensim Mechanics	System Dynamics	Modeling Process
<div>Diagramming</div> <div>Equations</div> <div>Units</div> <div>Runs</div> <div>Managing constants</div> <div>Causal tracing</div> <div>Synthesim<sup>®</sup></div> <div>Data I/O</div> <div>Interfaces</div> <div>Lookups</div>	<div>Stocks &amp; flows</div> <div>Feedback loops</div> <div>Behavior modes</div> <div>Nonlinearity</div> <div>Equilibrium</div> <div>Representing behavior</div> <div>Archetypes</div> <div>Molecules</div> <div>Policy resistance</div> <div>Events-Behavior-Structure</div>	<div>Choosing a method</div> <div>Conceptualization</div> <div>Debugging</div> <div>Model testing</div> <div>Validation</div> <div>Collaboration</div> <div>Automation</div> <div>Learning from surprise</div> <div>Presenting</div> <div>Change management</div>

# New Features

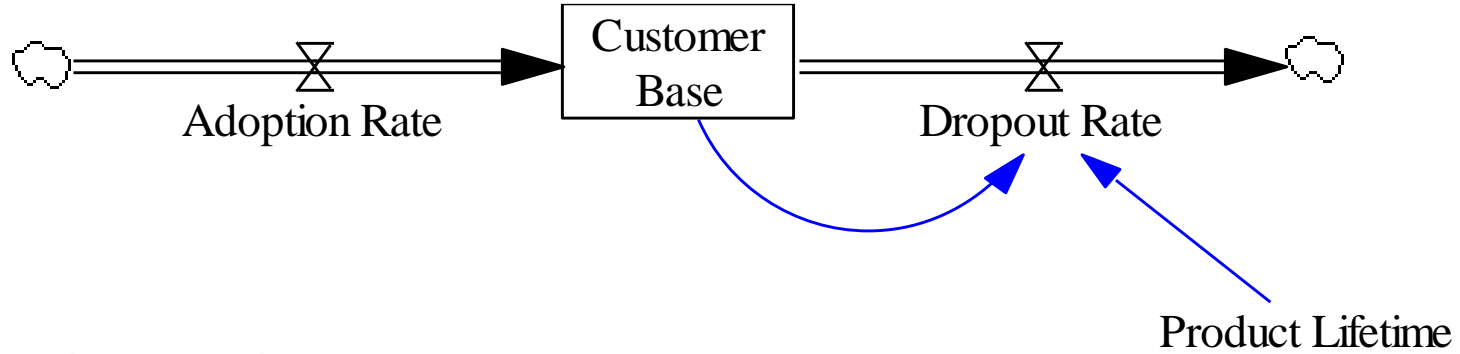
- **Sensitivity2All**
- **Run Manager**
- **Action Recorder**
- **Multithreading**

## Model 0



- **Accumulation**
- **Diagramming**
- **Writing equations**
- **STEP test input**
- **Ordinary simulation**
- **Seeing output**

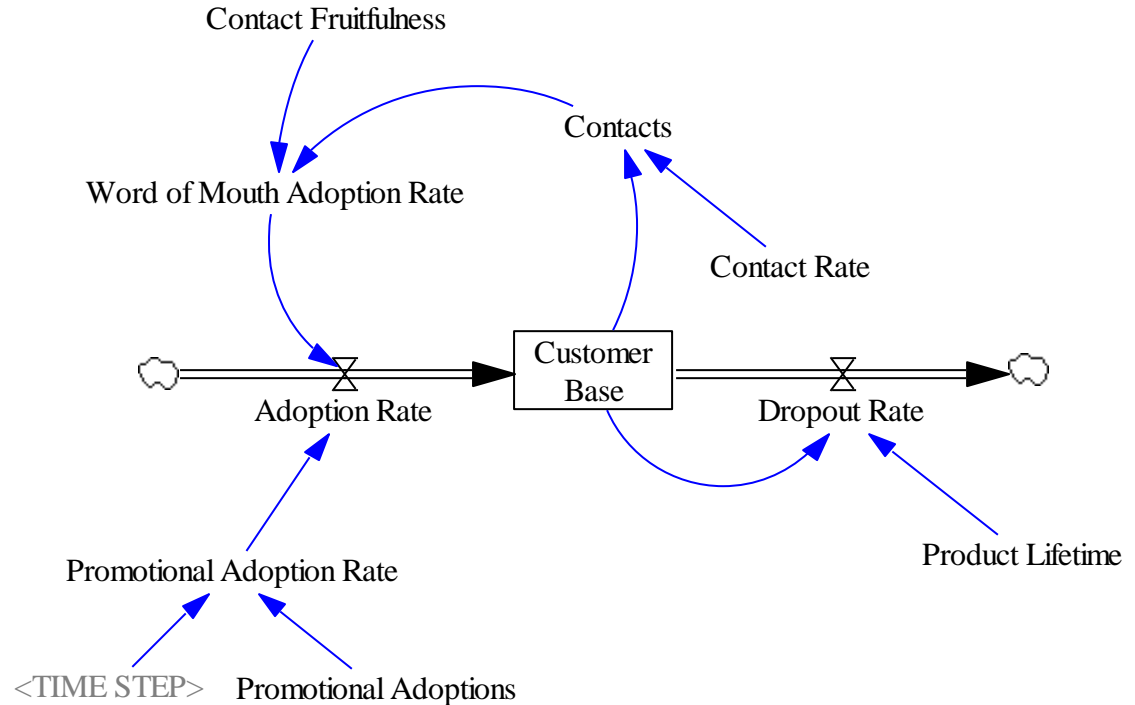
# Model A



- **Outflow & feedback**
- **Units**
- **Managing datasets**

# Model B

- **Growth loop**
- **A discrete event**
- **Causal Tracing**



# Model C

- Custom graphs
- A mini control panel

