

# Machine Simulation for Software Development

- Your Company Builds Machines.
- Your Staff Writes Control Software.
- Who Does The Tests?
  - Your Developers?
    - They know the code, but not always the machines.
  - Your Test People?
    - They know the machines, but not always the code.
    - Machine time is expensive.
    - So are supplies.
  - Your Assemblers? Service Techs? Operators?
  - **Your Customers?**

# Machine Simulation for Software Development

How often do software bugs resurface,  
months after the initial fix?

How much does that cost?

# Machine Simulation for Software Development

What if every developer had:

- A machine in the cube
- With unlimited supplies
- And an operator to run constant tests?

# Machine Simulation for Software Development

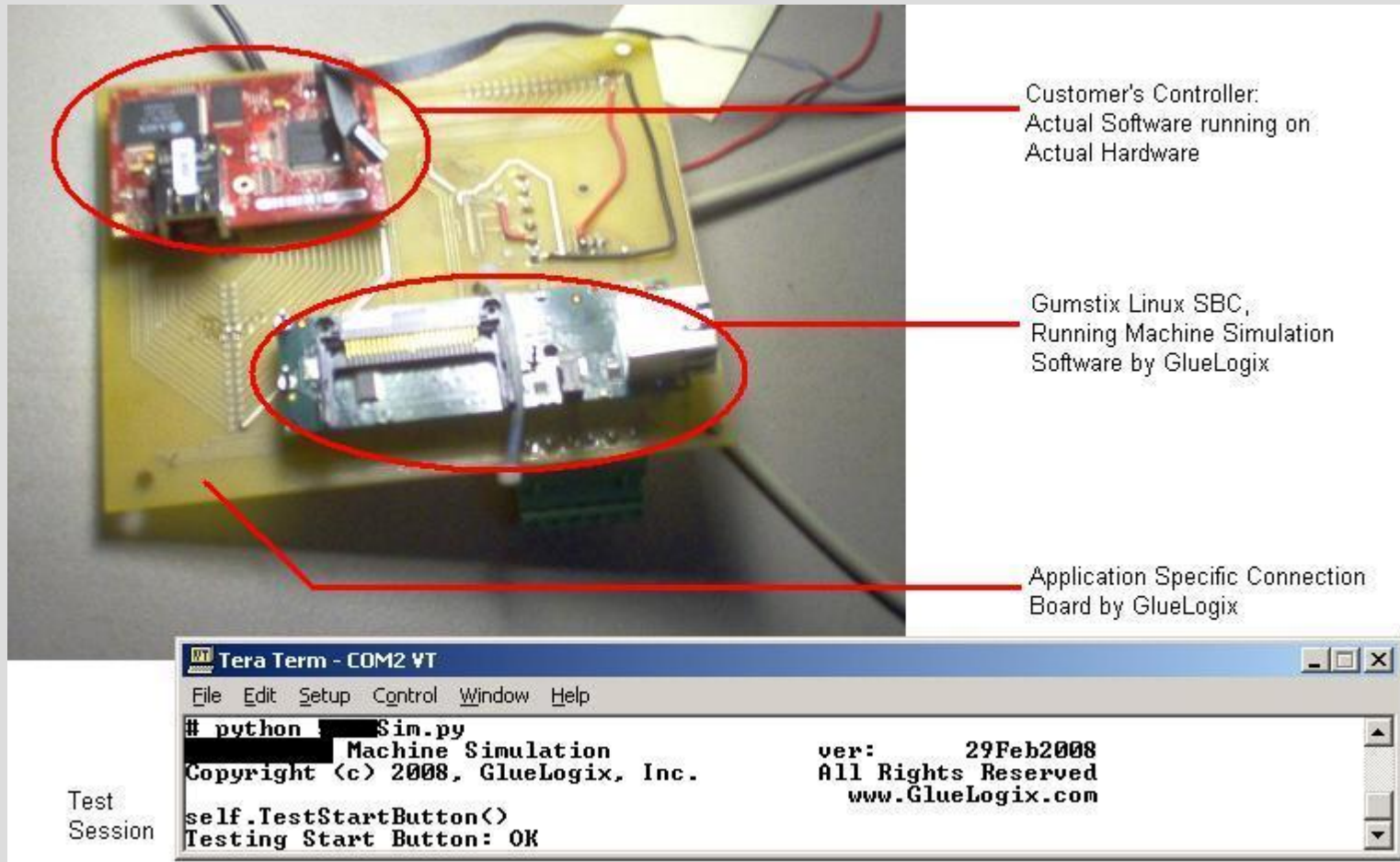
- GlueLogix can design hardware that:
  - Intercepts your controller's outputs
  - Simulates machine actions
  - Provides inputs to your controller
  - Simulates timing variations
  - Simulates faults
- GlueLogix can design software that:
  - Animates the simulation on PC display
  - Evaluates your controller's performance
  - Logs the tests
  - Alerts on bad results

# Machine Simulation for Software Development

- Start Small
  - Start with a basic simulation
  - Command Line Interface
  - Developers use it for debugging
  - Enough to cut lab time in half
- Build Up
  - PC based GUI with Animation
  - Automated Regression Tests
    - Tests can be written by your Test Staff
    - Or by GlueLogix

# Machine Simulation for Software Development

## Typical Application



Customer's Controller:  
Actual Software running on  
Actual Hardware

Gumstix Linux SBC,  
Running Machine Simulation  
Software by GlueLogix

Application Specific Connection  
Board by GlueLogix

```
Tera Term - COM2 VT
File Edit Setup Control Window Help
# python Sim.py
Machine Simulation
Copyright (c) 2008, GlueLogix, Inc.
ver: 29Feb2008
All Rights Reserved
www.GlueLogix.com
self.TestStartButton()
Testing Start Button: OK
```

Test Session

# Machine Simulation for Software Development

[www.GlueLogix.com](http://www.GlueLogix.com)