

EUROMNIS 2024

SHIP IT

WELCOME

- ▶ Alex Clay
- ▶ CEO at Suran Systems, Inc.
- ▶ Software for faith-based and nonprofit organizations, and more...
- ▶ Started in 1985 with Omnis 3
- ▶ 2600+ clients
- ▶ Today we use Studio Now (11.2) and variety of other technologies
- ▶ PostgreSQL backend since 2010
- ▶ 7 full-time developers + manager (say hi to Sirena), QA, support, sales, etc.

ABOUT YOU

WE DELIVER VALUE

- ▶ Consider a service or product
- ▶ It provides a benefit and comes at a cost
- ▶ When the benefit outweighs the cost, it is value

VALUE TO YOUR CUSTOMERS

- ▶ Perceived benefits

- ▶ Time

- ▶ Accuracy

- ▶ Technical capabilities

- ▶ Perceived costs

- ▶ Monetary cost

- ▶ Time

- ▶ Bugs

- ▶ Learning curve

VALUE TO YOU

▶ Perceived Benefits

- ▶ 💰 Income
- ▶ Joy of problem-solving
- ▶ Personal mission/
connection
- ▶ Social aspects
(EurOmnis! Even Users!)

▶ Perceived Costs

- ▶ Time
- ▶ Tools (Omnis, hardware,
servers, etc.)
- ▶ Opportunity costs
- ▶ Other overhead

**HOW TO INCREASE
VALUE?**

INCREASING VALUE

- ▶ Increase benefits
- ▶ Reduce costs
- ▶ Many ways to do this, but we'll focus on one today



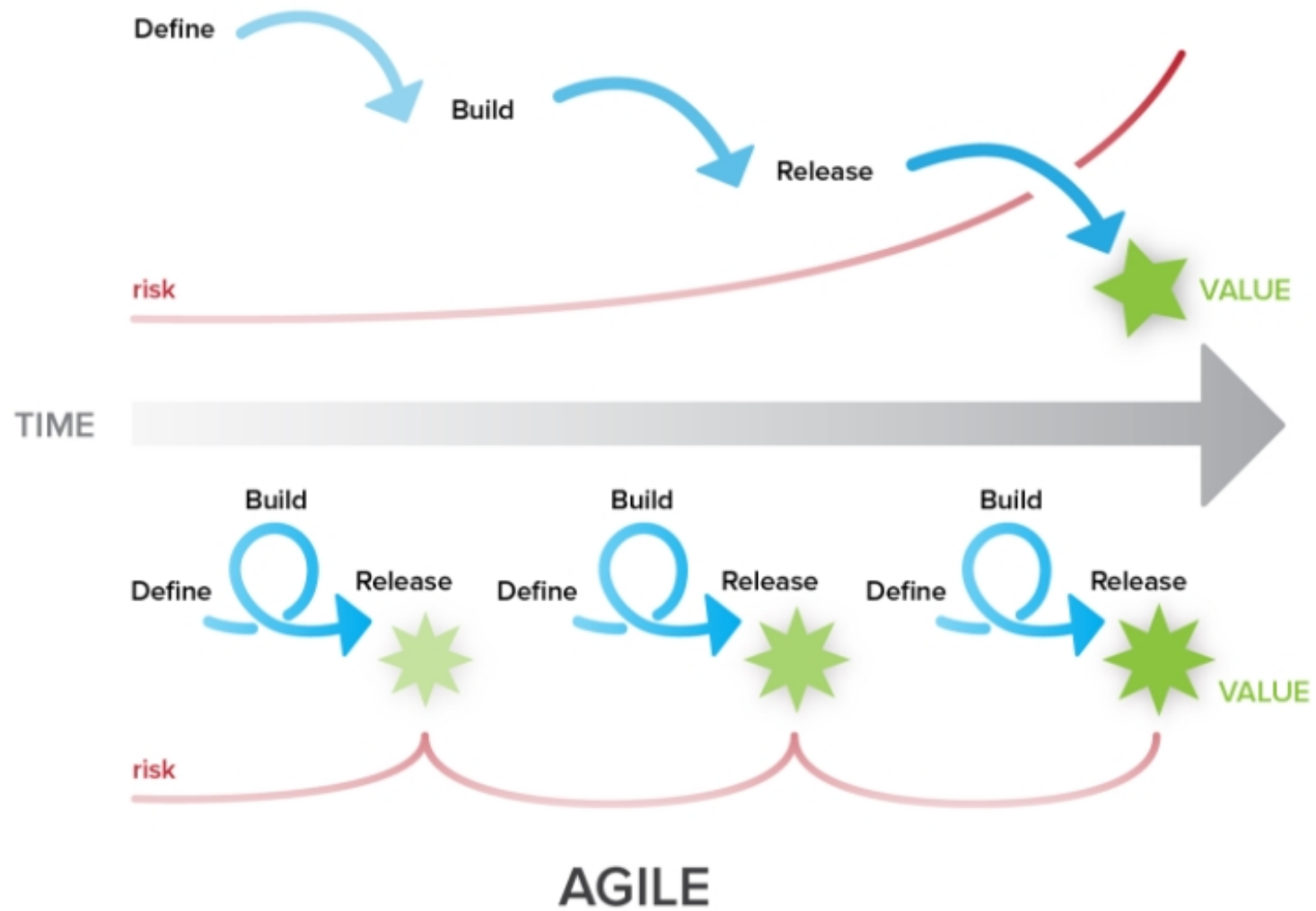
REAL ARTISTS SHIP.

Steve Jobs

UNTIL YOU DELIVER

- ▶ You are 100% cost with little-to-no benefit to your users
- ▶ Your benefits are small
- ▶ Your costs are high
- ▶ So we deliver as quickly as possible...
- ▶ ...and we deliver frequently

WATERFALL



CONTINUOUS INTEGRATION/DELIVERY

- ▶ Build a pipeline to deliver your software
- ▶ **Automate as much as possible**
- ▶ This lets you focus on solving interesting problems
- ▶ Allows faster, more frequent delivery
- ▶ Increases benefits while lowering costs
- ▶ Deliver more value to both you and your customers

POTENTIAL STEPS

- ▶ Build out from the VCS/other repositories
- ▶ Test your code (automated and manual)
- ▶ Installers/deploy to servers
- ▶ Build release notes
- ▶ Notify co-workers/testers/users/etc.
- ▶ **What else?**
- ▶ **How do you do this today?**

AUTOMATING

BEST PRACTICES

- ▶ Use the right tools – there should be multiple
- ▶ Automate configuration/setup/deployment
- ▶ Version-control your configuration
- ▶ Fail fast; fail loud
- ▶ Verbose output for debugging
- ▶ Automate early; automate often
- ▶ Exercise your systems regularly

SOME OF SURAN'S TOOLS

- ▶ Jenkins
- ▶ Suran VCS
- ▶ Bitbucket (git)
- ▶ Jira
- ▶ OmnisCLI
- ▶ Rerun
- ▶ Rundeck
- ▶ SaltStack

SOME OF SURAN'S TOOLS

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- ▶ OmnisTAP
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- ▶ Rundeck
- ▶ Salt
- ▶ Slack

TOUR OF A CDM+ BUILD

JIRA

- ▶ <https://www.atlassian.com/software/jira>
- ▶ Run the majority of Suran on Jira
- ▶ Software development
- ▶ Bug tracking
- ▶ Support tickets
- ▶ Marketing projects
- ▶ Billing and customer service
- ▶ Documentation
- ▶ Costly, but worth it. Consider an alternative if you don't need all the above :)

JENKINS

- ▶ <https://www.jenkins.io/>
- ▶ At the heart of software builds
- ▶ Control numerous servers
- ▶ Manual and scheduled jobs
- ▶ Managed with Job DSL

OMNISTAP AND PGTAP

- ▶ <https://github.com/suransys/omnistap>
- ▶ <https://pgtap.org/>
- ▶ Let's chat in the bar if you missed yesterday's session :)
- ▶ Unit and integration testing
- ▶ Improve quality
- ▶ Provide freedom and confidence to refactor and improve code

OMNISCLI

- ▶ <https://github.com/suransys/omniscli>
- ▶ Command line integration for Omnis
- ▶ Create a .lbs from JSON export
- ▶ Run tests
- ▶ Run database updates
- ▶ etc.
- ▶ Could also use ultra-thin or API access into Omnis

RERUN

- ▶ <https://github.com/rerun/rerun>
- ▶ Control and organize shell scripts
- ▶ Handles arguments, reusability, version control, deployment
- ▶ Best practices to fail fast
- ▶ Add documentation to modules, jobs, arguments

SALT PROJECT

- ▶ <https://saltproject.io/>
- ▶ Alternatives are Ansible, Chef, Puppet
- ▶ Stateful convergence
- ▶ Manage servers
- ▶ Build Omnis runtimes
- ▶ Cross-platform
- ▶ Automate testing with VMs; cloud nodes
- ▶ Pair with spec tools like pgTAP, Inspec

RUNDECK

- ▶ <https://www.rundeck.com/>
- ▶ (Use the community version)
- ▶ Overlap with Jenkins, but different focus
- ▶ Running ops jobs across servers/nodes
- ▶ Can set up self-service access for non-technical colleagues
- ▶ Run commands and jobs on specific or all hosts