

The Agile Heartbeat

UNLOCK AGILITY WITH A FAST, AUTOMATED BUILD-TEST-DEPLOY PROCESS

- Flexible, extensible build-test-deploy automation
- Up to 20x faster builds
- Visualization and reporting

"Since using Electric Cloud's solution, every month has yielded a record low number of breaks. Because there are so few broken builds, the developers are able to really focus on what happened in a particular instance and fix it so that the next time the build goes even more smoothly."

— **BioWare Corp.**

"Before ElectricCommander, our manual workflow process was email driven and depended on a release engineer. [...] Today, everything is pretty much instant turnaround; what used to take hours now is completed in 4-5 minutes."

— **TIBCO**

Two of the core principles of Agile development are: "deliver working code frequently" and "working software is the primary measure of progress." More and more teams, from ISVs to enterprise IT groups, are recognizing the quality and productivity benefits of integrating early and often. To implement a standard Continuous Integration process across the organization, you'll need to ensure that your build and test process is:

- fast (preferably under 30 minutes total)
- automated (not requiring manual intervention)
- reliable (constantly debugging broken builds wastes valuable time)

By addressing these issues you can transform your build-test-deploy process into the heartbeat of an Agile development process.

ENTERPRISE-CLASS CONTINUOUS INTEGRATION

Continuous Integration (CI) is fast becoming standard practice in software development organizations. But when you're talking about complex enterprise development environments — many developers, multiple projects, multiple platforms, etc. — CI becomes difficult and resource-intensive to support.

Electric Cloud provides the automation and acceleration required for effective CI in any environment. ElectricCommander® accelerates and automates the typically manual tasks involved in CI. ElectricCommander supports CI for multiple teams, working in multiple locations, programming in multiple languages with an environment that can be centrally controlled and managed.

But Continuous Integration is virtually impossible with very long builds. ElectricAccelerator® accurately executes parallel builds across a cluster of inexpensive servers, delivering dramatic reduction in build times over sequential builds. It features patented dependency management technology that delivers accurate parallel builds. When combined with ElectricCommander it enables effective, reliable CI even with the most complex code bases.

PREFLIGHT BUILDS AND TESTS

In some environments, Continuous Integration can turn into Continuously Broken Builds. The way to get around that: preflight builds and tests. Unlike local builds on a developer's desktop, preflight builds mean that a developer can do a full build on *all* platforms/targets, preferably with unit tests. That way, they can identify problems before they check in code and impact the rest of the team.

ElectricCommander provides native preflight build and test procedures, including integrations with the leading SCM systems.

WHEN IS OPEN SOURCE NOT ENOUGH?

Open source CI tools became widely used due to the ease with which an individual engineer could install and start using them. Once proven effective, these tools often spread like wildfire among other build engineers, and development organizations must maintain several disconnected instances.

While this works for a certain amount of time, eventually the law of diminishing returns sets in - especially in cases where organizations grow along one or many dimensions (code base, target platforms, size of teams or locations). Many teams find that the complexity of their projects eventually overwhelms the infrastructure in place, and they're spending time and money on scripting or simply applying fixes to the open source-based CI system just to keep it running.

If you are creating builds more than once a day, have multiple end products (targets, platforms), have multiple, standalone CI systems, or find it challenging to track builds

over time and conduct cross-project reporting, your CI environment has become too complex for open source to scale effectively. ElectricCommander was designed to automate and manage multi-language, multi-platform CI processes, and can tie builds, tests, deployment scripts and more together into a seamless release process.

ABOUT ELECTRICCOMMANDER

ElectricCommander automates and accelerates the software build-test-deploy process that follows creation of new code. Everything from the architecture to the data model and user interface are completely extensible and customizable; ElectricCommander plugs seamlessly into your existing workflow and environment. It transforms an error-prone, manual process into an agile, centrally-managed system for software production.

ABOUT ELECTRICACCELERATOR

ElectricAccelerator is a software build tool that breaks the "build bottleneck" by accurately executing parallel builds across scalable clusters of standard hardware to reduce build times by as much as 20x. To do this, ElectricAccelerator leverages patented technology that identifies and monitors job dependencies so you get fast and accurate builds. It supports Make, Visual Studio and Ant build environments.

ABOUT ELECTRIC CLOUD

Electric Cloud® is the leading provider of Software Production Management (SPM) solutions. Electric Cloud solutions automate, accelerate, and analyze software build-test-deploy processes to optimize both physical and virtual IT environments. The company's patented and award-winning products help development organizations to speed time to market, boost developer productivity, and improve software quality. Leading companies across a variety of industries, including semiconductors, enterprise IT, ISVs, mobile devices, and transactional web sites rely on Electric Cloud's Software Production Management solutions to transform software production from liability to competitive advantage.

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