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# Automated Test Suites for Hot Swap and High Availability Package

## Client

Pigeon Point Systems (“PPS”) is a privately held software and hardware development company founded in 1997. It focuses on products and services supporting the adoption of open modular platforms to replace proprietary architectures, with a primary focus on the telecommunications market and PICMG standards. Pigeon Point’s product portfolio includes world-class management components for modular platforms based on the AdvancedTCA® (ATCA), AdvancedMC™, and MicroTCA™ architectures, plus consulting and design services. Pigeon Point participates actively in defining the open modular architectures. An executive member of PICMG, Pigeon Point is a leader in the ATCA, AdvancedMC and MicroTCA subcommittees and is active in many other technical subcommittees. Pigeon Point is also a contributing member of the Service Availability™ Forum and active in its HPI Working Group. The company serves more than 140 customers, including 6 of the top 10 global communications OEMs. The list of its customers is headed by such industry authorities as Motorola Computer Group, Intel Corporation, Force Computers, Microsoft Corporation, Siemens Mobile, Texas Instruments, along with many others. PPS is headquartered among the redwoods in Scotts Valley, California.

In 2008 Pigeon point Systems was acquired by Actel Corporation and became a wholly owned subsidiary of Actel. Earlier this year, Actel and Pigeon Point announced a partnership to develop and market solutions based on the Actel Fusion® mixed-signal FPGAs to speed the design of AdvancedTCA blade and AdvancedMC carrier blade management controllers. By acquiring the leading provider of TCA management components, Actel now offers a comprehensive solution for proprietary and standards-based system management implementations in the industrial, military, telecommunications, and medical markets.

## Solution

A comprehensive set of automated test suites for industry’s first Hot Swap and High Availability package—the test suites exercised operation of various hardware and software components of Motorola’s CPX8216 high availability chassis, which operated under control of the Hot Swap and High Availability LynxOS package.

The testing framework allows the automation of activities that are carried on during regression testing and system testing and includes the following components:

- Installation Manager allows to automatically boot, install, and control systems included into the Automated Testing Framework. The operations originally performed by an operator are now fully controlled and carried on by software.
- Archive Manager provides an object store for all types of software objects/archive that are used during test suites installation, software integration, regression and system test phases.
- Build Manager allows to build releases of software that need to be tested automatically. The Build Manager controls the build process carried on in several Cross Development Kits, including the LynxOS CDK and Wind River’s Tornado for VxWorks.
- System Test Manager controls test suites installation, test suites execution, test reports processing. Provides an interface to the test operator. The System Test Manager is the center of the Automated Testing Framework that ties all components together and provides powerful support for various test related activities.

## Implementation

OS’s: Sun, HP, RS, DEC Alpha, PC, Sun OS 4, Solaris 2, HP/UX, AIX, DEC UNIX, MS Windows 95/98/NT

Languages: C, Lisp