[**Andrew DeFaria**](https://defaria.com/)

2010 West San Marcos Blvd Unit 33

San Marcos, California 92078

Phone: 408-596-4937

Email: [Andrew@DeFaria.com](mailto:Andrew@DeFaria.com)

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## Certifications and Class Work

| [AWS Solutions Architect](https://earth.defariahome.com/resume/AWS%20Certified%20Solutions%20Architect%20-%20Associate%20certificate.pdf) | **Validation Number:** 4Q2XDJDCK1EE1HC5 |
| --- | --- |
| [Docker Certified Associate (DCA)](https://earth.defariahome.com/resume/Docker%20Certified%20Associate%20(DCA).pdf) | Course Completed @ A Cloud Guru |
| [Jenkin Quick Start](https://earth.defariahome.com/resume/Jenkins%20Quick%20Start.pdf) | Course Completed @ A Cloud Guru |
| [Jenkin Fundamentals](https://earth.defariahome.com/resume/Jenkins%20Fundamentals.pdf) | Course Completed @ A Cloud Guru |

### Objective

To work with state-of-the-art operating systems and networks to ensure the smooth running of an organization's information flow.

### Hardware

Workstations and servers from Sun, HP, Microsoft Windows as well as various other manufacturers of Linux systems.

### Operating Systems

Linux (Redhat, Centos, Ubuntu), Windows, Unix (Solaris, HP-UX), [Cygwin](http://cygwin.com/)

### Networking

TCP/IP, Windows and Unix Networking, Active Directory/LDAP, Samba

### Software

| Version Control Systems | Git, Perforce, Clearcase |
| --- | --- |
| Issue Tracking | JIRA, Clearquest, Bugzilla |
| Languages | Perl, Bash, PHP, C++, C, Ada, TCL |
| Configuration Management | Puppet, Ansible |
| Middleware | Apache, Tomcat, Samba, Winbind, LDAP, REST |
| Web Apps | JIRA, Confluence, Swarm |
| Databases | MySQL, Oracle |
| CI/CD | Jenkins, Electric Commander |
| Virtualization | VMWare, VirtualBox, vSphere, vCenter |
| Cloud Computing (Classroom Only) | EC2, IAM, S3, CloudFront, Route53, VPC, Docker |

### Education

A.A.S. in Computer Science from Union County College in Scotch Plains, New Jersey. I continued my studies at Fairleigh Dickenson University, San Jose State University, Mission College, and Chico State in pursuit of my degree.

### References

| [Charles Clarke](https://www.linkedin.com/in/charles-clarke-30853132/) | (770) 252-1500 | [charles@abs-consulting.com](mailto:charles@abs-consulting.com) | Owner ABS Consulting |
| --- | --- | --- | --- |
| [Tom Connor](https://www.linkedin.com/in/tom-connor-285114/) | (512)-422-1172 | [tomhillconnor@yahoo.com](mailto:tomhillconnor@yahoo.com) | Coworker, Consultant |
| [James Chen](https://www.linkedin.com/in/specware/) | (408)-845-5360 | [jchen@salira.com](mailto:jchen@salira.com) | Consultant at Specware & 2Opp, LLC |
| [Shivdutt Jha](https://www.linkedin.com/in/shivdutt-jha-032414/) | (408)-806-3476 | [shivdutt\_jha@hotmail.com](mailto:shivdutt_jha@hotmail.com) | Coworker, Consultant |

## ClearSCM, Inc

*July 2007 - Present*

### Perl Developer - Cpanel/WebPros ***(October 2021 - Present)***

Working on the Artemis Team implementing bug fixes and improvements to WHM as well as becoming accustomed to Cpanel's large code base and systems. Moved to the Release Team performing bug fixes and release activities. Worked on the WordPress Squared team implementing improvements and bug fixes on the backend

### Perl Developer - Wells Fargo ***(July 2019 - February 2021)***

Responsible for maintaining a Perl application written using the Dancer framework called UserPro. Tightened security by standardizing access to the database as well as implemented an auditing facility for changes made to database records.

### Solaris Administrator, PuppetMaster - General Dynamics ***(March 2018 - April 2019)***

For this technology refresh over a decade ago, I was instrumental in setting up and maintaining dozens of Solaris 5.11 zone systems and served as the primary Solaris System Administrator. This includes the setup of many services like NIS, DNS, NTP, SMTP, and AutoFS as well as a standard set of tools.

Introduced Puppet to the group and served as the Puppet Master.

Created Windows-based VMs for specific roles such as Build Forge, Application server, Domain Controllers, etc. These were managed under vCenter.

Developed Perl scripts for validation testing of Clearcase and Clearquest. Developed a Clearcase enhanced monitoring tool to monitor servers, loadavg, and filesystems as well as Clearcase objects like VOBs and views.

### Devops Engineer - Broadcom ***(August 2016 - January 2018)***

Converted an internal project from a Jenkins/ Perforce build system to the Broadcom/Avago standard of Electric Commander/ Git. Developed Perl scripts to sign executables and remotely execute commands on Windows systems using Cygwin/ssh thus streamlining and standardizing remote building and signing of executables.

### Python Developer - ICANN ***(May 2016 - July 2016)***

Developed [RDAP](https://en.wikipedia.org/wiki/Registration_Data_Access_Protocol) server for testing SLA compliance of various TLD registrars around the world.

### JIRA/Perforce/Linux Administrator - Knowles ***(****March* ***2014 - April 2016)***

Initially wrote scripts to import data from Bugzilla and other sources to JIRA thus automating the migration of several projects. Also administered Linux servers (Centos/Ubuntu/Redhat Enterprise) managing VM images in vSphere, Perforce, Swarm, and Git Fusion.

Added functionality to custom build system that utilized Perl/PHP/Apache/Linux/Windows servers to allow engineers in the field to perform customized builds remotely. Integrated Bugzilla and Perforce (P4DTG). Assisted with JIRA setup and integration of Salesforce with JIRA and assisted in the migration of users to the new Knowles domain.

### Build Release Engineer - Axcient ***(July 2013 - December 2013)***

Worked as a Build and Release Engineer for AxOS. The Axcient product is a customized derivative of Ubuntu. The SCM system being used is git. Developed and standardized procedures for performing builds.

### Clearquest Administrator - Broadcom ***(December 2011 - December 2013)***

Clearquest Designer: Maintained Clearquest instances implementing functionality with Visual Basic. Using ClearSCM's [Clearquest](http://clearscm.com/php/scm_man.php?file=lib/Clearcase.pm), [Clearquest::Server](http://clearscm.com/php/scm_man.php?file=lib/Clearquest/Server.pm), [Clearquest::Client](http://clearscm.com/php/scm_man.php?file=lib/Clearquest/Client.pm), and [Clearquest::REST](http://clearscm.com/php/scm_man.php?file=lib/Clearquest/REST.pm) modules created Perforce and Git triggers to automate builds updating Clearquest.

Migrated a project from their unsupported build environment into the standard [Electric Commander](http://www.electric-cloud.com/products/electriccommander.php)/Perforce-based solution using Cygwin, bash, and LSF to farm builds out to a pool of Windows servers to perform builds. Builds were done using Visual Studio 8.0, 9.0, and 10.0 on Windows Servers triggered by Perforce triggers at code checkin.

### Perl Developer - Tellabs ***(March 2011 - December 2011)***

Automated various informational systems using Perl/MySQL/Oracle, and the web.

Developed a command line debugger called [RAID](http://clearscm.com/php/scm_man.php?file=bin/raid) (a Real Aid In Debugging) which provided a consistent interface with complete command history and variable substitution courtesy of a Perl module that I wrote called [Cmdline.pm](http://clearscm.com/php/scm_man.php?file=lib/CmdLine.pm). This Perl process utilized Inline::C to interface to the developer libraries and provide a consistent interface for the various command line debuggers developed by various groups.

### Clearcase/Clearquest Administrator - General Electric Healthcare ***(January 2010 - October 2010)***

Performed Clearcase/Clearquest UCM administration. Developed an [Evil Twin Finder](http://clearscm.com/php/scm_man.php?file=cc/etf.pl) in Perl. Worked with Build Forge (IBM's CI tool similar to Jenkins) jobs to automate workflow. Assisted in consultations with UCM concepts such as component/composite baselines and projects. Wrote Perl scripts for conversions of Clearquest data with other systems (Siebel).

### Clearcase/Clearquest/Release Engineer - General Dynamics ***(June 2007 - October 2009)***

Clearcase/Clearquest Administrator, Build Release and Automation using Perl scripts. Updated C++/Qt application that integrates UCM/Clearquest integrated environment into one tool and ported it to Linux.

Instrumental in the establishment of Perl standards and introduction of Perl tools such as [Perl::Critic](http://perlcritic.com/) and [Perl::Tidy](http://perltidy.sourceforge.net/). Worked at promoting the usage of CPAN modules.

Developed an extensive test driver application in Perl to interface and drive tests using [NetHawk EAST Simulators](https://www.nethawk.fi/products/nethawk_simulators/) as well as interfacing to other simulators and external hardware. The system automates the running of regression tests, and official testing before the customer, assists with validation of test results, collecting of log files, checking log files into Clearcase, and records status into a MySQL database. Developed a PHP web page to present the data in various forms including graphs, reports, exporting to CSV files, and emailing of reports. Implemented maintenance programs to scrub and keep the data clean. This system was instrumental in Functional Quality Testing for the [MUOS](http://en.wikipedia.org/wiki/Mobile_User_Objective_System) program. This reduced the time it took to certify testing with the military severalfold.

Worked on many enhancements to the extensive Clearquest system in use at GD. Designed and developed the record set implementing node configurations. Implemented required forms and action hook code. Designed and developed Perl scripts to initially load data into the new records.

Developed a server process (daemon) to process baseline records that were then tracked by Clearquest. Implemented scripts to create baseline records from other automated processes such as Build Forge. Tied together baseline records with node configurations through action hook code.

## DeFaria.com

*February 2004 - June 2007*

### Clearcase/Clearquest Administrator - Texas Instruments ***(October 2006 - June 2007)***

Clearcase/Clearquest Administrator. Wrote a Perl/Oracle application to track information about projects worldwide. Automated Clearcase license usage reporting and load balancing of Clearquest web servers.

### Build Release Engineer - Hewlett Packard ***(February 2006 - October 2006)***

Managed and executed day-to-day build and release duties. Served as Clearcase/Clearquest Administrator as well as overall support of systems. Assisted with creating UCM streams and handling of rebase and delivery issues for engineers and the build/release process. Wrote UCM triggers to notify users of deliveries from UCM development streams. Created baselines for official builds. Took over day-to-day build and release duties. Created a build script that united the various quick and dirty build scripts that were oriented per stream and build option. This standardized the build process. Augmented this build script to be a daemon that continually builds software when deliveries are detected. Wrote a build status web page that tracks and monitors the continuous building. Created a dynamic web page to show Junit test history. Converted Windows build from bat files and scheduled tasks -> Cygwin and cron thus making the build script identical on both Linux and Windows. Wrote triggers to notify users of deliveries. Baselined official builds. Automated the build process to perform simple continuous integration. Created a dynamic web page to show Junit test history.

### Clearcase/Clearquest Administrator - Broadcom ***(September 2005 - January 2006)***

Served as Clearcase/Clearquest Administrator as well as overall support of systems. Developed several [triggers](http://clearscm.com/clearcase/triggers.php) as well as ported my [mktriggers](http://clearscm.com/clearcase/triggers.php) script which automates the maintenance of triggers.

Developed a complex Perl script to merge two Clearquest databases into a new database with many schema changes. This script handled all aspects of the conversion including changing non-US ASCII characters found in the data to their HTML equivalents, dynamic creation of dynamic lists, field renaming and dynamically creating new stateless records as needed.

Developed a script to better handle merging from UCM deliveries and rebases by delaying any non-automatic merges to the end of the process as well as handle binary element merge. This process, written in Perl, utilized PerlTk to present the user with a GUI dialog box to choose which version of the binary file to merge.

Designed and developed another Clearquest database for the Mobile Multimedia group.

Wrote several other scripts including one to interface CVS to IMS (a defect tracking system) recording the change set at commit time, and a script to strip out MIME/HTML and attachments for defects submitted to GNATS (another defect tracking system). Also implemented several scripts to log Clearcase activity, check Clearcase's pulse, and gather site and vob statistics. These scripts were the start of the creation of a set Object Oriented Perl modules to encapsulate Clearcase in a Perl-like manner (still in development).

### Build Engineer - Lynuxworks ***(December 2004 - September 2005)***

Served as a build engineer in the Integration Group responsible for building LynxOS (Linux RTOS) as well as toolchains, testing, releasing, and process improvement. LynuxWorks uses CVS for version control.

Developed a process of providing a full-text search of the company's defect database using Perl and Htdig (See [ECRDig](http://clearscm.com/scripts/ecrd)). Developed a web-based report to show CVS activity as well as several other CVS-related utilities(See [CVS Utilities](https://defaria.com/Resume/cvs_utilities)) as well as report on the differences between two CVS tags.

Automated the build process so that nightly builds could be performed. Developed a web application that allows one to maintain CVS account information including account creation, setting/resetting of password, etc.

### Clearcase Administrator - Ameriquest ***(March 2004 - December 2005)***

Served as Clearcase/Clearquest administrator to this major mortgage company. As Ameriquest is just starting I have been busy with importing source code from flat file systems as well as PVCS and Visual Source Safe. Also setting up vobs and regions taking into account security restrictions and concerns. Assisted with designing of the Multisite scheme to India. Participated in the design of the UCM model to be used for Ameriquest.

## Salira

*August 2001 - February 2004*

### Clearcase/Clearquest Administrator/Build Engineer

After consulting briefly with Salira Optical Network Systems I joined this startup company serving in the role of Clearcase/Clearquest Administrator for this mostly Windows shop. I helped others in setting up the Clearcase/Clearquest environment as well as provided Training.

I also served in the role of Release Engineer managing the build process. I employed wide usage of [Cygwin](http://cygwin.com/), which is a product that provides an extremely workable Unix-like environment, and engineered a build environment around that using GNU make and other standard Unix and GNU utilities. When users complained that building remotely was slow I performed an analysis of build performance. I also performed Build Stress Testing where I characterized the effect of multiple simultaneous builds performed on the server.

I also set up and developed their Clearquest bug tracking system as well as served as an advisor/expert on Clearcase issues, branching strategies, labeling and release management.

While working at Salira I designed and developed a tool in C that packaged the product into a more compact form.

I designed and implemented a [Clearquest Daemon](http://clearscm.com/clearquest/cqd) which served as an interface between processes and Clearquest data. This daemon serviced requests from web pages and triggers in order to get and validate data from Clearquest.

Developed release web pages that managed releases and produced release notes for every release.

Developed process automation scripts to perform automatic branch merging and syncing.

Performed product installation testing for the web component on Linux (SuSE) and Solaris as well as browser testing (Netscape).

Implemented test scaffolding in TCL/TK for test automation.

## DeFaria.com

*December 1998 - February 2001*

### Unix Systems Administrator - Hewlett Packard ***(August 1999 - February 2001)***

Set up a security system automating the running of Medusa (an internal security audit tool) on approximately 100 machines. Reports are generated automatically and are viewable on the web. Set up and maintained security-related patch depots.

Implemented nightly automation for the lab's machines including security checks, automatic installation of line printer models, etc. This automation was bundled into an SD-UX bundle.

Migrated user data to HP NetStorage 6000. Worked extensively with HP NetStorage 6000 Support on problems with this machine's OS and interfacing with Windows 2000.

Migrated HP-UX applications from one application server to another.

Participated in several critical planned networked downtimes where the team was able to implement changes to the infrastructure, including migration to Clearcase 4.0, migration of project and user data to HP NetStorage 6000s, and other such changes.

Set up Netscape Enterprise Web Server and iPlanet 4.1 Web Server.

### Clearcase Administrator - Cisco ***(March 1999 August 1999)***

Served as Clearcase/Unix Systems Administrator. Responsible for all Clearcase operations in CNS/AD on Sun Solaris, HP-UX, Windows NT 4.0, and Windows 2000. Assisted in creating additional View and Vob servers and balancing the Clearcase load amongst them. Participated in Rational's Beta program for Windows 2000. Installed, tested, and documented Clearcase on Windows 2000 as well as Windows NT 4.0.

Assisted in the recovery of a catastrophic disk failure in a critical vob. Assisted with implementing a backup strategy with Arcserve Open. Helped evaluate system monitoring packages.

As CNS/AD was in a secured and isolated network, learned and assisted users with ssh/scp.

### Build Engineer - Sun Microsystems ***(December 1998 - March 1999)***

Worked on the Sunpeak Configuration Management team performing promotions of code updates in test and production environments. Also worked on improving the process flow of promotions utilizing make and rdist.

## Hewlett Packard Company

*February 1988 - November 1998*

### Clearcase/Unix Systems Administrator

Primary Clearcase and Multisite Administrator for a large Clearcase environment with approximately 1400 views and 180 vobs. Most vobs are multisited between several other labs and I am responsible for resolving Multisite problems. I also serve as general System Administrator, overseeing approximately 400 machines in the lab. I help institute policies and procedures to keep the network running smoothly. Also participated in the design and restructuring of the network topology and Clearcase topology by bringing in many Kittyhawks, Mohawks, and Bravehawks (about 40 of them) for use as Clearcase Vob, View and Build, Mail, Application, X Terminal, and Web servers. Assist in documenting setup and configuration as well as troubleshooting and handling of patches for all lab-wide shared resources.

Responsible for the setup and running of Windows NT domain, account setup, and print serving. Setup and evaluated Clearcase 3.2 on NT. Developed backup strategy for NT systems. Maintain a repository of software tools as well as evaluated and recommended several PC packages for lab usage. Main point of contact for Windows 95/NT problem-solving in the lab. Also sought after by many people in Hewlett Packard relating to both PC and Unix configurations and problem solving.

Also served as webmaster for the lab as well as consulted on HTML questions and design issues. Installed, configured, and maintained the [Netscape](http://home.netscape.com/) Suitespot Servers including the Enterprise and Directory servers. Developed several web pages and forms for the lab as well as run [The Unofficial Quicken® Web Page.](https://web.archive.org/web/20001109171100/https://defaria.com/Quicken)

I developed an Application Server providing many machines with many software packages without the need for individual system administration utilizing scripting and NFS heavily.

Before the Productivity Project, I worked on the COBOL/SoftBench product which consists of encapsulating some core HP Micro Focus COBOL tools using C++ 3.0 and the SoftBench Encapsulator libraries. Also, working on porting an X/Motif application to MS Windows 3.1. The code is written using C++ 3.0 on both the HP workstation and the PC (Borland C++ 3.1).

Worked in the Ada project on Ada/SoftBench. This project was similar to COBOL/SoftBench in that it involved some SoftBench encapsulations using a language called edl.

Worked producing Ada Bindings to Xlib, Xt, and Motif. This involved using a modified C compiler to translate the C header and source files to Ada declarations and function prototypes. Using this methodology we were able to migrate our product from X11 R3 and Motif 1.0 to X11 R4 and Motif 1.1 in one week!

Worked on a project that produced Ada Bindings to HP-UX, which enabled me to get good breath knowledge into all system calls, and another binding to Starbase graphical subsystem.

Performed destructive testing on MPE/XL 1.0-1.3. Wrote several programs to stress the OS. Submitted 300+ Service Requests many of which appeared on Must Fix lists.

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