

Personal details

Name Alexis Huxley
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Key skills

- sysadmin, scripting, C
- tool development, build management, software packaging
- Subversion, Jira, make
- quality documentation
- deep and broad Unix knowledge

Professional experience

Employer Max Planck Computing and Data Facility, Munich
Role Compute (*not Computer*) System administrator
Dates Jun 15 - present
Responsibilities

- installation, development, maintenance and support of Slurm- and SGE-based compute clusters
- further development of the opensource Grid Engine Software SGE (e.g. adding support for formula-based "load_formula" using lex and yacc)
- scripting (mostly Python)

Employer Terma GmbH, on site at ESO, Munich
Role System administrator
Dates Sep 09 - May 15
Responsibilities Maintaining ESO's data archive systems and operational systems, supporting its users, developing its operational infrastructure. Tasks include:

- monitoring (writing check and event handler scripts for Nagios and ad-hoc cron-based monitoring)
- development of automated operating system (OS) installation tools (mkkickstart)
- provision of next-generation QC processing computer and storage systems
- support to junior staff members (with emphasis on documentation, standardisation, version control, scripting)
- all the usual system administration tasks (installations, change requests, problem solving, liaising with users/managers/vendors/consultants, DNS/NFS/NIS management, etc.)

Employer DCS GmbH, on site at ESO, Munich
Role System administrator
Dates Feb 07 - Sep 09
Responsibilities Maintaining ESO's general IT systems, supporting its users, developing its infrastructure. Tasks included:

- analysis/design/implementation of site-wide IT infrastructure projects (Linux desktop and server roll-out, virtualisation, replicated Subversion services)
- Unix support for scientific projects (advice to developers using Unix environments regarding C programming, Unix tools, scripting)
- storage management (NetApp administration, data migrations, storage forecasting)
- release management and testing (SciSoft VI [1], MkKickStart)
- all the usual sysadmin tasks (installations, change requests, problem solving, liaising with users/managers/consultants, DNS/NFS/NIS management, etc)
- programming ("Manhattan2" real-time control system for VLTI project)

Employer Terma GmbH, on site at ESO, Munich
Role Unix projects engineer
Dates Oct 06 - Feb 07
Responsibilities Recruited to assist ESO with several IT projects for which skills were missing or manpower

was unavailable. Tasks included:

- assistance with preparation of CMM to SVN migration
- C programming (“Manhattan2” real-time control system for VLTI project)
- end-to-end email system monitoring

Employer Siemens Business Services, Wien, Austria

Role System administrator

Dates Apr 06 - Oct 06

Responsibilities Tasks included:

- all the usual system administration tasks on customer Linux systems
- project work (e.g. replacement of department's unmaintainable HTML documentation with a wiki and transfer of content, introduction of Subversion repository on SAN storage)

Employer Terma GmbH, on site at ESO, Munich

Role System administrator

Dates Apr 05 - Apr 06

Responsibilities as Feb 07 - Sep 09

Employer ESO, Munich

Role System administrator and embedded systems programmer

Dates Apr 99 - Feb 05

Responsibilities Tasks included:

- development of various tools for developers (e.g. PECS, RtdScope, tacCompile)
- development real-time control software for VLTI (e.g. for M16, M10, image alignment, Variable Curvature Mirror mounted in delay line trains)
- development of functional test suite for VLTI (“vlticmtests”)
- first line Unix support to division software developers (division VLT, later TEC)
- developer support for C, Unix, shell and Perl programming
- management of ESO's VLT project base software on development systems (VxWorks, GNU tools, RTAP)

Non-professional experience

Project Subversion [2], Debian [3], Ganglia [4], MoinMoin [5]

Details I have contributed patches, bug reports and assistance to new users on several large open source projects.

Project ADE [6], [12]

Details I have written a development and regression test environment for shell and Perl scripts. This environment has been used to rapidly develop and test several other projects (e.g. FAD security tool, PAA software repository management tool).

Project PAA [7]

Details I have developed a tool for freezing and auditing original and mirrored repositories in production environments.

Selected publications

Article Alexis Huxley, “Managing Software Repositories in Production Environments” [8]
Paper Bertrand Bauvir, Anders Wallander, Philippe Duhoux, Alexis Huxley and Robert Karban, “Designing a common real-time controller for VLT applications”, *Proceedings SPIE 5496, 155 (2004)*

Article Alexis Huxley, “Program and Package Development Cycles” [9]

Manual Alexis Huxley, Stefan Wehner, “RtdScope User Manual” [10]

Article Alexis Huxley, “Debian Squeeze RAID1 and GRUB2” [11]

IT skills

- Languages*
- Shell (expert, daily use for 30 years)
 - Perl (expert, daily use for 20 years)

<i>Operating systems</i>	<ul style="list-style-type: none"> ● C (expert, daily use for 13 years, ~300k lines of code, including 85k at ESO) ● SQL (intermediate, sporadic use, 20 years) ● Python (expert, weekly use, 7 years) ● Linux (expert, daily use for 25 years, primarily RedHat clones, Debian) ● Solaris/SunOS (expert, 25 years) ● HP-UX (expert, 12 years) ● BSD derivatives (8 years)
<i>General tools</i>	<ul style="list-style-type: none"> ● Make (expert, > 20 years, regular use) ● Subversion (expert, patch contributor, 11 years, regular use) ● Jira (administrator, 1 year, regular use) ● Microsoft Office Suite (>20 years, regular use)
<i>Hardware</i>	<ul style="list-style-type: none"> ● Dell PowerEdge series servers ● Sun (X4100, ...) servers ● HP 9000 series servers ● NetApp filers ● Fujitsu and Sun SANs
<i>Phases</i>	<ul style="list-style-type: none"> ● software requirement definition (2 years), ● architectural design (15 years), ● detailed development (20 years), ● test, integration, and handover (10 years) ● Support (10 years)
<i>Standards</i>	<ul style="list-style-type: none"> ● ITIL Foundation Certificate in IT Services Management
Education	
<i>Degree</i>	BSc applied maths (Hons) Warwick University
<i>Training</i>	various Oracle SQL courses (SQL-Plus, SQL*Forms, SQL*Reporter, ...)
<i>Training</i>	Lustre Filesystem (Sep 09)
<i>Training</i>	Linux High Availability with Pacemaker (Oct 11)
<i>Training/Examination</i>	ITIL v3 2011 Foundation (Oct 12)
Languages	
<i>Fluent</i>	English
<i>Intermediate</i>	German (B1), Slovak (~B1)
References	
	Anders Wallander, ITER, anders.wallander@iter.org Søren Baumann, Terma GmbH, srb@terma.com
Links	
[1]	http://www.eso.org/sci/publications/messenger/archive/no.123-mar06/messenger-no123-69-69.pdf
[2]	http://svnbook.red-bean.com/en/1.5/svn-book.html#svn.preface.acks
[3]	http://tinyurl.com/ahuxley-debian-bug-reports
[4]	https://github.com/alexishuxley/gmond_python_modules/tree/master/nfsstats
[5]	http://moimmo.in/MacroMarket#Release_1.5
[6]	https://www.pasta.freemyip.com/computing/software/ade/
[7]	https://www.pasta.freemyip.com/computing/software/paa/
[8]	https://www.pasta.freemyip.com/computing/articles/managing-software-repositories-in-production-environments/
[9]	https://www.pasta.freemyip.com/computing/articles/program-and-debian-package-development-cycles/
[10]	ftp://ftp.eso.org/ftp/vlt/vlt/pub/releases/VLT2009/vol-2a/VLT-MAN-ESO-17210-3525.pdf
[11]	https://www.pasta.freemyip.com/computing/articles/debian-squeeze-raid1-and-grub2/
[12]	https://www.pasta.freemyip.com/computing/software/ade/adetest1/
Notice period	4 weeks, from the beginning or middle of the month.