

# COMPUTER CONSULTANT: JULIAN H. STACEY BSc Hons. (Computers & Cybernetics)

(*Lebenslauf auch in Deutsch erhältlich -- Resume also available in German*)

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PRE-REQUISITES No Tobacco Smoke (Allergic). No Microsoft. No relocation.

EXPERIENCE 25+ Years Computer Telecom & Electronics Industry:

**System Engineering** (since 2.75); **Unix** (since 1978), **C Programming** (since 1982),

for Unix & Embedded **real time applications**; Hardware/software interfacing; **Sys. Admin.** (Firewalls, Mail & Web Servers etc); **Porting & development to custom software requirements**; Telecom & Computer system planning and development; Project costing & management experience.

## COMPUTER EXPERIENCE (\* T = Target System, H = Host System, C = Combined)

HARDWARE	SOFTWARE	PERIOD	*	COMPANY
Various	Unix, Mainly BSD, See : <a href="http://berklix.com">http://berklix.com</a>	Recent	C	Vector Systems Ltd.
Intel 486	FreeBSD-4.9 & 10 <a href="http://berklix.com/scanjet">http://berklix.com/scanjet</a>	2003 & 4	T	Motorola, Texas, Denmark.
Intel 686	DNS, HTTP, SMTP: surfacevision, bsdpie, monometro	2002 on	C	
Intel 686	FreeBSD support, NCD & UPS config etc	2001 on	C	BSN
Intel 686	<a href="http://berklix.com">http://berklix.com</a> speculative investigation.	-	C	Vector Systems
Intel 5&686	Apache + C CGI: <a href="http://berklix.org/jhs/ski/form.html">http://berklix.org/jhs/ski/form.html</a>	-	H	Self
Intel 586	FreeBSD-4.4 4.8 & 5.1 + CD Mastering	2001 - 2003	C	VSL (DDJ) etc).
Intel 686	Linux + GNU tools	2001	C	Speech Design, Germering
Intel 686	FreeBSD-3.4 + Firewall	2000	C	Vector Systems
Intel 586 + SCO-5.0.5	FreeBSD-3.3 + Motif/Lesstif-0.89	1998-1999	C	OPS(OCE) Poing
Intel 586 + HP	FreeBSD 2.2 & HP-UX 10.3	1997.07-1997.12	C	Dasa Ottobrunn
Intel 486 + HP Risc	FreeBSD 2.0.5 & HP-UX 09	1996.06	C	BLV (Thyssen)
Intel 586	FreeBSD 2.1	1996.05	C	Ditec Munich
Intel 486	Suse Linux + FreeBSD 2.1	1996.03	C	Dekra Akademie Mu.
HP 827	HP-UX 9.0	1995	C	Siemens Nurenberg
Dec Alpha	OSF1 V2.1+X11R6	1994-1995	C	Tech. Univ. Munich
Intel 486	FreeBSD,(BSD4.4),X11R6	Since 1994	H	Vector Systems
Intel 486	386BSD,(BSD4.3),X11R5	1993-1994	H	Vector Systems
Intel 486	SVR4,X11R5	1992-1993	H	Vector Systems
Intel 486	SCO SVR3 +X-Windows	1992-1993	T	Siemens Hofm. Str.
NSC 32532	Mach, Minix, NetBSD	Since 1991.02	C	Vector Systems
DEC VAX 11/780	Unix V7 (IS 3.1)	1990	C	Siemens Hofm. Str.
Symmetric(NSC 32016)	Unix BSD 4.2	Since 1988.02	H	Vector Systems
Microwave signal generator	VRTX,80186,C	1988.02-1988.11	T	Rohde & Schwarz
Rohde & Schwarz PC AT	Msdos 3.2+Sun PCNFS	1988.02-1988.11	H	Rohde & Schwarz
DEC VAX 11/780	IS3 (Unix V7)	1986.09-1987.10	C	Siemens Hofm. Str.
DEC PDP 11/70	IS1 (Unix V6)	1986.04-1987.10	C	Siemens Hofm. Str.
Siemens PC XT	Msdos 3.10	1987.01-1987.10	H	Siemens Hofm. Str.
Toshiba T1100+ & NEC	Msdos 3.2 & Minix 1.3	1987.06-1991	H	Vector Systems
NSC 32016	Sinix V2.0	1986.02-1986.06	C	Siemens Perlach
Intel 80186	Sinix 1.0C	1985.07-1986.06	C	Siemens Perlach
Siemens PCX,MX,MX2	Sinix/(Xenix/Unix V7)	1985.07-1986.06	C	Siemens Perlach
VAX 11/750	Unix BSD 4.2	1985.07-1986.06	H	Siemens Perlach
NSC 32016	Own Software	1983.03-1985.06	T	Vector Systems
Zilog System 8000	Zeus2.2 (Unix V7)	1984.01-1985.06	C	BT International
Model 30 & 11++	Zeus3.21 (Unix S3)	1984.01-1985.06	C	BT International
DEC VAX 11/780	VMS User-Management	2 Week Course ~1985	H	BT International
Tandem	Guardian (Non Stop)	3 Week Course ~1984	C	BT International
Motorola M68000	Versados (assembler)	1 Week Course 1984	T	BT International
Intel 8086	iRMX86 (+ ICE86)	1 Week Course 1981	C	BT International
Intel 8086,8,& 9	(Hardware & Software)	2 Week Course 1981	C	BT International
Intel 8080 MDS	ISIS-II	2 Mth. ~1980	C	BT International
Mostek Z80 MDS	FLP80-DOS & CP/M	8 Mth. 1980-1981	C	BT International
Motorola M6800	SWTPC Monitor	2 Yr. intermittent 1979-1980	T	University of Kent
LSI M3, Xerox,BT	CP/M (C80,WS,BDOS)	1980-1988 intermittent	C	Westhawk
DEC PDP 11/40	Unix Version 6	1978.04-1980.07 intermittent	H	University of Kent
Burroughs B6800	CANDE	4 Mth. 1979.06-1979.09	C	BT International
ICL 2960 (+ 4130)	VME/K,EMAS (+ KOS)	2 Yr. intermittent 1977-1979	C	University of Kent
Prime/Telenet	IPSS Net. Ctl. System	3 Mth. 1977	C	BT International
Hasler M110 & M150	Message Switcher	3 Week Courses ~1976	T	BT International
HP Minicomputer	Assembler	2 Week Courses ~1976	T	BT International

## LANGUAGES & TOOLS : EXPERIENCE

<b>Preferred:</b>	C, Unix, bsd make, bind/named, apache, cvs/sccs, gdb, bsd kernel config, X-Windows, Groff, Html, Sendmail.mc, M4 etc.
Competent in:	Tcl/Tk, TCP/IP, Apache, BSD-IPFW, Named(Bind/DNS), PLF/PLM/PLZ, Algol, Basic.
Have Used:	C++, CGI Perl, <b>Assemblers:</b> NS32000, M68000, I8086, M6800, Z80, <b>Macros:</b> ML1.
Some Experience:	HP-Mini, I8080, Z8000, and PDP11 Assembler, Ada, Pascal, Fortran, Forth.

## UNIVERSITY

Bachelor of Science, Honours Degree 'Computers and Cybernetics', University of Kent at Canterbury, England. Graduated 1980. (+ prior Electrical & Electronic Engineering 1st year pass, Leeds University 1974+6 ).

**WORK EXPERIENCE (newest first, • = Own work, ○ = Group project).**

**VARIOUS NEWER PROJECT PROPOSALS, SUPPORT, DEVELOPMENT : Vector Systems Ltd-... etc**

I have ceased to have time or space to list ever more projects & skills, & squeeze text ever tighter. Some work now confidential, some speculative. Some newer work on <http://berklix.com>. I have a BSc in Computers & Cybernetics, & 30 years Unix experience. Tell me what you need, & I'll tell you if I or associates have requisite skills.

<b>SCANJET FreeBSD CONVERSIONS for Motorola &amp; others</b>	-
• NT to FreeBSD conversions : Ref. <a href="http://berklix.com/scanjet/">http://berklix.com/scanjet/</a>	
<b>DEVELOPMENT for Vector Systems, Munich</b>	<b>2001</b>
• Bootable custom CDROM Mastering, FreeBSD 4.[3-5] based.	
<b>Linux &amp; GNU Tools etc for Speech Design, Munich</b>	<b>2001</b>
• Linux [Debian + Suse] + GNU Tools	
• Advice on Software Patents, FSF & BSD code embedding right etc.	
<b>DEVELOPMENT for a customer of Vector Systems, Munich</b>	<b>2000</b>
• Internet planning for new empty site, inc. hardware ISP rack & cable provision, Internal, firewall, & web external FreeBSD-3.4 servers. Implemented 3 server system, extending to 5 server inc. diskless configuration.	
<b>DEVELOPMENT For OCE Printing Systems, Poing</b>	<b>1998-1999</b>
• Development of C, X-Windows & Motif application, Target: Intel 586 + SCO-5.0.5 + Motif then Lesstif, Host: FreeBSD-3.3 + Lesstif-0.89	
<b>DEVELOPMENT For Deutsche Aerospace, Ottobrunn</b>	<b>1997.07-1997.12</b>
○Development of interface for Aircraft structural design. TCL/ TK/ Tix, C etc.	
<b>FILE SYSTEM Data Rescue Investigation: Rank Xerox, Berlin</b>	<b>1997.04</b>
<b>DEVELOPMENT For Vector Systems</b>	<b>1997.02-1997.03</b>
• Development/ improvement: ISDN, TCP/IP etc.	
<b>VT220 EMULATION &amp; EDITOR : BLW (Thyssen)</b>	<b>1996</b>
<b>WEB CONFERENCE PAGES: Ditec, Munich</b>	<b>1996.05</b>
• Page preparation: Data Warehousing Europe '96 conference, & RAID '96 conference.	
<b>LECTURER : UNIX SYSTEM ADMIN.: Dekra Akademie, Munich</b>	<b>1996.03</b>
• Lectured for 2 weeks in German, to 17 people with individual PCs. Determined syllabus, inc. System 5 ( SVR4 ), Berkeley ( BSD ), Linux. Installed FreeBSD. Set & marked own exam.	
<b>WEB CONSULTANT: PRE- LAUNCH SUPPORT: Europe Online,Munich</b>	<b>1995.12</b>
• Pre launch support: Repaired World Wide Web ISMAP control files, & HTML links etc.	
<b>WEB TOOLS &amp; CONFIGURATION: Siemens, Nuremberg</b>	<b>1995</b>
• Corrected web server configuration, wrote World Wide Web CGI test scripts, obtained Oracle database interface tools, assessed CGI/ forms scripting macro tools.	
<b>CONSULTANCY (ANALYSIS): Customer of Vector Systems, Munich</b>	<b>1995</b>
• Consolidation of inter- operability of networking components for future product.	1995
• Prepared infrastructure for an Internet Web press presentation.	1995
Planned cheap Internet server to save a customer considerable money.	
<b>X11R6 X-WINDOW SYSTEM PORTING: Munich Tech. Univ., CAD Dept.</b>	<b>1994-1995</b>
• Installation & support of X-Windows X11R6p11, for DEC Alpha Computers	1994
• Porting various support programs such as CMU/Sup to Sequent.	1994
<b>DEVELOPMENT SYSTEM EXPANSION: Vector Systems</b>	<b>1993-1994</b>
• Support of large FreeBSD system. Contribution to source of FreeBSD project	1993-1994
• Development of gateway NetBSD system. Contribution to source of NetBSD project.	1994
• Various minor kernel modifications, (such as memory resizing, default parities etc)	1993-1994
• Porting various support programs such as CMU/Sup to PCS-Cadmus.	1993-1994
• Porting Eprom burner driver to FreeBSD (Unix) (incomplete).	1994
<b>RUSSIAN X11 TOOLS DEVELOPMENT: Siemens, EWSD Hofmann Strasse</b>	<b>1992-1993</b>
• Development & Implementation of a 3 language Cyrillic/ German/ English screen/ Keyboard/ Laser printer combination with X-Windows, for SCO,( & also Unix SVR4 & BSD). Inclusive of BDF to HP PCL5 Font converter tool, Cyrillic & custom font manufacture.	
<b>DEVELOPMENT For Vector Systems</b>	<b>1991.01-1991.06</b>
• Building of a PC532 (25MHz NSC 32532 CPU, 32381 FPU, 32202 ICU, NetBSD (+ Minix 1.3/5 + Mach), 8 TTY, 8M 70nS RAM, SCSI 300M Disk). Development/ improvement: GCC, Gh/ Postscript, & other FSF tools, Modem connection, SLIP TCP/IP + uucp/ email + slip, Nroff driver for HP3P laser etc.	
<b>REVERSE MACRO DEVELOPMENT Siemens, EWSD Hofmann Strasse, Munich</b>	<b>1990.01-1990.10</b>
• Customer specific data conversion (reverse macro) tool.	
<b>DEVELOPMENT FOR Vector Systems</b>	<b>1989.02-1989.12</b>
• Unix/ Msdos Directory/ tree transfer coms. prog. in C. skips unchanged files, maintains timestamps, supports inter computer pipes.	
• Rescue tool for physically damaged floppy discs (written in C for Msdos and Unix).	
<b>REAL TIME CONSULTANT: Rohde and Schwarz, Munich</b>	<b>1988.02-1988.11</b>

Wrote self test software for 15 GHz microwave sweep generator/ sawtooth oscillator & analyser. Developed self test software working across 2 80286 processors via a VRTX real time kernel, using Microsoft C Version 4, Hitex ICE Emulator, Eprom'able code. Programmable adjustment of tunable filters & YIG/ YAG components to minimal/ maximal power consumption tests. Control & compensation of analogue/ digital interfaces. Run time evaluation of impedance networks using Kirchoff's laws. Model names SWM & ZAM. 1 Year project.

**COMS. PACKAGE DEVELOPMENT: Siemens, EWSD Munich Hofmann Strasse 1986.09-1987.10**

- Designed and implemented an overlay package to add task interleaving and multiple priority facilities to existing VAX Unix V7 'FTSinix' to BS2000 (IBM) file transfer program. Implemented with German functionality, and documentation.
- Ported package above to also run on a PDP 11/70 running Unix Version 6, with RJE (Remote Job Entry).
- Development study for control system for telephone exchange development documentation dept.

**CONSULTANT: Siemens Perlach Munich, Sinix Devlp. Dept. 1985.07-1986.06**

- **Production & automation of Unix** Sinix Software for 8 European languages & 2 CPU families (NSC-32x32 & I-80x86): developed & documented tools; cooperated with source code control personnel; produced earliest languages; trained personnel, guided & supervised personnel for later language production.
- Developed parallel multiple language simultaneous compilation capability.
- Top Makefile written to compile Sinix & all packages in 1 language. Shell to produce 7 sequential multiple language versions of Sinix through a weekend.
- C compiler & Yacc improved, to select correct language library.
- Wrote Makefiles for libraries, delivery tree production, etc.
- Improved & extended countless existing Makefiles.
- Produced a standard Siemens style product floppy, to convert a Sinix system to a Sinix production/(compilation) system.
- Wrote program to check & duplicate product floppies.
- Specified & supervised a production support program. (A Zilog style 'upkeep').
- Made floppy production tools faster & network independent.
- Production logins secured.
- Documentation of automation work and recommendations for future work.

**ASSISTANT EXECUTIVE ENGINEER, British Telecom International, London, England 1980.07-1985.06**

- **Unix System Administrator** + Computer Centre & Network Support: Assessed, purchased & installed hardware & software packages, Established automatic system integrity and user data security package & procedures. Optimised system configurations (disk layouts & networks). Provided user technical support. Managed Ethernet + associated peripherals + technicians. Installed operating system & package upgrades. Interfaced computer systems and peripherals. Supervised student projects.
- Manned BT International Exchange during service crisis. (Using PTT 3.4 KHz \* 12 \* 5 \* 13~15 Frequency modulation system, including upper/ lower sideband, pilot levels, carrier regeneration etc).
- Installed Unix C to Z80 Cross Compiler, developed stack frame compatible IO routines, + down loader for target Z80. Beta testing of replacement compiler. Developed base for a table controlled terminal emulator.
- Unix Administrator: developed system, trained colleagues & successor.
- Specified 70 Screen 2 Gbyte high reliability database.
- Designed and implemented hardware and software for a Z80 SIO device driver on a Mostek micro development system (in Z80 Assembler for MK3884-7).
- Automated calculation of (a) noise, and (b) pulse voltages, induced in telecommunications lines from adjacent (a) electricity power supply grid during short circuit surges, and (b) railway lines with train power pickup conductors sparking; to evaluate EMI, with respect to (a) requirements for gas discharge tubes for human protection, (b) noise induced affecting signal/ noise ratio. (Program written in Algol).

**UNIVERSITY PROJECTS Canterbury, Kent, England 1977.10-1980.06**

- Designed, built & tested plotter/ printer mechanics, power electronics, & software (in PLF, like PL/M).
- Implemented parallel & serial port interrupt components for a floppy disk file system (in PLF for M-6800).
- Developed multi input data logging micro system (in PLF for M-6800).
- Wrote multiple function plotting program, with automatic floating point self scaler and offset (in Basic).

**ASSISTANT EXECUTIVE ENGINEER, British Telecom International, London, England 1975.02-1977.09**

- International Packet Switching System: profitability costing, systems planning, installation, configuration, testing, linking to American Telenet System. 'Prime' computer hardware.
- Time Multiplexed 50 Kbit/s Satellite Link: Experimental viability testing of Canadian Link, Cascaded multiplexers ( { 50 Kbit/s > 24 \* 2.4 Kbit/s } + { 2.4 Kbit/s > 50, 100, 110, 200 & 300 bit/s } ). Testing experimental FIFO buffer to compensate for varying satellite propagation loop delay (due to both shorter term atmospheric perturbations & longer term satellite path drift).
- Testing of experimental 50Kbit/s time multiplexed satellite connection to Italy. via COMSAT SPADE. (COMSAT = **C**ommunications **S**atellite Corporation, USA; SPADE = **S**ingle channel per carrier, **P**ulse code modulated, multiple **A**ccess, **D**emand assigned, **E**quipment).
- Implementation planning 4.8 Kbit/s commercial time multiplexed service to Canada.
- Designed & produced extra PCBs for Hasler M150 telegraph message switcher.
- Costed and designed a telegraph speed and code converter. 5/7 Unit, 50/2400 baud etc.

**TEST TECHNICIAN, Time Electronics & Feedback Instruments, Kent, England 1974.08-1975.01**

- Oxygen analyser and extremely high precision voltmeter.

## VARIOUS OTHER COMPUTER EXPERIENCE

- Stand Organiser for BIM's BSD- Unix @ Linux Park @ Systems-2001 2001
- Exhibitor of BSD Systems @ Vintage Computer Fest Europe (<http://www.vcfe.org>). 2000-2005
- Co Founder of BIM ( <http://www.berklix.org/bim/> ) & MECC ( <http://www.berklix.org/mecc/> ) since1999  
BIM= Berkeley In Munich MECC= Munich Electronic & Computer Consultants
- System Administrator for BIM: Berkeley in Munich ( <http://www.berklix.org/bim/> ) since1999
- Member of ICANN@Large ( <http://icann.org> ) since2000
- Code contributor to FreeBSD ( <http://www.berklix.com/~jhs/src/> ) since1994  
Src/ diffs + ports/ Hylafax, Exmh, EStic ports wrappers etc.
- Ex member of the XFree86-3.0D beta test team. 1994
- Ported: Minix 1.2 to Toshiba T1100+, modified: driver for higher density Floppies. ~1989
- Wrote Unix style overlay for Msdos. ~1986-90
- Started English Firm, employed other programmers in Germany. since1986
- Prepared business plan to found a company in UK designing Unix computers. ~1984
- Designed and built hardware & software for an NSC 32016 16/32 bit system ~1983

## NATIONALITY

**British.** (Both parents also; Security cleared for Royal Air Force Volunteer Reserve & British Telecom)

## NON- SMOKER

**I require smoke free offices.** Companies polluted by tobacco smoke are offered off- site development, & installation/ support via Internet.

## LANGUAGES

**Native English, Fluent German** (can negotiate & win legal contract terms, but my grammar is poor, esp. when written) . I can read French (but am rusty), I can understand a reasonable amount of French if spoken slowly & clearly.

## CAR DRIVER

Estate Car (Station Wagon) in Munich, German licence issued , UK licence issued.

## PERMITS

Unlimited residence permit. Registered at Munich tax office.

## PERSONALITY

I enjoy computer development (soft & hardware), & participate in public source projects. I do not touch Microsoft or games. Organiser for various groups SFD: Software Freedom Day, BG: Beer Gardeners, & GEA: German English Association <http://berklix.org/> (wind surfing, skiing, beer gardens, barbecues, cycling, fireworks display, elections, web & mail lists). Ex Cadet Pilot, Royal Air Force Volunteer Reserve - Solo flight: Chipmunk T. Mk. 10.

## OWN RESOURCES

Equipped to work in my office, your office, & remote via Internet :

- **Internet Connectivity:** DSL 16Mb/s flat rate connection. 2 [+ 2] Firewall Gateways, 3 permanently connected (24/7) Internet servers at 2 remote sites. 5+ domains.
- **Computers: approx.20 Unix Systems inc. Laptops: FreeBSD: 4 & 5; NetBSD: 1.5 NSC 32532; 2 UPSs** (Uninterruptible Power Supply) secure power for gateways, internal servers, fallback PBX, fax etc. 2 PBXs, multiple switches/hubs (fallback reserve).
- **Test Gear:** Logic Analyser, Oscilloscope, DVMs, Eprom eraser & programmer.

## STANDARD & PROPRIETARY SOFTWARE PACKAGES AVAILABLE

My own bootable CDROM, self mastered with FreeBSD (<http://www.freebsd.org>), is available to embed customer products on, with X-Windows, and 12600 (@ 2005.05) BSD, & other packages available, plus customisation, compilation, installation, configuration, & support. TDSL + ISDN Auto answer+ dial- on-demand+ timeout, & Firewall, Web HTTP, FTP, SMTP via UUCP, PPP, IMAP, Popmail, Email to fax servers. Custom packages: Cyrillic/ Chinese/ German/ English X-Windows + keyboard + printer environment; Screen & printer BDF/ PCL font conversion tools etc **Sources:** BSD automatically updated via net. CVS).

## PRODUCTS & DEVELOPMENTS: Web, Internet, X-Windows, Unix Servers.

In addition to Internet Unix & FreeBSD X-Windows, Firewall, Server & Workstation systems; Support, custom development and tools for various other systems is also available.

## TYPESETTING of this resume)

This resume was prepared using a self developed WYSIWYG mechanism (vi make groff ghostview, + automatic Sigusr1 signal) plus an English/ German language filter, + Groff, & Ghostview (Postscript previewer) using X-Windows & FreeBSD (Unix) Optimal Format: A4 paper with Postscript, PCL or BJC. Ascii Format OK, HTML format poor (poor back end tool). (The WYSIWYG mechanism is also available for Chimera (a web browser), & Xfig (a figure generator), & is extensible.

## LATEST VERSION (of this resume)

The newest version of this resume is available on the Web in multiple variants: : {PDF, Postscript, ASCII, HTML, PCL (HP Laser) & BJC (Canon Bubble Jet), (Not in Microsoft Word: a viral proprietary non standard)} {English & German} <http://www.berklix.com/~jhs/cv/>