H. Phil Duby

PhrienDly Computer Consulting, sole proprietor philduby@phriendly.net http://www.phriendly.net http://mmerlin.github.io

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PROFESSIONAL EXPERIENCE

Senior programmer with 37 years experience in application and system software design, development, testing, installation, support, and documentation. Duties have included: system and database management and administration; training users on new packages and developers on new tools; interfacing with user communities to determine system requirements; translating requirements into program specifications; converting software between computer systems and programming languages; developing, documenting, and testing programs from specifications. This covers a wide range of applications, programming languages, development tools, databases, computer environments, and company cultures.

JOB FUNCTIONS

- System Administrator
- Programmer/Analyst
- System Analyst
- Database Administrator
- Tutor / Trainer
- Database/Model Designer
- Help Desk

Professional Activities:

I am President of the Western Canadian Robotics Society, which has the goal of promoting and mentoring learning of electronics and programming. I lead several workshops to teach computer science and the Wiring language (C++ based) programming using Arduino microcontrollers. I am tutoring young immigrants in high school math. Previously volunteered for two years teaching junior high students in a computer club.

References

Available upon request.

Career History

Nenniger Enterprises, Inc., Calgary Alberta:

2017/09-2017/10

Position: We

Web Site developer

Responsibilities: Web site requirements analysis and recommendations. Preliminary site setup and development.

Environment Summary: HTML4, CSS

Solar BioCells, Calgary Alberta:

2017/05-2017/07

Positions: Senior Programmer, Web application developer

Responsibilities: Enhance and cleanup code to collect, transfer, store, display (graph) hardware sensor data

Environment Summary: Laravel, PHP, Javascript, JQuery, HTML, CSS, SQLite, Raspberry Pi, Python, GIT, FTP, SSH

Hartman Technica, Calgary Alberta:

2015/09-2016/07

Positions: Senior Programmer

Responsibilities: Write real time software for 3 phase generator control system

Environment Summary: C, ARM, U-Boot, linux, GIT

Nenniger Enterprises, Inc., Calgary Alberta:

2015/05-2015/06

Position: Senior Programmer/Analyst

Responsibilities: Develop control and data collection software to exercise and log state of prototype hardware.

Environment Summary: Raspberry Pi, Python3

TecPro, Calgary Alberta:

2011/09-2012/07

Positions: Senior Programmer

Responsibilities: Repair and rebuild of IHS CMA web based data retrieval and editing application Environment Summary: Visual Studio 2010, .NET 3.5, C#, MS SQL, LINQ, HTML, CSS 2, Javascript, AJAX, GIT

The Lambda Geek, Calgary Alberta:

2009/06-2009/12

Positions: Owner, Proprietor

Responsibilities: Desktop support, computer and accessories sales, computer hardware upgrades and repairs, malware removal, needs analysis, network access setup

Environment Summary: Windows XP, Vista, Open Office, Microsoft Office, various web browsers, other desktop applications

Shaw Cablesystems G.P., Calgary Alberta:

2002-2008

Positions: Intermediate Software Developer/Senior Software Developer

Responsibilities: Maintenance, enhancements, ongoing support for intra and extra net websites and applications

Environment Summary: Visual Studio 2003, .NET 1.1, C#, VB.NET, ASP, XML, XSLT, Microsoft SQL Server 2000, Internet Explorer 5, 5.5, 6, 7, 8, Firefox 1.5, 2.0, 3.0, Microsoft Office 2003 (Word, Excel), VSS, GIMP, MS SQL, Google Maps, vmware server

- LEADS application
- Online Ordering (not shopping cart or payment transactions)
- Database (data updates) for web contact information
- Promotion (within team) of development best practices
- Google local search with Google maps

Responsibilities: Maintenance, enhancements, ongoing support for CBS (cable billing system)
Environment Summary: VAX/VMS, Vax BASIC, Datatrieve, Microsoft Office 2003 (Word, Excel),
VISIO, ISAM

- LPC (internal account data conversion from legacy to packaging model)
- Journal Entries
- Automated billing / account data conversions for acquisitions

Donortrust, Calgary Alberta:

2006-2007

Position: Senior Programmer (Volunteer)

Responsibilities: Work with group doing design and development of the Donortrust application to support the Christmas Future web site.

Environment Summary: RoR (Ruby on Rails), MySQL, Eclipse, Windows XP, Ubuntu, Ruby Forge, svn

PHrienDly Computer Consulting, Ltd., Calgary Alberta:

1992 - On Going

Position: Owner/Director, Analyst, Senior Programmer

Responsibilities: Help desk support for multiple Home, SOHO, Small Business, System inspection, needs analysis, upgrade recommendations, system cleanup, hardware and software purchase recommendations, installation, configuration, training, desktop / helpdesk support, skills improvement (Visual Basic, Visual C++, Java (JDK1.0,1.1.2), Access 7)

Environment Summary: DOS 3/5/6/7, Windows 3.1/95/98/XP/2003/7/8/10, BASIC, Visual Basic, Java (1.0, 1.1, 1.2), PKzip, WinZip, Netscape Navigator 2.01, 3.01, Netscape Communicator 4.01, 4.5x, 4.6x, 4.7x, Internet Explorer 3, 4, 5, 5.5, 6, 7, Eudora, DOS batch files, Regedit, Microsoft Office, Microsoft Frontpage 98, 2000, M.Y.O.B Accounting with Payroll 7, Corel WordPerfect Suite 7, Microsoft Works 3 and 4, scanning, Corel Draw 3 package (trace, photopaint, draw), Microsoft Image Composer, Hijaak Pro, Corel Printhouse, Micro Cookbook, Master Cook, Partition Magic 3/6; System Commander, Boot Commander, Install Control 2/3/4, FirstAid 95, Cleansweep, Oil Change, ADSL, Cable Modem, Adobe Acrobat Reader, Zone Alarm, Norton Internet Security, VNC, VMWare, more

Shaw Cablesystems G.P., Calgary, Alberta:

2001-2002

Environment Summary: VAX/VMS, Vax Basic, Datatrieve, SQL, Windows XP, Microsoft Office 2003 (Word, Excel), Nortel VPN, Microsoft Outlook, FTP, Microsoft Internet Explorer, Kermit, VNC Customer account (services) data conversion: StarChoice 'Wizard' to Shaw 'CBS'

Nortel Networks, Calgary, Alberta:

1997 - 2000

Transferred to Computer Sciences Corporation with Nortel Networks IS outsourcing 2000 - 2001 (2 separate work intervals)

Environment Summary: HP3000, MPE, MPEX, Unix, Powerhouse (QUIZ, QTP), SQL, Macintosh System 7, Windows 95, Windows 2000 Microsoft Office 95/97/2000, Scheduler Plus, Microsoft Outlook, Reflection for HP, QEDIT, FTP, Netscape Navigator, Netscape Communicator, Netscape Composer, Microsoft Internet Explorer, Lotus Notes, WS FTP Pro, Timbuktu Pro, Remedium, Extranet Access Client

- Purchase Price Variance Forecasting and Gross Manufacturing Inventory Forecasting: QTP, MPE JCL, Excel 95/97 plus templates, HTML process documentation, user training.
- Logistic Software (GPSM): QUIZ, QTP, MPE JCL, FTP
- BaaN; Initial training, then export data from legacy systems, import and testing in BaaN
- Search source code across 3 applications for potential date related impacts at 1998 year end: COBOL, QUIZ, MPE JCL
- Update Powerhouse code for Y2K: QUIZ

- Assist with detailed technical implementation plan for moving 18 Y2K compliant applications to production: Excel 97, Word 97, Netscape Composer 4.5
- Prepared process, templates, and documentation for application decommissioning: Word 97, Excel 97
- Y2K application installation / implementation
- Y2K clock test project
- Y2K rollover planning
- Wireless system Annual Physical Inventory
- Legacy Support with off hours on call (pager)

TransAlta Utilities, Calgary, Alberta:

1994 - 1997

Responsibilities: Started with support of in-house (TAU) built Human Resources Information System, built with/on Corvision (4GL) version 4.50. Started position with no Corvison background when TAU could not find anyone with experience. As Corvision and other HRIS work reduced with TAU transition to SAP, supported several other legacy VMS systems (many of which were being fazed out, or replaced by SAP or Lotus Notes)

Environment Summary: VAX/VMS, MS DOS 5, Windows 3.1, Macintosh System 7, Windows 95, NT Server, Corvision version 4.50, Powerhouse, SmartStar, Datatrieve, RDB, SQL, COBOL (with embedded SQL), C, BASIC, VMS DCL, FileMaker (Mac and Win95), Unix, Oracle, IGDS EDG, tar, Microsoft Word, Excel, All-In-One, Lotus Notes, Corel Draw, VISIO, Meeting Maker, SmarTerm 420 and 340, LSE, VMS Debug

- Support HRIS: Corvision, Dos 5, Rdb, SQL, COBOL, VMS DCL, Powerhouse
- ESSO employee debit card Interface (new development to interface monthly Imperial Oil transaction file to accounting and payroll): COBOL, SQL, VMS DCL, Microsoft WORD
- Records Center System: Powerhouse, SQL, VMS DCL
- Telephone Database Management and billing system; Dial; NotesPhone: SmartStar, Datatrieve, VMS DCL, C, Powerhouse. Lotus Notes, Excel, VISIO
- DECCHG: Powerhouse, VMS DCL, COBOL
- Print Shop: Powerhouse, COBOL, VMS DCL
- IBEW Transfer List: All-In-One, Lotus Notes, VMS DCL, Microsoft Word, FTP
- Brilliant Employee Suggestions: VMS DCL, All-In-One, Lotus Notes, Powerhouse
- Bids and Posting: VMS DCL, All-In-One, Microsoft Word, Lotus Notes, FTP
- Incentive Pay Plan: Excel
- · Promotions and Transfers: VMS DCL, All-In-One, Lotus Notes, Microsoft Word
- Plot Invoicing: VMS DCL, Excel, FTP, Pathworks
- Applicant Tracking: FileMaker
- Chuckwagon shares: Excel
- Annual Tower Payments
- Built SmarTerm scripts for communications with Bank by Payroll and Accounting.
- During infrastructure project rollout, install and configure DOS and Windows 3.x programs (inhouse and commercial engineering applications) under Windows 95. Convert data from

Macintosh to Windows 95 format. Researched and defined standard configuration for the standard terminal emulation packages used in the new TAU infrastructure environment (SmarTerm 420 and SmarTerm 340): DOS 5, DOS 7, Windows 3.1, Windows 95, VMS DCL, VMS Basic, SmarTerm, Corel Draw 4, VISIO, Microsoft Word, FileMaker

MONENCO Information Systems Inc., Calgary Alberta:

1983 - 1992

Positions: Programmer, Programmer/Analyst, Analyst/Programmer, System Analyst
Responsibilities: Seconded to TransAlta Utilities, Calgary, Alberta 1988 - 1992
Part of AM/FM (Automated Mapping and Facilities Management) project team doing the design,
development, implementation, documentation, and maintenance of the electrical facilities model using
Intergraph FRAMME

Environment Summary: VAX/VMS, PC, MAC, UNIX, FRAMME (FDL, RBC, ODL, MDL, FKBT, PCR, FMPG, UDP, SDU), C, DCL, DMRS, IGDS (EDG, IPS, FLIB, UCM), CMS, MMS, DECNET, TCP/IP, FMU, EXCELERATOR, PATHWORKS), EDT, LSE, TPU, EMACS, DMR Productivity Plus

- Designed, developed, and implemented Highway Lighting sub-system: importing base map data, using detail files, feature placement, and plotting. First module to be put into production.
- Developed code to produce standard corporate map products, with merged mailing list, and other title block information
- Added FRAMME ODL language and function library to VMS Language Sensitive Editor
- Designed and implemented applications and model data security with VMS ACL
- Setup and maintained CMS library structure and security
- Developed MMS make files and supporting DCL procedures to build and update the model and application for requested releases
- Assisted in the design for on screen scaling and model partitioning

In-House at **MONENCO**, Calgary, Alberta

1988 - 1988 and 1983 - 1986

All in-house CAD system development and support.

Environment Summary: VAX/VMS, DEC 10, TOPS 20, PDP 11/xx, RSX11M+, PC, MS-DOS, Fortran, C, DMRS, IGDS (UCM, ANL, IPS), TYDAC, DBASE, FOXBASE, MCR, DCL, EDT, EMACS, TECO, TEXTGRA, MicroStation, ISIF

• <u>Software</u> development, support, and management for a multi-station CAD operation, mostly as the only person in those roles.

Seconded to TransAlta Utilities, Calgary, Alberta

1986 - 1988

Part of the MONECO project team developing the Automated Substation Design (ASD) system at client site. Pilot project for AM/FM (Automated Mapping and Facilities Management) using the Intergraph FRAMME package. Support client at their site, as part of the team for the Mine Contract Administration (MCA) system.

Environment Summary: VAX/VMS, COBOL, Powerhouse, Datatrieve, RDB, DCL, EDT, FRAMME(FDL, RBC, ODL, MDL), DMRS, DECNET, IGDS (CSL, UCM, BITS, RFMOD)

• Team leader for the design, coding, and implementation of the graphics sub-system

On site for client, Intergraph, Huntsville, Alabama

1986 - 1986

Assist Intergraph project team to upgrade TFIDS (Telephone Facilities Interactive - Graphics Data Management Systems) for new VMS operating system and Intergraph IGDS versions.

Environment Summary: VAX/VMS, DMRS, IGDS (UCM), DCL, EDT

Western Canada Summer Games 1983, Calgary, Alberta

1983

Western Cooperative Fertilizers Ltd, Calgary, Alberta

1980 - 1983

EDUCATION

Artificial Intelligence for Robotics (Udacity, Feb 2012)

Introduction to Artificial Intelligence (Udacity, Oct 2011)

Javascript (U of C, April 2011)

Adobe Flash CS5 (U of C, Feb 2011)

PHP and MySQL (U of C, Feb 2011)

Object Oriented Programming Fundamentals [Java with Netbeans] (U of C, Nov 2010)

Microsoft Excel 2007 Level 1, 2 & 3 (U of C, Nov 2010)

Microsoft Office Specialist; Excel 2007 (Nov 2010)

Adobe Illustrator CS5 (U of C, Nov 2010)

Adobe Photoshop CS5 (U of C, Oct 2010)

Microsoft SQL Server [2008 R2] Introduction (U of C, Oct 2010)

Microsoft .NET Introduction [VB.Net 2010] (U of C, Oct 2010)

.NET (C#), 2005

.NET (VB), 2005

Java, Fifth Era, 1999

Self study to keep up with, and ahead of, current technology

JAVA, HTML, Python, VB, JavaScript, Ruby, RoR, CSS, XML, XSLT, PHP

Lots of on the job training, reading of manuals, and reading on the Internet

Multiple 1 day to 1 week courses and seminars for various computer languages, and software engineering specialties

Technical Program, Southern Alberta Institute of Technology, 1983

Computer Science, University of Calgary, 1982 (selected courses)

Computer Technology, Southern Alberta Institute of Technology, 1980 (selected courses)

Electronics Technician, Northwest Community College, 1976

SOFTWARE ENVIRONMENTS

Languages

- C#
- .NET
- Visual Basic
- ASP
- Python
- Java
- Javascript
- PHP
- Ruby
- RoR
- C
- C++
- COBOL
- FORTRAN
- BASIC
- PASCAL
- SQL
- HTML, CSS, XML
- Shells (DCL, MCR, MS DOS, Unix, MPE/X)
- Classic FRAMME
- IGDS (UCM, MDL, IPS Pen Tables)
- DMRS (DDL)
- Assembler (6502, 8085, PDP 11/70, VAX)

Data Manipulation

- DECNET
- PATHWORKS
- FMU
- IGDS (ISIF, BITS, RFMOD, IPLOT, IPS)
- EDIT/FDL
- CONVERT/FDL
- ANALYSE/RMS/FDL
- Archivers (COMPRESS, ARC, Spreadsheets (Excel, Quatro ZOO, LHARC, ZIP)
- Kermit, Z-Modem, others

Databases / 4GLs

- MySQL
- Powerhouse
- Corvision
- Smartstar
- Oracle
- MS SQL
- Datatrieve
- RDB
- DMRS, IGDS
- Access
- Superbase Professional
- DBASE, Foxbase

Development Tools

- Excelerator (CASE)
- VMS (MMS, CMS, FMS)
- Make
- IGDS (CSL, FLIB, EDG, ANL), Micro Station
- Visual Studio 2003
- EDIT/ACL
- GIT

Data Modification

- IGDS (EDG, ANL)
- Text (TPU, LSE, EDT, Emacs, TECO, EDLIN, Eclipse, Notepad++, others
- Document (MS/Mac Word, Word Perfect, Open Office, others)
- Spreadsheets (Excel, Quatro Pro, Open Office, Google, others)

AREAS OF EXPERTISE

- CAD
- AM/FM (GIS)
- Applications development
- Database design and customization
- Data & Process modeling
- Human Resources
- Billing
- Web Development
- Help Desk (end user support)
- Training

Packages / Applications

- Payroll
- Sales (accounting)
- Human Resources
- mapping
- PDS (Plant Design System)
- BFM (Building Facilities Management)
- REBAR (Steel Reinforced Concrete)
- ZEH
- Open Office / Libre Office
- Microsoft Office 5/6/7,2003/7/10
- WordPerfect Suite 7
- VISIO
- Corel Draw
- GIMP
- Microsoft Outlook
- PGP, GPG
- Windows 95/98/XP/2000/2003/7/8/10

Methodologies

- Productivity Plus (DMR)
- JAD
- RAD
- Several top-down variations
- Some Object-Oriented

HARDWARE ENVIRONMENTS

Computers	Operating System
• VAX (11/7xx, 86x0, 60x0)	• VAX VMS
• HP3000	• MPE / MPEX
• DEC 10	• TOPS 20
• PDP 11/xx	 RSX11M+ (Intergraph's)
• x86	• Windows 3.x, 95, 98, 2000, XP, 2003, 7, 8, 10
 Intergraph Clipper workstation 	• PC/MS DOS
• Macintosh	• Linux (Ubuntu, Fedora)
• Amiga (1000, 2000, 1200)	• Unix
• ARM	• U-Boot

HARDWARE AND OPERATING SYSTEMS

			Years	Last	Skill
Manufacturer	Model or Series	Operating System	Used	Used	Level
DEC	VAX	VMS	19.0	2007	5
HP	HP3000	MPE / MPEX	4.0	2001	4
IBM	PC	MS-DOS x.x	10.0	2001	5
Microsoft	x86	Windows 3.x	3.0	1999	2
Microsoft	x86	Windows 95 / 98 / 2000 / 2003 / XP	23.0	Current	4
		/ Vista / 7/8/10			
Intergraph	Clipper	Unix	1.0	1994	3
HP		Unix	0.5	2001	2
		Linux (Fedora, Ubuntu)	8.0	Current	3
Commodore	Amiga	Amiga Dos	7.0	1995	5
Apple	Macintosh	System 6.x / 7	2.5	1998	1
DEC	PDP 11/xx	RSX11M+	3.0	1988	4
DEC	10	TOPS 20	3.0	1986	3

PROGRAMMING / DEVELOPMENT LANGUAGES

		Years	Last	Skill
	Platform	Used	Used	Level
C#	PC (Visual Studio 2003)	1.5	2007	3
[X]HTML[5], CSS	PC / Windows, LINUX	4.0	Current	4
Javascript	PC / Windows / LINUX	3.0	Current	4
XML	PC / Windows, LINUX	1.5	Current	2
XSLT	PC / Windows	.5	2007	1
PHP	PC / Window, LINUX	1	2017	2
ASP	PC (Visual Studio 2003)	1	2007	2
C	VAX, UNIX, PC, Amiga, Fedora, ARM	6.0	2017	4

FRAMME (ODL, RBC, FDL, MDL)	VAX, UNIX	6.0	1994	4
DMRS DDL	VAX, PDP 11	7.0	1983	3
SQL	VAX, UNIX, MS SQL	5.0	2007	4
VMS DCL	VAX	20.0	2006	5
IGDS IPS pen tables	VAX, PDP 11	8.0	1992	4
IGDS UCM	VAX, PDP 11, PC	7.0	1990	5
IGDS MDL	NT	course	1996	2
RSX MCR	PDP 11	5.0	1988	4
BASIC	VAX, DEC 10, PDP 11, PC, Amiga	10.0	2006	4
Visual BASIC	PC	1.0	2007	2
FORTRAN	VAX, DEC 10, PDP 11	6.0	1988	5
C++	PC	2.0	2017	2
COBOL	VAX, UNIVAC, HP3000	7.0	1999	4
VAX Assembler	VAX	1.0	1983	1
6502 Assembler	Commodore 64	3.0	1988	3
AREXX	Amiga	4.0	1994	3
Amiga Dos	Amiga	5.0	1994	4
MS DOS	PC	5.0	2001	4
MPE/X JCL	HP	4.0	2001	3
Pascal	teaching	course	1997	3
Java	PC	2	Current	3
Ruby	PC	1.5	2006	2
RoR (Ruby on Rails)	PC, Ubuntu	1.0	2006	2

PROGRAM DEVELOPMENT TOOLS

		Years	Last	Skill
	Platform	Used	Used	Level
Visual Studio	PC	1.5	Current	3
Eclipse	Linux (Ubuntu)	1	2006	2
Excelerator (CASE)	PC	3.0	1992	3
VMS (MMS, CMS)	VAX	4.0	2006	3
MAKE	Unix, Amiga	4.0	1995	3
Micro Station	PC	2.0	1990	2
FRAMME FKBT	Unix	1.0	1992	2
FRAMME FMPG	Unix	1.0	1992	2
FRAMME PCR	VAX	5.0	1992	3
FRAMME UDP	VAX	4.0	1992	3
IGDS EDG	VAX, PC	7.0	1993	4
IGDS IPLOT	VAX	2.0	1993	2
IGDS IPS	VAX, PDP 11	6.0	1992	3

IGDS FLIB	VAX, PDP 11	5.0	1992	3
IGDS CSL, ISIF	VAX, PC	2.0	1988	2
IGDS ANL	PDP 11	4.0	1987	4
IGDS BITS, RFMOD	VAX, PDP 11	3.0	1990	3
ZEH	VAX	0.5	1990	2
ANALYZE/RMS	VAX	8.0	1996	3
EDIT/FDL	VAX	4.0	2005	5
EDIT/ACL	VAX	4.0	1996	4
VMS FMS	VAX	2.0	1983	3

DATABASE AND DATA COMMUNICATIONS

		Years	Last	Skill		
	Platform	Used	Used	Level		
MySQL	PC/Windows, Ubuntu	0.5	2007	1		
MS SQL	PC/Windows	1.0	Current	3		
IGDS	VAX, PDP 11, PC	10.0	1993	4		
DMRS	VAX, PDP 11	8.0	1993	3		
FMU	VAX, Unix	4.0	1993	2		
TCP/IP	Unix, PC, Amiga	5.0	2017	2		
DECNET	VAX, PDP 11	11.0	1997	3		
PATHWORKS	VAX, PC	2.0	1996	2		
ORACLE	VAX, Unix	1.0	1996	2		
RDB	VAX	3.0	1997	3		
ISAM	VAX	10.0	2006	3		
DBASE / FOXBASE	PC	1.0	1988	2		
DATATRIEVE	VAX	5.0	1997	4		
POWERHOUSE	VAX, HP3000	7.0	2001	4		
SMARTSTAR	VAX	1.0	1996	1		
SUPERBASE PROFESSIONAL	Amiga	2.0	1992	2		
ACCESS	PC	2.0	2006	2		
USENET UUCP	Amiga	3.0	1992	2		
Compress, Zoo, Arc, LHArc	VAX, UNIX, PC, Amiga	6.0	1994	4		
PKZIP, WinZip	DOS, Windows, Amiga, VMS	6.0	Current	4		
OTHER UTILITIES AND SOFTWARE PACKAGES						
MySQL	PC/Windows, Ubuntu	0.5	2007	1		
MS-WORD	MAC, PC	8.0	2016	4		
EXCEL	MAC, PC	8.0	2016	5		
Open/Libre Office	PC, Linux	5.0	current	4		
EXCELLENCE!	Amiga	4.0	1992	3		

FINAL COPY	Amiga	2.0	1995	3
TYDAC	PC	1.0	1986	2
VMS BACKUP	VAX	6.0	1996	4
VMS AUTHORIZE	VAX	6.0	1992	3
ANALYZE/RMS/FDL	VAX	4.0	2003	3
MICROSOFT WORKS	PC	4.0	1998	3
MICROSOFT FRONTPAGE	PC	3.0	2001	3
COREL DRAW	PC	2.0	1996	2
WORD PERFECT	PC	2.0	1998	3
Netscape Navigator / Communicator	PC	7.0	2001	4
Partition Magic	PC	6.0	2006	3
System Commander	PC	6.0	2001	4
Netscape Composer	PC	2.0	2001	3
Microsoft Outlook	PC	8.0	2013	3
Microsoft Schedule Plus	PC	2.0	1998	2
Microsoft Internet Explorer	PC	8.0	2013	4
Lotus Notes	PC	3.0	2001	2

^{*} Skill Level (1 = minimum, 5 = maximum)