

# David Thielen

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## SUMMARY

Senior software developer with over 10 years experience developing in C, C++, and assembler. Detailed understanding of Windows and strong understanding of UNIX. Senior developer on the Windows team at Microsoft. Also wrote part of VC++ while at Microsoft.

Have written operating systems, enterprise server systems, applications, and games in C++. Also have numerous years of experience with network protocols and Java/J2EE.

Invited speaker at numerous national conferences speaking on topics ranging from writing Windows Virtual Device Drivers to managing the software development process. Author of four books and over 30 articles.

## SKILLS

Patents: 6,092,144 6,033,108 5,596,726  
Languages: C#, C, C++, MFC, STL, Java, J2EE, EJB, JDBC, JSP, HTML, Servlets, JavaScript, XML, XSL, XPath, x86 Assembler.  
Certifications: CISSP, SCP (Java), SCWCD (J2EE), MCP.  
Tools: Weblogic, Tomcat, JRun, JUnit, log4j, dom4j, ant, VSS, CVS, IntelliJ, Dreamweaver, BoundsChecker, Soft-Ice, V-Tune.  
Systems: .NET, J2EE, WebLogic, WebSphere, JRun, Tomcat, IIS, sockets, TCP/IP, NETBIOS, rtf, pdf, Windows SDK, Windows DDK, UNIX.  
Databases: SQL Server, Oracle, DB2.  
Products Shipped: Automate!Test, Windward Reports, DefendTek, QuickStreet Server, Business Object Builder (Bob), Page 2 Stage, Enemy Nations, Wing Commander Armada for Windows, Monty Python's Complete Waste of Time, Win-Link, Windows 95, Far East Windows 3.1 (Japan, Taiwan, Korea), WinView, Co-Counsel, The Cat, and numerous smaller programs.

## EMPLOYMENT (C#/C++)

Newmerix Superior, CO 2003 - present

Senior Developer

- Specified, architected, designed and presently coding a program to provide for automated migration and merge of patches and customizations of ERP systems. Initial product is targeted at PeopleSoft systems and written in C#.
- Major contributor to the companies test product which provides automated tests for ERP systems. The initial product shipped is targeted at PeopleSoft systems and written in C#.

Windward Studios Boulder, CO 2001 - 2003

Senior Developer

- Windward Reports (see java section) includes a .NET client written in C# that provides access to the report server over the network.

- Architected, designed, and wrote a personal firewall – DefendTek ([www.DefendTek.com](http://www.DefendTek.com)). Composed of a device driver (written in assembler and C), a service (written in C++), and an application (written in C++ with MFC).
- The firewall is a TDI layer driver that inspects all TCP and UDP packets and allows or fails all connections based on the packets: protocol, direction, port, application on the local machine, and remote IP address.

Microsoft Corp. Redmond, WA 1990 – 1994  
Senior Developer

- Completely rewrote the BIOS and initialization code of the DOS kernel. Also did substantial work in the DOS section of the kernel.
- On the Win95 project, wrote a file system, worked on the disk cache, wrote the volume tracking code and floppy disk device driver, worked on the new block device driver spec and design, and designed and wrote the COMM device driver system.
- On temporary loan to the Far East division working in Tokyo, Taipei, and Seoul, helping to direct the development efforts of the Far East versions of Windows 3.1. Contributions include setting up the build process so each part can build, and build consistently; modifying the design of the Far East specific sections and incorporating significant improvements; and designing and implementing DOS Box DBCS support using U.S. drivers that do not recognize DBCS characters.

Windward Studios Boulder, CO 1994 – 1997, 2000 – 2001

- Architected, designed, and wrote a word processor for screenwriters – Page 2 Stage ([www.Page2Stage.com](http://www.Page2Stage.com)). Written in C++ with MFC.
- This is a full-featured word processor that looks like and operates similar to Microsoft Word. It adds in features necessary to screenwriting that Word cannot handle.
- Page reformatting is handled in the app in a background thread that is constantly reformatting the document as the user edits it.
- Designer, producer, technical lead, and developer for Enemy Nations – [www.EnemyNations.com](http://www.EnemyNations.com). Enemy Nations is generations ahead of its' competition delivering 24-bit art at resolutions higher than 1280x1024, network support for all major protocols, and a depth of game play far greater than anything else in it's genre. Written in C++ with MFC.
- This included writing: a pre-emptive multi-threader for Win32s; a combat engine that could handle the latency of the Internet with no degradation seen by the user; a user interface that is intuitive to a Windows user but that looks like a game, not like Windows; creating a single threaded means of interrupting the message pump to keep game response and rendering fast without the overhead of critical sections, and much more.

7<sup>th</sup> Level Richardson, TX 1994  
Senior Developer

- Wrote the program that creates a common palette for the 32-bit images used in a scene and then dithers the 32-bit images down to 8-bit using the common palette. The program is also a file viewer allowing users to easily view multiple images simultaneously. Written in C++.
- Wrote most scripting for several of the main scenes in Monty Python's Complete Waste of Time. This includes not only determining how to use the content provided for the product but also defining (and in some case creating) new content to be added.

TranSoft, Inc. Lakewood, CO 1985 – 1989  
Software Developer

- Sole developer of Co-Counsel, a litigation support program for the IBM-PC. At the ABA Litigation Support Shoot-out, Co-Counsel was used as the standard of measurement.

- Co-Counsel is a very large text database that handled proximity searches by word, line, sentence, or paragraph. The documents are pre-indexed so that the searches were very fast. The system also allowed hyper-links and annotations.
- Also wrote a report language (interpreter) to generate all of the reports for the system.

DTS, Inc. Denver, CO 1983 – 1985

Software Developer

- Sole developer of the initial version of the company's product; a computer-aided transcription system for court reporters. Written in C to run on DOS.
- This program included a full-featured word processor with special additional capabilities. It also included substantial telecommunication abilities, as well as both batch and real time translation to English.

## EMPLOYMENT (JAVA)

Windward Studios Boulder, CO 2002 - present

Senior Developer

- Architected, designed & coded Windward Reports ([www.WindwardReports.com](http://www.WindwardReports.com)), a system that allows you to quickly layout reports using Microsoft Word and then create reports in rtf, html, or pdf format using an xml file for the data and the word document you created as the report template.
- Written in Java and uses XPath for all xml references.

QuickStreet, Inc. Westminster, CO 2000 – 2001

Director of Software Development

- Build up a development team from scratch including development, test, program management, database, system admin, and more.
- Architected and designed a system to take orders from web sites, price them, and deliver them to couriers for same day delivery. Includes controlling the drivers via wireless communication and providing the drivers with optimal routes.
- Implemented on J2EE in four months from start to successful launch of version 1.0.

Global Commerce Systems Boulder, CO 1999 – 2000

Senior Developer

- Created a massive enterprise server based system that provides significant new functionality for business-to-business e-commerce.
- Among others General Electric was using this for all of their internal purchases as well as purchasing from suppliers.
- Implemented this in Java using multiple data sources on the back end, Enterprise Java Beans (EJBs) for the middle tiers, and Java Server Pages (JSPs) on the front-end. We are also using virtually every other enterprise-level Java API including JDBC, JTS, JNDI, etc.
- My work included writing the tools that all other developers use to create their EJBs and writing the persistence layer that maps all EJBs to multiple data tables.

## EDUCATION

University of Colorado Boulder, CO

- Bachelor of Arts in both Physics and Mathematics