

# RESUME

**William T. (Bill) Holmes**

**Wherever you want me to be.**

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## PROFILE

Innovative, resourceful and responsible business analyst, technical writer, database and web developer, designer, engineer, and project and functional manager, who tends to optimize the functionality, performance and accuracy of products and personnel with better processes, designs or information systems or automation in all eight domains experienced using over seventy application programs, thirteen database systems, thirteen programming languages and ten operating systems. That experience facilitates the rapid identification of core problems, and the design and implementation of novel solutions using new tools.

## EMPLOYMENT AND EDUCATION HISTORY

### Chronological Summary

#### **Aerospace: 11 years**

Drafter, designer, tester: 2 years

Aerodynamicist: 7 years

Solid Modeling Designer (SolidWorks, Alibre): 2 years

#### **Aerospace IT: 10 years**

Application programmer and interface analyst: 2 years

Technical Analyst for CAA, CAD, CAE, CAPP, CAM system acquisition: 2 years

Project and Functional Manager for CAD file and CAD/CAM database development: 4 years

Process Architect for Enterprise Integration: 2 years

#### **General IT: 16 years**

Web, Database, Graphics and Animation Developer: 7 years

Project Manager: 2 years

Business Analyst: 3 years

Technical Writer: 4 years

### Reverse Chronological Detail

#### **Bill Holmes Consulting - 7/2005 to present**

##### **Business Analyst and Technical Writer**

Merged requirements for an online bill pay system from multiple documents into one. Derived Excel spreadsheet from it for loading features into Team Studio. Consolidated, refined, added and linked Product Backlog Items. Researched functionality of and ACH token passing with CyberSource for credit/debit cards and checks. Researched transaction posting to Facets. Refined, added and linked Product Backlog Items accordingly. Investigated ramifications of an incorrect Member ID in various systems. Investigated cause of report inconsistencies. Used MS Team Studio, Agile (SCRUM), Outlook, Word, Excel, Visio, SQL and Paint. Contracted to Providence Health Plans via TEKsystems.

##### **Designer, Inventor and Technical Writer**

Conceived, conceptually designed, submitted provisional patent application, researched market, and wrote product plan for a [Blade Flyer](#) VTOL and conventional flight vehicle concept and a "Rail and Sill Hoist" concept. Further developed presentations and business plan, submitted unpublished full patent application, and solicited investors for the Blade Flyer. Designed decks, fences and other home improvements, and designed a rack divider system and method of installation to avoid the "push-through" problem at warehouse stores. Used SolidWorks, Canvas, Word, Excel, Pages and Numbers.

### **Database Developer**

Studied latest requirements definition trends: Model-Driven Analysis (MDA), Agile Modeling, Rational Unified Process (RUP), Unified Modeling Language (UML), Object-Oriented Analysis (OOA), Object-Oriented Design (OOD), Common Information Model (CIM), Capability Maturity Model (CMM), Business Process Modeling (BPM) and Scenario-Based Design (SBD), and found them wanting, particularly with regard to granularity. Prototyped [database-centric method](#) for developing and maintaining requirements, metadata, software and tests as a superior alternative. Used Word and FileMaker 8.

### **Business Analyst and Technical Writer**

Developed functional requirements and technical specifications for systems that support medical insurance business, including receipts processing, member appeals, benefits, chemical dependency and call processing. Performed a gap analysis of the member appeals legacy system with Facets claims and workflow manager that revealed Facets could be used for the purpose without the belated Facets appeals application as confirmed by onsite Trizetto personnel. First among seven contract business analysts to get customer approval. First to get Trizetto programming staff acceptance of a technical specification. Used Outlook, Word, Excel, Facets, Access, SQL, Visio, LiveLink, Project and RUP/UML subset. Contracted to BlueShield/BlueCross via World Health.

### **Synergy Enterprises (Lancaster, CA) - 6/2004 to 7/2005**

#### **Web Site and Database Developer**

Developed media database for letter, article and press release distribution that creates a unique email messages for each recipient.

Developed a database system that generates model-specific manuals from a generic product manual, simply by entering the generic manual as one paragraph, sentence, cell or row per record and using HTML pop-ups to format the text. Then only the generic manual need be maintained. Searching for records based on model number, and exporting the found set results in an HTML file that is used as-is, or is converted by scripts to Word, PDF, RTF or whatever is desired for publication of the model-specific manual. It is surprisingly efficient to use. Duplicating records copies a text style. Simply replace the text. A decimal system makes it easy to properly sequence records with a sort. Enhanced document database for multiple documents, including resumes. Used FileMaker.

The "custom manual" database can be extended with additional layouts into a requirements collection system that includes graphics and meta data. Export the found set as conventional functional requirements or technical specification documents. Additional layouts with software commands and meta data (variable) pop-ups instead of formatting pop-ups can replace typing as the primary software development method. Add another layout for a different language. Export the found set as a text file for compilation, execution and test. Compare each software function with the requirement directly related thereto by way of the relational database to determine if the requirements are in fact satisfied. Search for similar requirements to find the related code to reuse.

### **Inventor**

Developed and submitted provisional patent for a fraud- and theft-free financial transaction method based on

telephony, particularly cellular telephones. Used Word.

## **American Astronautics Corporation (Carlsbad, CA) - 12/2003 to 6/2004**

### **Technical Writer and Designer (VP of Operations)**

Refined business plan. Developed web site. Prepared launch site plan and presentation. Developed factory layout. Evaluated potential manufacturing, launch and refurbishment locations. Space tourism startup failed to materialize. Used Word, HomePage, Canvas, Photoshop and SolidWorks.

## **Synergy Enterprises (Carlsbad, CA) - 5/2000 to 12/2003**

### **Technical Writer**

Developed Ph.D. thesis and presentation on space-based robots controlled from Earth by way of a simulator. A Ph.D. was awarded. Used Word and Canvas.

### **Web Site and Database Developer**

Developed a Web-enabled asset management system for Florite International that receives calls from remote data collection devices, and centralizes their data for analysis and decision-making. When predetermined thresholds for filter back pressure, fluid level, etc. are exceeded, the system automatically issues email alerts to service personnel. The messages include the physical location of the facility, the location of the problem part within the facility and the tools and parts needed to remedy the situation. If the response time is exceeded, the service manager, thence the business manager and finally the business owner are notified.

Moved and maintained Web servers, and developed web sites for realtor, accounting business, hypnotist, medical insurance sales office, general insurance office and a business networking organization. The latter included a self-maintained multi-organization business card 'yellow pages' database.

Used HomePage, Photoshop and FileMaker.

### **Solid Modeling Student**

Completed SolidWorks Essentials at Pacific Automation and Advanced Part Modeling, Advanced Assembly Modeling and Sheet Metal courses at home.

### **Designer**

Invented spool-mounting device for wire carousel, and developed twenty-six page report of other improvements for Home Depot, thirteen of which are patentable. Used Canvas and Word.

## **Omnigon (Carlsbad, CA) - 5/2000 to 9/2002**

### **Project Manager**

Managed successful troop and rescue team coordination system proposal. It utilizes a sensor fusion system to detect humans partially obscured by plants or other objects. PDA-like devices help distinguish team from target. Helped manage network speed financial fraud detection project. Managed and organized electronics laboratory. Determined cost of making FiberHydrant D1 High End Broadcast Video demonstrator manufacturable. Used Word, FasTrack Schedule and MS Project.

### **Designer**

Designed a group coordination and sensor fusion system, including all the screens of the touch-sensitive display of a rugged PDA-like device, and the structure and delivery systems for the sensor fusion system. Designed a secure communications hut. Used Canvas, VectorWorks and MiniCAD.

### **Technical Writer**

Wrote most of a group coordination and sensor fusion system proposal. Installed older operating systems and programs to recover information from legacy files. Managed massive functional specification. Used Word and Framemaker, MacDraw and MacWrite.

### **Web Site and Database Developer**

Derived from the Florite asset management system an asset management system for Omnigon, so researchers, developers and other personnel could more readily find diverse material (books, periodicals, software, network nodes, etc.) scattered throughout the premises by grid location, cabinet/case and drawer/shelf, number. It included longitude, latitude and altitude fields in the event a local GPS was installed. The system allowed users to indicate where items were moved (checked-out), so others could readily find them.

Derived from the asset management system a resource management system for Omnigon for tracking labor and materials on projects in a manner that could be used to forecast the cost of similar projects. Developed various database-enabled Intranet glossary systems for Omnigon to support requirements definition and software development.

Developed a database-enabled Intranet cooperative development system for Omnigon, because the functional requirements document was so large it readily crashed Word. Author and origination and modification dates are maintained. Authors log-in and can transfer their authorization to edit their text to others.

Used Word, FileMaker and HomePage.

### **Software Developer**

Developed databases and wrote software to evaluate genome data. Used Python in an Agile (Extreme Programming - XP) Linux environment and FileMaker.

## **Synergy Enterprises (North Park, Escondido and Palmdale, CA) - 11/1991 to 5/2000**

### **Web and Database Developer**

Developed a number of client-maintained web-enabled database solutions. The forums system allows users to add categories and to post and read messages via email as well as the Web. The forms system allows users to create their own surveys. The quotations and articles systems encourage users to search for an existing quote before adding a new one. The U.S. history chronology system includes internal cross-references, external links and alternate search results (secular or religious). The mall system includes one rental store, and interacts with the merchant banking system via telephone. It notifies store owners and suppliers of all orders and the allocation of sales proceeds. Stores are added simply by duplicating and renaming files. Developed conventional Web sites for a publisher and various trusts. Installed and maintained a web server. Used Word, Excel, Visual Page, FileMaker, WebCompanion, MacAuthorize, Tango, Lasso, HomePage, AppleScript, Photoshop, Canvas, NetPresenz, QuickDNS Pro and Timbuktu.

### **Designer**

Designed for Omnigon a theme park ride system that uses a mass-producible three-passenger, gimbaled, spherical module with a video projected on interior, so ride motion and imagery can emulate any theme of the

occupant's choosing, including multipart themes and interaction with other modules. Acceleration is provided by gravity and carousel centripetal force. Direction is provided by module orientation. Includes a six times acceleration of gravity (6 g) life-after-death ride. The ride experience can be radically changed and even customized for each patron without changing the expensive physical structures. Patron activity is tracked, so they can continue their theme park experience at a later date, and thereby motivate their rapid return. Developed presentation therefor. Used Word and Canvas.

### **Animator**

Developed training animations and other videos. Used Macromedia Director, Canvas, Word and Photoshop.

### **Administrator**

Managed list and bulk-mailed newsletter. Installed and maintained Macintosh computers and Apple networks. Wrote and edited articles. Used PageMaker, Word and Excel.

### **Business Analyst**

Developed requirements for a fulfillment system. Developed requirements for and installed 900 phone system. Used Word, Excel and Canvas.

### **Technical Writer**

Developed proposals and presentations for HyperKnowledge applications for Omnigon in Sorrento Valley, CA. Installed networks. Organized library. Learned MicroPlanner. Used Canvas, FrameMaker and Powerpoint.

## **Computer Sciences Corporation (San Diego) - 11/1991 to 4/1992**

### **Business Analyst and Technical Writer**

Published Enterprise Integration and Management [wholmes.com/eim](http://wholmes.com/eim) and specified data management plan and email-based change notification system. Used Word, Excel and Canvas.

## **Startup (Tierrasanta, CA) - 1988**

### **Programmer**

Wrote C program to convert topographic model data to 2.5 axes numerically controlled machine instructions and successfully cut three-dimensional part from rigid foam for housing developer displays. Used XENIX applications.

## **General Dynamics, Data Systems Division (San Diego) - 5/1983 to 11/1991**

### **Process Architect and Technical Writer**

Developed "Solid Modeling Brief" sought by IBM, DEC, Matra Datavision, Computervision and others to introduce the new technology. Defined product development process and the information architecture required to support it for an enterprise integration project. Conducted vendor selection process. Learned Euclid solid modeler and Catia surface modeler. Evaluated Development Technologies International, The Netherlands with corporate-wide team. Wrote the DevTech Compendium, which was used to secure funding for Omnigon three years later. Used a business data modeler, MacWrite, MacDraw and Canvas.

### **Functional Manager, Project Manager, Business Analyst and Technical Writer**

Saved CAD File Control System (FCS) project by eliminating distrust, resolving conflict and writing requirements in pseudo code. The FCS was used by four GD divisions, Computervision and Hughes. Used a minicomputer-based word processing system.

Saved corporate-wide CAD/CAM Data Base Management System (CCDBMS) project by re-architecting system to limit contractor to Global Access Facility (GAF) and take advantage of File Control System. Initiated rapid-prototyping to establish the requirements for Parts and Tasks Information (PATI) system, including configuration management of all deliverables. Managed eighteen San Diego programmers, and coordinated the development of six-person team in Fort Worth and Groton. Demonstrated PATI and GAF to all Divisions. Used MacWrite, MacDraw, MacProject and MS Project. Learned Pascal, AXE, Fort, 6800 assembler, Model 204 DBMS programming and real time software design and modeling.

### **Hewlett-Packard (San Diego) - 5/1981 to 5/1983**

#### **Product Marketing Engineer**

Initiated highly successful direct response marketing system that correlated sales with ads. Managed first grit wheel plotter (7580) and an electrostatic plotter. Used various HP word processing and graphics programs and Basic. Learned Problem Solving.

### **General Dynamics Convair (San Diego) - 1/1978 to 5/1981**

#### **Project Manager and Business Analyst**

Supervised development of analysis sequencing, execution and data exchange system. Evaluated, specified, acquired and optimized utilization of graphic systems for computer-aided analysis (CAA), design (CAD) and process planning (CAPP). Represented company at IPAD CAE and CAM-I Solid Modeling meetings. Used IBM TSO.

### **Rockwell International, Los Angeles Aircraft Division (Los Angeles, CA) - 1/1973 to 1/1978**

#### **Aerodynamicist**

Performed aerodynamic analysis of 378 conceptual designs. Conducted low-speed wind tunnel testing. The HiMat highly maneuverable (9 g) Remotely Piloted Vehicle (RPV) was the only one built. Used various proprietary programs.

#### **Programmer**

Developed interactive graphic and tablet software for preliminary aircraft designs. Used Fortran and IBM TSO.

#### **Business Process Analyst**

Initiated inter-department data transfer process, and acquired minicomputer system to speed vehicle synthesis from conception through cutter path generation for wind tunnel models. Made flexibility tailoring possible. Used IBM MVS TSO and Varian tools.

### **North American Aviation, B-1 Division (Los Angeles, CA) - 8/1971 to 1/1973**

#### **Aerodynamicist**

Reduced B-1 wind tunnel data. Conducted wind tunnel tests. Automated data plotting. Used RPG and plotter.

## **National Science Foundation (San Luis Obispo, CA) - 6/1971 to 8/1971**

### **Designer**

Configured a portal to portal transportation system of vehicles powered with flywheels when not on magnetic levitation flyways. Co-authored A Generic Urban Planning Model for Urban Systems , GY-9159.

## **California State Polytechnic University (San Luis Obispo, CA ) - 6/1968 to 6/1971**

Received Bachelor of Science Degree with honors (3.1/4.0 GPA) in Aeronautical Engineering, where the motto is "Learn by Doing." Elected in absentia to chair AIAA student branch. Co-chaired Aero Royal. Converted hangar full of junk into useful education facility. Designed Aero logo still in use today. Played left wing and left half for varsity soccer team. Designed and built a horizontal cable-supported cross-arrow refreshment kiosk for Aero Royal, which engendered a transfer invitation from the Architecture department to be a structural engineer.

## **NASA Dryden Research Center, Advanced Projects and Flight Operations (Edwards AFB, CA) - 6/1967 to 9/1967, 6/1969 to 9/1969 and 6/1970 to 9/1970**

### **Designer**

Designed propulsion, control and release system installations for Hyper III remotely piloted vehicle. Designed flight and ground support equipment for X-24 and HL-10 lifting body vehicles. Designed the paint scheme for all NASA Edwards aircraft. Supported X-15 engine tests and B-70 operations.

## **North American Aviation, Rocketdyne Division (Canoga Park, CA) - 6/1967 to 9/1967**

### **Draftsman**

Drafted Atlas test equipment and revised drawings.

## **Northrop Institute of Technology (Inglewood, CA) - 9/1966 to 6/1967.**

Earned 3.8/4.0 GPA in first year of Aerospace Engineering study.

Worked since Junior High School saving for college, but still had to work in the college library to survive one year at private college recommended by high school counselor. Got job with Rocketdyne, entered NASA 6-month Co-op program, and worked two summers at NASA to earn enough to complete college.

## **U.S. Air Force Civil Engineering (Edwards A.F.B, CA) - 6/1966 to 9/1966**

### **Draftsman**

Designed water supply facility. Drafted engineering sketches. Ran blueprint machine.

## **Pat O'Brien's Brand Appliances (Lancaster, CA) - 9/1963 to 6/1965**

### **Parts Manager**

Designed and installed appliance wench system for cellar stairs. Organized and managed parts department. Unloaded rail cars and delivered appliances.

## **Antelope Valley Joint Union High School (Lancaster, CA) - 9/1962 to 6/1966**

### **Pre-Engineering Student**

Graduated with honors. Earned drafting and industrial arts awards. Elected in absentia as ski club president.

## TEST RESULTS

**SAT** - Verbal: 586 = 97 percentile, Math: 586 = 89 percentile.

**Kuder Occupational Interest Survey** - Chemist, Computer programmer, Engineer.

**Langdon Adult Intelligence Test** - 140 total I.Q., 99 percentile.

**Keirsey Personality Profile** - Equally INTP Architect: (designer of buildings and ideas, abstract design, exhibit greatest precision in thought and language of all the types; tends to see distinctions and inconsistencies in thought and language instantaneously), and INTJ Scientist (brings INTP designs into reality). Both are 1% of the population.

**MAPP Appraisal** - Inquisitive, exploratory, analytical, experimental, self-sufficient, goal-oriented, independent, considers people both philosophically and psychologically, engineering orientation, applies scientific/technical/logical thinking to identify, analyze, and solve problems, devise strategies and systems to achieve objectives, writes creatively at professional levels.

See [wtholmes.com/tests.htm](http://wtholmes.com/tests.htm) for complete results and descriptions.

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