

# Thomas B Winans

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## *Software Engineer, Technology Consultant*

Software Engineering • Product/Process/Project Management • Technology Diligence • Project Triage

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Accomplished software engineer with 25+ years experience who:

- ❖ works with domestic and international senior management and technology teams to align product and technology strategies to business strategies, and assists Product Management and Software Engineering teams in their execution to the same;
- ❖ architects / implements service-oriented and distributed application and technology platforms and solutions;
- ❖ provides program and project execution guidance; and
- ❖ performs product/project/technology reviews and diligence work.

Typical project work usually requires interaction with Product Management and Engineering teams to model new software product families, plan product roadmaps, and establish product-specific program management. Frequently works with product and application/technology architecture teams to identify functional and technical product requirements, construct conceptual application and technology architectures, perform prototype work to identify key technical risks to be managed during software production, project plan, and develop software.

Work experience through consulting and full time employment in a variety of business domains including telecommunication, health care, on-line employment service, computer / automotive / defense manufacturing.

### Core Competencies

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|---|---|-----------------------------------|
| ❖ Service-oriented application and technology architecture; systems integration | ❖ Product/service and project planning and management | ❖ Technology due diligence        |
| ❖ Software development process methodology and processes                        | ❖ Project triage                                      | ❖ Technology strategy development |
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## *Professional Experience*

### **Concentrum, Inc.**

Principal

1998 to present

Provide consulting and software engineering services, on a contractual basis, such as the following: pre-investment technology diligence services, post investment portfolio management services, organizational and software production methodology development, distributed service-based application architecture design / implementation / review, and project triage. Past and present clients include:

- ❖ E. M. Warburg Pincus and Co., LLC
- ❖ The Cobalt Group
- ❖ Indus International (now Ventyx)
- ❖ Deloitte Consulting, LLP

- ❖ Nissan North America
- ❖ Level(3) Communications
- ❖ BDM International, Inc./TRW

**BDM International, Inc./TRW**  
Lead Technologist, Office of CTO

Jun – Oct, 1998

Joined BDM to participate in the formation of a commercial systems integration team. Left subsequent to TRW-dictated change in direction.

**MCI Systemhouse Corporation** (now EDS)  
Chief Scientist

Apr 1993 – Jun 1998

Conducted research in the area of electronic commerce, knowledge management, message oriented middleware, and distributed object and event-based computing.

Perform project management, software system analysis, design, and implementation for MCI Systemhouse internal projects with a primary focus on large distributed system hardware/software technologies for building transactional systems. Focus upon project technology architecture development for technologies as they apply to specific vertical business market segments. Participate in bid and proposal work and early stage client engagements as required. Conducted project work including the following a Starbucks Enterprise Data Transport Initiative, internal Reusable Component Initiative, internal Internet Commerce Architecture Initiative, and Standard Insurance Business Object Modeling.

**WilTel Advanced Technology Group**  
Senior Design Engineer

Jul 1991 – Apr 1993

Evaluated OODB technologies currently available and implemented Versant's OODB for WilTel's ATM Network Management System. Participated on Versant's team that ported OODB to NEXTSTEP (black hardware).

Designed Versant database for ATM Network Management System.

Developed NEXTSTEP/Objective-C programming interface to Versant OODB and SQL relational databases. The Versant interface was distributed with Versant's OODBMS product for NeXTSTEP.

**Compaq Computer Corporation**  
Senior Programmer/Analyst

Oct 1998 – Jul 1991

Program managed, architected and implemented next generation board shop factory information system – SCO Unix on first generation Compaq servers using Sybase. Left subsequent to corporate reorganization and Rod Canion departure.

**Hughes Aircraft Corporation**  
Member of Technical Staff II

Aug 1984-Oct 1989

Developed Stratus Programmable Stratabus firmware to communicate between PC network and Stratus factory data collection applications.

Developed Smalltalk 80 discrete event manufacturing simulation program for analysis of manufacturing processes.

Assisted in maintenance/development efforts of fault diagnostics systems (rule-based and inductive learning) that were programmed in Lisp on a Symbolics 3670. Ported the inductive learning system to Smalltalk 80.

**Hargis & Montgomery, Inc.** (consultants in Hydrogeology)  
Programmer Analyst

Oct 1979-Aug  
1984

Design/develop/maintain hydrogeological software systems.

Developed CPM-based PC software to facilitate model data manipulation.

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### *Education*

Bachelor of Arts  
University of Arizona - May 1983, with Honors

Major: Mathematics  
Minor: Computer Science

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### *Noteworthy Application/Platform Implementations*

Smalltalk Wellfield Simulator, Factory Information System (firmware, database software), Smalltalk Discrete Event Simulator, Smalltalk Inductive Learning System (port from Symbolics Flavors), NeXTSTEP Persistence framework (Versant, Sybase), Customer Care System, Objective-C Rule-based Business Transaction Rating Engine, Forté Transaction Management framework, Forté and C++ Queue Management framework, Neuron Data Advisor/J C Rule-based Business Transaction Rating Engine, Publish/Subscribe framework (Java, Active Software Event Broker), Active/Vitria Bridge, eCommerce relational information model, Web Service code generator

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### *Software Development Environments*

Java, Tomcat, Web Services, Macromedia Dreamweaver, RDBMS, UML, Forté, Lisp/Symbolics, CLOS, VisualWorks Smalltalk, C, C++, Objective C/NEXTSTEP, Perl (some), FORTRAN/Cyber, PLI/Stratus, Pascal/PC, .NET 2.0/WSE 3.0/SQL Server 2005/C#

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### *Publications and Whitepapers*

#### Internal

Pragmatic Object-Oriented Programming  
Software Project Team Execution Blueprint  
Software Project Process Execution Blueprint  
Internet Commerce Architecture Strategy  
Reusable Component Strategy Initiative  
Object Technology in an Extended Enterprise

#### External

Unified Application Security Strategy – Distributed  
Object Computing Magazine  
Billable Events Processing in an Electronic Commerce  
Marketspace – World Multi-Conference on Systemics,  
Cybernetics and Informatics (SCI 1998)  
Object Technology in the Extended Enterprise –  
EDOC 98  
New Perspective On Web Services, Warburg Pincus  
Technical Series, 2003

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### *Personal Quotation*

*"You are placed by Providence in the post of honor because it is the post of danger. The eyes not only of North America and the whole Empire, but all of Europe are upon you. Let us be, therefore, altogether solicitous that no disorderly behavior, nothing unbecoming our characters as Americans, as citizens, and as Christians, be justly chargeable to us." Provincial Congress of Massachusetts, 1774, in its charge to the Minutemen*