

# Joseph T Batt



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I specialize in turning around projects that are facing technical implementation and design difficulties then training the permanent staff to manage the project into the future.

## Experience

### Consulting

#### ***2001-present Navistar***

Technical lead for Engine service tool. 5,000+ users including service technicians and product development engineers. Directed design and architecture for development team. Managed schedule of development and customer expectations.

Retrofitted authentication and security in an existing system to support ITAR (defense related product development requirements). The system included a server component, authenticated transmission to the client and untrusted client storage for use in a disconnected mode. Technologies included mutual SSL, encryption, caching and permission management.

Instrumental in the design of an engine diagnostic and tuning tool that will support the full product line of the largest mid sized diesel manufacturer in the world. The UI was designed to allow the power users to capture task oriented sessions that will be distributed to all users.

Conceived, designed and implemented a variety of one button programming and calibration tools for medium and heavy truck electronics modules. These small applications avoid the complexity of the standard systems both in design and usage.

Designed and implemented a variety of web based integration applications written in Java/JSP using web services, JavaScript, Java, JPA or JDO, XML and legacy interfaces.

Designed and implemented graphical user interface (GUI) for a custom integrated development environment (IDE) to program embedded controllers. Included drag and drop of custom I/O devices, ladder logic editor, text editor with word completion and syntax highlighting, integration with an emulator or real device for testing, and many custom controls for immediate data validation.

Designed, implemented and tested a partial Java JDO driver running on top of a disk based hashtable. The implementation optimized read speed while minimizing disk and memory footprint. Supported features included reading, writing, encryptions, caching, compressions indexes and readonly usage. The main driver for this development was to support an incremental update system to move data from the OLTP database to the possibly 5000 clients in the field with intermittent connectivity.

Designed, implemented, tested and optimized Hitachi SH2 emulator for testing custom applications for embedded systems. Required complete understanding of SH2 assembly and Java byte code for optimization.

Designed and implemented tool to optimize and illustrate the angles in truck drive lines. Required complex data modeling and planning to execute search efficiently.

## **2005**

Presented “Continuous Integration With CVSNT, CruiseControl, Ant, JUnit, JFCUnit and More on Microsoft Windows” at Indianapolis Workshops on Software Testing.

## **2004**

Presented “Emulating a SH2 Embedded Device in a Java™ Virtual Machine” at JavaONE, the largest developer conference in the world, in 2004. The presentation highlighted how to efficiently emulate hardware in the Java programming language and what the anticipated performance would be.

## **1999-2000**

Directed a consulting firm that was breaking into web development in methods of JSP, Servlet, and Java development. End result was successfully deployed to the internet site of an international financial services company.

## **1998-2001**

Designer for development of a large life insurance policy management system. Utilized management tools like Rational Unified Process, Unified Modeling Language, and revision control. Designed or audited the design of all the server side functionality including persistence, concurrency, business rule assertions (i.e. if a policy does not have an issue date, throw an error), how to move policy data around the enterprise(XML), XML parsing of a policy, how to design a batch server versus an interactive server, how to interface with MQSeries, mechanisms to describe relationships between classes (that we should use an array here or a hashtable there).

## **1998**

Designed and developed a MQSeries/CORBA interface between a call center application and a billing service provider. The interface was multithreaded C++ deployed on HP/UX.

## **1997-1998**

Developed the middle tier of a three tier treasury management system utilizing Java and CORBA. Encountered and managed issues like performance, persistence, security, concurrency and generation of boiler plate code.

## **1996-1997**

For an insurance industry investment management company, ported long term and short term trade systems from a Windows 16 bit environment to a WindowsNT 32 bit environment. Ported the existing interfaces to the trade systems from Sybase 4.9.2 to Sybase 11 in both Unix and Windows 16 bit environments.

Maintained and enhanced assorted existing applications with the Delphi development environment, JBuilder, Borland C++, C++ Builder, and Rational Rose.

### **1996**

Developed a data collection, tool control, and man-machine interface for the manufacturing floor of a major automotive maker. The application utilized multiple processes, threading, ODBC (Oracle), and OLE in C++(MS Visual) on 8 semi-stand-alone Windows NT machines (they had to work even if the network was down).

## **Navistar Technical Center**

### **1994-1996**

My team of two designed a demand driven, caching, rule based, object-oriented language to aid in the design and configuration of complex systems like trucks. The system built on top of the language has a web based front end and graphical reports. We were preparing to migrate our lessons learned to a Java based environment. We planned to use a preprocessor to get the same effect as the original language. This would have decentralized our processing and increased performance (the original language was interpreted).

Managed 10 Unix boxes (NexXTSTEP, HP/UX, Ultrix, Linux, NIS(YP), NFS(automount)), installed DNS for the site and introduced web technology (HTML, CGI, Perl, Java), multimedia e-mail (MIME, NeXTMail), OO technology (Next STEP and design methods), Oracle cost based optimization, client/server where the client and server were on different architectures and graphical reports.

## **Rose-Hulman Institute of Technology**

### **1992-1994**

Unix manager for Rose-Hulman's computing center. Responsibilities included administrative duties for 200 NeXT workstations, five DECstation 5000/133, assorted other Unix machines, all running Andrew File System (AFS) with 1,500 users.(20-40 hours/week)

## **Applied Computing Devices (ACD)**

### **1993**

Began design of Network Management tools, utilizing SNMP, for ACD to market with their other telephone network management software. Created a demo for Exxon sale. This project involved object oriented design, entity/relationship database work, simple network management protocol, and project management.

## **Activities**

Joined the St. Vincent Randolph Hospital Board of Directors in July of 2008. St. Vincent Randolph is a 25 bed Critical Access Hospital serving rural Randolph County Indiana.

Currently serves as the vice president of the Randolph Economic Development Corporation. During

tenure in the office has reopened and become a very active organization with a new director and staff of three.

In 2004, co-founded RCTech as a county wide not-for-profit organization focused on technology. The mission of RCTech is to promote economic development through education and public awareness of technology with the ultimate goal of securing the future for Winchester and Randolph County. RCTech consults with local government and not for profits about all things technical, such as phone service, software, computer hardware and networking.

In support of the Winchester downtown, provides free WiFi service to the downtown square in Winchester utilizing surplus bandwidth from Solid Design. This service is used during the day by visiting businesses and in the evening by local residents just relaxing on the courthouse square.

Previous member of the Winchester Community Library board.

## Languages and Environments

### Languages

Java/J2EE, C, C++, Delphi(OO Pascal), SQL (MSSQL, Informix, mySQL, Oracle, Rdb, Sybase), Objective-C (NeXTSTEP), Perl, Bourne Shell (sh,bash,ksh), C Shell(csh), awk, sed, DCL, Scheme, LISP, Pascal, Ada, Mathematica, Maple, X-Windows/Motif, SML/NJ

### Design

Extreme Programming, Patterns, Unified Modeling Language (UML), Rational Unified Process (RUP)

### Operating Systems

Linux, Windows NT family, NeXTSTEP, HP/UX, AIX, SGI/IRIX, DECunix (OSF/1), Ultrix, VMS, Windows 3.1/95

### Communication Protocols

HTTP, Web Services (SOAP, REST, Ad Hoc), CORBA, RMI, XML, SMB, Kermit, Andrew File System, NFS, DNS, SMTP, SNMP, PGP

## Education

Rose-Hulman Institute of Technology, *Terre Haute, IN*

**Degree** BS

**Major** Computer Science

**Graduation** March 1994 Cum Laude

**GPA** 3.327 / 4.0

**Major GPA** 3.593 / 4.0