

David B. Hardin, PE, PMP

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OBJECTIVE

To obtain a position that maximizes the application of my professional project management and technical skills toward the modernization of the energy infrastructure through the application of emerging **SmartGrid** technologies including cloud-based computing.

PROFESSIONAL SUMMARY

Comprehensive experience architecting, constructing and managing real-time process automation and production management systems. Specialist in integrated software system architectures for industrial systems spanning from intelligent devices to enterprise business systems.

PROFESSIONAL CERTIFICATIONS AND MEMBERSHIPS

- Project Management Professional, Project Management Institute, #284461
- Registered Professional Engineer, DE #5715, MD #20993
- IEEE Certified Software Development Professional (CSDP) #162
- Microsoft .NET Certified Application Developer (MCAD)
- PMI, IEEE, ACM, ISA, Microsoft MCP

SMARTGRID EXPERIENCE

- *GridWise Architecture Council*, Nominated and reelected member, 2006 - present (www.gridwiseac.org)
- *NIST Industrial-to-Grid Domain Expert Working Group*, Co-chair, 2008 - present
- *NERC SmartGrid Task Force*, 2009- present
- *ISA Expo Energy Track*, Chair, Houston, 2009
- *Brazil SmartGrid Forum*, Sau Paulo, Invited as one of four presenters, 2009
- *Connectivity Week Program Committee*, 2007 - 2009
- *Grid Interop Program Committee*, 2008 - 2009
- *GridWeek Panelist*, 2008
- Co-Author of *GridWise Context-Setting Framework*
- Co-Author of *SmartGrid Conceptual Model*
- Contributor to NIST Interoperability Roadmap
- Published article in *Hydrocarbon Processing*, 12/07: "Industrial Power Management".

PROFESSIONAL EXPERIENCE

Staff Engineer, Invensys Operations Management, Foxboro, MA, April 2006 - present

Technology Officer and System Architect, Global Development. Investigate emerging technologies and integrate into IPS products and services. Provide system architectural guidance for development projects. Member of OPC Foundation Technical Advisory Council (www.opcfoundation.org), OPC Unified Architecture Working Group and other technical committees. Submitted several provisional patent applications including: "Integrating High Level Enterprise-Level Decision Making Into Real-Time Process Control" and "Further Improved Digital Data Processing Apparatus and Methods for Improving Plant Performance".

Consulting Software Engineer, Invensys Process Systems, Foxboro, MA, April 2001 – April 2006

Technical Manager, Invensys Platform Development. Directed software development teams. Projects included the integration of Wonderware ArchestrA with the Foxboro I/A Series Control System, embedding the ArchestrA Application Server runtime and an IEC 6-1131-3 compiler/runtime. Member of the OPC Data Exchange and

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Unified Architecture Working Groups. Presented .NET technical papers and tutorials at ISA EXPO 2002 and 2003, "Applying High Performance Computing Technologies to Industrial Manufacturing" at ISA EXPO 2004 and "S95 In RealTime" at ISA EXPO 2005.

Software Technical Consultant, The Foxboro Company, Foxboro, MA, July 2000 – April 2001

Technical Manager and Lead Software Architect, Advanced Technology Department. Directed the software architecture and overall design of an embedded control system based on web technologies. System consisted of a network of embedded controllers and field devices executing Java process control objects.

Technologist, Star Enterprise/Motiva Enterprises LLC, Delaware City, DE, Jan 1989 – July 2000

Refinery Computer Coordinator, Technology Manager and Lead Software Engineer, Information Technology Department, Delaware Refinery. Directed new information and process control projects at the Delaware Refinery. Created the Galaxy Operations Information Management system for Star Enterprise's three refineries. This system successfully merged process control (Honeywell/Foxboro) and management information environments on an enterprise scale. Developed software related to the real-time process data subsystem. Production data management included laboratory, tankfarm, blending, utilities, yield accounting, shipments and receipts, unit and refinery mass balances and refinery planning/scheduling targets providing the foundation for plant ERP integration with SAP.

Staff Engineer, Texaco, Delaware City, DE, February 1984 – January 1989

Engineering Team Leader, Advanced Computer Control Modernization Project, Heavy Oils, Delaware Refinery. Project included a central control building, plant-wide communications infrastructure, field instrumentation and DCS control upgrade, plant-wide access to process information and multivariable advanced control. Responsible for all areas of project engineering, including specifications, systems architecture, software development and implementation.

Senior Process Control Analyst, Getty R&M Co., Delaware City, DE, November 1980 – February 1984

Operations Research, Delaware Refinery. Technical Lead for the Light Oils Control Modernization Program. Engineering Team Leader for the Process Supervisory Computer Modernization Project involving six process units. Responsible for hardware and software from functional and detailed design through field implementation and support. Performed project management functions related to proposals, contract administration, scheduling and cost control.

Field Instrument Engineer, Catalytic Inc., Delaware City, DE, June 1978 – November 1980

Senior Instrument Engineer, Hercules Inc., Wilmington, DE, December 1976 – June 1978

Project Engineer, Robinson-Halpern Co., Plymouth Meeting, PA, January 1973 – November 1976

EDUCATION

- Bachelor of Electrical Engineering, University of Delaware, May 1973

TECHNOLOGIES

- Modeling: UML. Languages: C#, C++, C, Java. Operating Systems: MS, UNIX, RDBMS: SQL Server, ORACLE

ADDITIONAL INFORMATION AVAILABLE UPON REQUEST