

Methodology and Technology Services



Web www.ies.aust.com

| [Home](#) | [Courses](#) | [Certification](#) | [Projects](#) | [Papers](#) | [EA Blog](#) | [Online Store](#)
| [Contact Us](#) |

A Visible Solution Paper

Implementing the Zachman Framework for Enterprise Architecture

[Printable PDF Version](#)

Visible Tools and Services Help Implement the Zachman Framework for Enterprise Architecture!

Alan Perkins
Vice President, Consulting Services

Copyright © 1997, Visible Systems Corporation

Contents

■ [Implementing Zachman Framework for Enterprise Architecture](#)

[Home](#)
[Courses](#)
[Certification](#)
[Projects](#)
[Papers](#)
[TEN Archive](#)
[EA Blog](#)
[Contact Us](#)
[Search](#)
[Links](#)
[Online Store](#)

- [The Zachman Framework](#)
 - [More Information](#)
-

Zachman Framework for Enterprise Architecture

Visible's relationship with [John Zachman](#) goes back to the early 70`s when John and [Clive Finkelstein](#), our Chief Scientist, were with IBM. Clive's belief that data models should be "business event driven" and "model based" paralleled John's belief in the need for a business-driven Enterprise Architecture which would provide an organization with an organization-scale blueprint -- or architecture --for their information infrastructure. Or, to put it in John's words, "If you are going to build a log cabin, go cut logs! However, if you want to build a skyscraper, you had better have an architecture!"

It has been our experience that no matter where you start in your application development activities, you will soon find yourself making certain "assumptions" about things not under your control or outside of your system design scope. To confirm or validate these assumptions, you find yourself moving up the Zachman rows and/or across the columns to capture the true drivers for the system: who? what? where? when? why? and how?

This means coordinating with the affected or interested business experts, system users, and management. Again, in John's words, "Top-Down vs. Bottom-up is merely a Risk Management exercise. Without a comprehensive architecture you may find yourself paving over the cowpaths of yesteryear or enabling the organization to make some of the same mistakes of the past...only faster!"

In 1987 John wrote, "To keep the business from *disintegrating*, the concept of an information systems architecture is becoming less of an option and more of a necessity." From that assertion nearly 10 years ago, the Zachman Framework for Enterprise Architecture has evolved and become the model around which major organizations view and communicate their enterprise information infrastructure. The Zachman Framework draws upon the discipline of classical architecture to establish a common vocabulary and set perspectives--a framework--for defining and describing today's complex enterprise systems. Enterprise Architecture provides the blueprint--or architecture--for the organization's information infrastructure and provides a framework for complexity and change management.

In today's world, change is the only constant, and the ability to manage that change, is the **only** competitive advantage. There are very few opportunities for a "sustainable" competitive advantage. Survival is dependent upon knowing your enterprise, your organization, your world, and how change affects it. An Enterprise Information Architecture can help, but it must be an architecture that is shared throughout the organization; one that reflects the "business of the business." The architecture serves as a guide for providing the information required to run a successful business.

Today the Zachman Framework has become a standard used by many of most successful organizations in the world. Evidence of the acceptance of the Framework has been apparent at the annual forums conducted by the Zachman Institute for Framework Advancement (ZIFA). At each forum, over 100 attendees heard presentations on the many different aspects and practical uses of the Framework. Representatives of companies such as Johnson and Johnson, Federal Express, Gartner Group, Boeing Defense and Space, Hewlett-Packard, Spectrum Technologies, Sprint, Microsoft, Terra Industries, the State of Washington, US Air Force Medical Services, and many others made presentations and participated in roundtable discussions led by other practitioners and experts.

The mission of ZIFA is, "to promote the exchange of knowledge and experience in the use, implementation, and advancement of the Zachman Framework for Enterprise Architecture." Furthermore, the Institute provides an opportunity for "true believers" to share their common perspective that the future of the enterprise depends on the concept of enterprise architecture.

Visible fully supports both the concept and philosophy of the Zachman Framework. *Visible* helps clients gain greater control of their information systems and technology requirements through development of an enterprise-wide architecture.

The architecture serves as an "enterprise blueprint." It is a repository for designs and specifications of physical data structures and applications, as well as business plans, data models, and process models. Furthermore, it serves as a map of all the linkages among business initiatives, data required to support those initiatives, business processes that use the data, and physical information systems that support data requirements and processes.

These links make the architecture a powerful vehicle for information resource and technology management. For example, by providing a

complete picture of data and processes – across information systems and functions – it enables an organization to identify and control redundancy in data and functionality. By incorporating links between business initiatives and information structures and systems, it provides a business goal-driven framework for reengineering and integrating existing information systems. The comprehensive logical description of the data enables the organization to maximize reusability and portability of data structures and processes. The architecture also enables impact analyses both prior to and during implementation of business or technology changes, to examine potential and actual effects of new business requirements (e.g., Legislative initiatives) on information resources, and impact of proposed or actual system changes on business plans and requirements.

Visible uses a combination of forward and reverse engineering to establish the enterprise architecture. The forward engineering tasks include business planning and data and process modeling. The reverse engineering tasks include analysis and documentation of all existing structures for the organization. The result is a model that represents an integrated view of the enterprise architecture framework, with redundancies and discrepancies resolved and documented.

The architecture components can all be maintained in *Visible's* proprietary CASE tool, ***Visible Advantage***. This tool was designed specifically to support the tasks and techniques involved in the creation and management of an enterprise architecture, with sufficient flexibility to integrate and support other approaches. It captures business plans of multiple organization levels and maintains the hierarchy of planning components (goals, strategies, etc.). Unlike many other CASE tools, ***Visible Advantage*** has the capability of directly linking each business plan component and process back to the entities and attributes of a logical data model. This feature is used to control quality and completeness, and ensure that designs of processes and systems meet business requirements. ***Visible Advantage*** can also be used to specify physical information system designs based on the data model; or, import physical designs of existing data structures into the repository, then link them back to the logical data model.

Visible Advantage is the only CASE tool that allows multiple physical (de-normalized) database designs to be created from subsets of a single logical (fully-normalized) enterprise data model in which every element can be linked to one or more strategic, business, or system requirements.

Another of *Visible's* Zachman Framework implementation tools is its "[Universal Model](#)" which provides both a "jump start" and a benchmark for Enterprise Architecture development. This [Object-Oriented](#) model allows any organization to take advantage of our years of experiences with a great variety of government and commercial organizations to more effectively arrive at the creation of an architecture for a system or an enterprise. An organization begins by customizing our template architecture to reflect its unique culture and character. Then each new system developed is both derived from and adds to the overall enterprise model.

For more information about the *Visible* methodology for consistently meeting information needs through quality information systems, please see the *Visible Solution*, "[Enterprise Engineering](#)."

Back to [Contents](#).

More Information

For further information concerning how *Visible* can help you design and implement your Enterprise Architecture, please contact.

North America

Visible Systems Corporation
201 Spring Street Lexington MA 02421 USA
Phone: +1-781-778-0200 · Fax +1-781-778-0208
Web Site: <http://www.visible.com>
Email: mcesino@visible.com

Asia-Pacific

Clive Finkelstein, Managing Director
Information Engineering Services Pty Ltd
PO Box 246, Hillarys Perth WA 6923 Australia
Phone: +61-8-9402-8300 Fax: +61-8-9402-8322
Web Site: <http://www.ies.aust.com/>
Email: cfink@ies.aust.com

| [Home](#) | [Courses](#) | [Certification](#) | [Projects](#) | [Papers](#) | [TEN Archive](#) | [EA Blog](#) |
[Online Store](#) | [Contact Us](#) | [\[Search](#) |

(c) Copyright 2004-2006 Information Engineering Services Pty Ltd. All Rights Reserved.