# ENTERPRISE PHYSICS 101

**One Day Seminar**
**By**
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## Purpose

Not too many people argue anymore about the reality of the "Information Age," however neither have many Enterprises prepared to address the orders of magnitude increases in complexity and orders of magnitude increases in the rate of change that are incumbent in this developing, information age environment. Neither working harder and faster nor some innovative technological magic is going to be adequate to accommodate these dramatic increases. Only Enterprise Architecture, a radical departure from typical Information Technology approaches will prevail. This is a seminar on the physics of the Enterprise, the stark reality of the actual engineering work that will have to take place if the Enterprise is to be viable in view of these new realities. The approach focuses attention on the dire need to invert the information community's priorities from building and running systems to engineering a flexible, aligned, integrated, interoperable, dynamic Enterprise that can accommodate extreme complexity and extremely high rates of Information Age change.

## Seminar Objectives

The objective of this seminar is to build an understanding of the concepts of Enterprise Architecture and develop a sense of urgency for integrating these concepts into a modern enterprise.

## Seminar Contents

There are four major components of the seminar:

I. Environmental Challenges Facing the Modern Enterprise
II. Introduction to Enterprise Architecture
III. The Science and the Practice
IV. Conclusions

### I. Environmental Challenges Facing the Modern Enterprise

"Environmental Challenges" develops the conditions that currently are driving the modern enterprise to address the issues of Enterprise Architecture. It develops the

challenges that literally demand a revolution in concepts, a "new paradigm", as the tools of the Industrial Age begin to limit our effectiveness for addressing the complexities and rate of change of the 21st Century Enterprise.

- The New Role of Information Technology
- Characteristics of the Information Age
- The Evolving Strategy Pattern

## II. Introduction to Enterprise Architecture

"Introduction to Enterprise Architecture" develops the logic of the Zachman Enterprise Framework classification as an ontology, defining the essential components of an Enterprise that warrant description and therefore, that constitute Enterprise Architecture. Until an ontology exists, nothing is predictable and nothing is repeatable. Everything is based upon best practices, what someone can learn in a single lifetime. Out of the context of the Framework ontology, it is easy to observe the physics surrounding Enterprises, that is, the "laws of nature" that are operating and affecting the Enterprise operation. Further, it is easy to observe why the approaches of the past, the Industrial Age, limited in the face of the escalating complexity and change of the Information Age, and why knowledge of the Enterprise is fundamental to survival in the foreseeable future.

- The Classification Structure - Enterprise Architecture
- Architecture is Architecture is Architecture
- Ontology versus Methodology

## III. The Science and the Practice

There are two different kinds of work going on in creating and changing an Enterprise; Architecture work, which is Engineering work based on science (an ontology) and Implementation work, which is Manufacturing work, the practice of implementation. These two different kinds of work require two different kinds of descriptive representations (models) for effecting their objectives. From an Information Technology perspective it is important to understand the differences between these two kinds of work to effectively accommodate the immediate as well as the longer term requirements of Enterprise management. From a Management perspective it is important to understand these two different kinds of work so that decisions accommodating immediate demands can be balanced against developing the capability to be a serious participant in the Information Age.

- Engineering (Primitive) Models versus Manufacturing (Coposite) Models
- The Knowledgebase for the Enterprise – The End State Vision
- Assembling the Enterprise on demand – "Mass-Customization"

### IV. Conclusions

The general perception of Enterprise Architecture MUST be changed to be one of solving General Management problems, not one of an IT model building exercise. A methodlogy is proposed for using Engineering concepts for solving General management problems. The methodology facilitates building an Enterprise Architecture which provides for dynamically re-defining the Enterprise on demand. The Enterprise problems are Engineering problems, not technical problems. Therefore, there are no technological "silver bullets"! Solving General management problems through "Enterprise Engineering" will buy all the time and credibility needed for Enterprise Architecture to become an integral part of the on-going management of complexity and change of the Enterprise.

- Methocdology for solving Management problems while building Enterprise Architecture iteratively and incrementally.
- There are no "Silver Bullets"

## Intended Audience

The seminar is designed for enterprise professionals of every discipline including non-information disciplines as well as information disciplines. Although it is addressing technology issues, it is not a "technical" seminar. It addresses the subjects that both enterprise professionals and information professionals must understand to operate effectively in collaboration in the Information Age environment.

Further, the seminar is appropriate for both management and operational (technical) professionals. For management it clarifies the issues for decision purposes and enables more meaningful dialog with and among the technology community. For operations, it establishes the context for developing improved approaches and implementation strategies.

## What the Participant Will Take Away:

+ A sense of urgency for aggressively pursuing Enterprise Architecture
+ A definition (description) of Enterprise Architecture
+ A "language" (that is, a Framework) for improving enterprise communications about architecture issues
+ Description of the Enterprise Knowledgebase
+ Methodology for doing Architecture Work Iteratively and Incrementally
+ Clear Differentiation of Engineering Enterprises from Building Systems

**Note: This is a VERY ambitious agenda for a single day. Therefore, the topics covered are dependent upon the time available, the interest of the specific audience in attendance and the time desired for questions and answers.**

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