Enterprise Architecture as Inventory

A Practical Guide to Establishing an Enterprise Architecture

LonsdaleSystems.com

www.lonsdalesystems.com

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Inventory

A detailed descriptive list of articles, with number, quantity and value of each.

Macquarie Dictionary
Pythonesque
Absurdly or surreally comical in a way that is reminiscent of the 1970s British TV comedy show Monty Python's Flying Circus
MSN Encarta

Enterprise Architecture
the “Grand Plan”
The Zachman Framework

<table>
<thead>
<tr>
<th>Data</th>
<th>Function</th>
<th>Network</th>
<th>People</th>
<th>Time</th>
<th>Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope</td>
<td>Planner</td>
<td>Owner</td>
<td>Business Model</td>
<td>System Model</td>
<td>Technology Model</td>
</tr>
<tr>
<td>Function Model</td>
<td>Designer</td>
<td>Builder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Enterprise</td>
<td></td>
<td>Sub-Contractor</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**The Zachman Framework**

- **Data (What?)**
  - Scope
  - Business Model
  - System Model
  - Technology Model
  - Detailed Definition
  - The Enterprise

- **Function (How?)**
  - Planner
  - Business Model
  - System Model
  - Technology Model
  - Detailed Definition
  - The Enterprise

- **Network (Where?)**
  - Planner
  - Business Model
  - System Model
  - Technology Model
  - Detailed Definition
  - The Enterprise

- **People (Who?)**
  - Planner
  - Business Model
  - System Model
  - Technology Model
  - Detailed Definition
  - The Enterprise

- **Time (When?)**
  - Planner
  - Business Model
  - System Model
  - Technology Model
  - Detailed Definition
  - The Enterprise

- **Motivation (Why?)**
  - Planner
  - Business Model
  - System Model
  - Technology Model
  - Detailed Definition
  - The Enterprise

**Motivation**
- Why?
- Time
- People
- Network
- Function
- Data

**Examples**
- e.g., Business Process Model
- Process = Business Process
- I/O = Business Resources

- e.g., Application Architecture
- Process = Application Function
- I/O = User Views
Zachman is the “what” of enterprise architecture

The Open Group Architecture Framework (TOGAF)

The objectives are...
...Baseline Business Architecture
...Target Business Architecture

The objective is to develop Target Architectures ... Data and Application Systems...

The objective is to develop a Technology Architecture ... basis of the following implementation work...
TOGAF is the “how” of enterprise architecture.

Yes! It is the Titanic...
I fink that talkin 'bout the UML makes me sound really, really intelligent...

Unified Modelling Language (UML) the “Grand Plan”

What is the UML?

**OMG UML 2.0 Infrastructure Specification says...**

The UML is a visual language for specifying, constructing and documenting the artefacts of systems...
The Unified Modelling Language (UML)

The UML is a notation not a methodology or process...

UML Diagrams

Structure Diagram

- Class Diagram
- Component Diagram

- Deployment Diagram
- Object Diagram
- Composite Structure Diagram
- Package Diagram
UML Diagrams

UML is the detailed “what” of enterprise architecture
Repository Based Tools
the “Grand Plan”

Enterprise Architect

• Repository-based UML modelling tool
• Full support for UML 2.1.1
Repository based tools are... err the "tools" of enterprise architecture
But now for something complexly different …

Welcome to the “real world”…

- What have we got?
- What do we keep?
- What do we replace?
- What do we retire?
Oh! And where are the life boats?

Extreme Architecture Framework: A minimalist framework for modern times

Phil Robinson and Floris Gout, Enterprise System Architecture In Practice, IDEA Group Inc.

www.extremearchitecture.org
Systems

- Industry Sector
- Enterprise
- Business Process
- Application
- Component

Human Activity Systems

Software Systems

- Systems precisely defined by a boundary
- Roles are subjective
- Encourages systems engineering approach
- Allocation of responsibilities
- Consideration of interoperability
- Systems can be decomposed into components
- Object-oriented architecture
- Component-based architecture
- Service-oriented architecture

Zachman Roles

- I thought I was builder but it turns out I'm a sub-contractor...
Views of an Enterprise

- Activity
- Information
- Software
- Data
- Technology

Business

Infrastructure

Information Systems

Views vs. Zachman Imperatives

- The Zachman Framework is tied to the English language, making its elegance less obvious for speakers of languages other than English (LOTE).
- For example, some LOTEs have more interrogatives:
  - French: Combien?
  - Thai: Tourai?
  - Hindi: Kitna?

By the way, what happened to “which”?

I keep six honest serving men...
Ooops! Forgot about “which”!
I keep seven honest serving men...
Bugger! It doesn't rhyme!
UML diagrams are based on abstract views...

This has several disadvantages...
1. People think the diagrams are a methodology or process
2. People draw diagrams because they are “in the UML” and therefore “must be needed”
3. People assume that the abstract views define all possible UML diagrams

Views vs. UML Diagrams

UML Views

...this taxonomy provides a logical organization for the various major kinds of diagrams. However, it does not preclude the mixing different kinds of diagram types...

...the boundaries between the various kinds of diagram types are not strictly enforced...

OMG UML 2.0 Infrastructure Specification
The Extreme Architecture Framework

Architectural Elements

Functional Requirements
Non-Functional Requirements
Many thanks to Peng Soong for this metaphor...

The Extreme Architecture Framework

Enterprise Elements

- Collect laundry
- Wash laundry
- Return laundry
- Check out guest