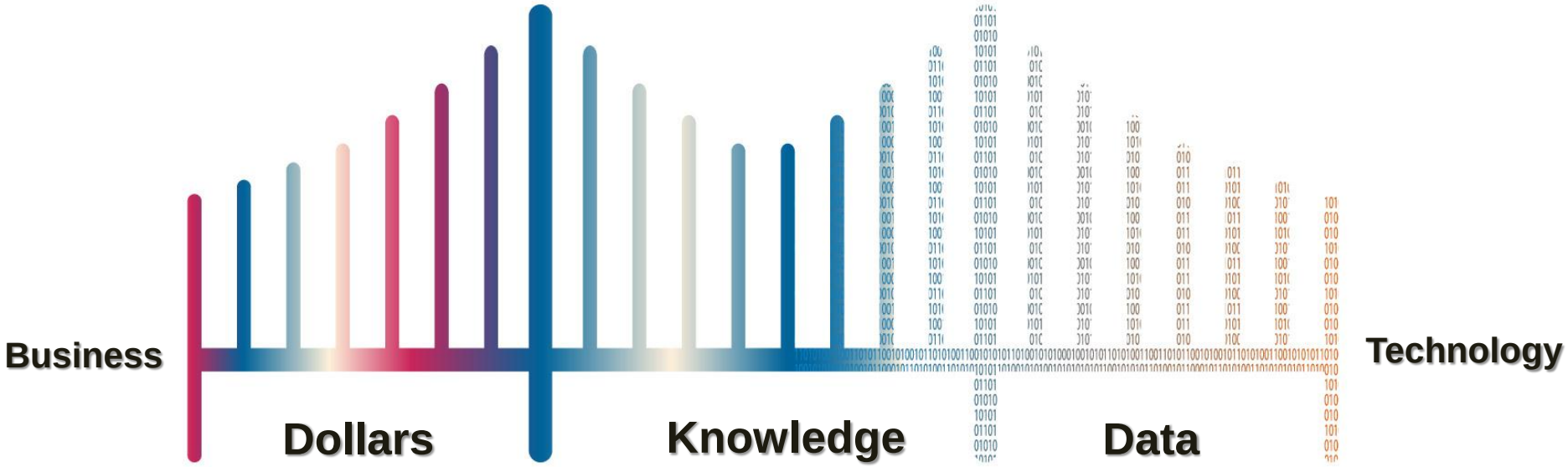
What is the biggest challenge facing CIOs ?

Alignment of systems to strategy

What is the biggest challenge facing CIOs?
Alignment of IT systems to business strategy.

Why do systems fail?
No alignment.

Models are the bridge that enables you to connect and align Business and IT



Models are the secret to aligning systems to strategy

	DATA *What*	FUNCTION *How*	NETWORK *Where*	PEOPLE *Who*	TIME *When*	MOTIVATION *Why*	
SCOPE (CONTEXTUAL) *Planner*	List of Things Important to the Business **TERMS GLOSSARY** **Terms & Definitions** **Fact Types** **List of Values** **KNOWING** Business Thing	List of Processes the Business Performs Function = Class of Business Process	List of Locations in which the Business Operates **PLACES** **Locations** **Jurisdictions** Node = Major Business Location	List of Organizations Important to the Business **Legal Entities** **Management Entities** **Suppliers** **Customers** **Regulators** People = Major Organizations	List of Events Significant to the Business Time = Major Business Event	List of Business Goals/Strat **Mission and Goals** **Laws and Regulations** **Strategies and Policies** Ends/Means=Major Bus. Goal/ Critical Success Factor	SCOPE (CONTEXTUAL) *Planner*
ENTERPRISE MODEL (CONCEPTUAL) *Owner*	e.g. Semantic Model **KNOWLEDGE MODELS** **Terms & Meaning** **Domain Models** **Fact Models** **Concept Maps** **UNDERSTANDING**	e.g. Business Process Model **BUSINESS PROCESS MODELS** **BPM / BPMN** Proc. = Business Process I/O = Business Resources	e.g. Business Logistics System Node = Business Location Link = Business Linkage	e.g. Work Flow Model **WORK FLOW MODELS** People = Organization Unit Work = Work Product	e.g. Master Schedule **EVENT MODELS** Time = Business Event Cycle = Business Cycle	e.g. Business Plan **BUSINESS DECISION MODELS** **Decision Model Diagrams** **BDM / BDMS**	ENTERPRISE MODEL (CONCEPTUAL) *Owner*
SYSTEM MODEL (LOGICAL) *Designer*	e.g. Logical Data Model **DATA MODELS** **Fact Tables** **ER Diagrams** **DBMS Model** Reln = Data Relationship	e.g. Application Architecture **BPMN > BPMS** I/O = User Views	e.g. Distributed System Architecture Node = I/S Function (Processor. Storage. etc) Link = Line Characteristics	e.g. Human Interface Architecture **USER INTERFACE ARCHITECTURE** People = Role Work = Deliverable	e.g. Processing Structure Time = System Event Cycle = Processing Cycle	**BUSINESS RULE MODELS** **Rule Family Tables** **Business Logic Models** **BDMS > BRMS** Means =Action Assertion	SYSTEM MODEL (LOGICAL) *Designer*
TECHNOLOGY MODEL (PHYSICAL) *Builder*	e.g. Physical Data Model **DATABASE** **Data Table Designs** **DBMS SQL DDL DML** Reln = Pointer/Key/etc.	e.g. System Design **BPMS > Programs** I/O = Data Elements/Sets	e.g. Technology Architecture Node = Hardware/System Software Link = Line Specifications	e.g. Presentation Architecture People = User Work = Screen Format	e.g. Control Structure Time = Execute Cycle = Component Cycle	**RULEBASE** **Architecture** **Rule Designs** **BRMS > BRE** End = Condition Means = Action	TECHNOLOGY MODEL (PHYSICAL) *Builder*
DETAILED REPRESEN-TATIONS (OUT-OF-CONTEXT) *Sub-Contractor*	e.g. Data Definition **DBMS / Database Engine**	e.g. Program **Programs > Code**	e.g. Network Architecture	e.g. Security Architecture	e.g. Timing Definition	**BUSINESS RULE ENGINE** **Rule Specifications** **Rule Code** **BRE > Code**	DETAILED REPRESEN-TATIONS (OUT-OF CONTEXT) *Sub-Contractor*
	Business Rules	**If [Conditions Events] Then [Conclusions Decisions Actions]**				**[Goals]**	
FUNCTIONING ENTERPRISE	e.g. DATA	e.g. FUNCTION	e.g. NETWORK	e.g. ORGANIZATION	e.g. SCHEDULE	e.g. STRATEGY	FUNCTIONING ENTERPRISE

Enterprise Architecture – A Framework™
©John A. Zachman, Zachman International (810) 231-0531

Reprinted by permission – www.zifa.com

Everything connects to everything else

"Principles for the development of a Complete Mind: Study the science of art. Study the art of science. Develop your senses - especially learn how to see. Realise that everything connects to everything else."

Leonardo da Vinci

Terms & Definitions

Terms & Relationships

Instances (Records)
Data

Logic
Rules

Time
Events

Words
Terms

Facts and Fact Models
What we think we know

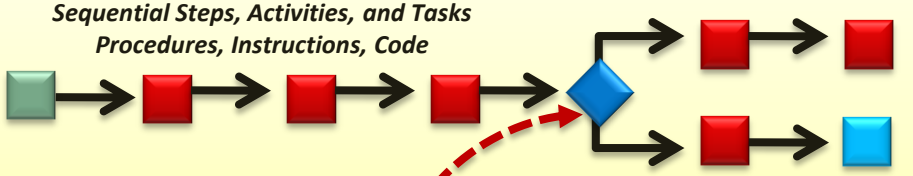
Concepts
Ontology
Semantic Map

What we truly understand

What to do and How-to do it

Process

Sequential Steps, Activities, and Tasks
Procedures, Instructions, Code



The Decision **The Moment of Truth**

Doing

Thinking Reasoning Judgment

Knowing Understanding Meaning

Terms & Meaning

Think and Decide
What to do & Why

Logic Business Rules If/Then Rules
Decision Models Rule Family Tables Decision Tables
Decision Trees Rulesets Directed Acyclic Graph (DAG)

Rulebase

Inference

Conditions

Intermediate Conclusions

Conclusions

Deduction , Induction

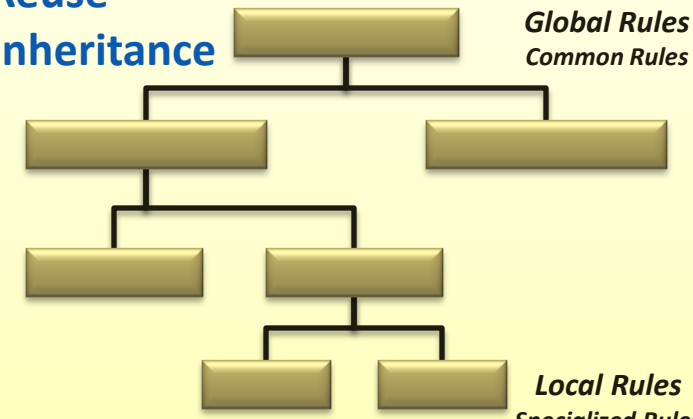
Laws Rules & Regulations Policies Rules of Thumb Heuristics Expert Rules

Terms & Conditions

Rulebase Hierarchy

Reuse
Inheritance

Global Rules
Common Rules



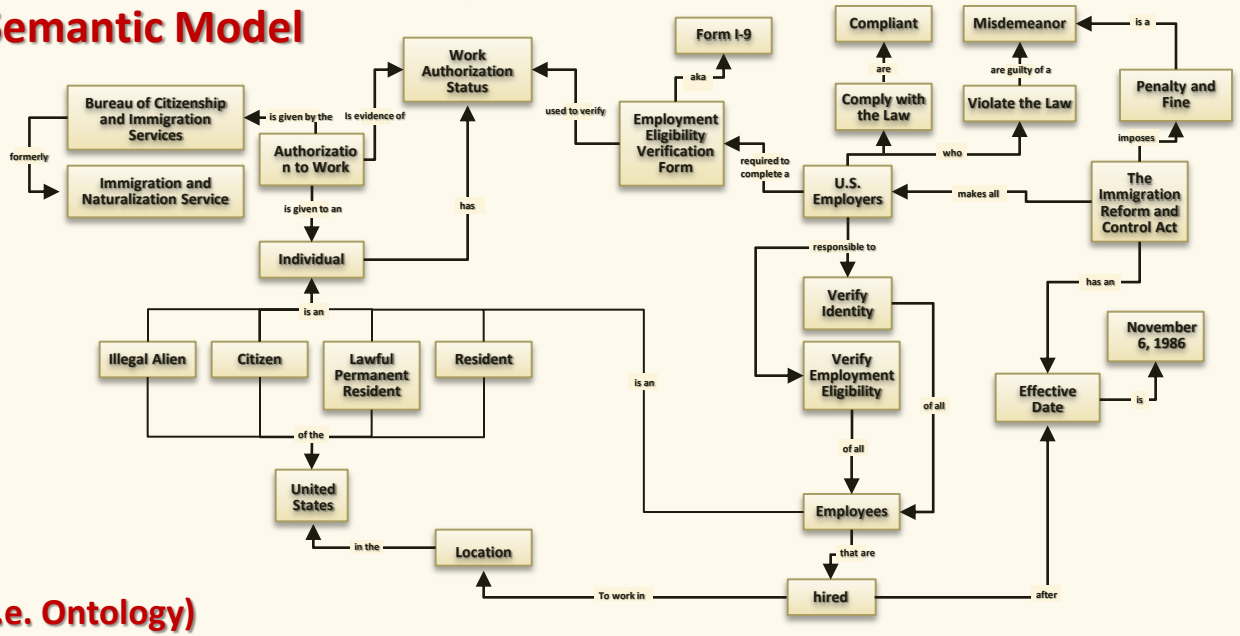
Local Rules
Specialized Rules

Single and Multiple Inheritance

Rev. 5 November 2012

Concept Map
Semantic Model

Employment Eligibility Verification BUSINESS MAP (FACT MODEL)



(i.e. Ontology)

Terms

TERMS

Authorization To Work
Illegal Alien
Individual
U.S. Citizen
Lawful Permanent Resident
Bureau of Citizenship and Immigration Services
U.S. Employers
Employing
Employment Eligibility
Identify
Employees
Hired to Work
Employment Eligibility Verification Form (Form I-9)
Work Authorization Status
Guilty
Misdemeanor

Facts

FACTS

An Illegal Alien is an individual, who is not a Citizen or a Lawful Permanent Resident and who has not been given Authorization To Work by the Bureau of Citizenship and Immigration Services (formerly, the Immigration and Naturalization Service).

Governing Rules

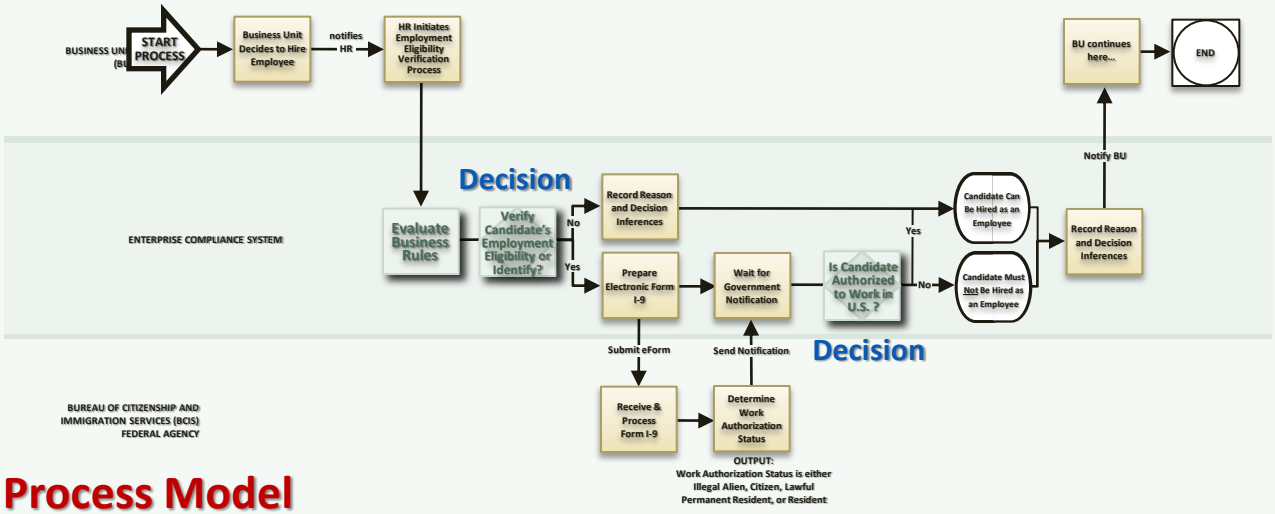
GOVERNING RULES

U.S. Employers must verify the Employment Eligibility and Identify of all Employees Hired to Work in the United States after November 6, 1986.

Employers are required to complete Employment Eligibility Verification Forms (Form I-9) for all Employees, including U.S. Citizens.

Anyone Employing an Illegal Alien without Verifying his or her Work Authorization Status is Guilty of a Misdemeanor.

DIGITIZED PROCESS (BUSINESS PROCESS MODEL)

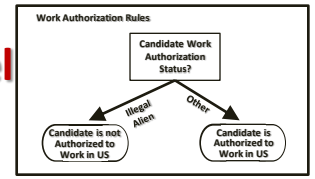


Process Model

BUSINESS RULES

Corporate / External / Compliance Rules Business Rules for Employment Eligibility	RULE NO. 1	2	3	4	5
NOTES IF					
Company is	a US Employer	not a US Employer	-	-	-
Company wants to hire	Employee	-	Con-tractor	-	-
Candidate Work Locati is	In the US	-	-	Outside the US	-
Candidate Hire Date Nov. 6, 19	After	-	-	-	On or before
THEN					
Submit I-9 form					
Company must ver Candidate's Employme Eligibil	Yes	No	No	No	No
Company must ver Candidate's Identi	Yes	No	No	No	No

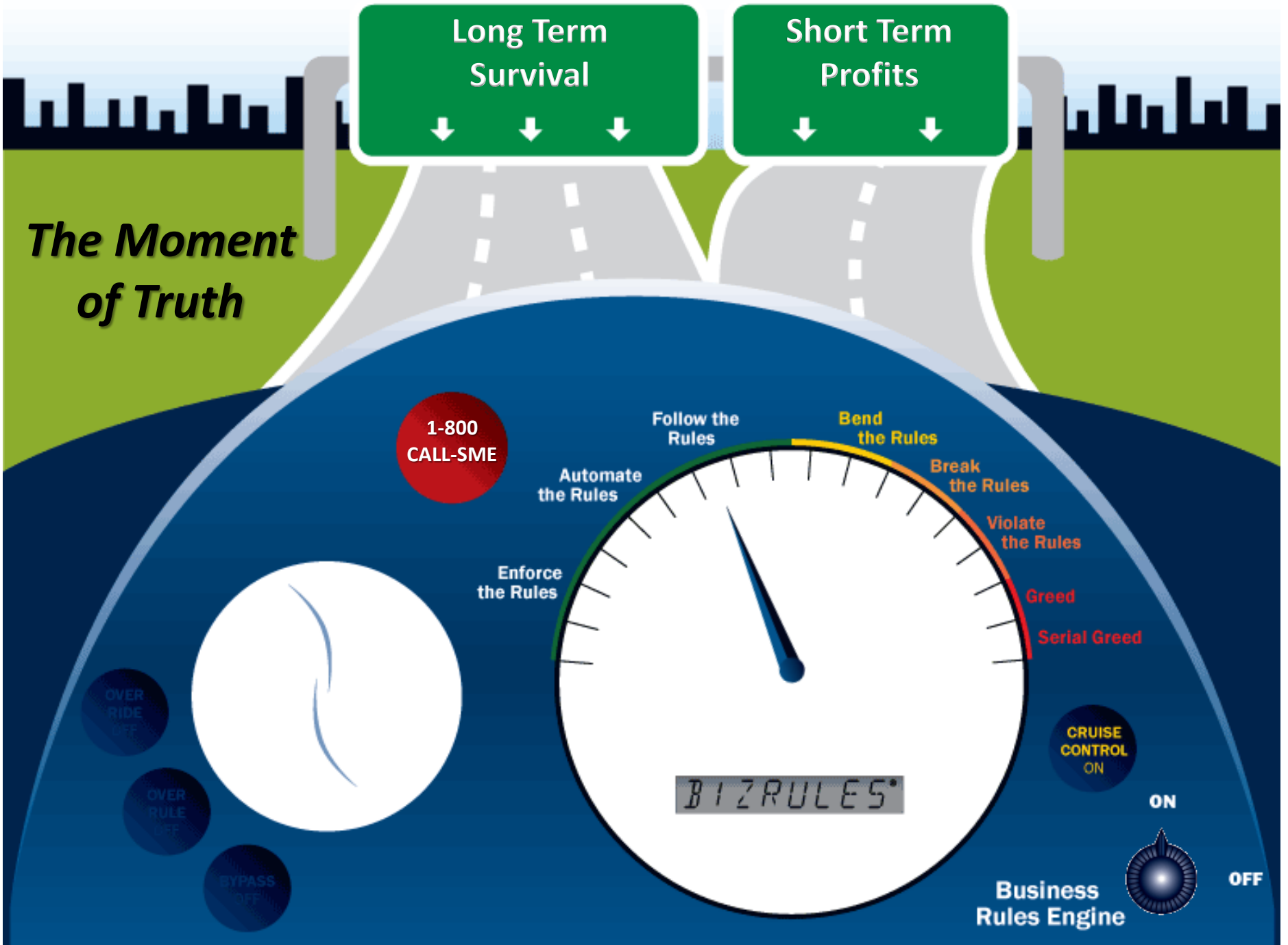
Rule Model

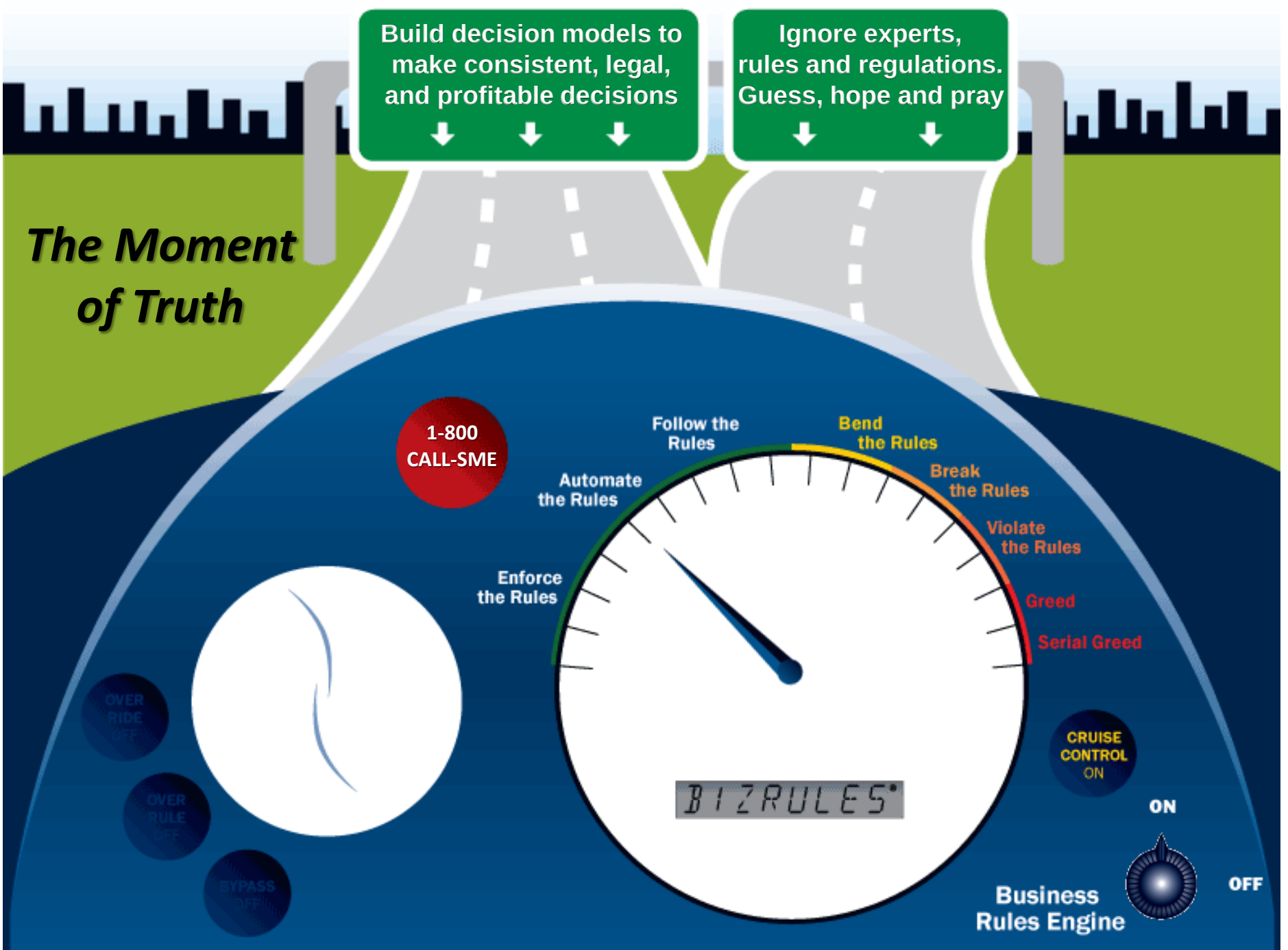


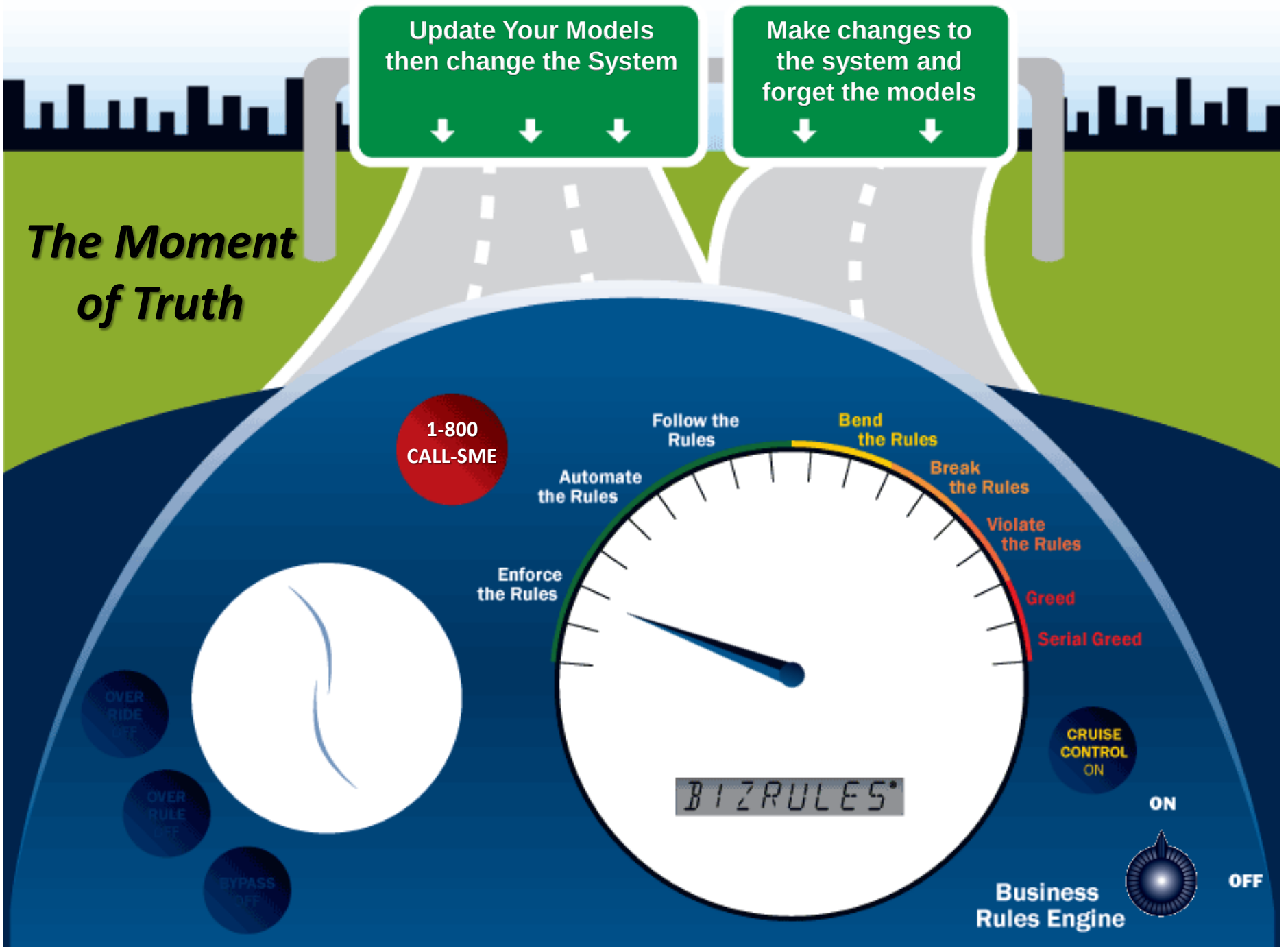
The Moment of Truth

What do we do?

We must decide now!


Long Term Survival
Short Term Profits
The Moment of Truth
1-800 CALL-SME
Follow the Rules
Bend the Rules
Automate the Rules
Break the Rules
Violate the Rules
Enforce the Rules
Greed
Serial Greed
BIZRULES
CRUISE CONTROL ON
ON
OFF
Business Rules Engine

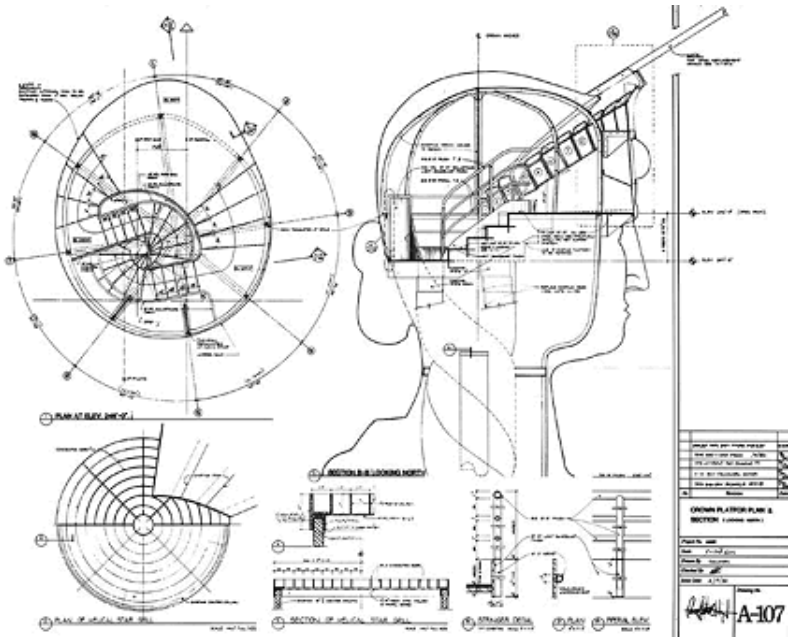

Build decision models to make consistent, legal, and profitable decisions
Ignore experts, rules and regulations. Guess, hope and pray
The Moment of Truth
1-800 CALL-SME
Follow the Rules
Bend the Rules
Automate the Rules
Break the Rules
Violate the Rules
Enforce the Rules
Greed
Serial Greed
BIZRULES
CRUISE CONTROL ON
ON
OFF
Business Rules Engine


Update Your Models
then change the System
Make changes to
the system and
forget the models
The Moment
of Truth
1-800
CALL-SME
Follow the
Rules
Bend
the Rules
Automate
the Rules
Break
the Rules
Violate
the Rules
Enforce
the Rules
Greed
Serial Greed
BIZRULES
CRUISE
CONTROL
ON
ON
OFF
Business
Rules Engine

A general framework for building any complex system

How to transform idea into implementation

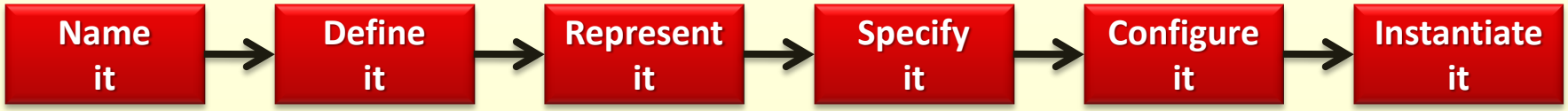
Architecture
Engineering
Idea
Logical
Representation



The result of architecture
Design & Build
Implementation
Physical
Instantiation

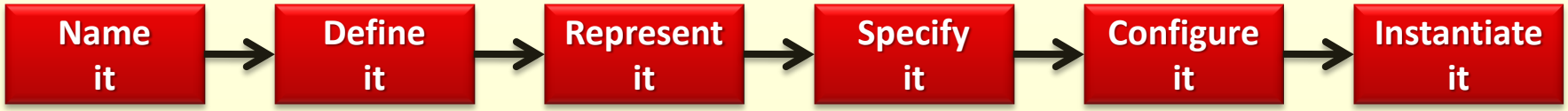
A general framework for building any system

Architecture → Engineering → Design → Build



A general framework for building any system

Architecture → Engineering → Design → Build



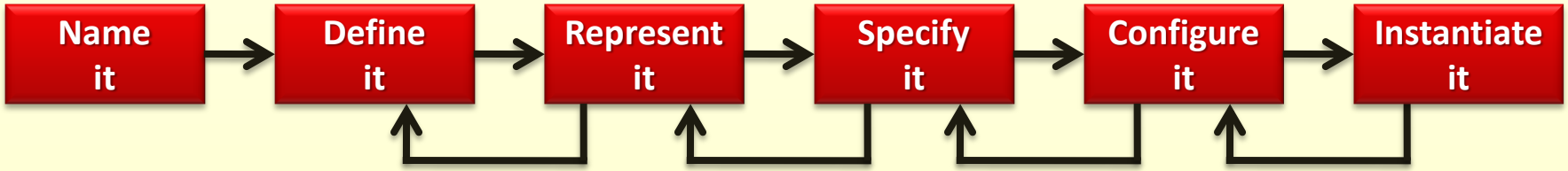
Lack of specificity in one step leads to ambiguity in the next steps…

Lack of quality in one step leads to mistakes in the next steps…

Lack of completeness in one step leads to gaps in the next steps…

A general framework for building any system

Architecture → Engineering → Design → Build



Lack of specificity in one step leads to ambiguity in the next steps…

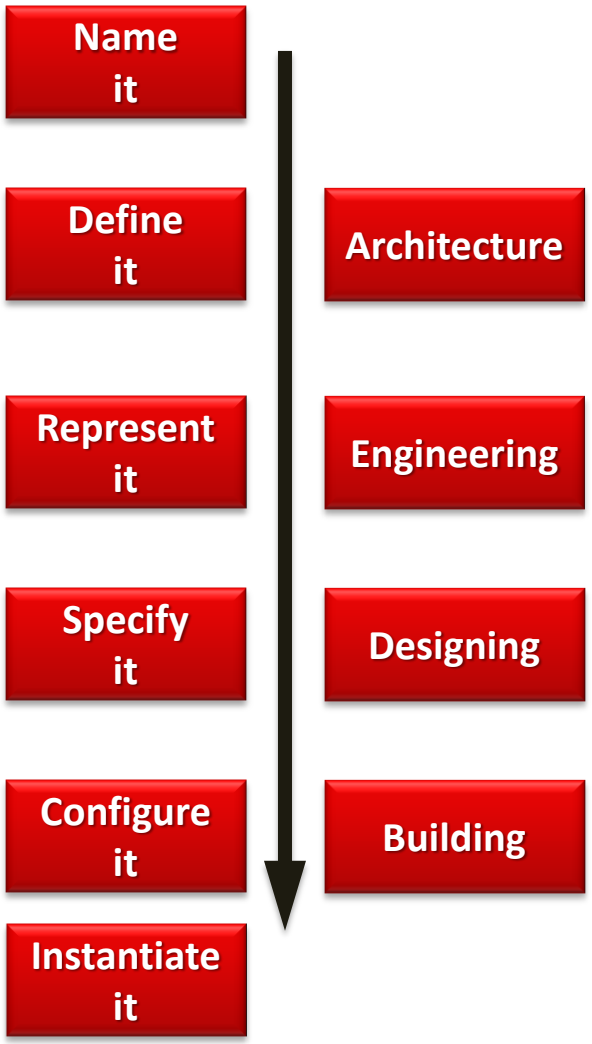
Lack of quality in one step leads to mistakes in the next steps…

Lack of completeness in one step leads to gaps in the next steps…

Consequences are the need for reiteration & rework in the process.

That takes more time, and costs more money.

A general framework for building any system



ENTERPRISE ARCHITECTURE - A FRAMEWORK ™

	DATA *What*	FUNCTION *How*	NETWORK *Where*	PEOPLE *Who*	TIME *When*	MOTIVATION *Why*	
SCOPE (CONTEXTUAL)	List of Things Important to the Business	List of Processes the Business Performs	List of Locations in which the Business Operates	List of Organizations Important to the Business	List of Events Significant to the Business	List of Business Goals/Strat	SCOPE (CONTEXTUAL)
Planner	ENTITY = Class of Business Thing	Function = Class of Business Process	Node = Major Business Location	People = Major Organizations	Time = Major Business Event	Ends/Means=Major Bus. Goal/ Critical Success Factor	*Planner*
ENTERPRISE MODEL (CONCEPTUAL)	e.g. Semantic Model	e.g. Business Process Model	e.g. Business Logistics System	e.g. Work Flow Model	e.g. Master Schedule	e.g. Business Plan	ENTERPRISE MODEL (CONCEPTUAL)
Owner	Ent = Business Entity Reln = Business Relationship	Proc. = Business Process I/O = Business Resources	Node = Business Location Link = Business Linkage	People = Organization Unit Work = Work Product	Time = Business Event Cycle = Business Cycle	End = Business Objective Means = Business Strategy	*Owner*
SYSTEM MODEL (LOGICAL)	e.g. Logical Data Model	e.g. Application Architecture	e.g. Distributed System Architecture	e.g. Human Interface Architecture	e.g. Processing Structure	e.g., Business Rule Model	SYSTEM MODEL (LOGICAL)
Designer	Ent = Data Entity Reln = Data Relationship	Proc .= Application Function I/O = User Views	S Function (Processor, Storage, etc) Link = Line Characteristics	People = Role Work = Deliverable	Time = System Event Cycle = Processing Cycle	End = Structural Assertion Means =Action Assertion	*Designer*
TECHNOLOGY MODEL (PHYSICAL)	e.g. Physical Data Model	e.g. System Design	e.g. Technology Architecture	e.g. Presentation Architecture	e.g. Control Structure	e.g. Rule Design	TECHNOLOGY MODEL (PHYSICAL)
Builder	Ent = Segment/Table/etc. Reln = Pointer/Key/etc.	Proc.= Computer Function I/O = Data Elements/Sets	Node = Hardware/System Software Link = Line Specifications	People = User Work = Screen Format	Time = Execute Cycle = Component Cycle	End = Condition Means = Action	*Builder*
DETAILED REPRESEN-TATIONS (OUT-OF-CONTEXT)	e.g. Data Definition	e.g. Program	e.g. Network Architecture	e.g. Security Architecture	e.g. Timing Definition	e.g. Rule Specification	DETAILED REPRESEN-TATIONS (OUT-OF CONTEXT)
Sub-Contractor	Ent = Field	Proc.= Language Stmt I/O = Control Block	Node = Addresses Link = Protocols	People = Identity Work = Job	Time = Interrupt Cycle = Machine Cycle	End = Sub-condition Means = Step	*Sub-Contractor*
FUNCTIONING ENTERPRISE		e.g. FUNCTION	e.g. NETWORK	e.g. ORGANIZATION	e.g. SCHEDULE	e.g. STRATEGY	FUNCTIONING ENTERPRISE

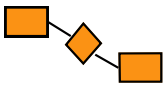
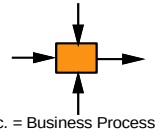
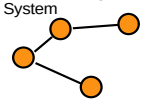
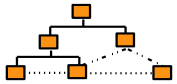
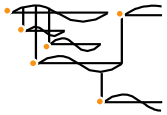
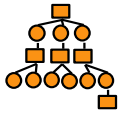
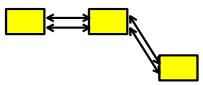
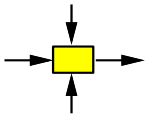
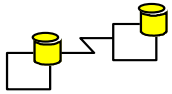
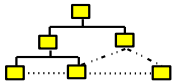
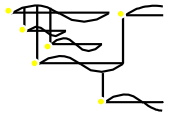
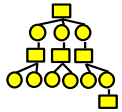
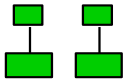
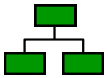
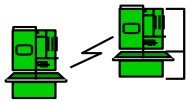
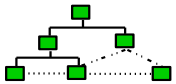
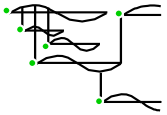
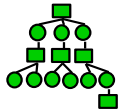
Name it — **Define it** — **Represent it** — **Specify it** — **Configure it** — **Instantiate it**

Architecture — **Engineering** — **Designing** — **Building**

Enterprise Architecture – A Framework™
©John A. Zachman, Zachman International (810) 231-0531

Reprinted by permission – www.zifa.com

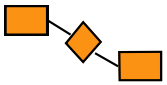
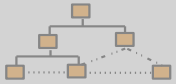
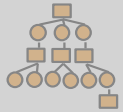
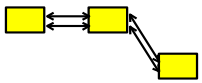
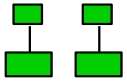
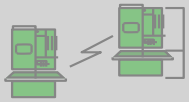
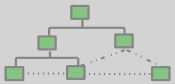
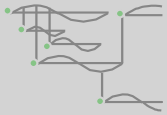
Enterprise Architecture – A Framework ™

	DATA *What*	FUNCTION *How*	NETWORK *Where*	PEOPLE *Who*	TIME *When*	MOTIVATION *Why*	
SCOPE (CONTEXTUAL) *Planner*	List of Things Important to the Business  ENTITY = Class of Business Thing	List of Processes the Business Performs  Function = Class of Business Process	List of Locations in which the Business Operates  Node = Major Business Location	List of Organizations Important to the Business  People = Major Organizations	List of Events Significant to the Business  Time = Major Business Event	List of Business Goals/Strat  Ends/Means=Major Bus. Goal/ Critical Success Factor	SCOPE (CONTEXTUAL) *Planner*
ENTERPRISE MODEL (CONCEPTUAL) *Owner*	e.g. Semantic Model  Ent = Business Entity Reln = Business Relationship	e.g. Business Process Model  Proc. = Business Process I/O = Business Resources	e.g. Business Logistics System  Node = Business Location Link = Business Linkage	e.g. Work Flow Model  People = Organization Unit Work = Work Product	e.g. Master Schedule  Time = Business Event Cycle = Business Cycle	e.g. Business Plan  End = Business Objective Means = Business Strategy	ENTERPRISE MODEL (CONCEPTUAL) *Owner*
SYSTEM MODEL (LOGICAL) *Designer*	e.g. Logical Data Model  Ent = Data Entity Reln = Data Relationship	e.g. Application Architecture  Proc .= Application Function I/O = User Views	e.g. Distributed System Architecture  Node = I/S Function (Processor, Storage, etc) Link = Line Characteristics	e.g. Human Interface Architecture  People = Role Work = Deliverable	e.g. Processing Structure  Time = System Event Cycle = Processing Cycle	e.g., Business Rule Model  End = Structural Assertion Means =Action Assertion	SYSTEM MODEL (LOGICAL) *Designer*
TECHNOLOGY MODEL (PHYSICAL) *Builder*	e.g. Physical Data Model  Ent = Segment/Table/etc. Reln = Pointer/Key/etc.	e.g. System Design  Proc.= Computer Function I/O = Data Elements/Sets	e.g. Technology Architecture  Node = Hardware/System Software Link = Line Specifications	e.g. Presentation Architecture  People = User Work = Screen Format	e.g. Control Structure  Time = Execute Cycle = Component Cycle	e.g. Rule Design  End = Condition Means = Action	TECHNOLOGY MODEL (PHYSICAL) *Builder*
DETAILED REPRESEN-TATIONS (OUT-OF-CONTEXT) *Sub-Contractor*	e.g. Data Definition  Ent = Field Reln = Address	e.g. Program  Proc.= Language Stmt I/O = Control Block	e.g. Network Architecture  Node = Addresses Link = Protocols	e.g. Security Architecture  People = Identity Work = Job	e.g. Timing Definition  Time = Interrupt Cycle = Machine Cycle	e.g. Rule Specification  End = Sub-condition Means = Step	DETAILED REPRESEN-TATIONS (OUT-OF CONTEXT) *Sub-Contractor*
FUNCTIONING ENTERPRISE	e.g. DATA	e.g. FUNCTION	e.g. NETWORK	e.g. ORGANIZATION	e.g. SCHEDULE	e.g. STRATEGY	FUNCTIONING ENTERPRISE

Enterprise Architecture – A Framework™
©John A. Zachman, Zachman International (810) 231-0531

Reprinted by permission – www.zifa.com

Complete "Data Model" Architecture

	DATA *What*	FUNCTION *How*	NETWORK *Where*	PEOPLE *Who*	TIME *When*	MOTIVATION *Why*	
SCOPE (CONTEXTUAL) *Planner*	List of Things Important to the Business  ENTITY = Class of Business Thing	List of Pro… Busines… Function = Business Process		List of Organizations Important to the Business  People = Major Organizations	List of Events Significant to the Business  Time = Major Business Event	List of Business Goals/Strat  Ends/Means=Major Bus. Goal/ Critical Success Factor	SCOPE (CONTEXTUAL) *Planner*
ENTERPRISE MODEL (CONCEPTUAL) *Owner*	e.g. Semantic Model  Ent = Business Entity Reln = Business Relationship	e.g. Busine… Proc. = B… I/O = Busine…		e.g. Work Flow Model  People = Organization Unit Work = Work Product	e.g. Master Schedule  Time = Business Event Cycle = Business Cycle	e.g. Business Plan  End = Business Objective Means = Business Strategy	ENTERPRISE MODEL (CONCEPTUAL) *Owner*
SYSTEM MODEL (LOGICAL) *Designer*	e.g. Logical Data Model  Ent = Data Entity Reln = Data Relationship	e.g. Applic… Proc .= A… I/O = User Views		e.g. Human Interface Architecture  People = Role Work = Deliverable	e.g. Processing Structure  Time = System Event Cycle = Processing Cycle	e.g., Business Rule Model  End = Structural Assertion Means =Action Assertion	SYSTEM MODEL (LOGICAL) *Designer*
TECHNOLOGY MODEL (PHYSICAL) *Builder*	e.g. Physical Data Model  Ent = Segment/Table/etc. Reln = Pointer/Key/etc.	e.g. System Design  Proc.= Computer Function I/O = Data Elements/Sets	e.g. Technology Architecture  Node = Hardware/System Software Link = Line Specifications	e.g. Presentation Architecture  People = User Work = Screen Format	e.g. Control Structure  Time = Execute Cycle = Component Cycle	e.g. Rule Design  End = Condition Means = Action	TECHNOLOGY MODEL (PHYSICAL) *Builder*
DETAILED REPRESEN-TATIONS (OUT-OF-CONTEXT) *Sub-Contractor*	e.g. Data Definition  Ent = Field Reln = Address	e.g. Program  Proc.= Language Stmt I/O = Control Block	e.g. Network Architecture  Node = Addresses Link = Protocols	e.g. Security Architecture  People = Identity Work = Job	e.g. Timing Definition  Time = Interrupt Cycle = Machine Cycle	e.g. Rule Specification  End = Sub-condition Means = Step	DETAILED REPRESEN-TATIONS (OUT-OF CONTEXT) *Sub-Contractor*
FUNCTIONING ENTERPRISE	e.g. DATA	e.g. FUNCTION	e.g. NETWORK	e.g. ORGANIZATION	e.g. SCHEDULE	e.g. STRATEGY	FUNCTIONING ENTERPRISE

Terms
Glossary
Terms & Definitions

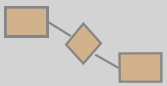
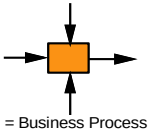
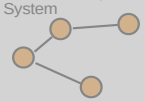
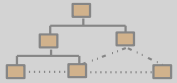
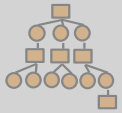
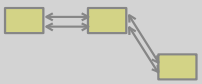
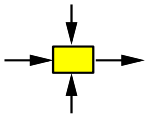
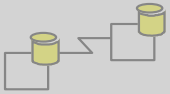
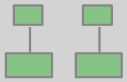
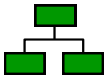
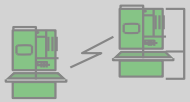
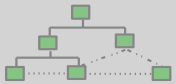
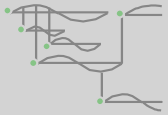
Semantic Models
Fact/Concept Models
Terms & Meaning

Logical Data Models
Fact Tables
ER Diagrams

Enterprise Architecture – A Framework™
©John A. Zachman, Zachman International (810) 231-0531

Reprinted by permission – www.zifa.com

Complete "Business Process Model" Architecture

	DATA *What*	FUNCTION *How*	NETWORK *Where*	PEOPLE *Who*	TIME *When*	MOTIVATION *Why*	
SCOPE (CONTEXTUAL) *Planner*	List of Things Important to the Business  ENTITY = Class of Business Thing	List of Processes the Business Performs  Function = Class of Business Process	List of Locations in which the Business Operates  Node = Major Business Location	List of Organizations Important to the Business  People = Major Organizations	List of Events Significant to the Business  Time = Major Business Event	List of Business Goals/Strat  Ends/Means=Major Bus. Goal/ Critical Success Factor	SCOPE (CONTEXTUAL) *Planner*
ENTERPRISE MODEL (CONCEPTUAL) *Owner*	e.g. Semantic Model  Ent = Business Entity Reln = Business Relationship	e.g. Business Process Model  Proc. = Business Process I/O = Business Resources	e.g. Business Logistics System  Node = Business Location Link = Business Linkage	e.g. Work Flow Model  People = Organization Unit Work = Work Product	e.g. Master Schedule  Time = Business Event Cycle = Business Cycle	e.g. Business Plan  End = Business Objective Means = Business Strategy	ENTERPRISE MODEL (CONCEPTUAL) *Owner*
SYSTEM MODEL (LOGICAL) *Designer*	e.g. Logical Data Model  Ent = Data Entity Reln = Data Relationship	e.g. Application Architecture  Proc .= Application Function I/O = User Views	e.g. Distributed System Architecture  Node = I/S Function (Processor, Storage, etc) Link = Line Characteristics	e.g. Human Interface Architecture  People = Role Work = Deliverable	e.g. Processing Structure  Time = System Event Cycle = Processing Cycle	e.g., Business Rule Model  End = Structural Assertion Means =Action Assertion	SYSTEM MODEL (LOGICAL) *Designer*
TECHNOLOGY MODEL (PHYSICAL) *Builder*	e.g. Physical Data Model  Ent = Segment/Table/etc. Reln = Pointer/Key/etc.	e.g. System Design  Proc.= Computer Function I/O = Data Elements/Sets	e.g. Technology Architecture  Node = Hardware/System Software Link = Line Specifications	e.g. Presentation Architecture  People = User Work = Screen Format	e.g. Control Structure  Time = Execute Cycle = Component Cycle	e.g. Rule Design  End = Condition Means = Action	TECHNOLOGY MODEL (PHYSICAL) *Builder*
DETAILED REPRESEN-TATIONS (OUT-OF-CONTEXT) *Sub-Contractor*	e.g. Data Definition  Ent = Field Reln = Address	e.g. Program  Proc.= Language Stmt I/O = Control Block	e.g. Network Architecture  Node = Addresses Link = Protocols	e.g. Security Architecture  People = Identity Work = Job	e.g. Timing Definition  Time = Interrupt Cycle = Machine Cycle	e.g. Rule Specification  End = Sub-condition Means = Step	DETAILED REPRESEN-TATIONS (OUT-OF CONTEXT) *Sub-Contractor*
FUNCTIONING ENTERPRISE	e.g. DATA	e.g. FUNCTION	e.g. NETWORK	e.g. ORGANIZATION	e.g. SCHEDULE	e.g. STRATEGY	FUNCTIONING ENTERPRISE

Enterprise Architecture – A Framework™
©John A. Zachman, Zachman International (810) 231-0531

Reprinted by permission – www.zifa.com

Complete "Business Rule Model" Architecture

	DATA *What*	FUNCTION *How*	NETWORK *Where*	PEOPLE *Who*	TIME *When*	MOTIVATION *Why*	
SCOPE (CONTEXTUAL) *Planner*	List of Things Important to the Business ENTITY = Class of Business Thing	List of Processes the Business Performs Function = Class of Business Process	List of Locations in which the Business Operates Node = Major Business Location			List of Business Goals/Strat Ends/Means=Major Bus. Goal/ Critical Success Factor	SCOPE (CONTEXTUAL) *Planner*
ENTERPRISE MODEL (CONCEPTUAL) *Owner*	e.g. Semantic Model Ent = Business Entity Reln = Business Relationship	e.g. Business Process Model Proc. = Business Process I/O = Business Resources	e.g. Business Logistics System Node = Business Location Link = Business Linkage	Work = Work Product	Cycle = Business Cycle	e.g. Business Plan End = Business Objective Means = Business Strategy	ENTERPRISE MODEL (CONCEPTUAL) *Owner*
SYSTEM MODEL (LOGICAL) *Designer*	e.g. Logical Data Model Ent = Data Entity Reln = Data Relationship	e.g. Application Architecture Proc .= Application Function I/O = User Views	e.g. Distributed System Architecture Node = I/S Function (Processor, Storage, etc) Link = Line Characteristics	Work = Deliverable	Cycle = Processing Cycle	e.g., Business Rule Model End = Structural Assertion Means =Action Assertion	SYSTEM MODEL (LOGICAL) *Designer*
TECHNOLOGY MODEL (PHYSICAL) *Builder*	e.g. Physical Data Model Ent = Segment/Table/etc. Reln = Pointer/Key/etc.	e.g. System Design Proc.= Computer Function I/O = Data Elements/Sets	e.g. Technology Architecture Node = Hardware/System Software Link = Line Specifications	Work = Screen Format	Cycle = Component Cycle	e.g. Rule Design End = Condition Means = Action	TECHNOLOGY MODEL (PHYSICAL) *Builder*
DETAILED REPRESEN-TATIONS (OUT-OF-CONTEXT) *Sub-Contractor*	e.g. Data Definition Ent = Field Reln = Address	e.g. Program Proc.= Language Stmt I/O = Control Block	e.g. Network Architecture Node = Addresses Link = Protocols	Work = Job	Cycle = Machine Cycle	e.g. Rule Specification End = Sub-condition Means = Step	DETAILED REPRESEN-TATIONS (OUT-OF CONTEXT) *Sub-Contractor*
FUNCTIONING ENTERPRISE	e.g. DATA	e.g. FUNCTION	e.g. NETWORK	e.g.		e.g. STRATEGY	FUNCTIONING ENTERPRISE

Mission
Goals and Objectives
Management Intention

Strategy & Policy
Decision Models
Informal or Detailed Description

Business Rule Models
Detailed Logical Definition

Formal/Detailed Rules
Designs and Specifications
Detailed Technical Specification

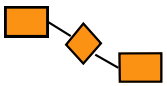
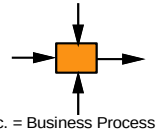
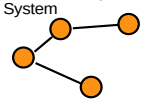
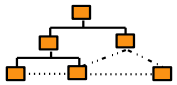
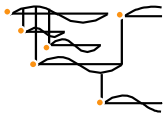
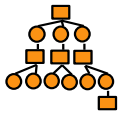
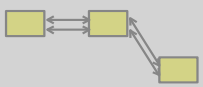
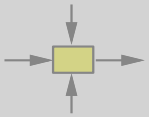
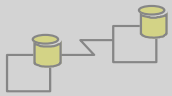
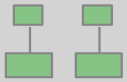
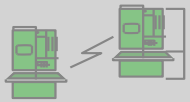
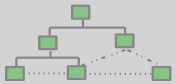
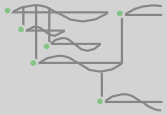
Automated Rules
Source Code
Implementation

Enterprise Decision / Prescription

Enterprise Architecture – A Framework™
©John A. Zachman, Zachman International (810) 231-0531

Reprinted by permission – www.zifa.com

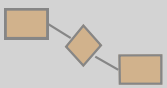
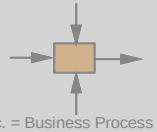
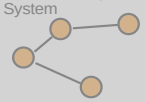
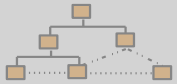
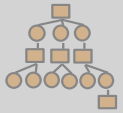
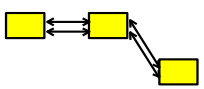
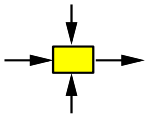
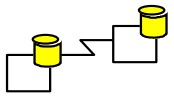
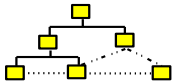
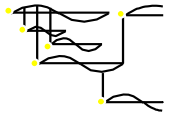
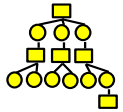
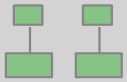
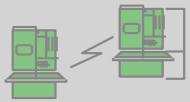
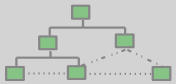
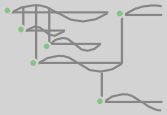
Complete "Business Model" Architecture

	DATA *What*	FUNCTION *How*	NETWORK *Where*	PEOPLE *Who*	TIME *When*	MOTIVATION *Why*	
SCOPE (CONTEXTUAL) *Planner*	List of Things Important to the Business  ENTITY = Class of Business Thing	List of Processes the Business Performs  Function = Class of Business Process	List of Locations in which the Business Operates  Node = Major Business Location	List of Organizations Important to the Business  People = Major Organizations	List of Events Significant to the Business  Time = Major Business Event	List of Business Goals/Strat  Ends/Means=Major Bus. Goal/ Critical Success Factor	SCOPE (CONTEXTUAL) *Planner*
ENTERPRISE MODEL (CONCEPTUAL) *Owner*	e.g. Semantic Model  Ent = Business Entity Reln = Business Relationship	e.g. Business Process Model  Proc. = Business Process I/O = Business Resources	e.g. Business Logistics System  Node = Business Location Link = Business Linkage	e.g. Work Flow Model  People = Organization Unit Work = Work Product	e.g. Master Schedule  Time = Business Event Cycle = Business Cycle	e.g. Business Plan  End = Business Objective Means = Business Strategy	ENTERPRISE MODEL (CONCEPTUAL) *Owner*
SYSTEM MODEL (LOGICAL) *Designer*	e.g. Logical Data Model  Ent = Data Entity Reln = Data Relationship	e.g. Application Architecture  Proc .= Application Function I/O = User Views	e.g. Distributed System Architecture  Node = I/S Function (Processor. Storage. etc) Link = Line Characteristics	e.g. Human Interface Architecture  People = Role Work = Deliverable	e.g. Processing Structure  Time = System Event Cycle = Processing Cycle	e.g., Business Rule Model  End = Structural Assertion Means =Action Assertion	SYSTEM MODEL (LOGICAL) *Designer*
TECHNOLOGY MODEL (PHYSICAL) *Builder*	e.g. Physical Data Model  Ent = Segment/Table/etc. Reln = Pointer/Key/etc.	e.g. System Design  Proc.= Computer Function I/O = Data Elements/Sets	e.g. Technology Architecture  Node = Hardware/System Software Link = Line Specifications	e.g. Presentation Architecture  People = User Work = Screen Format	e.g. Control Structure  Time = Execute Cycle = Component Cycle	e.g. Rule Design  End = Condition Means = Action	TECHNOLOGY MODEL (PHYSICAL) *Builder*
DETAILED REPRESEN-TATIONS (OUT-OF-CONTEXT) *Sub-Contractor*	e.g. Data Definition  Ent = Field Reln = Address	e.g. Program  Proc.= Language Stmt I/O = Control Block	e.g. Network Architecture  Node = Addresses Link = Protocols	e.g. Security Architecture  People = Identity Work = Job	e.g. Timing Definition  Time = Interrupt Cycle = Machine Cycle	e.g. Rule Specification  End = Sub-condition Means = Step	DETAILED REPRESEN-TATIONS (OUT-OF CONTEXT) *Sub-Contractor*
FUNCTIONING ENTERPRISE	e.g. DATA	e.g. FUNCTION	e.g. NETWORK	e.g. ORGANIZATION	e.g. SCHEDULE	e.g. STRATEGY	FUNCTIONING ENTERPRISE

Enterprise Architecture – A Framework™
©John A. Zachman, Zachman International (810) 231-0531

Reprinted by permission – www.zifa.com

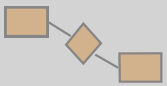
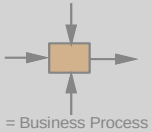
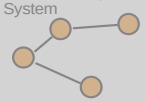
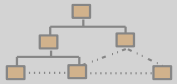
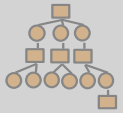
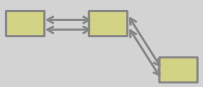
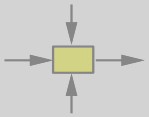
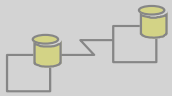
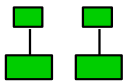
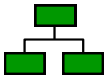
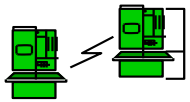
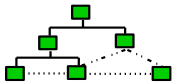
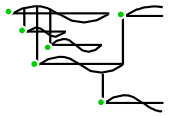
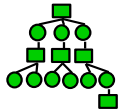
Complete "System Model" Architecture

	DATA *What*	FUNCTION *How*	NETWORK *Where*	PEOPLE *Who*	TIME *When*	MOTIVATION *Why*	
SCOPE (CONTEXTUAL) *Planner*	List of Things Important to the Business  ENTITY = Class of Business Thing	List of Processes the Business Performs  Function = Class of Business Process	List of Locations in which the Business Operates  Node = Major Business Location	List of Organizations Important to the Business  People = Major Organizations	List of Events Significant to the Business  Time = Major Business Event	List of Business Goals/Strat  Ends/Means=Major Bus. Goal/ Critical Success Factor	SCOPE (CONTEXTUAL) *Planner*
ENTERPRISE MODEL (CONCEPTUAL) *Owner*	e.g. Semantic Model  Ent = Business Entity Reln = Business Relationship	e.g. Business Process Model  Proc. = Business Process I/O = Business Resources	e.g. Business Logistics System  Node = Business Location Link = Business Linkage	e.g. Work Flow Model  People = Organization Unit Work = Work Product	e.g. Master Schedule  Time = Business Event Cycle = Business Cycle	e.g. Business Plan  End = Business Objective Means = Business Strategy	ENTERPRISE MODEL (CONCEPTUAL) *Owner*
SYSTEM MODEL (LOGICAL) *Designer*	e.g. Logical Data Model  Ent = Data Entity Reln = Data Relationship	e.g. Application Architecture  Proc .= Application Function I/O = User Views	e.g. Distributed System Architecture  Node = I/S Function (Processor, Storage, etc) Link = Line Characteristics	e.g. Human Interface Architecture  People = Role Work = Deliverable	e.g. Processing Structure  Time = System Event Cycle = Processing Cycle	e.g., Business Rule Model  End = Structural Assertion Means =Action Assertion	SYSTEM MODEL (LOGICAL) *Designer*
TECHNOLOGY MODEL (PHYSICAL) *Builder*	e.g. Physical Data Model  Ent = Segment/Table/etc. Reln = Pointer/Key/etc.	e.g. System Design  Proc.= Computer Function I/O = Data Elements/Sets	e.g. Technology Architecture  Node = Hardware/System Software Link = Line Specifications	e.g. Presentation Architecture  People = User Work = Screen Format	e.g. Control Structure  Time = Execute Cycle = Component Cycle	e.g. Rule Design  End = Condition Means = Action	TECHNOLOGY MODEL (PHYSICAL) *Builder*
DETAILED REPRESEN-TATIONS (OUT-OF-CONTEXT) *Sub-Contractor*	e.g. Data Definition  Ent = Field Reln = Address	e.g. Program  Proc.= Language Stmt I/O = Control Block	e.g. Network Architecture  Node = Addresses Link = Protocols	e.g. Security Architecture  People = Identity Work = Job	e.g. Timing Definition  Time = Interrupt Cycle = Machine Cycle	e.g. Rule Specification  End = Sub-condition Means = Step	DETAILED REPRESEN-TATIONS (OUT-OF CONTEXT) *Sub-Contractor*
FUNCTIONING ENTERPRISE	e.g. DATA	e.g. FUNCTION	e.g. NETWORK	e.g. ORGANIZATION	e.g. SCHEDULE	e.g. STRATEGY	FUNCTIONING ENTERPRISE

Enterprise Architecture – A Framework™
©John A. Zachman, Zachman International (810) 231-0531

Reprinted by permission – www.zifa.com

Complete "Technology Model" Architecture

	DATA *What*	FUNCTION *How*	NETWORK *Where*	PEOPLE *Who*	TIME *When*	MOTIVATION *Why*	
SCOPE (CONTEXTUAL) *Planner*	List of Things Important to the Business  ENTITY = Class of Business Thing	List of Processes the Business Performs  Function = Class of Business Process	List of Locations in which the Business Operates  Node = Major Business Location	List of Organizations Important to the Business  People = Major Organizations	List of Events Significant to the Business  Time = Major Business Event	List of Business Goals/Strat  Ends/Means=Major Bus. Goal/ Critical Success Factor	SCOPE (CONTEXTUAL) *Planner*
ENTERPRISE MODEL (CONCEPTUAL) *Owner*	e.g. Semantic Model  Ent = Business Entity Reln = Business Relationship	e.g. Business Process Model  Proc. = Business Process I/O = Business Resources	e.g. Business Logistics System  Node = Business Location Link = Business Linkage	e.g. Work Flow Model  People = Organization Unit Work = Work Product	e.g. Master Schedule  Time = Business Event Cycle = Business Cycle	e.g. Business Plan  End = Business Objective Means = Business Strategy	ENTERPRISE MODEL (CONCEPTUAL) *Owner*
SYSTEM MODEL (LOGICAL) *Designer*	e.g. Logical Data Model  Ent = Data Entity Reln = Data Relationship	e.g. Application Architecture  Proc .= Application Function I/O = User Views	e.g. Distributed System Architecture  Node = I/S Function (Processor. Storage. etc) Link = Line Characteristics	e.g. Human Interface Architecture  People = Role Work = Deliverable	e.g. Processing Structure  Time = System Event Cycle = Processing Cycle	e.g., Business Rule Model  End = Structural Assertion Means =Action Assertion	SYSTEM MODEL (LOGICAL) *Designer*
TECHNOLOGY MODEL (PHYSICAL) *Builder*	e.g. Physical Data Model  Ent = Segment/Table/etc. Reln = Pointer/Key/etc.	e.g. System Design  Proc.= Computer Function I/O = Data Elements/Sets	e.g. Technology Architecture  Node = Hardware/System Software Link = Line Specifications	e.g. Presentation Architecture  People = User Work = Screen Format	e.g. Control Structure  Time = Execute Cycle = Component Cycle	e.g. Rule Design  End = Condition Means = Action	TECHNOLOGY MODEL (PHYSICAL) *Builder*
DETAILED REPRESEN-TATIONS (OUT-OF-CONTEXT) *Sub-Contractor*	e.g. Data Definition  Ent = Field Reln = Address	e.g. Program  Proc.= Language Stmt I/O = Control Block	e.g. Network Architecture  Node = Addresses Link = Protocols	e.g. Security Architecture  People = Identity Work = Job	e.g. Timing Definition  Time = Interrupt Cycle = Machine Cycle	e.g. Rule Specification  End = Sub-condition Means = Step	DETAILED REPRESEN-TATIONS (OUT-OF CONTEXT) *Sub-Contractor*
FUNCTIONING ENTERPRISE	e.g. DATA	e.g. FUNCTION	e.g. NETWORK	e.g. ORGANIZATION	e.g. SCHEDULE	e.g. STRATEGY	FUNCTIONING ENTERPRISE

Enterprise Architecture – A Framework™
©John A. Zachman, Zachman International (810) 231-0531

Reprinted by permission – www.zifa.com

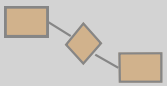
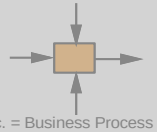
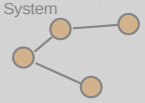
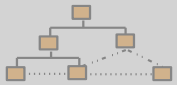
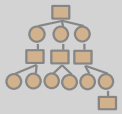
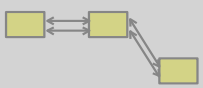
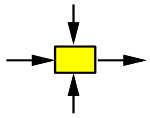
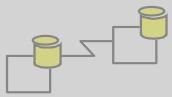
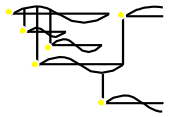
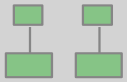
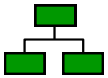
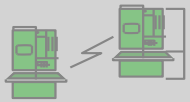
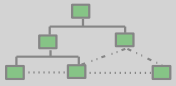
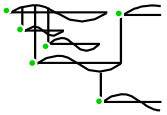
Object Oriented Modeling (UML; Use Cases)

	DATA *What*	FUNCTION *How*	NETWORK *Where*	PEOPLE *Who*	TIME *When*	MOTIVATION *Why*	
SCOPE (CONTEXTUAL) *Planner*	List of Things Important to the Business ENTITY = Class of Business Thing	List of Processes the Business Performs Function = Class of Business Process	List of Locations in which the Business Operates Node = Major Business Location	List of Organizations Important to the Business People = Major Organizations	List of Events Significant to the Business Time = Major Business Event	List of Business Goals/Strat Ends/Means=Major Bus. Goal/ Critical Success Factor	SCOPE (CONTEXTUAL) *Planner*
ENTERPRISE MODEL (CONCEPTUAL) *Owner*	e.g. Semantic Model Ent = Business Entity Reln = Business Relationship	e.g. Business Process Model Proc. = Business Process I/O = Business Resources	e.g. Business Logistics System Node = Business Location link = Business Linkage	e.g. Work Flow Model People = Organization Unit Work = Work Product	e.g. Master Schedule Time = Business Event Cycle = Business Cycle	e.g. Business Plan End = Business Objective Means = Business Strategy	ENTERPRISE MODEL (CONCEPTUAL) *Owner*
SYSTEM MODEL (LOGICAL) *Designer*	e.g. Logical Data Model Ent = Data Entity Reln = Data Relationship	e.g. Application Architecture Proc .= Application Function I/O = User Views	e.g. Distributed System Architecture Node = I/S Function (Processor, Storage, etc) Link = Line Characteristics	e.g. Human Interface Architecture People = Role Work = Deliverable	e.g. Processing Structure Time = System Event Cycle = Processing Cycle	g., Business Rule Model End = Structural Assertion Means =Action Assertion	SYSTEM MODEL (LOGICAL) *Designer*
TECHNOLOGY MODEL (PHYSICAL) *Builder*	e.g. Physical Data Model Ent = Segment/Table/etc. Reln = Pointer/Key/etc.	e.g. System Design Proc.= Computer Function I/O = Data Elements/Sets	e.g. Technology Architecture Node = Hardware/System Software Link = Line Specifications	e.g. Presentation Architecture People = User Work = Screen Format	e.g. Control Structure Time = Execute Cycle = Component Cycle	e.g. Rule Design End = Condition Means = Action	TECHNOLOGY MODEL (PHYSICAL) *Builder*
DETAILED REPRESEN-TATIONS (OUT-OF-CONTEXT) *Sub-Contractor*	e.g. Data Definition Ent = Field Reln = Address	e.g. Program Proc.= Language Stmt I/O = Control Block	e.g. Network Architecture Node = Addresses Link = Protocols	e.g. Security Architecture People = Identity Work = Job	e.g. Timing Definition Time = Interrupt Cycle = Machine Cycle	e.g. Rule Specification End = Sub-condition Means = Step	DETAILED REPRESEN-TATIONS (OUT-OF CONTEXT) *Sub-Contractor*
FUNCTIONING ENTERPRISE	e.g. DATA	e.g. FUNCTION	e.g. NETWORK	e.g. ORGANIZATION	e.g. SCHEDULE	e.g. STRATEGY	FUNCTIONING ENTERPRISE

Enterprise Architecture – A Framework™
©John A. Zachman, Zachman International (810) 231-0531

Reprinted by permission – www.zifa.com

Structured Methods Modeling (Mainframe Era)

	DATA *What*	FUNCTION *How*	NETWORK *Where*	PEOPLE *Who*	TIME *When*	MOTIVATION *Why*	
SCOPE (CONTEXTUAL) *Planner*	List of Things Important to the Business  ENTITY = Class of Business Thing	List of Processes the Business Performs  Function = Class of Business Process	List of Locations in which the Business Operates  Node = Major Business Location	List of Organizations Important to the Business  People = Major Organizations	List of Events Significant to the Business  Time = Major Business Event	List of Business Goals/Strat  Ends/Means=Major Bus. Goal/ Critical Success Factor	SCOPE (CONTEXTUAL) *Planner*
ENTERPRISE MODEL (CONCEPTUAL) *Owner*	e.g. Semantic Model  Ent = Business Entity Reln = Business Relationship	e.g. Business Process Model  Proc. = Business Process I/O = Business Resources	e.g. Business Logistics System  Node = Business Location Link = Business Linkage	e.g. Work Flow Model  People = Organization Unit Work = Work Product	e.g. Master Schedule  Time = Business Event Cycle = Business Cycle	e.g. Business Plan  End = Business Objective Means = Business Strategy	ENTERPRISE MODEL (CONCEPTUAL) *Owner*
SYSTEM MODEL (LOGICAL) *Designer*	e.g. Logical Data Model  Ent = Data Entity Reln = Data Relationship	e.g. Application Architecture  Proc .= Application Function I/O = User Views	e.g. Distributed System Architecture  Node = I/S Function (Processor, Storage, etc) Link = Line Characteristics	e.g. Human Interface Architecture  People = Role Work = Deliverable	e.g. Processing Structure  Time = System Event Cycle = Processing Cycle	e.g., Business Rule Model  End = Structural Assertion Means =Action Assertion	SYSTEM MODEL (LOGICAL) *Designer*
TECHNOLOGY MODEL (PHYSICAL) *Builder*	e.g. Physical Data Model  Ent = Segment/Table/etc. Reln = Pointer/Key/etc.	e.g. System Design  Proc.= Computer Function I/O = Data Elements/Sets	e.g. Technology Architecture  Node = Hardware/System Software Link = Line Specifications	e.g. Presentation Architecture  People = User Work = Screen Format	e.g. Control Structure  Time = Execute Cycle = Component Cycle	e.g. Rule Design  End = Condition Means = Action	TECHNOLOGY MODEL (PHYSICAL) *Builder*
DETAILED REPRESEN-TATIONS (OUT-OF-CONTEXT) *Sub-Contractor*	e.g. Data Definition  Ent = Field Reln = Address	e.g. Program  Proc.= Language Stmt I/O = Control Block	e.g. Network Architecture  Node = Addresses Link = Protocols	e.g. Security Architecture  People = Identity Work = Job	e.g. Timing Definition  Time = Interrupt Cycle = Machine Cycle	e.g. Rule Specification  End = Sub-condition Means = Step	DETAILED REPRESEN-TATIONS (OUT-OF CONTEXT) *Sub-Contractor*
FUNCTIONING ENTERPRISE	e.g. DATA	e.g. FUNCTION	e.g. NETWORK	e.g. ORGANIZATION	e.g. SCHEDULE	e.g. STRATEGY	FUNCTIONING ENTERPRISE

Enterprise Architecture – A Framework™
©John A. Zachman, Zachman International (810) 231-0531

Reprinted by permission – www.zifa.com

Models are the only known way to transform ideas into implementations

	DATA *What*	FUNCTION *How*	NETWORK *Where*	PEOPLE *Who*	TIME *When*	MOTIVATION *Why*	
SCOPE (CONTEXTUAL)	TERMS	List of Processes the Business Performs	List of Locations in which the Business Operates	List of Organizations Important to the Business	List of Events Significant to the Business	MISSION & GOALS	SCOPE (CONTEXTUAL)
Planner	ENTITY = Class of Business Thing	Function = Class of Business Process	Node = Major Business Location	People = Major Organizations	Time = Major Business Event	Ends/Means=Major Bus. Goal/ Critical Success Factor	*Planner*
ENTERPRISE MODEL (CONCEPTUAL)	e.g. Semantic Model KNOWLEDGE MODELS Fact Models	BUSINESS PROCESS MODELS	e.g. Business Logistics System	WORK FLOW MODELS	e.g. Master Schedule	BUSINESS DECISION MODELS	ENTERPRISE MODEL (CONCEPTUAL)
Owner	Ent = Business Entity Reln = Business Relationship	Proc. = Business Process I/O = Business Resources	Node = Business Location Link = Business Linkage	People = Organization Unit Work = Work Product	Time = Business Event Cycle = Business Cycle	End = Business Objective Means = Business Strategy	*Owner*
SYSTEM MODEL (LOGICAL)	e.g. Logical Data Model DATA MODELS	e.g. Application Architecture	e.g. Distributed System Architecture	USER INTERFACE ARCHITECTURE	e.g. Processing Structure	BUSINESS RULE MODELS	SYSTEM MODEL (LOGICAL)
Designer	Ent = Data Entity Reln = Data Relationship	Proc .= Application Function I/O = User Views	Node = I/S Function (Processor, Storage, etc) Link = Line Characteristics	People = Role Work = Deliverable	Time = System Event Cycle = Processing Cycle	End = Structural Assertion Means =Action Assertion	*Designer*
TECHNOLOGY MODEL (PHYSICAL)	e.g. Physical Data Model	e.g. System Design	e.g. Technology Architecture	e.g. Presentation Architecture	e.g. Control Structure	RULE DESIGNS AND SPECIFICATIONS	TECHNOLOGY MODEL (PHYSICAL)
Builder	Ent = Segment/Table/etc. Reln = Pointer/Key/etc.	Proc.= Computer Function I/O = Data Elements/Sets	Node = Hardware/System Software Link = Line Specifications	People = User Work = Screen Format	Time = Execute Cycle = Component Cycle	End = Condition Means = Action	*Builder*
DETAILED REPRESEN-TATIONS (OUT-OF-CONTEXT)	e.g. Data Definition	e.g. Program	e.g. Network Architecture	e.g. Security Architecture	e.g. Timing Definition	RULES SOURCE CODE	DETAILED REPRESEN-TATIONS (OUT-OF CONTEXT)
Sub-Contractor	Business Rules	If [Events or Conditions]	Then [Decisions or Actions]			[Goals]	*Sub-Contractor*
FUNCTIONING ENTERPRISE	e.g. DATA	e.g. FUNCTION	e.g. NETWORK	e.g. ORGANIZATION	e.g. SCHEDULE	e.g. STRATEGY	FUNCTIONING ENTERPRISE

Enterprise Architecture – A Framework™
©John A. Zachman, Zachman International (810) 231-0531

Reprinted by permission – www.zifa.com

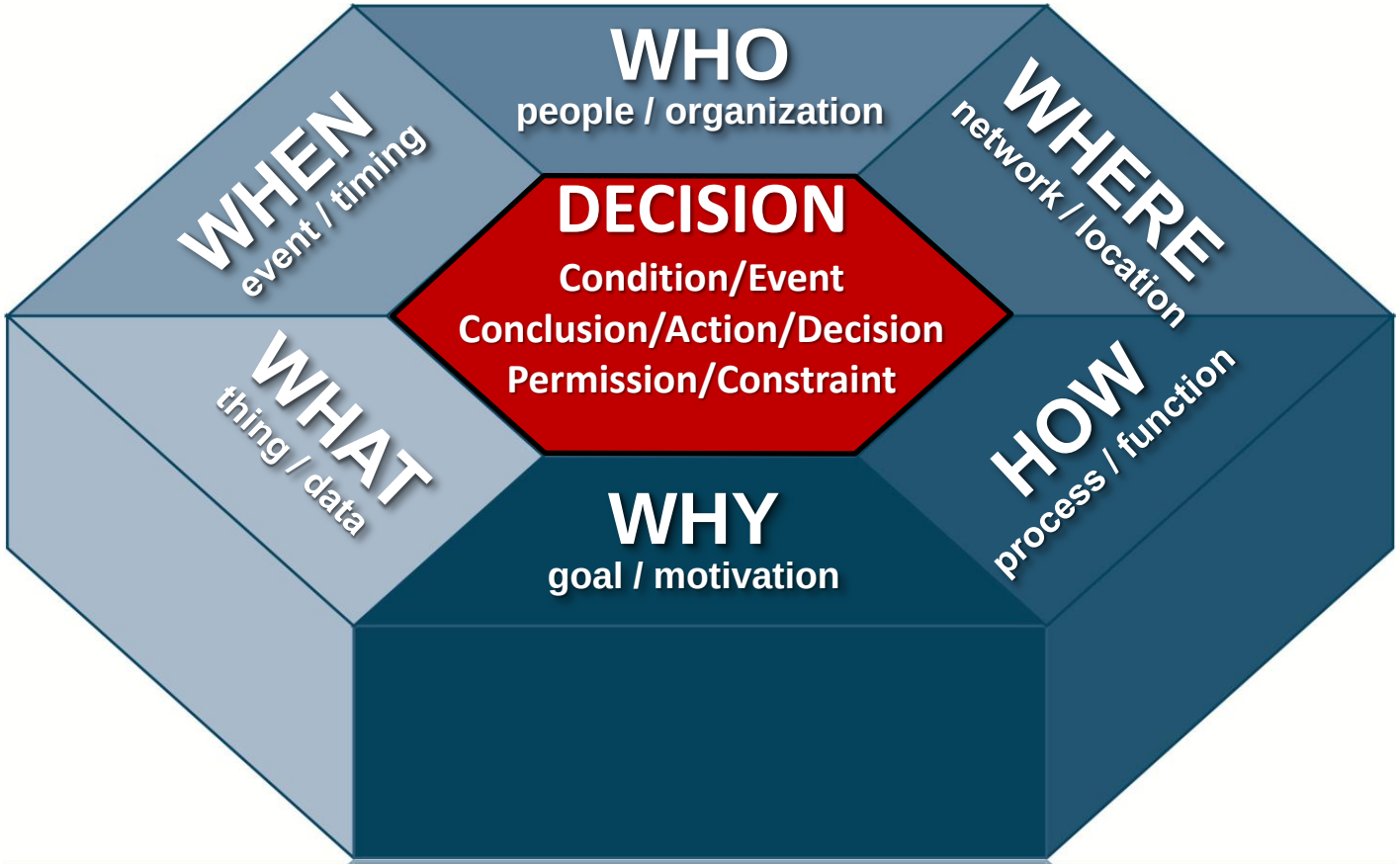
Models are the secret to aligning systems to strategy

	DATA *What*	FUNCTION *How*	NETWORK *Where*	PEOPLE *Who*	TIME *When*	MOTIVATION *Why*	
SCOPE (CONTEXTUAL) *Planner*	List of Things Important to the Business **TERMS GLOSSARY** **Terms & Definitions** **Fact Types** **List of Values** **KNOWING** Business Thing	List of Processes the Business Performs Function = Class of Business Process	List of Locations in which the Business Operates **PLACES** **Locations** **Jurisdictions** Node = Major Business Location	List of Organizations Important to the Business **Legal Entities** **Management Entities** **Suppliers** **Customers** **Regulators** People = Major Organizations	List of Events Significant to the Business Time = Major Business Event	List of Business Goals/Strat **Mission and Goals** **Laws and Regulations** **Strategies and Policies** Ends/Means=Major Bus. Goal/ Critical Success Factor	SCOPE (CONTEXTUAL) *Planner*
ENTERPRISE MODEL (CONCEPTUAL) *Owner*	e.g. Semantic Model **KNOWLEDGE MODELS** **Terms & Meaning** **Domain Models** **Fact Models** **Concept Maps** **UNDERSTANDING**	e.g. Business Process Model **BUSINESS PROCESS MODELS** **BPM / BPMN** Proc. = Business Process I/O = Business Resources	e.g. Business Logistics System Node = Business Location Link = Business Linkage	e.g. Work Flow Model **WORK FLOW MODELS** People = Organization Unit Work = Work Product	e.g. Master Schedule **EVENT MODELS** Time = Business Event Cycle = Business Cycle	e.g. Business Plan **BUSINESS DECISION MODELS** **Decision Model Diagrams** **BDM / BDMS**	ENTERPRISE MODEL (CONCEPTUAL) *Owner*
SYSTEM MODEL (LOGICAL) *Designer*	e.g. Logical Data Model **DATA MODELS** **Fact Tables** **ER Diagrams** **DBMS Model** Reln = Data Relationship	e.g. Application Architecture **BPMN > BPMS** I/O = User Views	e.g. Distributed System Architecture Node = I/S Function (Processor. Storage. etc) Link = Line Characteristics	e.g. Human Interface Architecture **USER INTERFACE ARCHITECTURE** People = Role Work = Deliverable	e.g. Processing Structure Time = System Event Cycle = Processing Cycle	**BUSINESS RULE MODELS** **Rule Family Tables** **Business Logic Models** **BDMS > BRMS** Means =Action Assertion	SYSTEM MODEL (LOGICAL) *Designer*
TECHNOLOGY MODEL (PHYSICAL) *Builder*	e.g. Physical Data Model **DATABASE** **Data Table Designs** **DBMS SQL DDL DML** Reln = Pointer/Key/etc.	e.g. System Design **BPMS > Programs** I/O = Data Elements/Sets	e.g. Technology Architecture Node = Hardware/System Software Link = Line Specifications	e.g. Presentation Architecture People = User Work = Screen Format	e.g. Control Structure Time = Execute Cycle = Component Cycle	**RULEBASE** **Architecture** **Rule Designs** **BRMS > BRE** End = Condition Means = Action	TECHNOLOGY MODEL (PHYSICAL) *Builder*
DETAILED REPRESEN-TATIONS (OUT-OF-CONTEXT) *Sub-Contractor*	e.g. Data Definition **DBMS / Database Engine**	e.g. Program **Programs > Code**	e.g. Network Architecture	e.g. Security Architecture	e.g. Timing Definition	**BUSINESS RULE ENGINE** **Rule Specifications** **Rule Code** **BRE > Code**	DETAILED REPRESEN-TATIONS (OUT-OF CONTEXT) *Sub-Contractor*
	Business Rules	**If [Conditions Events] Then [Conclusions Decisions Actions]**				**[Goals]**	
FUNCTIONING ENTERPRISE	e.g. DATA	e.g. FUNCTION	e.g. NETWORK	e.g. ORGANIZATION	e.g. SCHEDULE	e.g. STRATEGY	FUNCTIONING ENTERPRISE

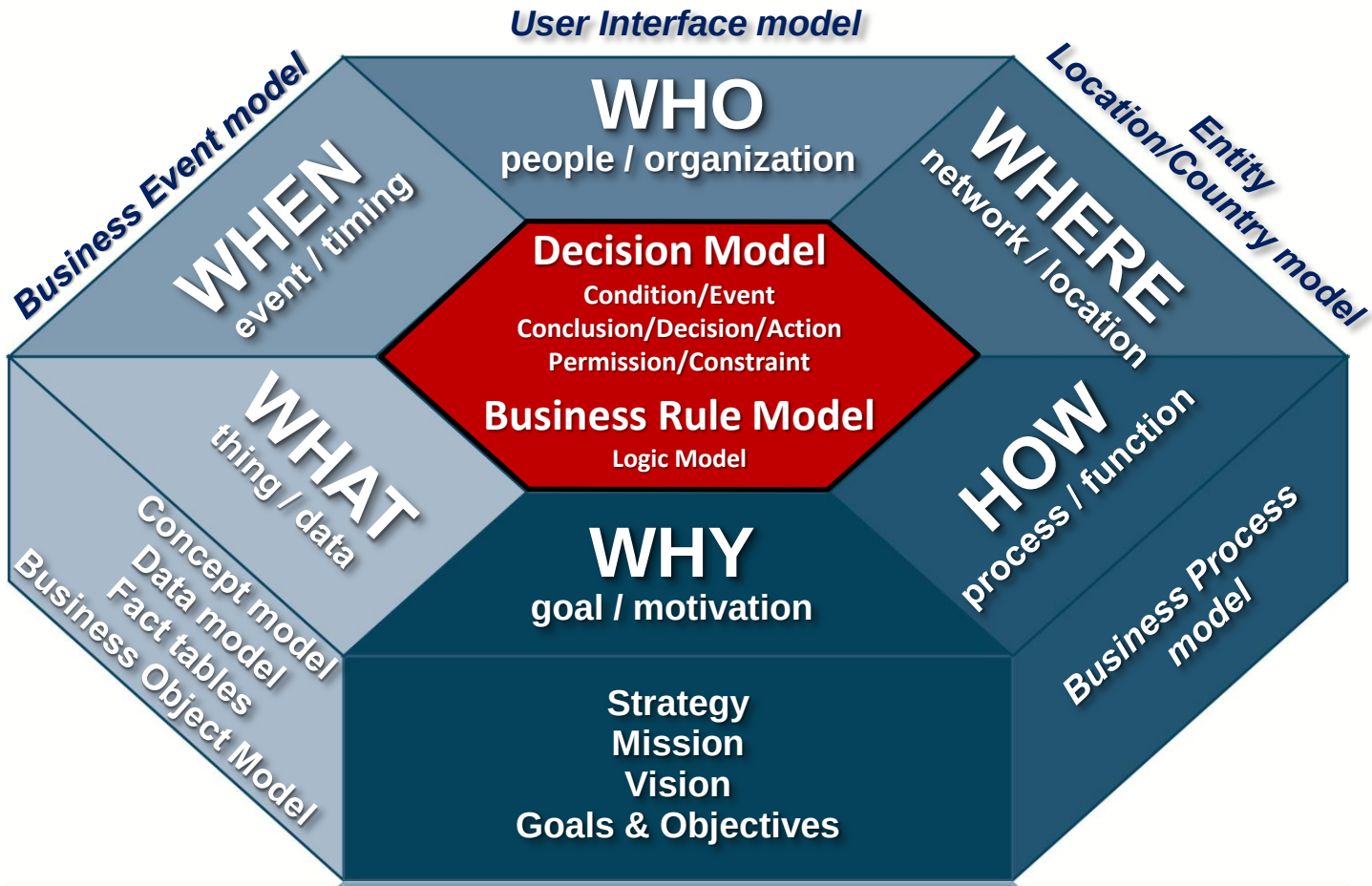
Enterprise Architecture – A Framework™
©John A. Zachman, Zachman International (810) 231-0531

Reprinted by permission – www.zifa.com

Decisions and Rules are the glue that connects the elements of the Enterprise Architecture and aligns the systems to strategies



A general framework for Decision/Rules/Process Integration



What do you get when you use a rules architecture framework and knowledge engineering?

The Framework helps you minimize risk and ensure success of your business rules, decisions, and process initiatives

- **Alignment / Quality**
  - The implemented systems (Row 6) align with the business objectives (Rows 1/2)
- **Integration**
  - Vertical integration from intention to decision
  - Horizontal integration of rules with process, code, and data
- **Flexibility / Time to market**
  - Can change one concept without impacting the entire implementation
  - Can change things with minimal time, cost, and disruption
- **Reuse**
  - Standard interchangeable parts

You get success… and a Mission Accomplished!

BizRules® com

What will you get without rules architecture knowledge engineering ?

- **No Alignment / Quality**
  - The implemented systems (Row 6) WILL NOT align with the business objectives (Rows 1/2)
- **No Integration**
  - NO Vertical integration from intention to decision
  - NO Horizontal integration of rules process, code, and data
- **No Flexibility / Time to market**
  - Changing one concept IS LIKELY TO impact the entire implementation
  - Changing things takes more time, costs more money, causes destruction
- **No Reuse**
  - NO Standard interchangeable parts

You get to hope and pray that the whole system doesn't fall like dominoes

Good luck!

Rolando Hernandez
Rules Coach
BIZRULES

BIZRULES has been helping Fortune 500 firms and large government agencies document business rules and preserve expert knowledge since 1995