



ENTERPRISE ARCHITECT

User Guide Series

The Zachman Framework

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CREATED WITH  **ENTERPRISE
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The Zachman Framework

The Zachman Framework is a widely used approach for engineering Enterprise Architecture. The Framework is a simple, logical structure that helps in organizing the information infrastructure of the Enterprise and provides many benefits in helping align technology with business needs.

Discussion

The topics described here provide an introduction to, and procedural explanation of, using the Zachman Framework in Enterprise Architect.

| Section | Content |
|---|---|
| Welcome  | This section provides an introduction to the Zachman Framework, and contains the formal documentation defining its use with Enterprise Architect. |
| Using the Zachman Framework  | Get started with the Zachman Framework, learning about the model structure, templates, diagram types and more. |
| Model Validation  | Learn how to develop and configure model validation for the Zachman Framework. |

Brief Introduction

Welcome to the Zachman Framework in Enterprise Architect.

Using this technology with Enterprise Architect, you can employ the Zachman Framework with the associated benefits of a multi-featured, open-standard modeling system. The Zachman Framework is already integrated with the Ultimate and Unified Editions; it can be purchased separately to be used with the Enterprise Architect Professional or Corporate Editions.

About the Zachman Framework

The Zachman Framework is a widely used approach for engineering Enterprise Architecture. The Framework is a simple, logical structure that helps in organizing the information infrastructure of the Enterprise.

While conceptually simple, the Zachman Framework provides many benefits in helping align technology with business needs. It has become a popular approach in defining Enterprise Architecture because it:

- Is platform neutral
- Is a versatile planning device
- Is both comprehensive and readily understood by non-technical people
- Assists in problem solving
- Helps in documenting enterprise-wide information system architecture

Under the Zachman Framework, an Enterprise is modeled by answering six questions: What? How? Where? Who? When? and Why? with respect to six role perspectives: the Planner, Owner, Designer, Builder, Subcontractor and Functioning Enterprise.

For further information, visit the [Zachman Framework website](#).

Getting Started

For instructions on how to use the Zachman Framework, see the topics:

- *Getting Started with the Zachman Framework* and
- *Using the Zachman Framework*

Support for the Zachman Framework

Technical support for the Zachman Framework is available to registered users of Enterprise Architect through the same channels as for Enterprise Architect itself.

Zachman Framework System Requirements

Zachman Framework version 1.1.4 runs under the environments identified here.

Microsoft® Operating Systems Supported

- Windows 10
- Windows 8
- Windows 7
- Windows 2008 Server
- Windows 2003 Server
- Windows XP Service Pack 2

Enterprise Architect Versions Supported

- Enterprise Architect Version 7.1 or later

Notes

- 32 bit and 64 bit operating systems supported

Getting Started with Zachman

When you install the Unified or Ultimate Edition of Enterprise Architect, the Zachman Framework is fully enabled and ready to use.

If you have the Corporate or Professional Edition of Enterprise Architect, you can purchase and install the MDG Technology for Zachman Framework separately; once you have entered the registration key for the MDG Technology for Zachman Framework, it is automatically available in and integrated with Enterprise Architect, as for the Unified and Ultimate Editions.

Access the MDG Technology For Zachman Framework

1. Create a new Enterprise Architect project file, and click on the top-level Package.
2. Select the 'Design > Package > Model Wizard' option.
3. In the 'Create from Pattern' tab (Model Wizard), select the 'Enterprise Architecture > Zachman' Perspective and the 'Zachman Framework' Pattern.
4. Click on the Create Model(s) button.

A new base Zachman model is created in the Browser window, containing the Zachman Framework diagram and the Planner, Owner, Designer, Builder, Subcontractor and Functioning Enterprise Packages.

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MDG Technology for Zachman Framework Software Product License Agreement

This Software Product License Agreement relates to the separately-purchased MDG Technology for Zachman Framework for use with the Professional and Corporate Editions of Sparx Systems Enterprise Architect. The MDG Technology integrated with the Unified and Ultimate Editions of Enterprise Architect is subject to the [Sparx Systems Enterprise Architect Modelling Tool](#).

MDG Technology for Zachman Framework - Enterprise Architect MDG Add-In, Version 1.1

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Using the Zachman Framework

The Zachman Framework provides a model-based framework for planning, designing and implementing the Architecture for an Enterprise. The starter model provided with the Technology acts as a base upon which you can build the Enterprise Architecture. You can create the appropriate diagrams from the extended Enterprise Architect UML diagram set, using Toolbox pages that support every cell of the Zachman classification framework.

The Technology also provides model validation and reporting capabilities for strategic project plans.

Within Enterprise Architect you can choose between Diagram View and Element List View. Element List View can be used in cells where you prefer to define only the model artifacts.

You can also align cells across the framework (horizontally and vertically) through the Enterprise Architect Relationship Matrix.

You can view a demonstration video of the MDG Technology For Zachman Framework in use, on the Sparx Systems website.

The Zachman Framework Help topics provide a detailed exploration of the Zachman Framework tools and features, such as.

- The example Enterprise Architect model for the Zachman Framework
- UML profiles (Toolbox pages) for use within specific Zachman Framework cells
- A diagram interface for the Zachman Framework
- New diagram types specific to the Zachman Framework
- A flexible model starter-structure
- Report generation capabilities for strategic project plans

The MDG Technology For Zachman Framework is integrated with the features of Enterprise Architect.

The Zachman Framework Interface Diagram

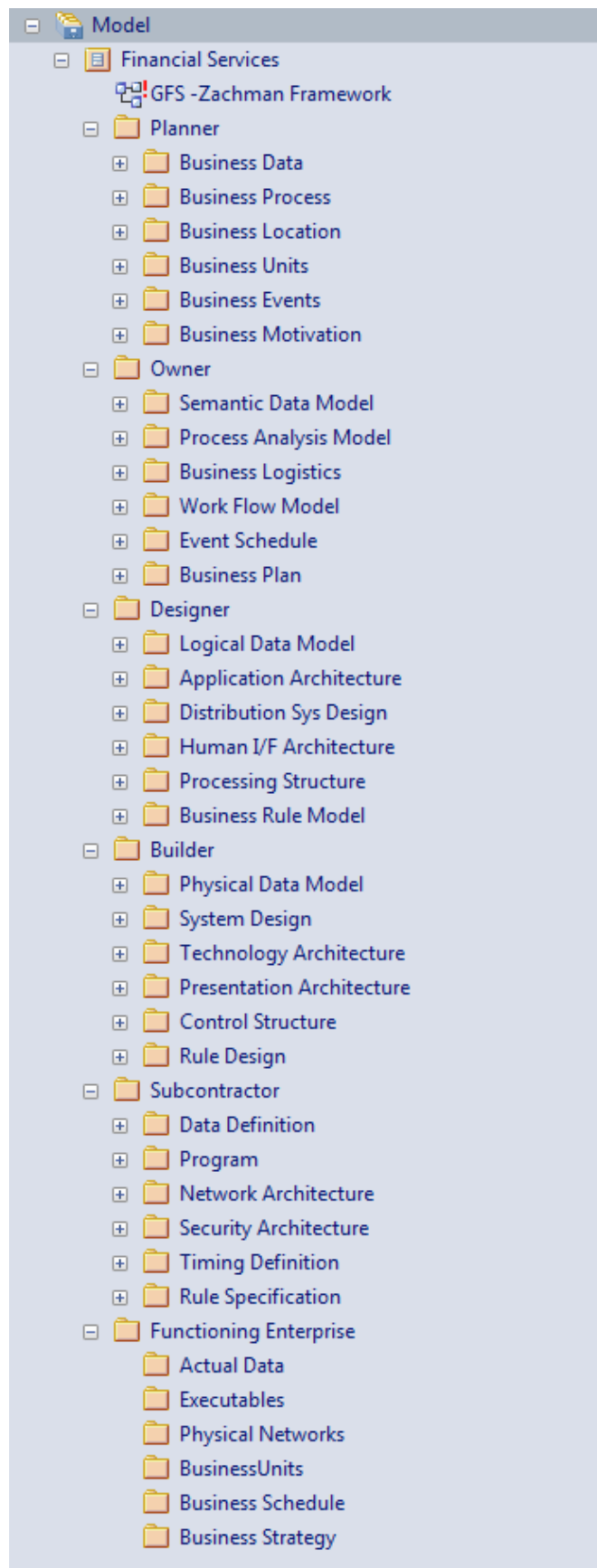
The Zachman Framework is a predefined model in Enterprise Architect. The model-level diagram of the model structure is the Zachman Framework Interface diagram, which serves as a template for the development of Enterprise Architecture based on the Zachman classification framework.

Each cell links to the relevant Zachman Framework diagram in the child Packages in the base model.

| The Zachman Framework | DATA What | FUNCTION How | NETWORK Where | PEOPLE Who | TIME When | MOTIVATION Why |
|---|--------------------------------------|-------------------------------------|--|---|---|-------------------------------|
| SCOPE (Contextual) Planner | Things Important to the Business | Processes the Business Performs | Locations in which the Business Operates | Organizations Important to the Business | Events/Cycles Significant to the Business | Business Goals/Strategies |
| BUSINESS MODEL (Conceptual) Owner | Conceptual Data Model | Business Process Model | Business Logistics | Work Flow Model | Master Schedule | Business Plan |
| SYSTEM MODEL (Logical) Designer | Logical Data Model | Application Architecture | Distributed System Architecture | Human Interface Architecture | Processing Structure | Business Rule Model |
| TECHNOLOGY MODEL (Physical) Builder | Physical Data Model | System Design | Technology Architecture | Presentation Architecture | Control Structure | Rule Design |
| DETAILED REPRESENTATIONS Sub-Contractor | Data Definition | Program | Network Architecture | Security Architecture | Timing Definition | Rule Specification |
| FUNCTIONING ENTERPRISE | Data | Function | Network | Organization Units | Schedule | Strategy |

Zachman Framework Model Structure

The Zachman Framework provides a Framework model template, in which each Zachman Perspective (or row) is modeled as the highest-level Package inside the model. Cells belonging to the Perspectives are modeled as child Packages of the appropriate row Package.



The Zachman Framework Model Template

The Zachman Framework Model Template provides the model skeleton from which you can develop your Enterprise definition.

Add a new Zachman Framework model to the project

1. Right-click on the root node and select 'Add a Model using Wizard'. The 'Create from Pattern' tab (Model Wizard) displays.
2. On the 'Create from Pattern' tab, click on the <name> Perspective button and select 'Enterprise Architecture > Zachman' from the list.
3. Select the 'Zachman Framework' pattern.
4. Click on the Create Model(s) button.

Zachman Framework Diagrams

The Zachman Framework introduces new diagram types that support modeling of the Zachman Classification Framework. A Zachman Framework diagram is created in the same way as any other diagram in Enterprise Architect.

The Technology provides access to these categories of diagram through the 'New Diagram' dialog:

- Planner
- Owner
- Designer
- Builder
- Subcontractor
- Zachman Framework Interface

Zachman Framework Diagram Types


The Zachman Framework further extends the Enterprise Architect diagram set to support the Framework, with diagram types appropriate to each cell of the Zachman Framework.

| ZFI Zachman Framework | | | | | | |
|---|--|---|-----------------------------------|--------------------------|----------------------------------|--|
| <i>The Zachman Framework</i> | What Data | How Function | Where Location | Who People | When Time | Why Future |
| Planner Objective/Scope | Business Data | High Level Business Process | Business Locations | Organization Chart | Business Events | Business Motivation |
| Owner Conceptual | Data Map Add-In Generated Process Map | Process Analysis | Business Logistics | BPMN | Event Schedule | Strategy Map Mind Mapping |
| Designer Logical | Class - (Platform Independent Model) | Activity | Data Distribution Architecture | Use Case | State Transition | Business Rule Model Requirements |
| Builder Physical | Physical Data Model | Class - (Platform Specific Model) Component | Deployment | User Interface | Interaction Communication | Rule Design |
| Sub- Constructor Out-of-Context | Data Definition Enterprise Architect DDL Generation | Enterprise Architect Code Generation | Network Architecture | Security Architecture | Timing | Rule Specification |
| FUNCTIONING ENTERPRISE | | | | | | |

Legend

- UML Diagrams
- UML Profile for Zachman Framework
- Enterprise Architect extension

The Zachman Framework Toolbox

The Zachman Framework pages of the Diagram Toolbox provide elements and relationships for all the Zachman Framework diagrams that the MDG Technology supports. The Zachman Framework Toolbox pages can be accessed by clicking on  and specifying 'Zachman' in the 'Find Toolbox Item' dialog. The Diagram Toolbox can be docked on either side of the diagram, or free floated on top of the diagram to expose more surface for editing.

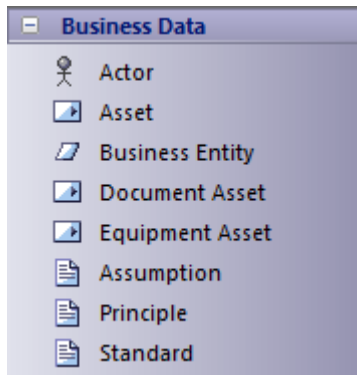
Diagrams for Toolboxes

This table shows, for each Zachman Framework cell, the diagram that could be used.

| Zachman Cell | Diagram |
|----------------------|---|
| Planner - Data | Business Data |
| Planner - Function | Business Process |
| Planner - Location | Business Locations |
| Planner - People | Organization Chart |
| Planner - Timing | Business Events |
| Planner - Motivation | Business Motivation |
| Owner - Data | Data Map and Process Map (Generated by Add-In) |
| Owner - Function | Process Analysis |
| Owner - Location | Business Logistics |
| Owner - People | BPMN |
| Owner - Timing | Event Schedule |
| Owner - Motivation | Enterprise Architect Mind Mapping diagram and Strategy Map |
| Designer - Data | Class |
| Designer – Function | Activity |
| Designer - Location | Data Distribution Architecture |
| Designer - People | Use Case |
| Designer - Timing | State Transition |
| | |

| | |
|----------------------------|---|
| Designer - Motivation | Business Rule Model |
| Builder - Data | Physical Data Model |
| Builder - Function | Class and Component |
| Builder - Location | Deployment |
| Builder - People | User Interface |
| Builder - Timing | Communication and Interaction |
| Builder - Motivation | Rule Design |
| Subcontractor - Data | Data Definition; default toolbox for the diagram is Custom. |
| Subcontractor – Function | No diagram defined – Code generation is done in this cell. |
| Subcontractor - Location | Network Architecture |
| Subcontractor - People | Security Architecture |
| Subcontractor - Timing | Timing |
| Subcontractor - Motivation | Rule Specification |

Business Data Page



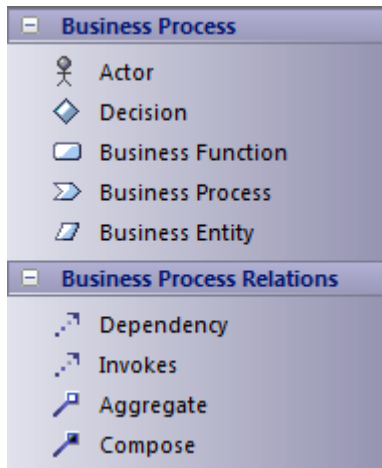
Business Data Toolbox

| Item | Description |
|-----------------|--|
| Actor | Models a stakeholder or any other human resource of the enterprise. |
| Asset | Represents the enterprise resources that could be estimated for value. |
| Business Entity | Represents generic enterprise resources. |
| Document Asset | A subtype of Asset that captures the important documents of the enterprise. |
| Equipment Asset | A subtype of Asset that captures the equipment resources of the enterprise. |
| Assumption | Captures the assumptions made in information manipulation. Applies the Tagged Value Type = Enterprise / Business / System / Application / Technology / Data. |
| Principle | Defines the Principles framed and followed in the enterprise. Applies the Tagged Value Type = Enterprise / Business / System / Application / Technology / Data. |
| Standard | Defines the standards followed in the Enterprise. Applies the Tagged Value Type = Enterprise / Business / System / Application / Technology / Data. |

Notes

- Elements and connectors common to Enterprise Architect UML and Extended diagrams are documented in the [Object Toolbox](#) section

Business Process Pages



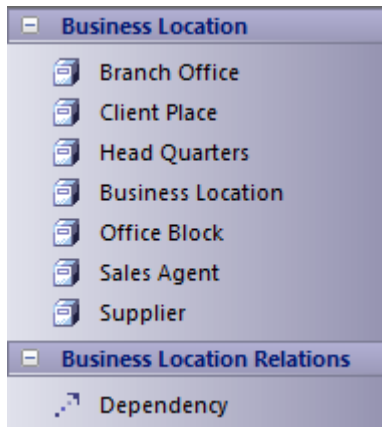
Business Process Toolbox

| Item | Description |
|-------------------|--|
| Actor | Models a stakeholder or any other human resource of the Enterprise. |
| Decision | Indicates the point of conditional progression where a business decision is taken. |
| Business Function | Represents a major function performed by the enterprise or a part of the enterprise. |
| Business Process | Represents a function or behavior of the enterprise or part of the enterprise. |
| Business Entity | Represents generic enterprise resources. |
| Invokes | A relationship that defines the invocation of a business process. |

Notes

- Elements and connectors common to Enterprise Architect UML and Extended diagrams are documented in the [Object Toolbox](#) section

Business Location Page



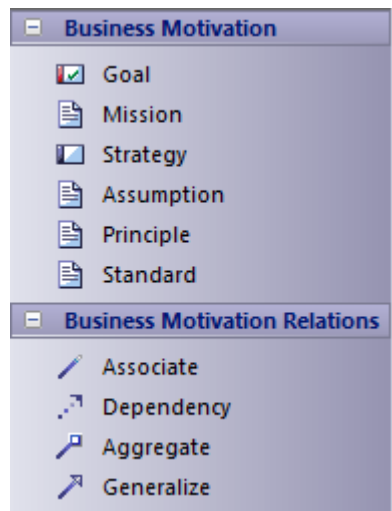
Business Location Toolbox

| Item | Description |
|-------------------|---|
| Branch Office | Models a Business Location as a Branch Office. |
| Client Place | Models a Business Location as a Client Place. |
| Head Quarters | Models a Business Location as a Head Quarters. |
| Business Location | Models the location from which the business operates. |
| Office Block | Models a Business Location as an Office Block. |
| Sales Agent | Models a Business Location as a Sales Agent. |
| Supplier | Models a Business Location as a Supplier. |

Notes

- Elements and connectors common to Enterprise Architect UML and Extended diagrams are documented in the [Object Toolbox](#) section

Business Motivation Pages



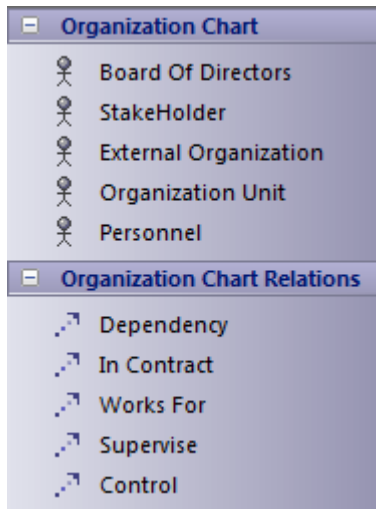
Business Motivation Toolbox

| Item | Description |
|------------|--|
| Goal | Models what is to be achieved by the enterprise, with specifications defined by the Tagged Values. |
| Mission | Models the mission statement, policies and values of the enterprise. |
| Strategy | Models the strategy statements for the business plan. |
| Assumption | Models the assumptions made in information manipulation. Tagged Value Type = Enterprise / Business / System / Application / Technology / Data. |
| Principle | Defines the Principles framed and followed in the enterprise. Tagged Value Type = Enterprise / Business / System / Application / Technology / Data. |
| Standard | Defines the standards followed in the enterprise. Tagged Value Type = Enterprise / Business / System / Application / Technology / Data. |

Notes

- Elements and connectors common to Enterprise Architect UML and Extended diagrams are documented in the [Object Toolbox](#) section

Organization Chart Pages



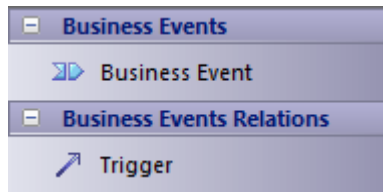
Organization Chart Toolbox

| Item | Description |
|-----------------------|--|
| Board of Directors | Captures the details of the board of directors. |
| StakeHolder | Defines a stakeholder of the enterprise. |
| External Organization | Defines any external business unit that is not under direct control of the enterprise, but has a relationship with the enterprise. |
| Organization Unit | Defines any business unit that is under direct control of the enterprise. |
| Personnel | Captures the details of personnel in an enterprise. |
| In Contract | A connector that represents the contract-based relationships between business units. |
| Works For | A connector that captures the details of team links; for example, Stakeholder 1 works for Organization Unit 1. |
| Supervise | A connector that captures process supervision details. |
| Control | A connector that captures Unit in charge or Person in charge information. |

Notes

- Elements and connectors common to Enterprise Architect UML and Extended diagrams are documented in the [Object Toolbox](#) section

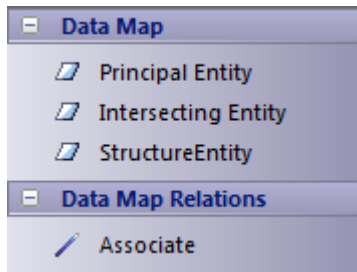
Business Events Pages



Business Event Toolbox

| Item | Description |
|----------------|---|
| Business Event | Captures major business events of the enterprise. |
| Trigger | Indicates that a Business Event triggers another event or a business process. |

Data Map Pages



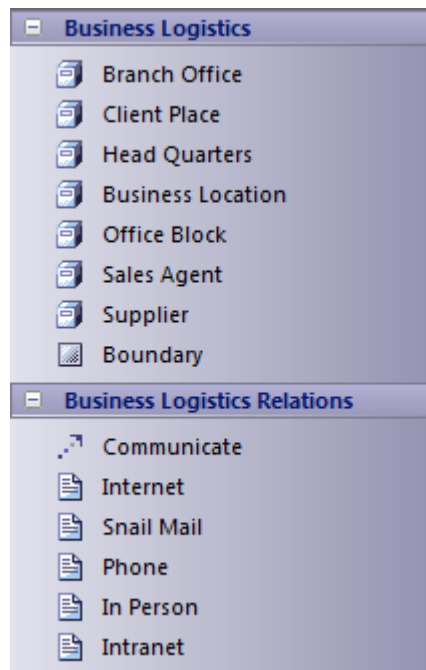
Data Map Toolbox

| Item | Description |
|---------------------|---|
| Principal Entity | Represents a business entity that forms a resource of the enterprise. |
| Intersecting Entity | Normalizes the many-to-many relationship between principal entities. |
| Structure Entity | Captures potential knowledge-based entities. |

Notes

- Elements and connectors common to Enterprise Architect UML and Extended diagrams are documented in the [Object Toolbox](#) section

Business Logistics Pages



Business Logistics Items and Relations

| Item | Description |
|-------------------|--|
| Branch Office | Models a Business Location as a Branch Office. |
| Client Place | Models a Business Location as a Client location |
| Head Quarters | Models a Business Location as Head Quarters. |
| Business Location | Models the location from which the business operates. |
| Office Block | Models a Business Location as an Office Block. |
| Sales Agent | Models a Business Location as a Sales Agent. |
| Supplier | Models a Business Location as a Supplier. |
| Communicate | Indicates that a business location communicates directly with another business location. |
| Internet | Indicates that the means of communication is the World Wide Web. |
| Snail Mail | Indicates that the means of communication is the postal system or courier services. |
| Phone | Indicates that the means of communication is the telephone. |
| | |

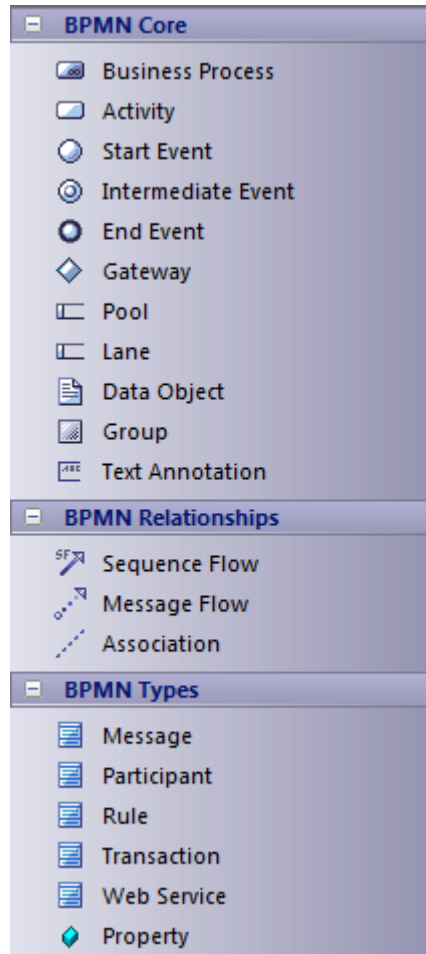
| | |
|-----------|---|
| In Person | Indicates that the means of communication is direct person-to-person. |
| Intranet | Indicates that the means of communication is the local intranet or WAN. |

Notes

- Elements and connectors common to Enterprise Architect UML and Extended diagrams are documented in the [Object Toolbox](#) section

BPMN Pages

The BPMN Toolbox pages provide the graphical (Core) and non-graphical (Types) Business Process Model and Notation (BPMN) elements for use on Business Process diagrams through the Zachman Framework Technology. Specifications of these elements and relationships are defined by Tagged Values.



BPMN Toolbox

| Item | Description |
|--------------------|--|
| Business Process | Defines a business process; an extension of a composite Activity. |
| Activity | Defines an activity within a business process. |
| Start Event | Defines the initiating event in a process. |
| Intermediate Event | Defines an intermediate event in a process. |
| End Event | Defines the terminating event in a process. |
| Gateway | Defines a decision point in a business process. If a condition is true, then processing continues one way; if not, then another. |

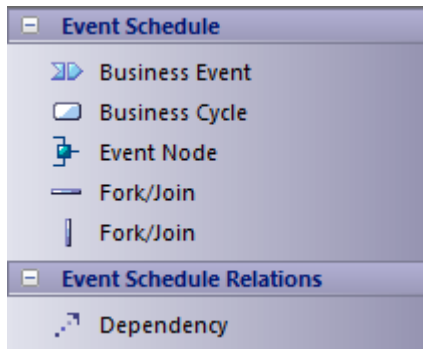
| | |
|-----------------|--|
| Pool | Logically organizes an Activity; an extension of a Partition element. |
| Lane | Subdivides a Pool; an extension of a Partition element. |
| Data Object | Defines a physical piece of information used or produced by a system; an extension of an Artifact element. |
| Group | Groups a number of other elements; an extension of a Boundary element. |
| Text Annotation | A comment. |
| Sequence Flow | Defines the flow of an activity; an extension of a Control Flow relationship. |
| Message Flow | Defines the flow of communications in a process; an extension of a Control Flow relationship. |
| Association | Associates information and artifacts with flow objects. |
| Message | Defines a message; an extension of a Class element. |
| Participant | Defines a participant in an activity; an extension of a Class element. |
| Rule | Defines business rule statements; an extension of a Class element. |
| Transaction | Defines a transaction in an activity; an extension of a Class element. |
| Web Service | Defines a web service; an extension of a Class element. |
| Property | Assigns a property to an element; an extension of an attribute. |

Notes

- Enterprise Architect is delivered with the BPMN Technologies (for BPMN 1.0, 1.1 and 2.0) automatically installed, providing BPMN profiles and Toolboxes separate from this Zachman version; to make even further use of BPMN facilities, download the BPMN Add-In from:

https://sparxsystems.com/products/mdg_bpmn.html

Event Schedule Pages



Event Schedule Toolbox

| Item | Description |
|----------------|---|
| Business Event | Captures major business events of the enterprise. |
| Business Cycle | Captures major business cycles of the enterprise. |
| Event Node | Captures the event points in a business cycle. |

Notes

- Elements and connectors common to Enterprise Architect UML and Extended diagrams are documented in the [Object Toolbox](#) section

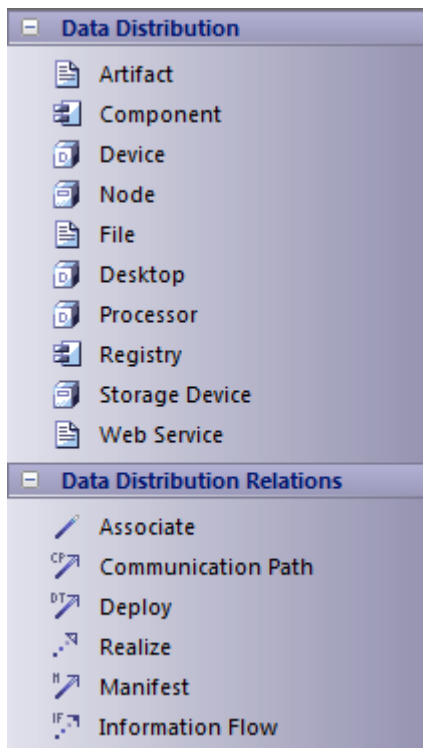
Strategy Map Pages



Strategy Map Toolbox

| Item | Description |
|----------------------|--|
| Strategy | Captures the strategy statements for the business plan. |
| Goal | Captures what is to be achieved by the enterprise, with specifications defined by the Tagged Values. |
| Business Perspective | Relates the strategies to a specific category. |
| Strategy Link | Indicates that a strategy is linked to another strategy or goal. |

Data Distribution Architecture Pages



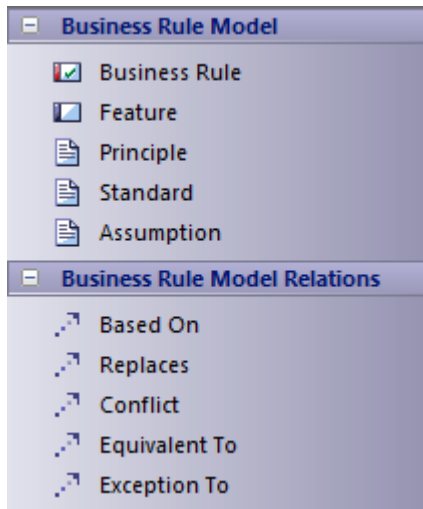
Data Distribution Architecture Toolbox

| Item | Description |
|----------------|------------------------------|
| File | Represents a file. |
| Desktop | Represents a desktop. |
| Processor | Represents a processor. |
| Registry | Represents a registry. |
| Storage Device | Represents a storage device. |
| Web Service | Represents a web service. |

Notes

- Elements and connectors common to Enterprise Architect UML and Extended diagrams are documented in the [Object Toolbox](#) section

Business Rule Model Pages



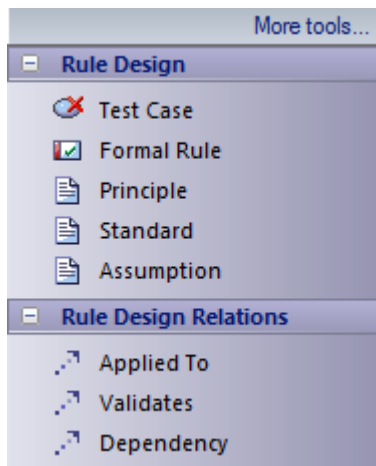
Business Rule Model Toolbox

| Item | Description |
|---------------|---|
| Business Rule | Captures the Business Rule statements. |
| Principle | Defines the Principles framed and followed in the Enterprise. Tag Value Type = Enterprise / Business / System / Application / Technology / Data. |
| Standard | Defines the standards followed in the Enterprise. Tag Value Type = Enterprise / Business / System / Application / Technology / Data. |
| Assumption | Captures the assumptions made in information manipulation. Tag Value Type = Enterprise / Business / System / Application / Technology / Data. |
| Based On | Indicates that a rule is based on another model element, which forms the rationale for the rule. |
| Replaces | Indicates that a new rule replaces another rule. |
| Conflict | Indicates that a rule conflicts with another defined rule. |
| Equivalent To | Indicates that a rule is equivalent to another rule. |
| Exception To | Indicates exceptions for a rule. |

Notes

- Elements and connectors common to Enterprise Architect UML and Extended diagrams are documented in the [Object Toolbox](#) section

Rule Design Pages



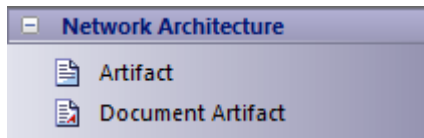
Rule Design Toolbox

| Item | Description |
|-------------|---|
| Formal Rule | Represents a business rule transformed to a technology-specific logical rule or constraint statement. |
| Principle | Defines the Principles framed and followed in the Enterprise. Tag Value Type = Enterprise / Business / System / Application / Technology / Data. |
| Standard | Used to define the Standards followed in the Enterprise. Tag Value Type = Enterprise / Business / System / Application / Technology / Data. |
| Assumption | Used to capture the assumptions made in information manipulation. Tag Value Type = Enterprise / Business / System / Application / Technology / Data. |
| Applied To | Indicates that a Formal Rule is applied to other model artifacts such as Scenarios or Activities. |
| Validates | Indicates that a model artifact validates a Formal Rule. |

Notes

- Elements and connectors common to Enterprise Architect UML and Extended diagrams are documented in the [Object Toolbox](#) section

Network Architecture Pages



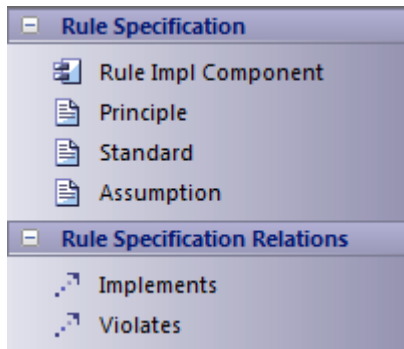
Network Architecture Toolbox

| Item | Description |
|-------------------|---|
| Artifact | Generic graphical element used to capture information. |
| Document Artifact | Generic graphical element used to capture detailed information such as network configuration details. |

Notes

- For a full description of Artifact elements, see the Artifact topic

Rule Specification Pages



Rule Specification Toolbox

| Item | Description |
|---------------------|---|
| Rule Impl Component | Captures the component implementing a rule. |
| Principle | Defines the Principles framed and followed in the enterprise. Tag Value Type = Enterprise / Business / System / Application / Technology / Data. |
| Standard | Defines the Standards followed in the enterprise. Tag Value Type = Enterprise / Business / System / Application / Technology / Data. |
| Assumption | Captures the assumptions made in information manipulation. Tag Value Type = Enterprise / Business / System / Application / Technology / Data. |
| Implements | Indicates that a Rule Impl Component implements a rule. |
| Violates | Indicates that the rule is violated by the connecting model element. |

Tagged Values for Zachman Framework

The Zachman Framework makes extensive use of Tagged Values to assign custom properties to the various Zachman Framework elements. When creating or viewing a Zachman Framework model, it is recommended that you keep the Properties window docked and visible at all times, with the 'ZF' section expanded.

Access

| | |
|--------------------|--|
| Ribbon | Start > All Windows > Properties > General > Tagged Values Explore > Portals > Windows > Properties > Tagged Values |
| Keyboard Shortcuts | Ctrl+2 |

Synchronize Tagged Values

From time to time you might need to add missing Tagged Values to all elements in the model that require them, such as:

- Whenever you create a new element by any means other than directly dropping the element from the Zachman Framework Toolbox pages
- Before using a new version of the Technology, to update the Tagged Values of elements in existing models to the latest version of the Zachman Framework profile

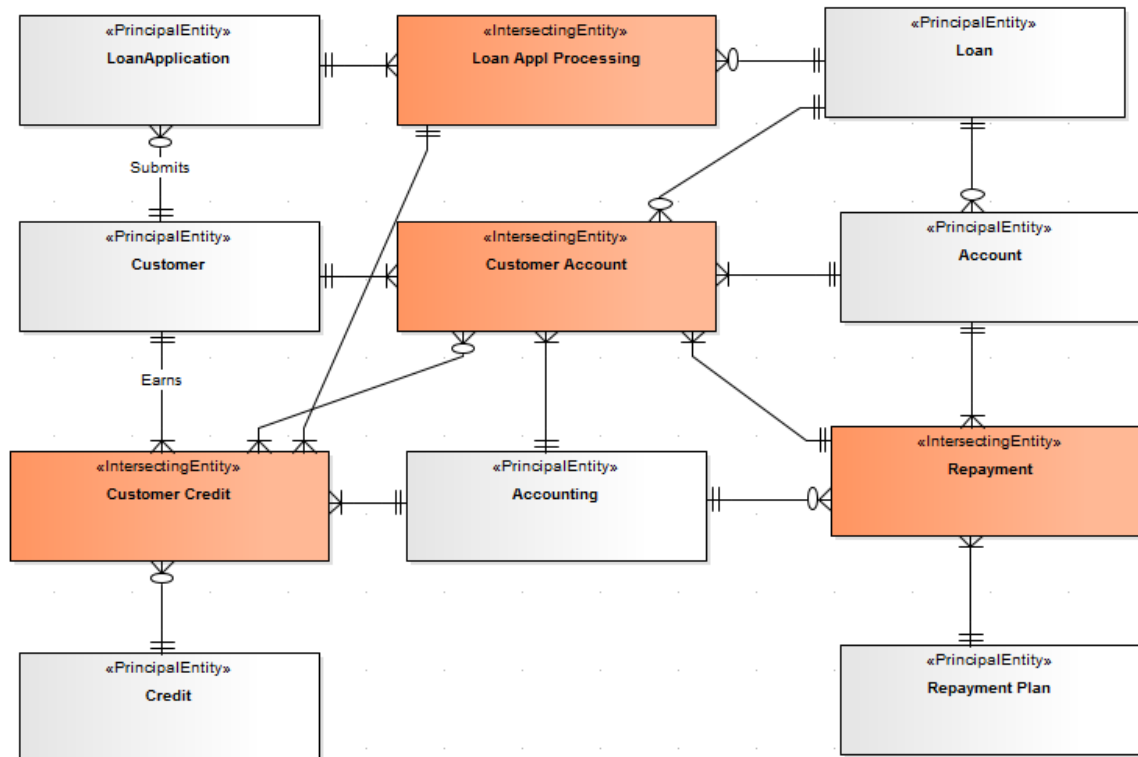
You can do this using the 'Synchronize Stereotype' option on the icons in the Zachman Framework pages of the Diagram Toolbox.

Data Map Analysis

A valid Data Map diagram is basically an Entity Relationship diagram constructed using Principal Entity, Structure Entity and Intersecting Entity elements. The relationships between them are defined by the business rules.

- Principal Entities are identified from the Business Entities in scope
- Intersecting Entities are used to break a many-to-many association between Principal Entities, which form potential business processes
- Structure Entities represent the existence of a potential knowledge base

This is an example of a valid Data Map diagram:



Cluster Reports and Process Maps are deliverables of a valid Data Map diagram analysis.

Perform a Data Map diagram analysis

With the Data Map diagram to be analyzed open and active, either:

- Select the 'Specialize > Add-Ins > Zachman Framework > Do Data-Map Analysis' ribbon option, or
- Right-click on the Data Map diagram in the Browser window, and select the 'Specialize | Zachman Framework | Do Data-Map Analysis' context menu option

The 'Data Map Analysis' dialog displays.

Package: Semantic Data Model

Options

☒ Generate Process Map

☒ Generate Cluster Report

Filename: ...

Generate View Report Close Help

Progress

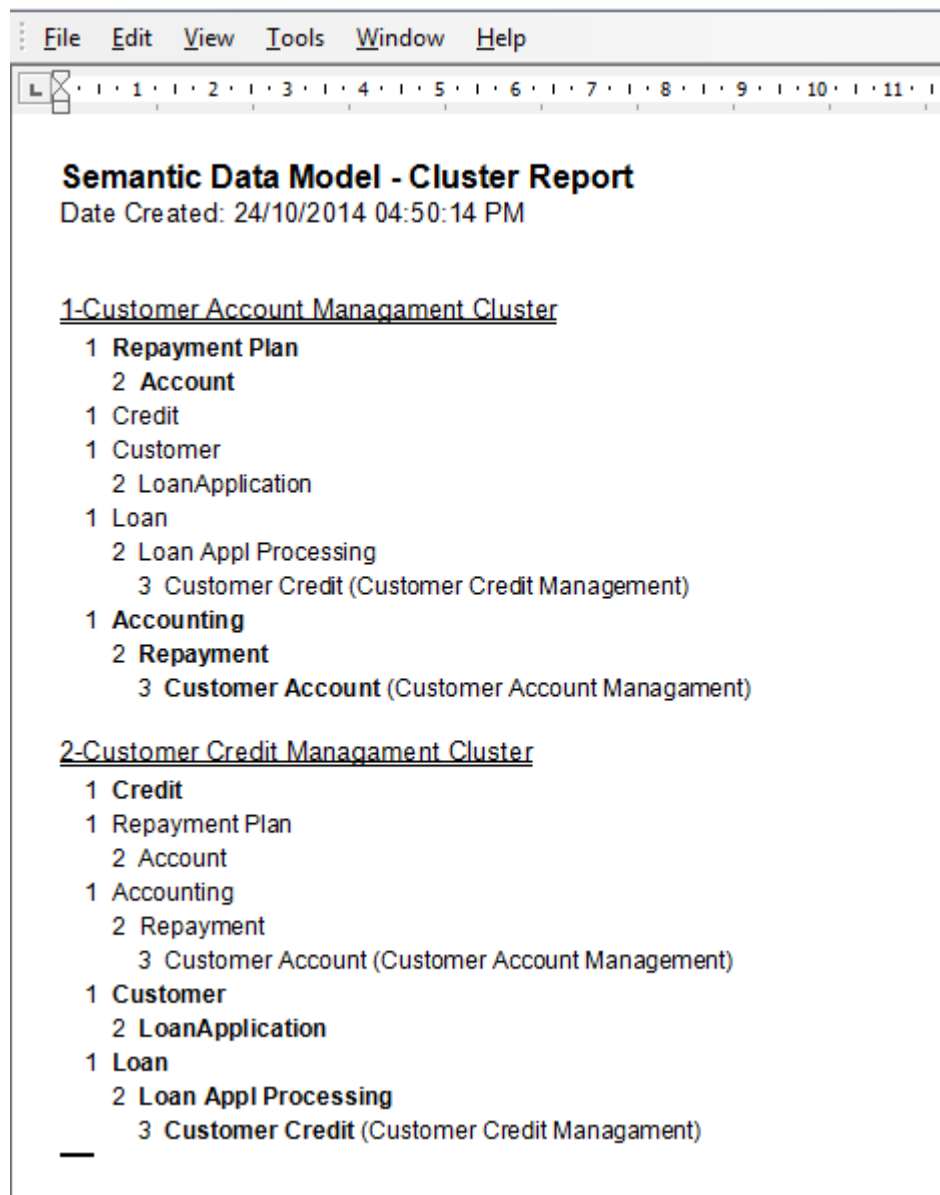
Click on the checkbox against each deliverable required. If you have selected 'Generate Cluster Report', also enter the file pathname under which to save the report.

Click on the Generate button.

Cluster Report

A cluster is a logically related group of processes arranged in a sequence, this being the plan of the order of the execution of processes.

This Cluster Report was generated for the sample Data Map diagram, in .rtf format.



The report shows how each cluster is a logical group of processes or tasks forming a major business process.

The number preceding each entity name is the phase number for the entity. Phase 1 against an entity means that the entity forms a potential resource/element that must be procured/framed before proceeding with the business process.

Entities with phase numbers greater than 1 are potential processes, with their sequence of execution set after procuring/framing the phase 1 entities in the cluster.

After successful completion of Data Map analysis, the phase property of each entity in the Data Map diagram is set accordingly.

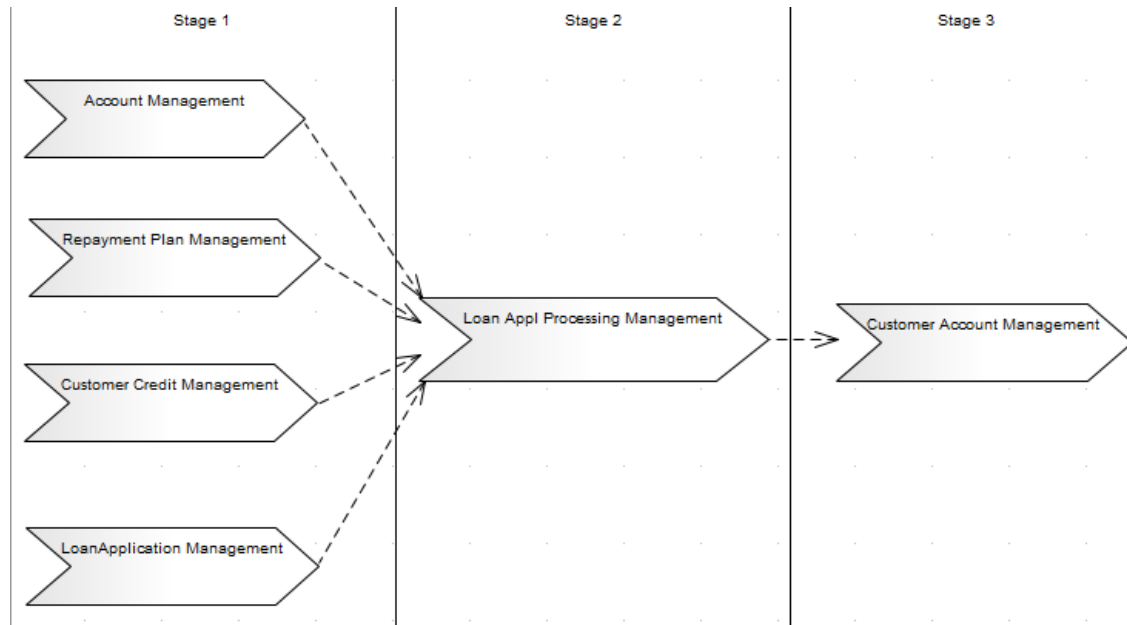
Acknowledgement

The algorithm for Cluster Report generation is derived from the book *Enterprise Architecture for Integration: Rapid Delivery Methods and Technologies* (Clive Finkelstein; April 2006).

Process Map

A Process Map is the visual model of the Cluster Report; however, the Phase 1 entities in the Cluster Report are not shown. The Process Map groups the identified Business Processes into the stages of the project, arranged as a guide for the project.

This is the Process Map generated for the sample Data Map diagram.



Business Scorecard Report Template

To aid your strategic management methods, the Zachman Framework provides a report template for creating Business Scorecards.

Generate a Business Scorecard

| Step | Action |
|------|--|
| 1 | In the Browser window, click on the Package containing your Business Perspectives and Strategies (an Owner Business Plan Strategic Plan Package). The Business Perspectives must own the respective strategies. |
| 2 | Either: <ul style="list-style-type: none">• Press F8, or• Select the 'Publish > Model Reports > Report Builder > Generate Documentation' menu option The 'Generate Documentation' dialog displays. |
| 3 | In the 'Use Template' field, click on the drop-down arrow and select 'Balanced Score Card'. |
| 4 | Click on the Generate button. |

Model Validation

The Zachman Framework registers with Enterprise Architect to receive model validation requests from users.

Configure Model Validation

To configure Enterprise Architect to perform Zachman Framework model validation, select:

- 'Design > Package > Manage > Validate > Configure Validation Rules'

The 'Model Validation Configuration' dialog displays.



To perform validation on Zachman Framework models only, click on the Select None button and then click on the checkbox for 'Zachman Framework (ZF) Rules'. Click on the OK button.

Validate Zachman Framework Model

You can validate, against the Zachman Framework rules:

- An element and any connectors attached to it
- A diagram and all its elements, or
- A Package and all its diagrams and elements

To do this, click on the element, diagram or Package and then select:

- 'Design > Package > Manage > Validate > Validate Current Package'

The 'Model Validation status' dialog displays, showing the progress of the validation.

Validation Messages for Elements

These error messages can be output by the validation of a Zachman Framework element.

Messages

| Element | Diagram and Message |
|----------------|---|
| Event Node | Event Schedule Message: Event Nodes must be used only with Business Cycles Meaning: An Event Node has been used with elements other than Business Cycle. |
| Event Node | Event Schedule Message: Message triggered Event Node must have a message defined Meaning: An Event Node with the 'Trigger' Tagged Value set to 'Message' does not have the 'MessageDetail' Tagged Value set. |
| Event Node | Event Schedule Message: Rule triggered Event Node must have Rule defined Meaning: An Event Node with the 'Trigger' Tagged Value set to 'Rule' does not have the 'Rule' Tagged Value set. |
| Event Node | Event Schedule Message: Error triggered Event Node must have the Error defined Meaning: An Event Node with the 'Trigger' Tagged Value set to 'ErrorDetail' does not have the 'Error' Tagged Value set. |
| Event Node | Event Schedule Message: Multiple triggered Event Node must have a defined list of Triggers Meaning: An Event Node with the 'Trigger' Tagged Value set to 'Multiple' does not have the 'Trigger' Tagged Value set. |
| Business Cycle | Event Schedule Message: Business Cycles must have Event Nodes defined Meaning: A Business Cycle element does not have any Event Nodes defined. |
| Goal | Business Motivation/ Strategy Map Message: Goal not realized Meaning: A Goal has no relationship defined with other model artifacts. |
| Strategy | Business Motivation/ Strategy Map Message: Strategy not realized Meaning: A Strategy has no relationship defined with other model artifacts. |

Validation Messages for Connectors

These error messages can be output by the validation of a Zachman Framework connector.

Messages

| Connector | Diagram and Message |
|---------------|--|
| Association | Data Map Message: DataMap Association must have a valid source element Meaning: An Association has a source element other than Principal Entity, Structure Entity or Intersecting Entity. |
| Association | Data Map Message: DataMap Association must have a valid target element Meaning: An Association has a target element other than Principal Entity, Structure Entity or Intersecting Entity. |
| Association | Data Map Message: Possibility of an Intersecting entity < name> which might represent a Potential Business Process exists – This is a warning message. Meaning: An Association has a many-to-many relationship, informing that the relationship could be normalized. |
| Strategy Link | Strategy Map Message: Strategy Map Association must have a valid source element Meaning: A Strategy Link has a source element other than Strategy and Goal. |
| Strategy Link | Strategy Map Message: StrategyMap Association must have a valid target element Meaning: A Strategy Link has a target element other than Strategy and Goal. |

Validation Messages for Diagrams

These error message can be output by the validation of a Zachman Framework diagram.

Messages

| Diagram | Message |
|----------|---|
| Data Map | Entities must have relations in DataMap Meaning: In the Data Map diagram there are entities with no relationships defined. |

