Enterprise Architect

User Guide Series

The Open Group Architecture Framework (TOGAF)

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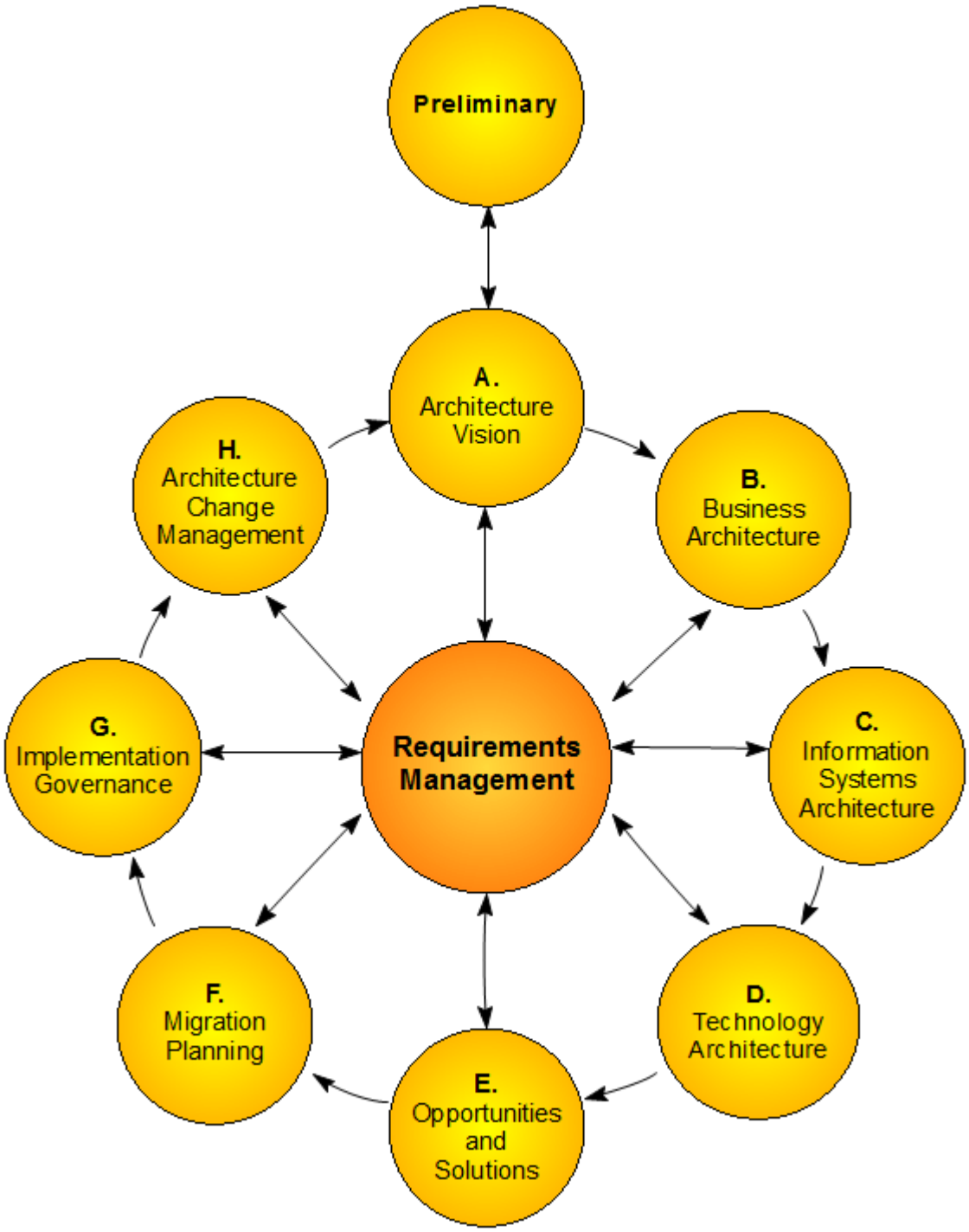
CREATED WITH ENTERPRISE ARCHITECT

Table of Contents

The Open Group Architecture Framework (TOGAF)

The Open Group Architecture Framework (TOGAF) is one of the most widely accepted methods for developing enterprise architecture. TOGAF is an open framework, providing a practical, definitive and proven step-by-step method for developing and maintaining enterprise architecture. You can use the TOGAF facilities in Enterprise Architect to model an enterprise of any size, and you can create or import any number of Artifacts including Catalogues, Matrices and diagrams, which can all be conveniently stored in the repository that will serve as the Architecture Repository. All Artifacts are stored in compliance with the TOGAF metamodel; additionally Reference Libraries, Standards and governance logs can all be modeled in the tool.



The Open Group's TOGAF Architecture Development Method

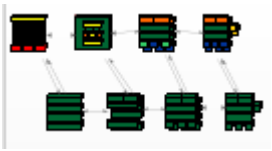
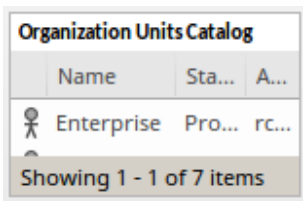
Enterprise Architecture is an important discipline, as organizations need to understand the fundamental aspects of their business in order to keep pace with the global market and technology changes in a continually evolving world.

Enterprise Architect has built-in support for all the important enterprise architecture frameworks and enterprise modeling languages, allowing you to model an enterprise from the business goals and drivers through to Cloud-based infrastructure services. In this topic you will learn how to model an Enterprise using TOGAF, including working with the ADM and metamodel attributes.

Discussion

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

Section	Content
Welcome 	This section provides an introduction to TOGAF, and contains the formal documentation defining its use with Enterprise Architect.
Using TOGAF 	Get started with TOGAF, learning about the model structure, templates, diagram types and more.
TOGAF ADM 	The key to TOGAF remains a reliable, practical method - the TOGAF Architecture Development Method (ADM) - for defining business needs and

	developing an architecture that meets those needs, applying the elements of TOGAF and other architectural assets available to the organization.
The TOGAF Enterprise Continuum 	The TOGAF Enterprise Continuum is a 'virtual repository' of all the architecture assets - models, Patterns, architecture descriptions and other artifacts - that exist both within the enterprise and in the IT industry at large, and that the enterprise considers itself to have available for the development of architectures for the enterprise.
Federal Enterprise Architecture Framework 	TOGAF provides diagrams and Toolbox pages specific to the Federal Enterprise Architecture Framework (FEAF). It also provides 'out-of-the-box' models of the FEAF Performance Reference model and Technical Reference model.
TOGAF Catalogs 	Enterprise Architect helps you to create Model Catalog Artifacts, using the TOGAF-Catalog model Pattern, for: • Actors • Business Services • Organization Units

	• Principles • Requirements and • Roles

Brief Introduction

Welcome to The Open Group Architecture Framework (TOGAF) integrated with Enterprise Architect.

Using this technology, users of Enterprise Architect benefit from TOGAF within a multi-featured modeling environment based on open standards.

About TOGAF

The Open Group Architecture Framework is one of the most widely accepted methods for developing enterprise architectures. TOGAF is an open framework, providing a practical, definitive and proven step-by-step method for developing and maintaining enterprise architectures.

The key to TOGAF remains a reliable, practical method - the TOGAF Architecture Development Method (ADM) - for defining business needs and developing an architecture that meets those needs, applying the elements of TOGAF and other architectural assets available to the organization.

TOGAF embodies the concept of the Enterprise Continuum to reflect different levels of abstraction in an architecture development process. In this way TOGAF facilitates understanding and co-operation between actors at different levels. It provides a context for the use of multiple frameworks, models, and architecture assets in conjunction with the TOGAF ADM. By means of the Enterprise Continuum, architects are encouraged to leverage all other relevant architectural resources and assets, in addition to the

TOGAF Foundation Architecture, in developing an organization-specific IT architecture.

For detailed information on TOGAF itself, visit the TOGAF website.

Benefits of TOGAF

- Helps align business processes and IT to the business strategies and goals
- Provides support for all the phases in the ADM
- Provides support for OMG's Business Motivation Model
- Provides support for the Architecture Content Model
- Provides support for visual modeling of As-Is and To-Be architecture
- Provides support for modeling all four architecture domains specific to TOGAF (Business, Application, Data and Technology)
- Provides support for the report generation of TOGAF work products
- Provides the Open Group's TOGAF deliverable templates as Linked Document templates
- Provides out-of-box FEAF reference models

TOGAF Features

- A visual clickable Interface for the Architecture Development Method (ADM)

- Useful starter model to help you become productive quickly
- UML profiles for FEAF Business, Performance, Service and Technical Reference Models
- Efficient relationship management for model artifacts with Enterprise Architect's Relationship Matrix and Hierarchy View
- Links to external files, audit log and report generation features of Enterprise Architect, providing additional capability for maintaining and managing your enterprise architecture
- A TOGAF-specific Glossary for the technology

Getting Started

For instructions on how to start using TOGAF within Enterprise Architect, see the *Using TOGAF* Help topic.

TOGAF System Requirements

TOGAF version 9.x runs under these environments:

Operating Systems

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

Enterprise Architect Versions

- Enterprise Architect Version 11.1 or later

TOGAF Support

Technical support for modeling through TOGAF in Enterprise Architect is available to registered users of Enterprise Architect in exactly the same way as for Enterprise Architect itself.

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MDG Technology for TOGAF, Enterprise Architect MDG Add-In, Version 3.0.

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Using TOGAF

TOGAF provides a model-based framework for planning, designing and implementing the Architecture for an Enterprise. The starter model provided with TOGAF 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 phase of the TOGAF Interface Diagram. You can also align models across the phases of the Architecture Development Method (ADM) using the Enterprise Architect Relationship Matrix.

Notes

- TOGAF is integrated with the features of Enterprise Architect
- Enterprise Architect is integrated with other Service Oriented Architecture tools such as SOMF and SoaML, and broader architecture modeling tools such as ArchiMate, SPEM and Business Rule Modeling, all of which you can use in conjunction with the TOGAF to model and develop your Enterprise Architecture

Getting Started With TOGAF

TOGAF is fully integrated with the Unified and Ultimate Editions of Enterprise Architect, in which it is enabled and ready for use.

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

You can use the TOGAF profile in the Professional Edition of Enterprise Architect. However, the Gap Analysis Matrix feature is not available for TOGAF in the Professional Edition.

Access TOGAF

1. Create a new Enterprise Architect project file, and click on the top-level Package.
2. Select the ribbon option 'Design > Package > Model Builder'.
3. In the 'Model Builder' dialog, select the 'Enterprise Architecture > TOGAF' Perspective and the 'Starter Model' Pattern.
4. Click on the 'Create Model' button.

A new base TOGAF model is created in the Browser window, containing the TOGAF Architecture Development

Method (ADM) structures and the Enterprise Continuum asset Packages, and displaying the TOGAF-ADM (Interface) diagram.

TOGAF Model Patterns

TOGAF includes a set of model Patterns that you can use to generate separate models within your TOGAF project. These are available through the Model Builder.

Access

Display the Model Builder, using any of the methods outlined here.

Once in the Model Builder, select the 'Enterprise Architecture > TOGAF' Perspective.

Select from the TOGAF Patterns:

- Starter Model (includes both ADM and Enterprise Continuum)
- Architecture Development Method (ADM)
- Enterprise Continuum
- Technical Reference Model
- Catalogs

If you require additional diagrams, then while in the Model Builder, click on the 'Diagram Builder' tab and (if necessary) select the 'Enterprise Architecture > TOGAF' Perspective. Then select from the diagram categories:

- FEAF Diagrams (Federal Enterprise Architecture Framework)
- TOGAF_BusinessArchitecture
- TOGAF_DataArchitecture

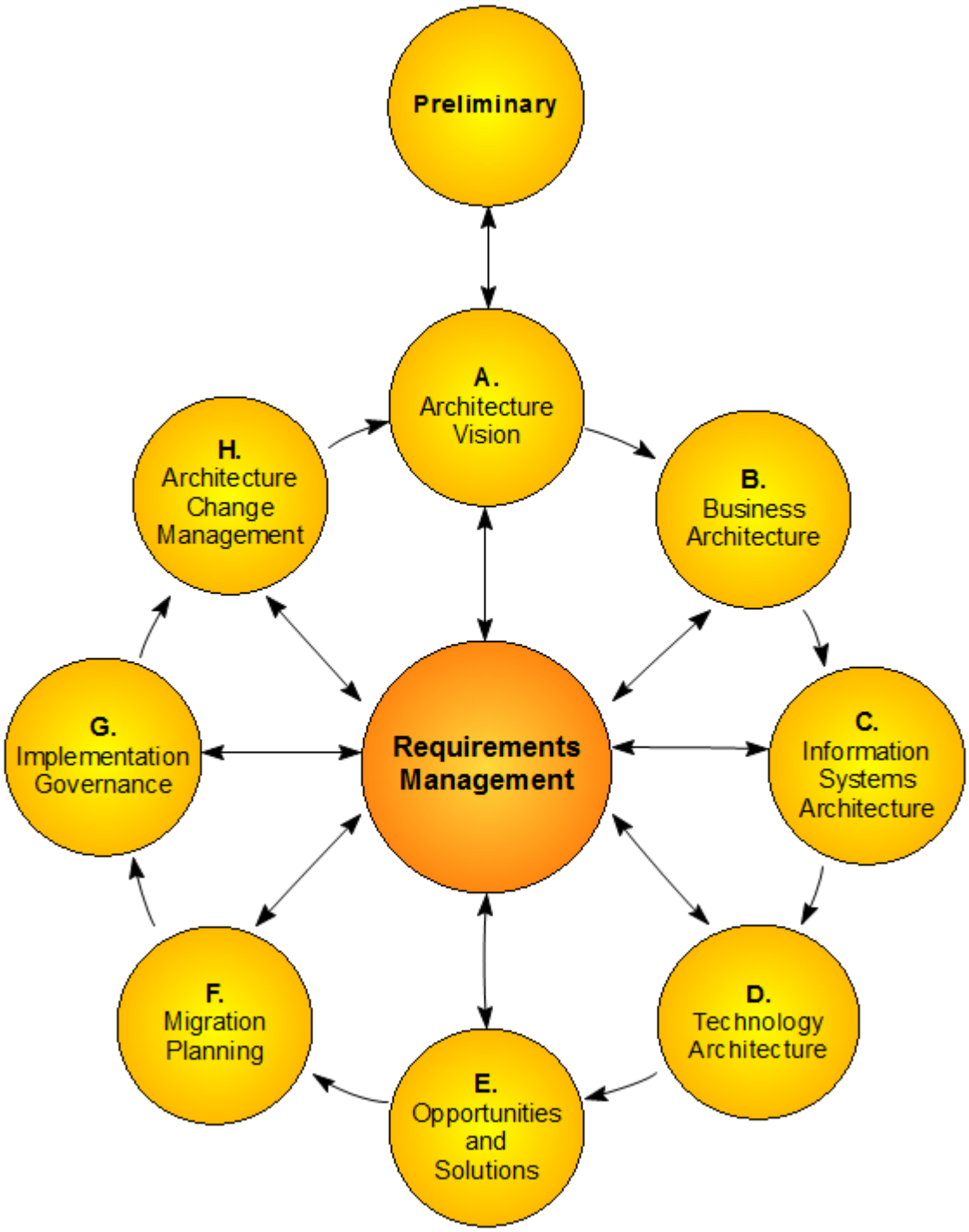
- TOGAF Diagrams

In the 'Diagram Types' panel, select the required diagram type.

Ribbon	Start > Personal > Diagram Builder Design > Package > Model Builder
Context Menu	Right-click on Package | Model Builder (pattern library)
Keyboard Shortcuts	Ctrl+Shift+M
Other	Browser window Header Bar :  | Model Builder (pattern library)

The TOGAF Interface Diagram

In Enterprise Architect, the TOGAF Framework is presented as a predefined model. The model-level diagram of this model structure is the TOGAF Interface diagram, which serves as a user interface for the development of Enterprise Architecture based on TOGAF.



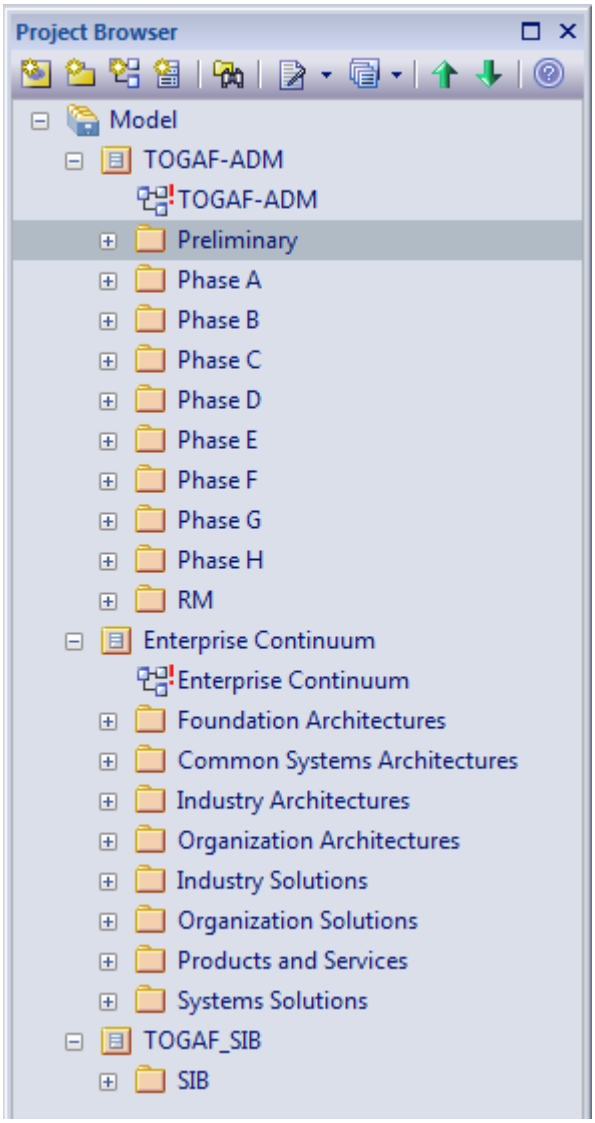
The TOGAF Framework model makes use of UML Packages, which is apparent from the model structure diagram. The Interface diagram itself is a standard UML Package diagram, using custom images.

Double-click on a cell of the Interface diagram to open the

model Package and diagram corresponding to that particular ADM phase.

The TOGAF Model Structure

Within the TOGAF Framework model, each ADM phase is modeled as the highest-level Package.



The TOGAF Diagrams

TOGAF provides a number of diagram types to support modeling with TOGAF. These diagrams include:

TOGAF diagrams:

- TOGAF Interface
- Conceptual Framework
- Architecture Content
- Architecture Development Method
- Service Model
- Enterprise Continuum
- Standards Information Base

TOGAF_BusinessArchitecture:

- Benefits
- Business Motivation Model
- Organization Structure
- Business Logistics
- Business Process

TOGAF_DataArchitecture:

- Data Map

FEAF diagrams:

- (FEAF) Business Reference Model
- (FEAF) Service Component Reference Model
- (FEAF) Technical Reference Model
- (FEAF) Performance Reference Model

TOGAF-specific diagrams can be created in the same way as for any other diagram in Enterprise Architect. When you open a TOGAF diagram, Enterprise Architect automatically opens the appropriate Toolbox pages for that diagram.

The TOGAF Toolbox Pages

The MDG Technology For TOGAF Toolbox pages provide elements and relationships for the full range of TOGAF diagrams supported by the Technology.

Access

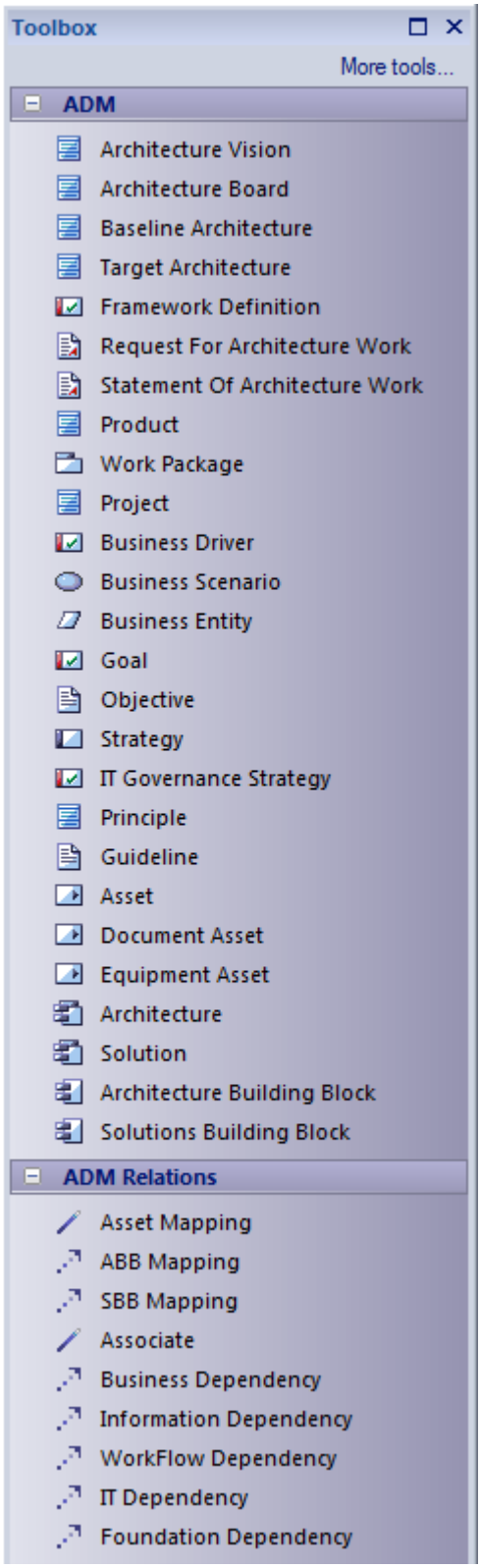
When you open a TOGAF diagram, Enterprise Architect displays the Toolbox pages that are most useful for that particular diagram type. In addition, the 'Common Elements' and 'Common Relationships' pages of UML elements and relationships display, regardless of which diagram is open.

The Diagram Toolbox pages can be docked on either side of the diagram, or free floated on top of the diagram to expose more surface for editing.

Ribbon	Design > Diagram > Toolbox:  > Specify 'TOGAF' in the 'Find Toolbox Item' dialog
Keyboard Shortcuts	Ctrl+Shift+3 :  > Specify 'TOGAF' in the 'Find Toolbox Item' dialog
Other	You can display or hide the Diagram Toolbox by clicking on the  or  icons at the left-hand end of the Caption Bar at the top of the Diagram View.

Architecture Development Method Toolbox Pages

Architecture Development Method (ADM) elements are used to define and model the TOGAF specific primitives in all the phases of ADM. You use them to define the scope of the architecture.



Architecture Development Method Toolbox

Item	Description
Architecture Vision	Articulates a vision that enables the business goals, responds to the strategic drivers, conforms with the principles, and addresses the stakeholder concerns and objectives. Tagged Values – ID, Scope, Version
Architecture Board	Captures the definition for a cross-organization Architecture Board. This is a key element in a successful architecture governance strategy, to oversee the implementation of the strategy. This body should be representative of all the key stakeholders in the architecture, and typically comprises a group of executives responsible for the review and maintenance of the overall architecture. Tagged Values – ID, Authority Limits, Responsibilities
Baseline Architecture	Captures the very high-level definitions of the Baseline environment from the perspective of business information systems and technology. The scope and level of detail to be defined depends on the extent to which existing architecture

	elements are likely to be carried over into the Target Architecture. Tagged Values – ID, Type, Version
Target Architecture	Captures the very high-level definitions of the target environment, from the perspective of business information systems and technology. Tagged Values – ID, Type, Version
Framework Definition	Provides a textual description of the Framework. Tagged Values – ID, Version
Request for Architecture Work	Captures the information for the Request for Architecture Work, a major input for the ADM phases. This element is designed as a Document Artifact. On creating a new element of this type, double-click on the element to open the Linked Document and select the 'TOGAF - Request for Architecture Work' template from the list of templates available for the 'Copy Template' option. Tagged Values – ID, Architecturing Organization, Sponsoring Organization
Statement of	Captures the information for the

Architecture Work	Statement of Architecture Work, a major output for the ADM phases. This element is designed as a Document Artifact. On creating a new element of this type, double-click on the element to open the Linked Document and select the 'TOGAF – Statement of Architecture Work' template from the list of templates available for the 'Copy Template' option. Tagged Values – ID, Version
Product	Captures the information on a product produced by the enterprise. Tagged Value – ID
Work Package	Defines a set of actions that achieve one or more objectives for the business. A work Package can be a part of a project, a complete project, or a program. Tagged Values – CapabilityDelivered, WorkPackageCategory, ID, Source, Owner
Project	Captures the information to define a planned endeavor undertaken to create a product or service. Tagged Values – ID, FutureDirections, Introduction, ProjectDevelopment, Process Overview, References, Target

	Architecture(s) Mapping
Business Driver	Defines the business driver in the 'Name' field. Tagged Values – ID, Version
Business Scenario	Identifies and clarifies business needs, and thereby derives the business requirements that the architecture development has to address. Creating a business scenario involves these steps: 1. Identifying, documenting, and ranking the problem driving the scenario. 2. Identifying the business and technical environment of the scenario and documenting it in scenario models. 3. Identifying and documenting desired objectives. 4. Identifying the human actors (participants) and their place in the business model. 5. Identifying computer actors (computing elements) and their place in the technology model. 6. Identifying and documenting roles, responsibilities, and measures of success per actor; documenting the required scripts per actor, and the

	results of handling the situation. 7. Checking for 'fitness-for-purpose' and refining only if necessary. A Linked Document template for Business Scenarios is provided by the Technology. To use the template, right-click on the element and select the 'Edit Linked Document' menu option. Select 'TOGAF – Business Scenario/Architecture Vision' for the 'Copy template' option. Tagged Value – ID
Business Entity	A generic element that captures enterprise resources. Tagged Values – ID, Description
Goal	Captures what is to be achieved by the enterprise, with specifications defined by the Tagged Values. Tagged Values – Assumption, Critical Success Factor, Goal Type, ID, Key Performance Indicator, Measure, Unit Responsible, Opportunity, Strength, Threat, Weakness
Objective	Captures the attainable, time-targeted, and measurable target that the enterprise seeks to meet in order to achieve its

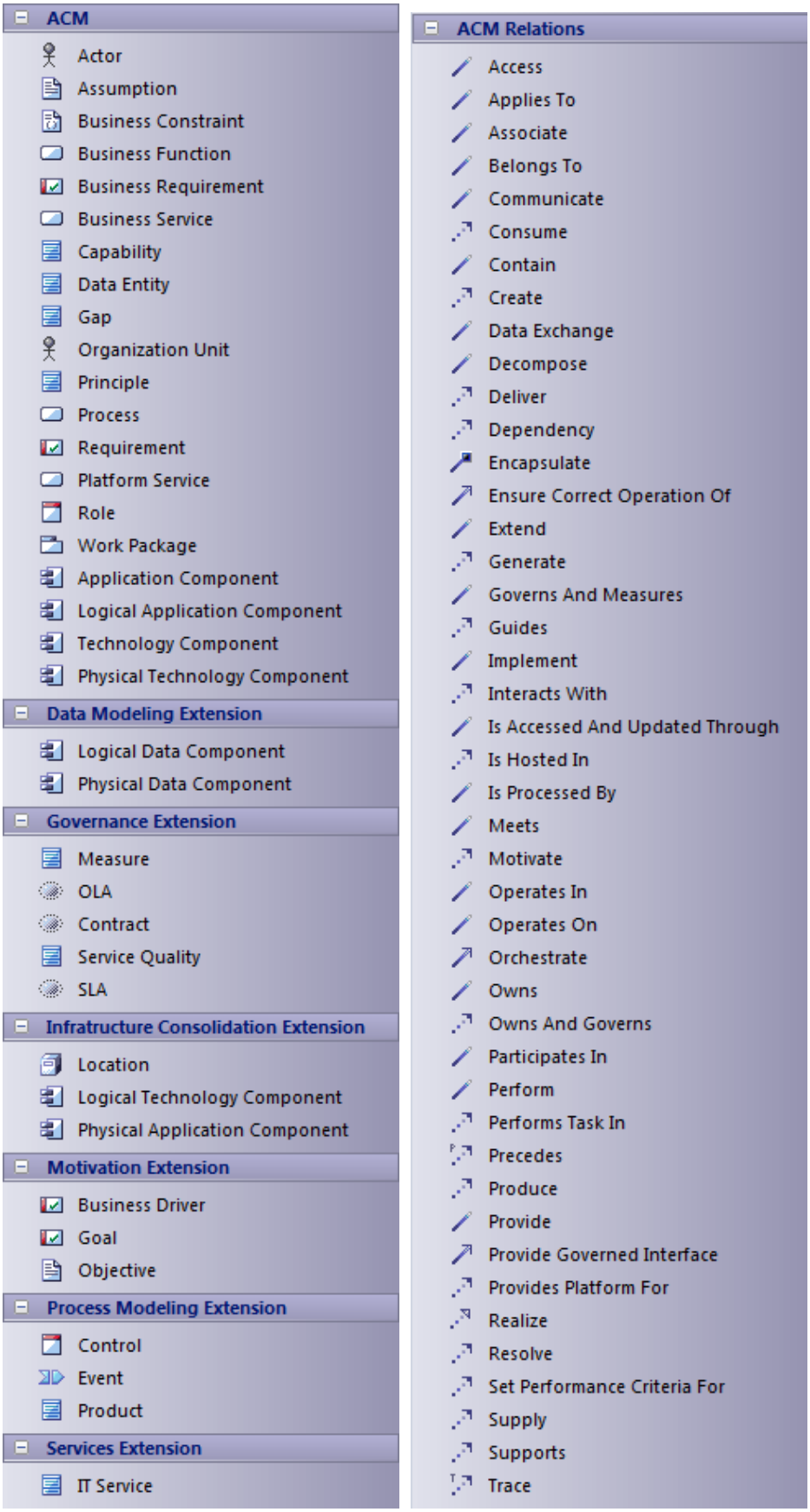
	goals. Tagged Value – ID
Strategy	Captures the strategy statements for the business plan. Tagged Values – Action Plan, Estimated Budget, Estimated Time Period, ID, Measure, Target Value
IT Governance Strategy	Defines the strategy statement for IT governance. Tagged Values – ID, Version
Principle	Defines and guides the organization, for the use of all assets and resources across the enterprise. Each Principle should be linked to the relevant business objective and key architecture drivers. Tagged Values – ID, Implications, Rationale, Statement, Type, Version
Guideline	Captures the Guidelines governing the enterprise and its functions, by providing guidance on the optimal ways to carry out design or implementation activities. Tagged Value – ID
Asset	Captures the enterprise resources that

	could be estimated for value. Tagged Values – ID, AssetValue, Description
Document Asset	A subtype of Asset that captures the important document resources of the enterprise. Tagged Values – ID, AssetValue, Description
Equipment Asset	A subtype of Asset that captures the equipment resources of the enterprise. Tagged Values – ID, AssetValue, Description
Architecture	Captures summary views of the Architecture Landscape (that is, the state of the enterprise) at particular points in time. Tagged Values – ID, Category, Source, Owner, Subject Matter, View Point, Level Of Detail, Level Of Abstraction, Accuracy, Version, Maturity
Solution	Captures the summary views of a solution in place for a specific architecture. Tagged Values – ID, Category, Source, Owner, Subject Matter, Time, Volatility,

	Version, Maturity
Architecture Building Block	(ABB) Relates to the Architecture Continuum, and is defined or selected as a result of the application of the ADM. Tagged Values – ID, Description, Owning Organization, Rationale, ServicePortfolio
Solutions Building Block	(SBB) Relates to the Solutions Continuum, and can be either procured or developed. Tagged Values – ID, Description, Supplier Organization

Architecture Content Model Toolbox Pages

The Architecture Content framework provides a structural model for architectural content that enables the major work products that an architect creates to be consistently defined, structured, and presented.



The elements in each of the Architecture Content Model

Toolbox pages are described in separate topics:

- *ACM Core*
- *Data Modeling Extension*
- *Governance Extension*
- *Infrastructure Consolidation Extension*
- *Motivation Extension*
- *Process Modeling Extension*
- *Services Extension*

For information on Architecture Content Model relationships, see the topic *Architecture Content Metamodel Relationships* in the TOGAF online documentation.

ACM Core

Elements from the ACM page of the Architecture Content Model Toolbox.

ACM Core Toolbox

Item	Description
Actor	Identifies a person, organization or system with a role that initiates or interacts with activities. Actors can be internal or external to an organization. Tagged Values – ID, Category, Source, Owner, #FTEs, ActorGoal, ActorTasks
Assumption	Defines a statement of probable fact that has not been fully validated at this stage, due to external constraints. Tagged Values – ID, Rationale, Statement, Type
Business Constraint	Identifies an external factor that prevents an organization from pursuing particular approaches to meet its goals. Tagged Value – ID
Business	Identifies a factor that delivers business

Function	capabilities closely aligned to an organization, but not necessarily explicitly governed by the organization. Tagged Value – ID
Business Requirement	Defines a quantitative statement of business need that must be met by a particular architecture or work Package. Tagged Value – ID
Business Service	Identifies a service that supports business capabilities through an explicitly defined interface and is explicitly governed by an organization. Tagged Values – ID, Category, Source, Owner, StandardsClass, StandardCreationDate, LastStandardReviewDate, NextStandardReviewDate, RetireDate
Capability	Defines a business-focused outcome that is delivered by the completion of one or more work Packages. Using a capability-based planning approach, change activities can be sequenced and grouped in order to provide continuous and incremental business value. Tagged Values – ID, Category, Source, Owner, Increments, BusinessValue

Data Entity	Defines an encapsulation of data that is recognized by a business domain expert as an entity. Logical data entities can be tied to applications, repositories and services, and can be structured according to implementation considerations. Tagged Values – ID, Category, Source, Owner, PrivacyClassification, RetentionClassification
Gap	Provides a statement of difference between two states. Used in the context of gap analysis, where the difference between the Baseline and Target Architecture is identified. Tagged Values – ID, Category, Source, Owner
Organization Unit	Defines a self-contained unit of resources with line management responsibility, goals, objectives, and measures. Organizations can include external parties and business partner organizations. Tagged Values – ID, PersonIncharge
Principle	Provides a qualitative statement of intent that should be met by the architecture. This has at least a supporting rationale

	and a measure of importance. Tagged Values – ID, Type, Statement, Rationale, Implications
Process	Represents the flow of control between or within functions and/or services (depending on the granularity of definition). Processes represent a sequence of activities that together achieve a specified outcome, can be decomposed into sub-processes, and can show operation of a function or service (at the next level of detail). Processes can also be used to link or compose organizations, functions, services, and processes. Tagged Values – ID, Category, Source, Owner, StandardsClass, StandardCreationDate, LastStandardReviewDate, NextStandardReviewDate, RetireDate, ProcessCriticality, ProcessVolumetrics, ProcessType
Platform Service	Defines a technical capability required to provide enabling infrastructure that supports the delivery of applications. Tagged Values – ID, Category, Source, Owner, StandardClass

Role	Defines the usual or expected function of an Actor, or the part somebody or something plays in a particular action or event. An Actor can have a number of roles. Tagged Values – ID, Category, Source, Owner, Responsibilities
Work Package	Identifies a set of actions to achieve one or more objectives for the business. A work Package can be a part of a project, a complete project or a program. Tagged Values – ID, Category, Source, Owner, CapabilityDelivered
Application Component	Provides an encapsulation of application functionality aligned to implementation structure. See also: 'Logical Application Component' and 'Physical Technology Component'. Tagged Values – ID, Category, Source, Owner, StandardsClass, StandardCreationDate, LastStandardReviewDate, NextStandardReviewDate, RetireDate
Logical	Provides an encapsulation of application

Application Component	functionality that is independent of a particular implementation. Tagged Values – ID, Category, Source, Owner, StandardsClass, StandardCreationDate, LastStandardReviewDate, NextStandardReviewDate, RetireDate
Technology Component	Provides an encapsulation of technology infrastructure that represents a class of technology product or specific technology product. Tagged Values – ID, Category, Source, Owner, StandardsClass, StandardCreationDate, LastStandardReviewDate, NextStandardReviewDate, RetireDate
Physical Technology Component	Defines an instance of a specific technology infrastructure product or technology infrastructure product. Tagged Values – ID, Category, Source, Owner, StandardsClass, StandardCreationDate, LastStandardReviewDate, NextStandardReviewDate, RetireDate, ModuleName, ProductName, Vendor, Version

Data Modeling Extension

Elements from the Data Modeling Extension page of the Architecture Content Model Toolbox.

Data Modeling Extensions Toolbox

Item	Description
Logical Data Component	Defines a boundary zone that encapsulates related data entities to form a logical location to be held. Tagged Values – ID, Category, Source, Owner, StandardsClass, StandardCreationDate, LastStandardReviewDate, NextStandardReviewDate, RetireDate
Physical Data Component	Defines a boundary zone that encapsulates related data entities to form a physical location to be held. Tagged Values – ID, Category, Source, Owner, StandardsClass, StandardCreationDate, LastStandardReviewDate, NextStandardReviewDate, RetireDate

Governance Extension

Elements from the Governance Extension page of the Architecture Content Model Toolbox.

Governance Extension Toolbox

Item	Description
Measure	Identifies an indicator or factor that can be tracked, usually on an ongoing basis, to determine success or alignment with objectives and goals. Tagged Values – ID, Category, Source, Owner
Contract	Defines an agreement between a service consumer and a service provider that establishes functional and non-functional parameters for interaction. Tagged Values – ID, Source, Owner, AvailabilityCharacteristics, BehaviorCharacteristics, CapacityCharacteristics, ConsumingService, ContractControlRequirements, CredibilityCharacteristics, ExtensibilityCharacteristics, Growth,

	GrowthPeriod, IntegrityCharacteristics, InternationalizationCharacteristics, LocalizationCharacteristics, LocatabilityCharacteristics, ManageabilityCharacteristics, PeakProfileLongTerm, PeakProfileShortTerm, PerformanceCharacteristics, PortabilityCharacteristics, PrivacyCharacteristics, ProvidingService, QualityOfInformationRequired, RecoverabilityCharacteristics, ReliabilityCharacteristics, ResponseRequirements, ResultControlRequirements, ScalabilityCharacteristics, SecurityCharacteristics, ServiceabilityCharacteristics, ServiceQualityCharacteristics, ServiceTimes, Throughput, ThroughputPeriod
OLA	Defines an Operation Level Agreement. Tagged Values – ID, Source, Owner, AvailabilityCharacteristics, BehaviorCharacteristics, CapacityCharacteristics, ConsumingService, ContractControlRequirements, CredibilityCharacteristics,

	ExtensibilityCharacteristics, Growth, GrowthPeriod, IntegrityCharacteristics, InternationalizationCharacteristics, LocalizationCharacteristics, LocatabilityCharacteristics, ManageabilityCharacteristics, PeakProfileLongTerm, PeakProfileShortTerm, PerformanceCharacteristics, PortabilityCharacteristics, PrivacyCharacteristics, ProvidingService, QualityOfInformationRequired, RecoverabilityCharacteristics, ReliabilityCharacteristics, ResponseRequirements, ResultControlRequirements, ScalabilityCharacteristics, SecurityCharacteristics, ServiceabilityCharacteristics, ServiceQualityCharacteristics, ServiceTimes, Throughput, ThroughputPeriod
SLA	Defines a Service Level Agreement Tagged Values – ID, Source, Owner, AvailabilityCharacteristics, BehaviorCharacteristics, CapacityCharacteristics, ConsumingService, ContractControlRequirements,

	CredibilityCharacteristics, ExtensibilityCharacteristics, Growth, GrowthPeriod, IntegrityCharacteristics, InternationalizationCharacteristics, LocalizationCharacteristics, LocatabilityCharacteristics, ManageabilityCharacteristics, PeakProfileLongTerm, PeakProfileShortTerm, PerformanceCharacteristics, PortabilityCharacteristics, PrivacyCharacteristics, ProvidingService, QualityOfInformationRequired, RecoverabilityCharacteristics, ReliabilityCharacteristics, ResponseRequirements, ResultControlRequirements, ScalabilityCharacteristics, SecurityCharacteristics, ServiceabilityCharacteristics, ServiceQualityCharacteristics, ServiceTimes, Throughput, ThroughputPeriod
Service Quality	Defines a preset configuration of non-functional attributes that can be assigned to a service or service contract. Tagged Values – ID, Category, Source, Owner

Infrastructure Consolidation Extension

Elements from the Infrastructure Consolidation Extension page of the Architecture Content Model Toolbox.

Infrastructure Consolidation Extension Toolbox

Item	Description
Location	Represents a place where business activity takes place and can be hierarchically decomposed. Tagged Values – ID, Category, Source, Owner
Logical Technology Component	Provides an encapsulation of technology infrastructure that is independent of a particular product. A class of technology product. Tagged Values – ID, Category, Source, Owner, StandardsClass, StandardCreationDate, LastStandardReviewDate, NextStandardReviewDate, RetireDate
Physical Application	Identifies an application, application module, application service or other

Component	deployable component of functionality. Tagged Values – ID, Source, Owner, AvailabilityCharacteristics, CapacityCharacteristics, CredibilityCharacteristics, ExtensibilityCharacteristics, Growth, GrowthPeriod, IntegrityCharacteristics, InternationalizationCharacteristics, InteroperabilityCharacteristics, LocalizationCharacteristics, LocatabilityCharacteristics, ManageabilityCharacteristics, PeakProfileLongTerm, StandardCreationDate, LastStandardReviewDate, NextStandardReviewDate, RetirementDate, PeakProfileShortTerm, PerformanceCharacteristics, PortabilityCharacteristics, PrivacyCharacteristics, RecoverabilityCharacteristics, ReliabilityCharacteristics, ScalabilityCharacteristics, SecurityCharacteristics, ServiceabilityCharacteristics, ServiceTimes, Throughput, ThroughputPeriod, LifeCycleStatus, InitialLiveDate, DateOfLastRelease, DateOfNextRelease, StandardsClass

Motivation Extension

Elements from the Motivation Extension page of the Architecture Content Model Toolbox.

Motivation Extension Toolbox

Item	Description
Business Driver	Defines an external or internal condition that motivates the organization to define its goals. Tagged Values – ID, Version
Goal	Provides a high-level statement of intent or direction for an organization. Typically used to measure success of an organization. Tagged Values – ID, Category, Source, Owner
Objective	Identifies a time-bounded milestone for an organization, to demonstrate progress towards a goal. Tagged Values – ID

Process Modeling Extension

Elements from the Process Modeling Extension page of the Architecture Content Model Toolbox.

Process Modeling Extension Toolbox

Item	Description
Control	Defines a decision-making step with accompanying decision logic, used to determine the execution approach for a process or to ensure that a process complies with governance criteria. Tagged Values – ID, Category, Source, Owner
Event	Defines an organizational state change that triggers processing events; can originate from inside or outside the organization and can be resolved inside or outside the organization. Tagged Values – ID, Category, Source, Owner
Product	Defines the output generated by the business; that is, the business product of the execution of a process.

	Tagged Values – ID, Category, Source, Owner

Services Extension

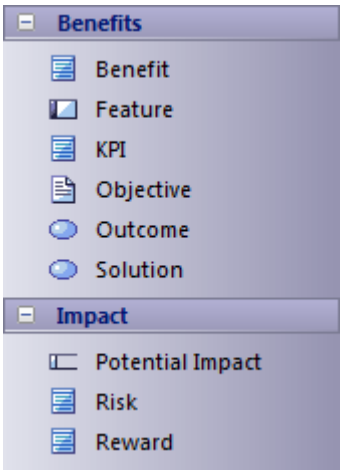
Elements from the Services Extension page of the Architecture Content Model Toolbox.

Services Extension Toolbox

Item	Description
IT Service	Defines the automated elements of a business service. An information system service can deliver or support part or all of one or more business services. Tagged Values – ID, Category, Source, Owner, DefinitionText, ContactPoint, Availability, ChargeToUser, DependentSystems, StandardsClass, StandardCreationDate, LastStandardReviewDate, NextStandardReviewDate, RetireDate

Benefits Toolbox Pages

You use the Benefits Toolbox to create elements that represent and depict the opportunities identified in an architecture definition, classified according to their relative size, benefit, and complexity. The resulting Benefits diagram can be used by stakeholders to make decisions on selection, prioritization and sequencing of the identified opportunities.



Benefits Toolbox

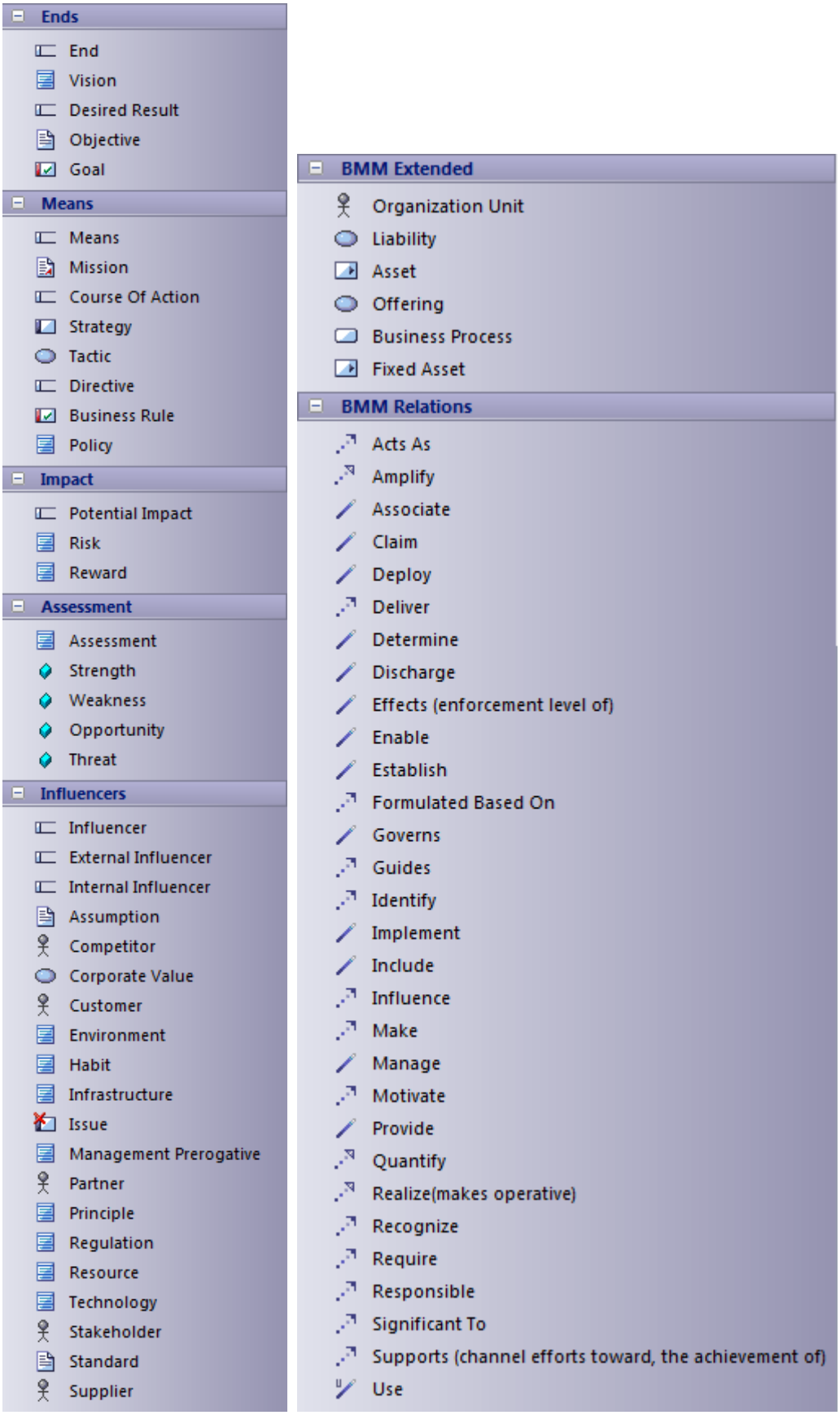
Item	Description
Benefit	An Artifact to model the benefit of an opportunity identified in the architecture definition. Tagged Values – ID, Owner, Source, Category
	Represents a characteristic of a service or

Feature	solution Tagged Values – ID, Owner, Source, Category
KPI	(Key Performance Indicator) A metric used to define and measure progress towards achieving goals or critical success factors. Tagged Values – ID, Owner, Source, Category
Objective	A statement of an attainable, time-targeted and measurable target that the enterprise seeks to meet in order to achieve its goals. An Objective quantifies a Goal. Tagged Value – ID
Outcome	The resulting end state of an event, decision or architecture process. Tagged Values – ID, Owner, Source, Category
Solution	A statement of an operation or activity that supports the outcome. Tagged Values – ID, Owner, Source, Category

Potential Impact	See the Help on the 'Impact' Toolbox page for the Business Motivation Model.
Risk	See the Help on the 'Impact' Toolbox page for the Business Motivation Model.
Reward	See the Help on the 'Impact' Toolbox page for the Business Motivation Model.

Business Motivation Model Toolbox Pages

The Business Motivation Model Toolbox pages are based on the OMG specification for the Business Motivation Model (BMM). These elements provide a structure for developing, communicating, and managing business plans in an organized manner.



The elements in each of the Business Motivation Model

Toolbox pages are described in separate topics:

- *Ends Page*
- *Means Page*
- *Impact Page*
- *Assessment Page*
- *Influencers Page*
- *BMM Extended Page*

Ends Page

Elements from the 'Ends' page of the Business Motivation Model Toolbox.

Ends Toolbox

Item	Description
End	Groups 'end' concepts (Vision and Desired Result). An End is something the business seeks to accomplish. It does not include any indication of how it is to be achieved. Tagged Values – ID, Category, Source, Owner
Vision	Describes the future state of the enterprise, without regard to how it is to be achieved. A Vision is supported or made operative by Missions, and is amplified by Goals. Tagged Value – ID
Desired Result	Groups 'desired result' concepts (Goal and Objective). A Desired Result is an End that is a state or target that the enterprise intends to maintain or sustain.

	A Desired Result is supported by Courses of Action. One Desired Result can include other Desired Results and can itself be included in another Desired Result. Tagged Values – ID, Category, Source, Owner
Goal	A statement about a state or condition of the enterprise to be brought about or sustained through appropriate Means. A Goal amplifies a Vision. Tagged Values – Assumption, Critical Success Factor, Goal Type, ID, Key Performance Indicator, Measure, Unit Responsible, Opportunity, Strength, Threat, Weakness
Objective	A statement of an attainable, time-targeted and measurable target that the enterprise seeks to meet in order to achieve its goals. An Objective quantifies a Goal. Tagged Value – ID

Means Page

Elements from the 'Means' page of the Business Motivation Model Toolbox.

Means Toolbox

Item	Description
Means	Groups 'Means' concepts (Mission, Course of Action and Directive). A Means represents any capabilities that can be exploited to achieve the desired Ends. Tagged Values – ID, Category, Source, Owner
Mission	Captures the mission statement, policies and values of the enterprise. A Mission indicates the ongoing operational activity of the enterprise, and makes a Vision operative. Tagged Values – ID, Category, Source, Owner
Course of Action	Groups 'course of action' concepts (Strategy and Tactic). A Course of Action is an approach or plan for configuring

	some aspect of the enterprise involving things, processes, locations, people, timing or motivation, undertaken to achieve Desired Results. A Course of Action channels efforts towards Desired Results. Courses of Action are governed by Directives. It is also possible for the Courses of Action to be formulated based on Directives. Courses of Action can be realized by Business Processes. One Course of Action can include other Courses of Action, and one Course of Action can be enabled by another Course of Action. Tagged Values – ID, Category
Strategy	Defines the right approach to achieve a set of Goals, given the environmental constraints and risks. A Strategy usually channels efforts towards those Goals. Tagged Values – Action Plan, Estimated Budget, Estimated Time Period, ID, Measure, Target Value
Tactic	A Course of Action that represents part of the detailing of a Strategy. A Tactic implements one or more Strategies. Tagged Values – ID, Category

Directive	Indicates how the Course of Action should, or should not, be carried out. A Directive defines, constrains or liberates some aspect of an enterprise. It is intended to assert business structure or to control or influence the behavior of the business, and is stated in declarative form. Directives govern Courses of Action. A Directive is defined to support the achievement of a Desired Result directly. Tagged Values – ID, Category
Business Rule	A Business Rule element captures the Business Rule statements. Business Rules provide specific, actionable governance or guidance to implement Business Policies. Business Rules guide Business Processes. Tagged Values – ID, Name, Description, Effective_From, Expiry_From, Status, Version, Enforcement_Level
Policy	Captures the policy definitions followed in the enterprise. A Business Policy is a non-actionable Directive whose purpose is to govern or guide the enterprise. Business Policies provide the basis for Business Rules. Business Policies also

	govern Business Processes. One Business Policy can include other Business Policies. Tagged Value – ID

Impact Page

Elements from the 'Impact' page of the Business Motivation Model Toolbox.

Impact Toolbox

Item	Description
Potential Impact	Groups the concepts of 'impacts' (Risk and Reward). Each Potential Impact is an evaluation that quantifies or qualifies some aspect of an Assessment in specific terms, types or dimensions. An Assessment identifies some Potential Impacts. A Potential Impact can be significant to an Assessment. Tagged Values – ID, Category, Source, Owner
Risk	A Potential Impact that indicates the possibility of loss, injury, disadvantage or destruction. Tagged Value – ID
Reward	A Potential Impact that indicates the probability of gain.

	Tagged Value – ID

Assessment Page

Elements from the 'Assessment' page of the Business Motivation Model Toolbox.

Assessment Toolbox

Item	Description
Assessment	A judgment on an Influencer that affects the organization's ability to employ its Means or achieve its Ends. A Directive is motivated by an Assessment. Assessments can also use other Assessments. An Assessment can support the achievement of Ends. Tagged Values – ID, Source, Owner
Strength	This category of Assessment indicates some advantage or area of excellence within the enterprise that can impact its employment of Means or achievement of Ends. It is modeled as a parameter of the Assessment element. Tagged Value – ID
Weakness	This category of Assessment indicates some area of inadequacy within the

	enterprise that can impact its employment of Means or achievement of Ends. It is modeled as a parameter of the Assessment element. Tagged Value – ID
Opportunity	This category of Assessment indicates that some Influencer can have a favorable impact on the organization's employment of Means or achievement of Ends. It is modeled as a parameter of the Assessment element. Tagged Value – ID
Threat	This category of Assessment indicates that some Influencer can have an unfavorable impact on the organization's employment of Means or achievement of Ends. It is modeled as a parameter of the Assessment element. Tagged Value – ID

Influencers Page

Elements from the 'Influencers' page of the Business Motivation Model Toolbox.

Influencers Toolbox

Item	Description
Influencer	An Influencer element groups the elements influencing an Assessment. The Influencers are those that can impact the enterprise in its employment of Means or achievement of its Ends. This impact has influence that is judged in Assessments. Tagged Values – ID, Category
External Influencer	An External Influencer element groups the elements having an external influence on an Assessment. External Influencers are those outside an enterprise's organizational boundaries that can impact its employment of Means or achievement of Ends. Tagged Values – ID, Category
Internal Influencer	An Internal Influencer element groups the elements having an internal influence on

	an Assessment. Internal Influencers are those from within an enterprise that can impact its employment of Means or achievement of Ends. Tagged Values – ID, Category
Assumption	An Assumption element captures the assumptions made in information manipulation; assumptions are items of information taken for granted or without proof. Tagged Values – ID, Rationale, Statement, Type
Competitor	An External Influencer that is an individual or enterprise posing a challenge to the subject enterprise. Tagged Value – ID
Corporate Value	An ideal, custom or institution that an enterprise promotes or agrees with (either positive or negative). Tagged Value – ID
Customer	An External Influencer as an individual or enterprise that has investigated, ordered, received or paid for products or services from the subject enterprise.

	Tagged Value – ID
Environment	An Environment element is the aggregate of surrounding conditions or Influencers affecting the existence or development of an enterprise. Tagged Value – ID
Habit	A customary practice or use. Tagged Value – ID
Infrastructure	An Internal Influencer forming the basic underlying framework or features of a system. Tagged Value – ID
Issue	A point in question or a matter that is in dispute as between contending partners.
Management Prerogative	A right or privilege exercised by virtue of ownership or position in an enterprise. Tagged Value – ID
Partner	An External Influencer as an enterprise that shares risks and profit with the subject enterprise (or is associated with the subject enterprise to share risks and profit) because this is mutually beneficial.

	Tagged Value – ID
Principle	Defines and guides the organization, for use of all assets and resources across the enterprise. Each Principle should be linked to the relevant business objective and key architecture drivers. Tagged Values – ID, Implications, Rationale, Statement, Type, Version
Regulation	An External Influencer as an order prescribed by an authority such as a government body or the management of an enterprise. Tagged Value – ID
Resource	An internal Influencer as a resource available for carrying out the business of an enterprise, applying its influence especially by way of its quality. Tagged Value – ID
Technology	An External Influencer as the role of technology, including its developments and limitations — there could be prerequisites for use of technology, or an enterprise activity that technology enables or restricts.

	Tagged Value – ID
Stakeholder	Captures the actors interested and involved in the enterprise. Tagged Value – ID
Standard	Defines the standards followed in the enterprise. Tagged Values – ID, Statement, Type
Supplier	An External Influencer as an individual or enterprise that can furnish or provide products or services to the subject enterprise. Tagged Value – ID

BMM Extended Page

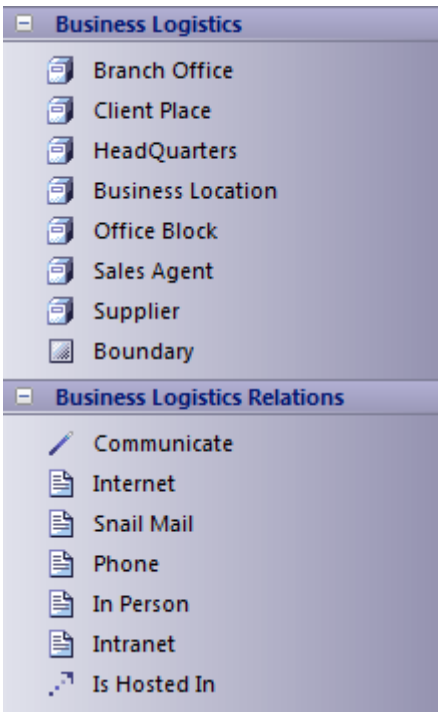
Elements from the 'BMM Extended' page of the Business Motivation Model Toolbox.

BMM Extended Toolbox

Item	Description
Organization Unit	Represents any recognized association of people in the context of the enterprise. In a hierarchical structure, it might be the corporation, a division, a department, a group or a team. Tagged Values – ID, PersonInCharge
Liability	A Liability is a reservation of actual resources (materials, finished goods, people's time, cash) to meet commitments. A Liability can be discharged by Courses of Action, can be the responsibility of Organization Units, and can claim Resources. Tagged Value – ID
Asset	An Asset is something of value owned by the enterprise. Tagged Values – ID, Description,

	AssetValue
Offering	An Offering is a Fixed Asset that is a specification of a product or service that can be supplied by the enterprise. An Offering can be defined by Courses of Action, can be delivered by Business Processes, can require Resources and can use Fixed Assets. Tagged Value – ID
Business Process	A function or behavior of the Enterprise or part of the Enterprise. A Business Process is the responsibility of an Organization Unit, realizes Courses of Action, is guided by Business Rules, is governed by Business Policies, can deliver Offerings and can manage Assets. Tagged Values – ID, Description, ProcessType
Fixed Asset	A Fixed Asset is an Asset that is maintained over time and reused. A Fixed Asset can be used by Offerings and can provide Resources. Tagged Values – ID, AssetValue

Business Logistics Toolbox Pages



Business Logistics 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	Models the location from which the

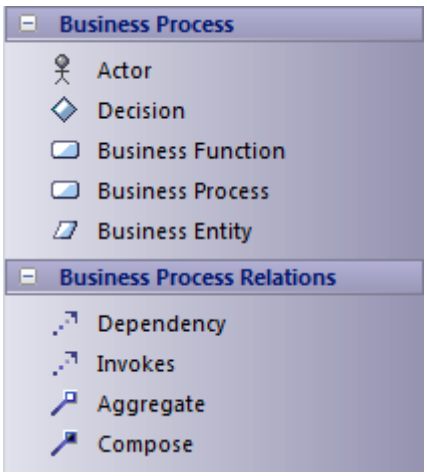
Location	business operates.
Office Block	Models a Business Location as an Office Block.
Sales Agent	Models a Business Location as a Sales Agent.
Supplier	Models a Business Location as a Supplier.
Communicate	Indicates that a business location communicates directly with another business location.
Internet	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

Business Process Toolbox Pages



Business Process Toolbox

Item	Description
Actor	Models a stakeholder or any other human resource of the Enterprise.
Decision	Indicates point of conditional progression where a business decision is taken.
Business Function	A major function performed by the Enterprise or a part of the Enterprise.
Business Process	A function or behavior of the Enterprise or part of the Enterprise.
Business	A generic element to capture Enterprise

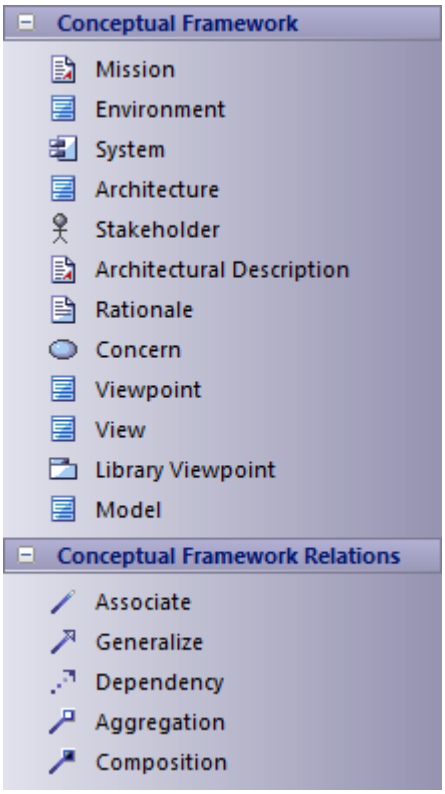
Entity	resources.
Invokes	A relationship that defines the invocation of a business process.

Notes

- Elements and connectors common to Enterprise Architect UML and Extended diagrams are documented in the Object Toolbox section

Conceptual Framework Toolbox Pages

The Conceptual Framework Elements are used to model the architectural descriptions and to establish concepts for architectural thinking. The Toolbox element design is based on IEEE standard 1471 - 2000.



Conceptual Framework Toolbox

Item	Description
Mission	Captures the mission statement, policies and values of the enterprise. Tagged Value – ID

Environment	Defines the developmental, operational and programmatic context of the system for the purpose of Enterprise Engineering work. Tagged Value – ID
System	Captures details of a working component of the enterprise. System includes, for example, application, system, platform, system -of-systems, enterprise and product line. Tagged Value – ID
Architecture	Captures the definition of the Architecture work. Tagged Value – ID
Stakeholder	Captures the actors interested and involved in the enterprise. Tagged Value – ID
Architectural Description	Captures the architectural descriptions and identifies the system's stakeholders and their concerns. Tagged Value – ID
Rationale	Captures the statement of purpose for the Architectural Description.

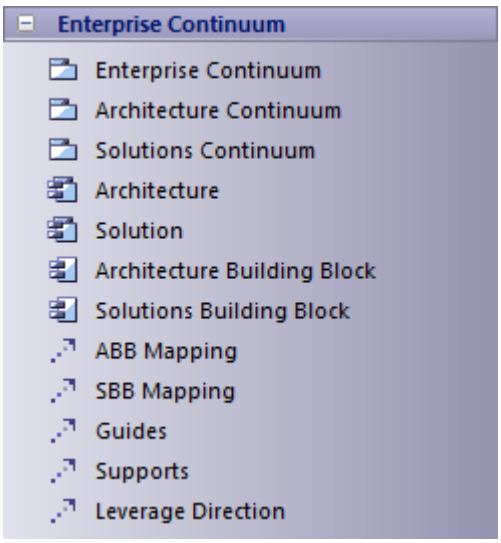
Concern	Forms the basis for completeness. An Architectural Description addresses all stakeholders' concerns, and each Concern is addressed by an Architectural View
Viewpoint	A Pattern for constructing Views – Viewpoints define the rules on Views. Each View corresponds to exactly one Viewpoint. Tagged Value – ID
View	A representation of a whole system from the perspective of a set of Concerns. A View can contain one or more architectural models, so the View can use multiple notations.
Library Viewpoint	Captures a collection of categorized Viewpoints. Tagged Value – ID
Model	Defines and represents a model. Tagged Value – ID

Notes

- Elements and connectors common to Enterprise Architect UML and Extended diagrams are documented in the Object Toolbox section

Enterprise Continuum Toolbox Page

Enterprise Continuum elements are used to model the Architecture Continuum and Solutions Continuum of an enterprise. Using these elements you can create Architecture Building Blocks or Solutions Building Blocks by mapping to the appropriate architecture models or solution models (as diagrams, elements and models).



Enterprise Continuum Toolbox

Item	Description
Enterprise Continuum	A Package that models the Enterprise Continuum. Tagged Values – ID, Architecturing Organization, Sponsoring Organization
Architecture	A Package that models the Architecture

Continuum	Continuum.
Solutions Continuum	A Package that models the Solutions Continuum.
Architecture	Captures summary views of the Architecture Landscape (such as the state of the enterprise) at particular points in time. Tagged Values – ID, Category, Source, Owner, Subject Matter, View Point, Level Of Detail, Level Of Abstraction, Accuracy, Version, Maturity
Solution	Captures the summary views of a solution in place for a specific architecture. Tagged Values – ID, Category, Source, Owner, Subject Matter, Time, Volatility, Version, Maturity
Architecture Building Block	Relates to the Architecture Continuum, and is defined or selected as a result of the application of the ADM. Tagged Values – ID, Description, Owning Organization, Rationale, ServicePortfolio
Solutions Building	Relates to the Solutions Continuum, and can be either procured or developed.

Block	Tagged Values – ID, Description, Supplier Organization
ABB Mapping	Connector to map the architectural models and artifacts to the Architecture Building Blocks.
SBB Mapping	Connector to map the solution models and artifacts to the Solutions Building Blocks.
Guides	Connector to represent guides relationships. Architecture Building Blocks guide the development of Solutions Building Blocks.
Supports	Connector to represent supports relationships. Solutions Building Blocks support the development of other Solutions Building Blocks.
Leverage Direction	Connector to represent the direction of leveraging of architecture and solution components.

Organization Structure Toolbox Pages

Organization Structure Toolbox

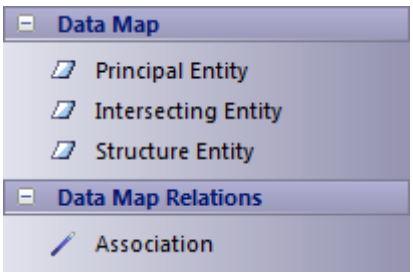
Item	Description
Board of Directors	Captures the details of the board of directors.
StakeHolder	Captures stakeholders of the enterprise.
External Organization	Captures any external business unit that is not under direct control of the enterprise, but has a relationship with the enterprise.
Organization Unit	Captures any business unit that is under direct control of the enterprise.
Personnel	Captures the details of personnel in an

	enterprise.
In Contract	Captures the contract-based relationships between business units.
Works For	Captures the details of team links; for example, Stakeholder 1 works for Organization Unit 1.
Supervise	Captures process supervision details.
Control	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

Data Map Toolbox Pages



Data Map Toolbox

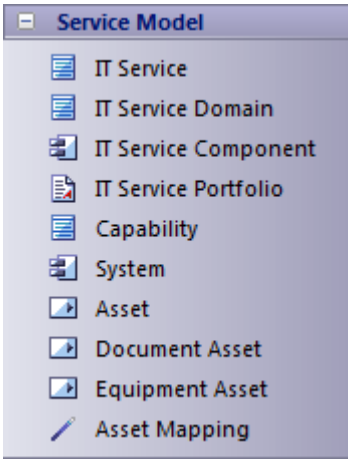
Item	Description
Principal Entity	A business entity that forms a resource of the enterprise.
Intersecting Entity	Normalizes the many-to-many relationship between principal entities.
Structure Entity	Captures potential knowledge base entities.

Notes

- Elements and connectors common to Enterprise Architect UML and Extended diagrams are documented in the Object Toolbox section

Service Model Toolbox Page

Service Model elements are used to build a conceptual framework that describes the IT Service infrastructure of the enterprise.



Service Model Toolbox

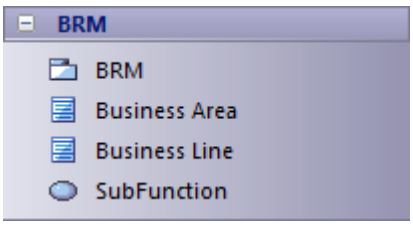
Item	Description
IT Service	Captures the IT capability offered as a consumable entity that is managed by the enterprise. Tagged Values – ID, DefinitionText, Owner, Availability, Charge_to_User, ContactPoint, Dependent_Systems
IT Service Domain	Categorizes IT services. Tagged Values – ID, Description

IT Service Component	Captures a set of capabilities that might be exposed through the technology interface. Tagged Values – ID, Rationale
IT Service Portfolio	A Document Artifact that captures the information required to describe an IT service portfolio. Tagged Values – ID
Capability	A business-focused outcome that is delivered by the completion of one or more work Packages. Using a capability-based planning approach, change activities can be sequenced and grouped in order to provide continuous and incremental business value. Tagged Values – ID, Category, Increments, Business Value, Source, Owner
System	Captures details of a working component of the enterprise. System includes things such as application, system, platform, system-of-systems, enterprise and product line. Tagged Values – ID
	Captures the enterprise resources that

Asset	could be estimated for value. Tagged Values – ID, AssetValue, Description
Document Asset	Subtype of Asset that captures the important document resources of the enterprise. Tagged Values – ID, AssetValue, Description
Equipment Asset	Subtype of Asset that captures the equipment resources of the enterprise. Tagged Values – ID, AssetValue, Description

FEAF Business Reference Model Toolbox Page

The FEAF Business Reference Model (BRM) provides a framework facilitating a functional (rather than organizational) view of the enterprise's lines of business (LoBs), including its internal operations and its services.



FEAF Business Reference Model Toolbox

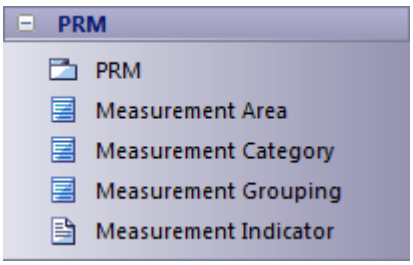
Item	Description
BRM	A Package in which to capture the Business Reference Model (BRM). Tagged Values – Version
Business Area	The high-level organizing layer of the BRM, capturing high-level categories relating to the business purpose and objectives. Tagged Values – BusinessAreaID, Definition
Business	Captures the lines of business of the

Line	enterprise. Tagged Values – BusinessLineID, Definition, Referencing Business Area
SubFunction	Represents the lowest level of granularity in the BRM, grouping functionalities related to each line of business. Tagged Values – SubFunctionID, Definition, Referencing BusinessLine, Referencing Business Area

FEAF Performance Reference Model Toolbox Page

The FEAF Performance Reference Model (PRM) Toolbox page is designed to conform to the specification of the FEAF-PRM framework. The PRM is a framework for performance measurement providing common output measurements throughout the enterprise. It enables agencies to better manage the business at a strategic level, by providing a means for using an agency's Enterprise Architect to measure the success of IT investments and their impact on strategic outcomes.

The FEAF Performance Reference Model (PRM) facilitates resource-allocation decisions based on comparative determinations of which programs and organizations are more efficient and effective.



FEAF Performance Reference Model Toolbox

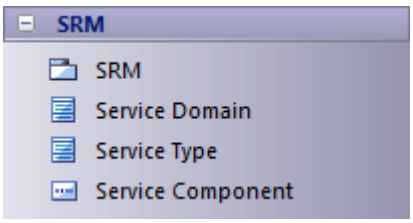
Item	Description
PRM	A Package to capture the Performance Reference Model.

	Tagged Values – Version
Measurement Area	The high-level organizing layer of the PRM, capturing aspects of performance at the output levels. This layer is directly linked to the performance objectives established at the agency and program levels. Tagged Values – MeasurementAreaID, Definition
Measurement Category	Categorizes the measurement area with respect to the attribute or characteristic to be measured. Tagged Values – MeasurementCategoryID, Definition, Referencing Measurement Area
Measurement Grouping	Further refines Measurement Categories into specific types of Measurement Indicator. Tagged Values – MeasurementGroupingID, Definition, Referencing Measurement Category
Measurement Indicator	Captures the specific measures. Tagged Values – MeasurementIndicatorID, Definition,

	Referencing Measurement Grouping

FEAF Service Component Reference Model Toolbox Page

The FEAF Service Component Reference Model (SRM) is a business-driven, functional framework classifying Service Components according to how they support business and performance objectives. The model aids in recommending service capabilities to support the reuse of business components and services across the enterprise. The SRM should be structured across horizontal service areas that, independent of the business functions, can provide a leverage-able foundation for reuse of applications, application capabilities, components, and business services.



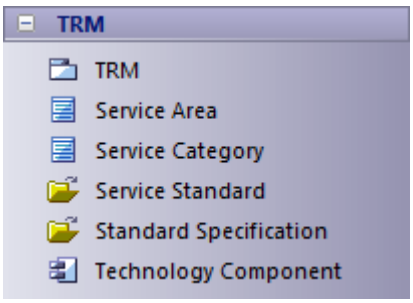
FEAF Service Component Reference Model Toolbox

Item	Description
SRM	A Package to capture the Service Component Reference Model. Tagged Values – Version
Service	Captures a high-level view of the services

Domain	and capabilities that support enterprise and organizational processes and applications. Tagged Values – ServiceDomainID, Definition
Service Type	Groups similar capabilities in support of the domain, providing an additional layer of categorization that defines the context of a specific capability component within a given domain. Tagged Values – ServiceTypeID, Definition, Referencing Service Domain
Service Component	Captures a set of capabilities that might be exposed through a business or technology interface. Service Components are 'building blocks' to deliver the information management capability to the business. Tagged Values – ServiceComponentID, Definition, Referencing Service Domain, Referencing Service Type

FEAF Technical Reference Model Toolbox Page

The FEAF Technology Reference Model (TRM) is a component-driven, technical framework categorizing the standards and technologies to support and enable the delivery of Service Components and capabilities.



FEAF Technical Reference Model Toolbox

Item	Description
TRM	A Package to capture the Technology Reference Model. Tagged Value – Version
Service Area	Represents a technical tier supporting the secure construction, exchange, and delivery of a Service Component. Tagged Values – ServiceAreaID, Definition

Service Category	Classifies a lower level of technology and standard with respect to the business or technology function it serves. Tagged Values – ServiceCategoryID, Definition, Referencing Service Area
Service Standard	Defines a standard and technology that supports a Service Category. Tagged Values – ServiceStandardID, Definition, Referencing Service Category
Standard Specification	Provides the specification details of the standard. Tagged Value – StandardSpecificationID

Gap Analysis Matrix - TOGAF

The Specification document for TOGAF states:

'Gap analysis is widely used in the TOGAF Architecture Development Method (ADM) to validate an architecture that is being developed. The basic premise is to highlight a shortfall between the Baseline Architecture and the Target Architecture; that is, items that have been deliberately omitted, accidentally left out, or not yet defined.'

TOGAF provides a Gap Analysis Matrix that you can use to:

- Identify gaps between the baseline and target
- Create Gap elements (if any gaps are identified) in the repository, which can later be addressed and assigned as tasks; the Gap elements can then be used to prioritize activities
- Create and manage Gap Analysis Matrix profiles

Notes

- This feature is not available in the Professional Edition of Enterprise Architect

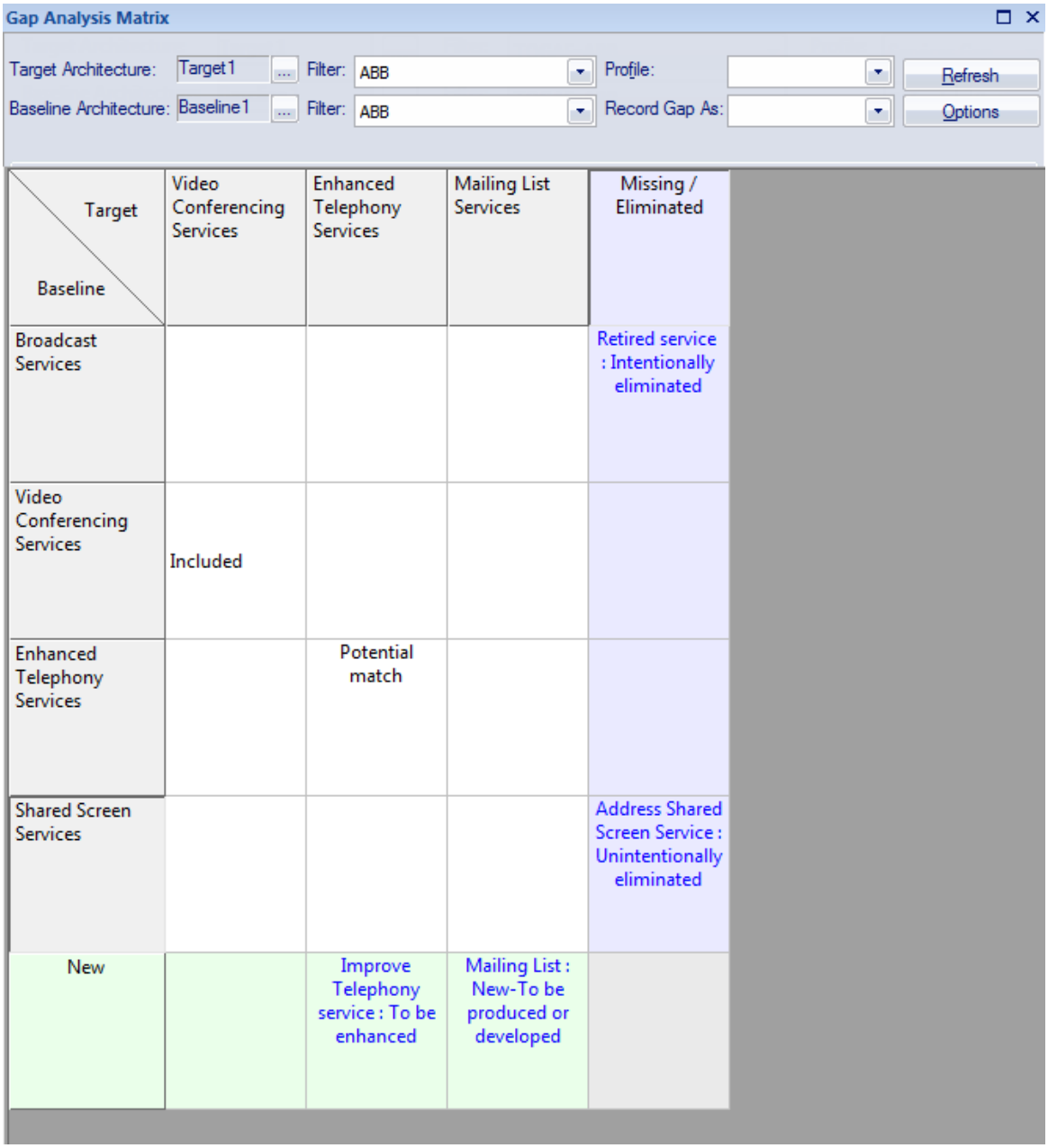
Open the Matrix

Access

Ribbon	Design >Package > Gap Analysis

Example

This Gap Analysis Matrix example is from the TOGAF Specification; it illustrates Gap Analysis for Architecture Building Blocks (ABBs) that are services from the Network Services category.



Using the Gap Analysis Matrix

The 'Filter' fields list all the stereotypes that can be shown in the matrix; use these fields to set a filter for each of the Target and Baseline Architectures.

After setting the filters, click on the ... button to the right of the 'Target Architecture' and 'Baseline Architecture' fields, and browse for and select the Target Architecture Package

and Baseline Architecture Package.

Click on the Refresh button; the matrix lists the elements having the stereotypes you set in the 'Filter' fields. The Target Architecture elements are listed horizontally as column headings, and the Baseline Architecture elements are listed vertically as row titles. If you double-click on the row or column headers containing the Baseline or Target elements, the corresponding 'Properties' dialog displays.

To locate an object from the Matrix in the Browser window, right-click on it and select the 'Find in Project Browser' option.

In the cells at the intersection of the Target element columns and Baseline element rows, you can create and edit Gap Analysis Notes. To edit the notes double-click on the cell, or right-click and select the 'Edit Gap Note' option.

Any elements that are not in the Target Architecture but are available in the Baseline Architecture must be addressed as Gap elements in the last column, called 'Missing / Eliminated'. Any elements that are in the Target Architecture but not in the Baseline Architecture must be addressed as Gap elements in the last row, called 'New'.

In the example:

- *Broadcast Services* and *Shared Screen Services* are present in the Baseline Architecture but missing from the Target Architecture; therefore, you must create appropriate Gap elements in the 'Missing / Eliminated' column, the last column of the matrix
- Mailing List Services is not in the Baseline Architecture

but it is in the Target Architecture, meaning that the service is a new one in the Target Architecture and it must be procured or developed; you must create a corresponding Gap element in the 'New' row, the last row of the matrix

Notes

- Locate the Baseline/Target element in the 'Project' tab of the Browser window with the Traceability window open, and then switch to the 'Details' tab of the Inspector window, to help improve Gap Analysis as it shows all the elements and details such as Tagged Values that are linked to the element; for example, if an Architecture Building Block (ABB) is missing in the Target Architecture, you can see what other processes and tasks depend on this ABB and what processes are impacted, which can also help you to decide whether or not an ABB must be enhanced in the Target Architecture

Create Gap Elements

Create a Gap Element to Model an Identified Gap

1. Right-click on the cell and select the 'Create Gap Element' option. The 'Browse Project' dialog displays.
2. Select the Package in which to create the Gap element and click on the OK button. A Gap element is created in the selected Package and its 'Properties' dialog displays; enter the element name and other required properties.
3. Select the 'Tagged Values' tab of the 'Properties' dialog and set the Tagged Values listed under 'Gap Element Tagged Values'.
4. Click on the OK button. The name and category of the Gap element displays in the selected matrix cell.

Gap Element Tagged Values

If you intend to use a Gap element that is already available in the model, right-click on the appropriate cell in the 'Missing / Eliminated' column or 'New' row and select the 'Link to Existing Gap Element' option. The 'Select Classifier' dialog displays, from which you select the existing Gap element.

Once you have created a Gap element, you can right-click on its cell and select from these context menu options:

- 'Edit Gap Element' to open the 'Properties' dialog of the Gap element and edit its properties
- 'Locate in Project Browser' to find and highlight the Gap element in the Browser window
- 'Remove Gap Element Link' to delete the link to the element in that cell (the element still exists in its parent Package)
- 'Delete Gap Element' to delete the element from the model; this action cannot be undone

Tagged Value	Description
ID	The unique identifier for the architecture object.
Owner	The owner of the architecture object.
Source	The location/source from which the information is collected.
Category	The categorization of the Gap. This can have any one of the values: • Intentionally eliminated • Unintentionally eliminated • New – To be produced or developed • To be enhanced
RefBaseline	The name of the Baseline Architecture artifact that is linked to the Gap element.

Architecture	If the Gap is to point to a missing element, this tag has the value of the Baseline artifact that is missing.
RefTarget Architecture	The name of the Target Architecture artifact that is linked to the Gap element. If the Gap points to a new artifact that is required for the Target Architecture, this tag has the value of the new Target artifact.

Gap Analysis Matrix Profiles

On the Gap Analysis Matrix, you can create and manage profiles to save commonly-used combinations of target Architectures and stereotypes.

To work on Gap Analysis Matrix profiles, click on the Options button in the top right corner of the matrix. A submenu displays, listing options to:

- Create a profile of the current matrix settings
- Update the currently-selected profile in the 'Profile' field
- Delete the currently-selected profile

The 'Profile' field drop-down list shows all the saved Gap Analysis Matrix profiles.

Tagged Values in TOGAF

TOGAF makes extensive use of Tagged Values for assigning custom properties to the various elements specific to TOGAF. When creating or viewing a TOGAF model, it is recommended that you keep the Properties window docked and visible at all times, with the TOGAF section expanded.

Synchronize Tagged Values

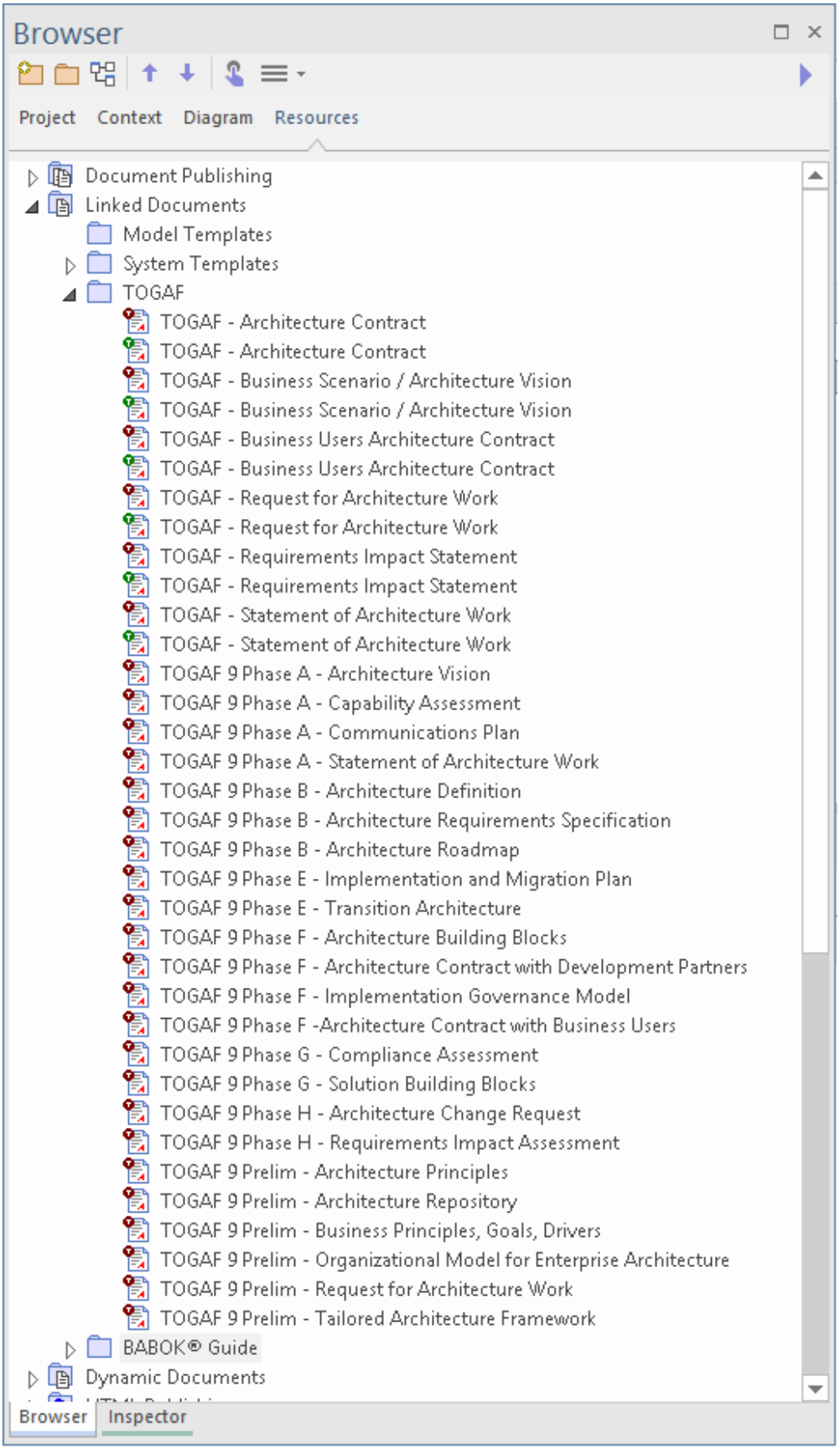
From time to time you might need to add missing Tagged Values to all elements in the model that require them, such as:

- Whenever you create a new element by any means other than directly dropping the element from the TOGAF 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 TOGAF profile

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

TOGAF Linked Document Templates

Enterprise Architect contains a set of Linked Document templates that are specific to TOGAF.



You can also select these templates from the drop-down list in the 'New Linked Document from Template' dialog; scroll

down to the 'Technology Templates' list.

The Linked Document templates are provided by The Open Group, contingent on this text being displayed in any documentation of the templates:

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The Architecture Development Method (ADM)

The key to TOGAF remains a reliable, practical method - the TOGAF Architecture Development Method (ADM) - for defining business needs and developing an architecture that meets those needs, applying the elements of TOGAF and other architectural assets available to the organization.

TOGAF embodies the concept of the Enterprise Continuum to reflect different levels of abstraction in an architecture development process. In this way TOGAF facilitates understanding and co-operation between actors at different levels. It provides a context for the use of multiple frameworks, models, and architecture assets in conjunction with the TOGAF ADM. By means of the Enterprise Continuum, architects are encouraged to leverage all other relevant architectural resources and assets, in addition to the TOGAF Foundation Architecture, in developing an organization-specific IT architecture.

Key Points About the ADM

The ADM is iterative over the whole process, between phases and within phases; for each iteration of the ADM, a fresh decision must be taken on:

- The breadth of coverage of the enterprise to be defined
- The level of detail to be defined
- The extent of the time horizon aimed at, including the

number and extent of any intermediate time horizons

- The architectural assets to be leveraged in the organization's Enterprise Continuum, including:
  - Assets created in previous iterations of the ADM cycle within the enterprise
  - Assets available elsewhere in the industry (such as other frameworks, systems models and vertical industry models)

These decisions must be made on the basis of a practical assessment of resource and competence availability, and the value that can realistically be expected to accrue to the enterprise from the chosen scope of the architecture work.

As a generic method, the ADM is intended to be used by enterprises in a wide range of different geographies and applied in different vertical sectors/industry types. As such it can be - but does not necessarily have to be - tailored to specific needs. For example, it can be used:

- In conjunction with the set of deliverables of another framework, where these are more appropriate for a specific organization; many US federal agencies have developed individual frameworks that define the deliverables specific to their particular departmental needs
- In conjunction with the well-known Zachman Framework, which is an excellent classification scheme but which lacks an openly available, well-defined methodology

ADM Phases

The Architecture Development Method (ADM) has ten Phases, as identified here. The approach and complete description of each Phase are provided in the TOGAF documentation available on The Open Group website, to identify the objectives, inputs, steps and outputs of each phase.

Preliminary Phase: Framework and Principles

The Preliminary Phase is about defining 'where, what, why, who, and how we do architecture' in the enterprise concerned. The main aspects are:

- Defining the enterprise
- Identifying key drivers and elements in the organizational context
- Defining the requirements for architecture work
- Defining the architecture principles that will inform any architecture work
- Defining the framework to be used
- Defining the relationships between management frameworks
- Evaluating the enterprise architecture maturity

Phase A: Architecture Vision

Architecture Vision starts with receipt of a Request for Architecture Work from the sponsoring organization to the architecture organization. During this phase, you define the architecture scope, how to create the vision, and obtain approvals.

Phase B: Business Architecture

Business Architecture is the first architecture activity that must be undertaken, if not catered for already in other organizational processes (such as enterprise planning, strategic business planning or business process re-engineering).

Phase C: Information Systems Architectures

In this phase you develop the Information Systems Architectures, including the Data and Applications Architectures. Detailed steps for Phase C are given separately for each architecture domain:

- Data Architecture
- Applications Architecture

Phase D: Technology Architecture

The steps within the Technology Architecture phase are:

- Select reference models, viewpoints, and tools

- Develop Baseline Technology Architecture Description
- Develop Target Technology Architecture Description
- Perform gap analysis
- Define roadmap components
- Resolve impacts across the Architecture Landscape
- Conduct formal stakeholder review
- Finalize the Technology Architecture
- Create Architecture Definition Document

Phase E: Opportunities and Solutions

In the Opportunities and Solutions phase you identify the parameters of change, the major phases along the way, and the top-level projects to be undertaken in moving from the current environment to the target.

Phase F: Migration Planning

During the Migration Planning phase you sort the various implementation projects into priority order. Activities include assessing the dependencies, costs and benefits of the various migration projects.

Phase G: Implementation Governance

During the Implementation Governance phase you bring together all the information for successful management of

the various implementation projects.

Phase H: Architecture Change Management

In the Architecture Change Management phase you establish an architecture change management process for the new enterprise architecture baseline.

ADM Architecture Requirements Management

The ADM is continuously driven by the Architecture Requirements Management process.

The TOGAF Enterprise Continuum

It is simplest to think of the Enterprise Continuum as a 'virtual repository' of all the architecture assets - models, Patterns, architecture descriptions and other artifacts - that exist both within the enterprise and in the IT industry at large, and that the enterprise considers itself to have available for the development of architectures for the enterprise.

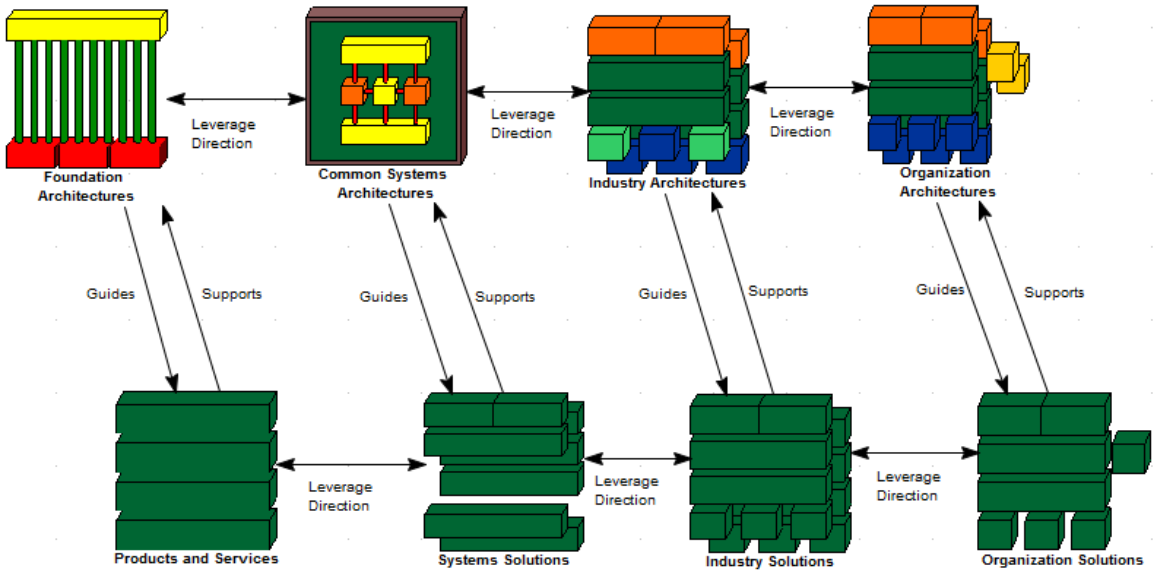
Examples of 'assets within the enterprise' are the deliverables of previous architecture work that are available for re-use.

Examples of 'assets in the IT industry at large' are the wide variety of industry reference models and architecture Patterns that exist and that are continually emerging, including those that are:

- Highly generic, such as TOGAF's own Technical Reference Model (TRM)
- Specific to certain aspects of IT, such as a web services architecture, or a generic manageability architecture
- Specific to certain types of information processing, such as e-Commerce or supply chain management
- Specific to certain vertical industries; for example, the models generated by vertical consortia such as TMF (in the Telecommunications sector), ARTS (Retail) or POSC (Petrotechnical)

Enterprise Architect's support for the Enterprise Continuum is provided by the Enterprise Continuum diagram and the

corresponding Diagram Toolbox page. The starter model consists of an interface to the TOGAF Enterprise Continuum.



When you double-click on an Architecture Continuum or Solution Continuum element, an Enterprise Continuum diagram displays. The Diagram Toolbox page provides the Architecture Building Block and Solutions Building Block elements and the appropriate relationship connectors.

Support For Federal Enterprise Architecture Framework

TOGAF provides diagrams and Toolbox pages specific to the Federal Enterprise Architecture Framework (FEAF). It also provides 'out-of-the-box' models of the FEAF Performance Reference model and Technical Reference model.

To open the FEAF-PRM and FEAF-TRM models:

1. Create a new Enterprise Architect project file, and click on the top-level Package.
2. Select the ribbon option 'Design > Package > Model Builder'.
3. In the Model Builder dialog, select the 'Enterprise Architecture > TOGAF' Perspective and the required FEAF Pattern.
4. Click on the Create Model button.

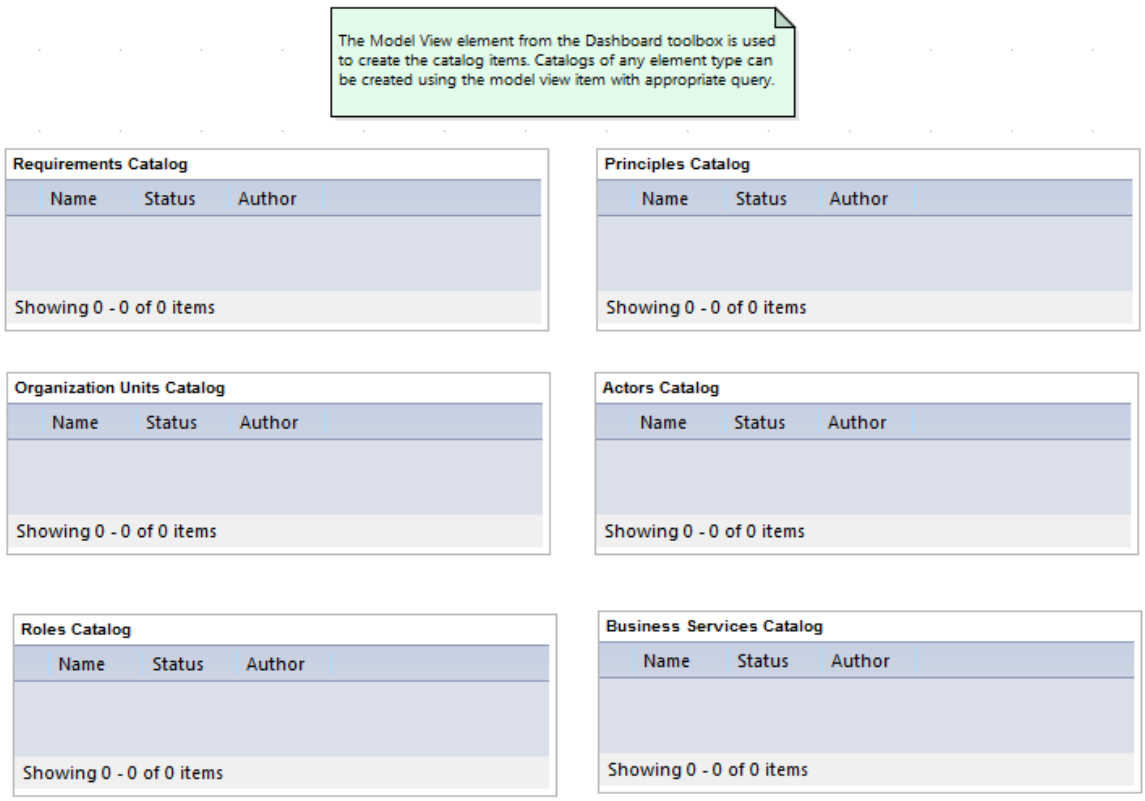
These TOGAF Toolbox pages provide specific support for FEAF:

- FEAF Business Reference Model Toolbox Page
- FEAF Performance Reference Model Toolbox Page
- FEAF Service Component Reference Model Toolbox Page
- FEAF Technical Reference Model Toolbox Page

TOGAF Catalogs

Enterprise Architect helps you to create Model Catalog Artifacts, using the TOGAF-Catalog model Pattern. Choosing this model Pattern in the Model Builder generates a template model in which you create TOGAF-specific catalogs for:

- Actors
- Business Services
- Organization Units
- Principles
- Requirements and
- Roles



Each Model View will list all objects of the corresponding

type in the entire model.

Alternatively, you can create TOGAF Catalogs in a diagram using Model View elements from the 'Dashboard' pages of the Diagram Toolbox.

More Information

Sparx Systems Enterprise Architect seamlessly integrates The Open Group Architecture Framework (TOGAF), providing users with a robust modeling environment based on open standards. TOGAF, renowned for its practical and proven approach to enterprise architecture development, offers the TOGAF Architecture Development Method (ADM) as a reliable means to define business needs and craft tailored architectures.

With TOGAF's Enterprise Continuum concept, architects can leverage various frameworks, models, and assets alongside the TOGAF ADM, fostering collaboration and enabling the creation of organization-specific IT architectures. This integration empowers users to harness the full potential of TOGAF within Enterprise Architect's feature-rich environment, ensuring effective enterprise architecture development and maintenance. For further insights into TOGAF, users are encouraged to explore the following links.