Getting Started

Welcome to Sparx Systems' Enterprise Architect, a desktop tool with a 20+ year proven track record of helping people and teams explore, develop and implement their personal or corporate vision. Enterprise Architect is a tool that is used to:

- Create rich and expressive business, systems and software models

- Model and work with "As-Is" and "To-Be" models

- Manage and track requirements

- Model with many industry standard languages such as UML, SysML and ArchiMate

- Model with many industry frameworks such as TOGAF, Zachman, UPDM, UAF

- Model with custom purpose built modeling languages for a domain

- Collaborate with colleagues, teams and customers

- Unite teams spread across multiple geographic locations

- Publish models in standard document formats or for the web

- Share content with other tools in standard industry formats

- Simulate business and systems processes

- Visualize, inspect and document complex software systems

- Engineer compelling visualizations

- Provide direction, information and certainty

- Generate a common understanding to both business and technical stakeholders.

Why Enterprise Architect?

Welcome to Enterprise Architect, the ultimate collaborative platform for modeling, visualizing, constructing and managing Enterprise, Business, Engineering and Technology solutions. Harness the power of this leading tool to simplify the way you work, unify interdisciplinary teams, create models that perform work, leverage and reuse assets across programs and projects, and much more.

Key Benefits

These are just some of the benefits that Enterprise Architect can bring to your Enterprise, team and projects:

- Work together with teams from anywhere in the world using a range of devices such as laptops and smart phones, working through the phases of solution development with visibility for both business and technical audiences

- Integrate with a rich landscape of external tools to unify teams and enterprises, resulting in fantastic productivity gains

- Create models and solutions at lightning speed

- Work under the umbrella of support for a wide range of standards and specifications

- Unify the work of business and technical teams

- Enjoy the flexibility, extensibility and configurability of Enterprise Architect to meet your specific needs

- Accessible using the Enterprise Architect thick client software or by using the Cloud Server and WebEA from any device with a browser

Key Functional Areas

Sparx Systems Enterprise Architect is a comprehensive strategy, requirements, analysis, design, construction, testing and management tool that addresses all aspects of enterprise, business, systems and software modeling. It is a scalable, multi-user, visual platform with a rich feature set.

Enterprise Architect combines the power of UML and derivative modeling languages such as BPMN and SysML, with a high performance, intuitive interface, to bring an integrated and advanced toolset to the whole development team.

Enterprise Architect also includes detailed support for architectural frameworks such as TOGAF, UAF/UPDM, ArchiMate, Zachman Framework and others, providing seamless modeling and design capabilities.

Key Usages

For over twenty years, Enterprise Architect has been the tool of choice for a wide range of project types and work areas, supporting most job roles and functions within those areas. Enterprise Architect is ideal for:

- Strategic Modeling

- Requirements Development and Management

- Business Process Modeling and Analysis

- Software Development

- Systems Engineering and Database Engineering

- Enterprise Architecture

- Testing and Debugging

- And much more

Key Benefits
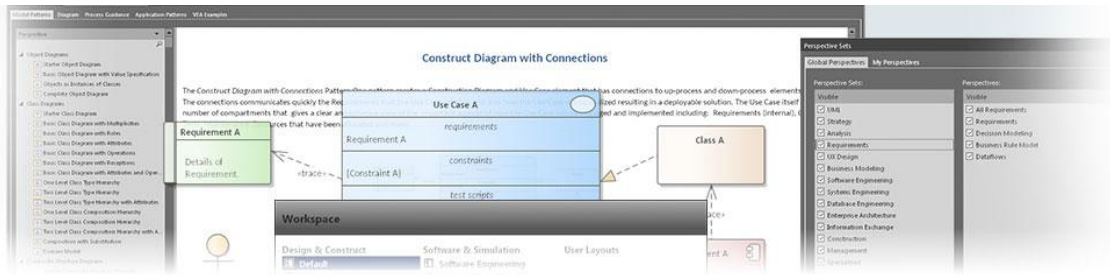
Work together in small or large teams from anywhere in the world using Computers, Tablets and Smart Phones, specifying, analyzing, designing, simulating, testing, implementing, deploying and supporting solutions that will exceed the expectations of business and technical audiences alike.

Integrate with a rich landscape of external tools to unify teams and enterprises resulting in productivity gains that create truly astonishing results.

These are just some of the benefits that Enterprise Architect can bring to your Enterprise, team and projects:

- **High productivity tool creating results in record time**
  Models and solutions can be created at lightning speed using a variety of features, including a Model Builder, Transformation tools and Code Generation.

- **Standards and Specification Based**
  Enterprise Architect supports a formidable range of standards and specifications, ranging from Enterprise Architecture, Strategic and Business Modeling, Systems Engineering, Design and Construction through to Implementation, Testing and Deployment.

- **A platform for business and technical users**
  With Enterprise Architect it is possible to bridge the divide between business and technical teams; executive stakeholders, line managers analysts, development and testing teams can work together using the tool features that apply to them but knowing that they are all contributing to a unified business and technology solution.

- **Flexible, Configurable and Extensible**
  The tool is highly flexible, allowing you to tailor the way you work with Perspectives and Workspaces, helping you to stay focused and resulting in great productivity; it also provides a range of mechanisms to extend the core features, from basic scripts to full-blown third party Add-Ins.

- **Code Engineering and Visualization**
  The tool provides a vast set of code engineering features that not only allow the full management of source code but also provide unique facilities to visualize code in models and diagrams; code hot-spots and performance problems can be analyzed and resolved in record time.

- **Simulation of Business and Technical Models**
  Models can be brought to life, with easy-to-use simulations of business models such as Business Process Diagrams, and technical models such as StateMachines; these work out of the box but can be extended to allow advanced analysis using tools such as BPSim, MATLAB and Modelica.

- **Extended Features**
  Beyond the core features for modeling, Enterprise Architect boasts an extraordinary number of facilities, from enterprise modeling right through to deployment and support; these include Kanban, Calendars, Mail, Discussions, Reviews, Model Library, Gantt Charts, Code analyzers, Simulation and much more.

- **Rigorous Metamodel Driven Technologies**
  Many of the technologies that underpin the specification are driven by metamodels, allowing robust and compliant models to be created and validated.

- **Collaboration Platform that Unifies Interdisciplinary Teams**
  Enterprise Architect was built from the ground up as a tool to support interdisciplinary teams, fostering collaboration and team work to ensure that the solution is far more than the sum of its parts.

- **Secure, Scalable, Multi-User platform**
  Any number of users can collaborate, accessing models securely, and the repositories can scale to support hundreds of projects in global enterprises; users can interact with the models in a variety of ways, such as using WebEA.

- **Formidable selection of supported Specifications and Standards**
  Enterprise Architect has grown from being a UML tool to a platform that supports almost all modeling specifications, from Enterprise Architecture through to Code Engineering.

- **On-Premise and In-Cloud Deployment Models.**
  There is a range of deployment options from local file based repositories, through on-premise repositories to full Cloud solutions.

- **Accessible from Computers, Tablets and Smart Phones**
  Models can be created and edited using the Enterprise Architect thick client software or by using the Cloud Server and WebEA from any device with a browser, including Smart Phones and Tablets.

- **Dashboards, Simple and Advanced Publishing and Reporting**
  Enterprise Architect can display expressive dashboards, with charts and graphs that allow model managers and others to visualize the model's key performance indicators; there is also a flexible and extensible report generator that can produce basic reports through to highly polished corporate publications.

- **User Experience**
  The user interface of the thick client is a highly polished ribbons-based interface which is a delight to use and provides simple and obvious access to the rich set of available features.

Key Features
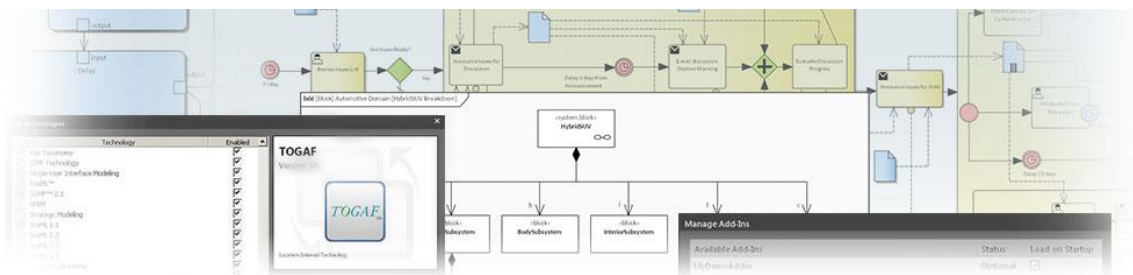
Enterprise Architect from Sparx Systems is a comprehensive strategy, requirements, analysis, design, construction, testing and management tool that addresses all aspects of enterprise, business, systems and software modeling. The tool can be used from the formulation and definition of strategy, requirements management through analysis, design, construction, build, debug, simulation, testing, change management and maintenance to implementation and support. The resulting integrated models include full traceability between all tasks, phases, domains, components and lifecycle management.

Enterprise Architect combines the power of the UML specification (and derivative modeling languages such as BPMN and SysML), with a high performance, intuitive interface, to bring an integrated and advanced toolset to the whole development team.

A scalable, multi-user, visual platform with a rich feature set, Enterprise Architect helps you to build and document robust, maintainable systems and processes. As a proven, highly popular tool for analysts, developers, consultants and managers in over 150 countries world-wide, it is used in the development of many kinds of applications, processes, workflows, database schema, knowledge bases, organizational architectures, systems and technology standards in a wide range of industries and domains.

Sparx Systems' Enterprise Architect also includes detailed support for architectural frameworks such as TOGAF, UAF/UPDM, ArchiMate, Zachman Framework and others, providing seamless modeling and design capabilities from early strategic modeling right through requirements to application lifecycle management, impact analysis, architectural design and future state modeling.

Industries supported include aerospace, banking, web development, engineering, finance, medicine, military, research, geospatial, academia, transport, retail, utilities and electrical engineering and many more. Enterprise Architect also has a long history of being used by standards organizations worldwide to structure and organize their domain specific knowledge, common models and message specifications.

Enterprise Architect is supported by many partners, consultants, colleges and other organizations that provide training and consulting services based on the system. Details on partners and local trainers can be found at the Sparx Systems web site (sparxsystems.com).

Key Usages

For over twenty years, Sparx Systems has actively and continually developed Enterprise Architect based on the current UML (and related) standards. Over those years it has proven itself in a wide range of projects from small single user models to extremely large team based enterprise repositories. With nearly 1 million effective users in over 150 countries world wide, the power and effectiveness of Enterprise Architect has been convincingly demonstrated in many different areas. The Sparx Systems Community website provides a wealth of community support and information for new users.

Enterprise Architect is a proven, scalable, effective and affordable full-lifecycle development platform for:

- Strategic Modeling

- Business Analysis

- Requirements

- Software Design and Construction

- Software Profiling, Testing and Debugging

- Business Process Modeling and Simulation

- Systems Engineering

- Enterprise Architecture

- Database Engineering

- Development of XML Schemas and XSLT Transforms

- Development and Dissemination of Technologies such NIEM, CIM, UNCEFACT and many others.

- Project Management

- Testing and Maintenance

- Reporting

- And many other tasks

Enterprise Architect is optimized for:

- Creating, managing and working with a diverse set of Requirements

- Modeling, designing and constructing a wide range of software systems

- Business process modeling, business analysis, BPMN, strategic modeling and similar

- Systems modeling, systems architecture modeling, component design and simulation

- Modeling, constructing, comparing and updating database systems

- Defining and generating schema based on XSD and other standards

- Building and using domain specific modeling languages based on UML

- Visualizing a wide range of systems, processes, data, activities and structures

- Building, executing, debugging, profiling and testing a variety of software languages

- Simulating behavioral processes, StateMachines and interactions

- Generating and building executable code for StateMachines and supporting simulation of target executable

- Collaborating and sharing information and models

- Testing, quality control and end-to-end verification and trace-ability of complex systems

- Project managing developmental tasks, work and scheduling

- Team based collaboration using Cloud based repositories optimized for access over WAN networks

Enterprise Architect Editions

Enterprise Architect is available in a number of editions, each tailored to support a particular organization of work. The editions range from a free 'Lite' Edition through to four purchased editions, which start with the Professional edition and culminate in the Ultimate edition.

An organization is not restricted to using a single edition and commonly a mixture of licenses will provide the most flexibility. When floating licenses are purchased, access to a higher edition can be achieved on an as-needs basis, thus providing all users with access to the additional functionality available in the higher-level editions.

Principal Editions plus 'Trial' and 'Lite'

Aspect	Advantage
Professional, Corporate, Unified and Ultimate Editions	These are the principal editions that are available for purchase. An organization or team can purchase any number of each product to suit their own circumstances.
Trial of all Editions (time limited)	The time limited Trial Edition allows a user, team or organization to test the product before purchasing. An option is provided to launch the trial in any of the purchasable editions, allowing you to compare them.

The Lite Edition (read only - limited functionality)	The free read-only or 'Lite' edition allows interested parties within an organization or a team to view the full contents of a model. They are, however, unable to update the model or use features such as document generation, simulation and code generation.

Available Editions

Enterprise Architect is available for purchase in four Editions:

- Ultimate
- Unified
- Corporate
- Professional

Edition Comparison

Ultimate Edition	The Ultimate edition is designed for power users and those working across multiple domains, providing deep support for Business, for Software Engineering and for Systems Development, seamlessly integrated into a single development environment.
	It enables you to drill down to the lowest levels of systems design and construction, with SysML and executable code generation for standard and hardware description languages.
	Business users can leverage BPEL, the Rules Composer and executable UML, in addition to all the advanced features of the other editions of Enterprise Architect.
	Software developers can integrate their Eclipse and Visual Studio projects with their UML models and leverage the advanced executable code generators to target different domains.
	The Ultimate edition provides end-to-end traceability throughout a global vision of your enterprise - unifying strategy, business process, interfaces, software, rules, data and fine grained systems; advanced tools, domain-specific technologies, frameworks, integration platforms and a consistent, scalable, and robust interface work in unison to help you deliver on the promise of Model Driven Development.
	The Ultimate edition incorporates a number of MDG Technologies and Add-Ins; the Ultimate edition and the MDG Technologies are all available in either Fixed License or Floating License form.
	The Floating License arrangement is particularly useful for companies that manage a central store of license keys, which can be used by different employees over time, temporarily or permanently.
	The Ultimate edition provides:
	- Executable Code Generation - support for generating functional source code for StateMachines, Interactions and Activities in C, C++, C#, Java and VB.NET
	- Full round trip support for Hardware Description Languages (Verilog, VHDL and SystemC) including support for generating StateMachine code
	- SysML Simulation Support - including support for simulating SysML 1.4 constraint models with results graphing capabilities

	• BPEL Generation – transform BPMN 1.1 and BPMN 2.0 Business process models down to BPEL 1.1 and BPEL 2.0 code respectively • Business Rules – trace from abstract business rules down to automatically generated behavioral code
Unified Edition	The Unified edition is aimed at software development professionals, business modelers, architects, requirements experts, project managers and others involved in the design and construction of quality software and business services as well as systems engineers working on real-time, embedded and systems solutions. The Unified edition combines advanced features such as generation of executable code from UML models (including support for hardware languages such as Verilog and VHDL), Ada, SysML 1.5, executable SysML Parametric diagrams, BPEL, advanced scripting and a multi-purpose Rules Composer targeting executable code from Business Domain models. This edition bundles licenses for integration products and frameworks such as UAF (UPDM, DoDAF-MODAF), TOGAF and Zachman as well as SysML and DDS, to provide advanced model-driven construction tools to tightly bind your code development in Eclipse or Visual Studio with the UML/SysML models developed in Enterprise Architect. It provides additional features such as: • SysML Parametrics, HDL, ADA • DDS, Linux satellite service • Math support in script library • BPSim Model Configuration, BPSim Execution Engine • BPEL, UAF, UPDM, Zachman, TOGAF, Visual Studio Integration • DMN execution and code generation • Executable StateMachines, Modelica simulation The Unified edition incorporates a number of MDG Technologies and Add-Ins; the Unified edition and the MDG Technologies are all available in either Fixed License or Floating License form. The Floating License arrangement is particularly useful for companies that manage a central store of license keys, which can be used by different employees over time, temporarily or permanently. The Unified edition provides: • Executable Code Generation - support for generating functional source code for StateMachines, Interactions and Activities in C, C++, C#, Java and VB.NET • Full round trip support for Hardware Description Languages, including Verilog, VHDL and SystemC, with support for generating StateMachine code • Generation of Behavioral Code from State, Sequence and Activity models, supporting standard programming languages such as Java and .NET • SysML Simulation Support - Includes support for simulating SysML 1.4 constraint models with results graphing capabilities • BPEL Generation from BPMN 1.1 and BPMN 2.0 models - including validation and WSDL support • A Business Rules Composer that enables you to build Business Domain models and generate code to implement complex business rules in standard programming languages • Advanced math functions within the scripting engine
Corporate Edition	

	Aimed at larger development teams, the Corporate edition enables you to connect to these DBMS back-ends as the shared repository: • MySQL • SQL Server • PostgreSQL • Access 2007 and • Oracle This provides additional scalability and improved concurrency over the shared .eap/.eapx file approach to model sharing. User security, user logins, user groups and user level locking of elements, user/group based security (with locking at diagram and element levels) are also supported. Security comes in two modes: in the first mode, all elements are considered 'writeable' until explicitly locked by a user or group; in the second mode, all elements are considered locked until checked out with a user lock. The Corporate edition forms the base for the Unified and Ultimate editions; like those editions, it is available in either Fixed License or Floating License form. The Floating License arrangement is particularly useful for companies that manage a central store of license keys, which can be used by different employees over time, temporarily or permanently.
Professional Edition	Aimed at developers and engineers working alone or in small work groups, the Professional edition supports file-based model repositories, unsecured shared repositories and Firebird-based Cloud repositories. This Edition has an ActiveX interface for interrogating Enterprise Architect projects and extracting information. The Professional edition fully supports code import/export and synchronization of model elements with source code; it enables reverse engineering of SQL Server, MS Access, MySQL, PostgreSQL and Oracle databases. Support for MDG Technologies (sold separately) is included with the Professional edition.

Creating a Project

It is easy to get started with Enterprise Architect, and within a few minutes, you can have a project set up, and in just a few hours, you can have your model populated with your own content and be well on the way to getting unprecedented value from the tool. A project is really a repository, a more technical word for the container where you will place your modeled content. Productivity tools will get you off to a flying start and allow you to derive immediate value from your models. Still, the first thing is to create a repository that will store the elements, diagrams, documents, and discussions that you add as you work in the tool.

Enterprise Architect conveniently allows you to create a file-based repository that you can set up yourself without involving your Information Technology department. You can happily work with other modelers by placing the file on a network drive where other team members can access it. Conveniently, as you progress with your modeling and perhaps as others join your modeling project, you can easily transfer the file-based repository to a server-based repository either on your premises or in a cloud environment. A server-based repository allows more rigorous repository management such as automated database backups, richer collaboration opportunities, and web-based views of your models.

The Start Page

The Start page opens when you launch Enterprise Architect. It allows you to create a local (file based) repository, by clicking on the option 'Create New'.
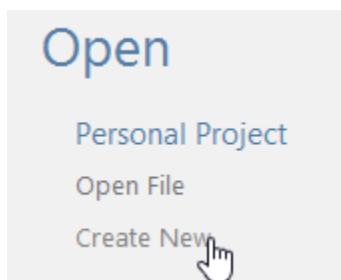
Create New option available on the Start page

This will open a 'New Project' dialog where you specify the file name and location of your new repository. Remember if you want to work with a small number of other team members (up to five or six) you can place this file on a network drive or you can move it at any time when you want to work with other people. Once you close the dialog Enterprise Architect will load your blank repository.

In the Browser window (pressing F2) rename the 'Model' node using a suitable name e.g. 'Your Organization Name' or 'Your Project Name'
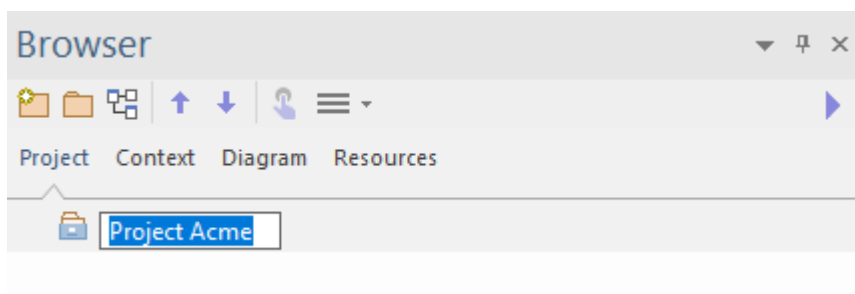
Browser window with the default root node, which is the starting point of your repository structure

You can continue to add other Packages to the Browser window either before you start adding content such as elements and diagrams or as you go along. The structure will depend on what type of enterprise or projects you are working on and how you want to structure your work. Two common ways of working are:

• A single repository that contains organizational level and all project-level content

• A single organizational level repository and a separate repository for each project

These are just two common ways of structuring your repositories, but there are many other ways of working that can be hybrids between them, and the best way for you will depend on your individual context. Rest assured, service companies and partners can advise you on the best setup for your circumstances.

Setting your Perspective

Enterprise Architect is a feature-rich tool and provides a full range of facilities for almost any modeling context, including Strategy, Requirements, Business modeling, Enterprise and Solution Architecture, Information and Database modeling, and Systems Engineering, to name a few. The tool has many features that will help you stay focused on what you are doing and give you the freedom and flexibility to use other facilities.

Perspectives

To ensure you get the best out of the tool and stay focused on what you are doing, Enterprise Architect provides Perspectives that allow focused modeling contexts. Once you have selected a Perspective, the other features are never far from hand, and any time you want to use other items, it is as simple as choosing another Perspective.

Selecting and changing Perspectives is straightforward using the icon in the top right-hand corner of the application window.

The perspective selector.

Let's say, for example, that you want to do some Requirement modeling - you select the Requirements Perspective, which will allow you to focus on Requirement Modeling and Management. Whenever you add diagrams, you will only see the Requirement diagram options, but remember all the other tool features are close at hand - all you need to do is change Perspectives. You can even create your own Perspective that contains a number of facilities, such as Requirements, Business Process Modeling, and Mind Mapping.
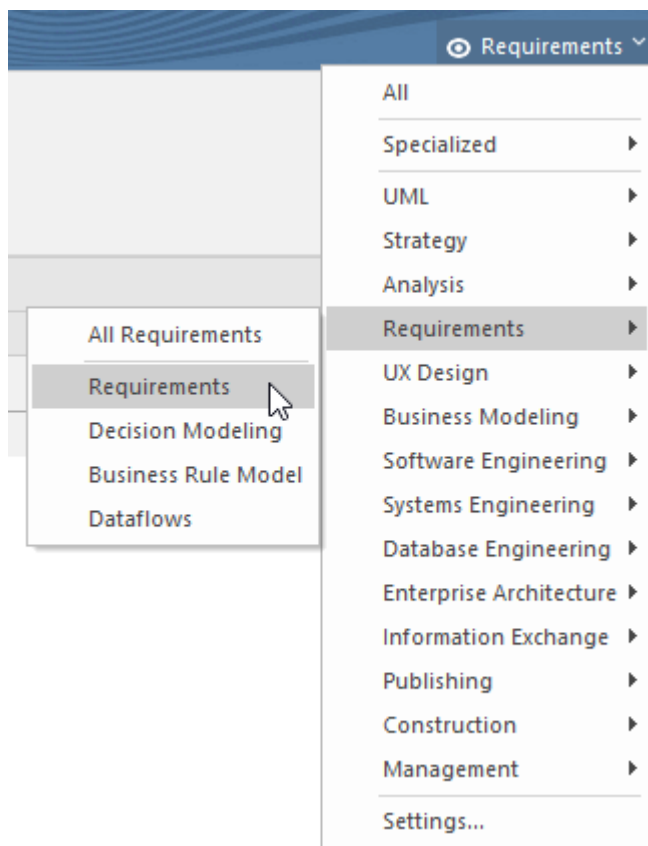
List of available perspective sets and perspectives they contain.

Ribbons

The ribbons provide a welcomed and familiar interface to the tool features and can be customized to suit the way that you work. The ribbons have been carefully designed by modeling experts and place the rich features at your fingertips in any modeling context. For example when working with diagrams you will be able to use the Layout ribbon to align diagram objects, change colors, and styles and create expressive layouts that will make your diagrams compelling and communicative.

Commonly used panels of the Layout ribbon.

While the ribbons make it easy to find the features you are looking for, there is a universal way of locating a tool feature that allows you to search using a keyword such as 'Baseline'. The 'Find Command' option is conveniently located at the end of the ribbon bar next to the last ribbon (usually 'Settings').
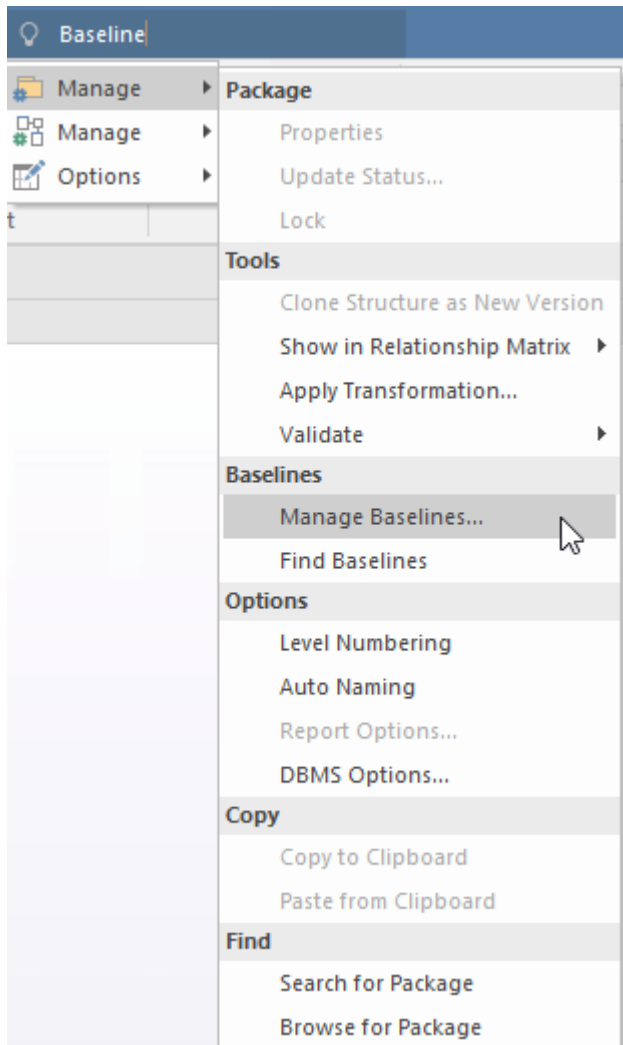
The Find Command used to locate the baseline tool.

Workspaces

When you open Enterprise Architect for the first time, the application will open the default window layout (or workspace). The tool has a large number of workspaces that have been carefully designed to provide the most useful windows for a given modeling context. For example, suppose you are doing Requirements modeling. In that case, you can choose the Requirements workspace available from the Design group, which will open several windows helpful for specifying, viewing, and organizing requirements.
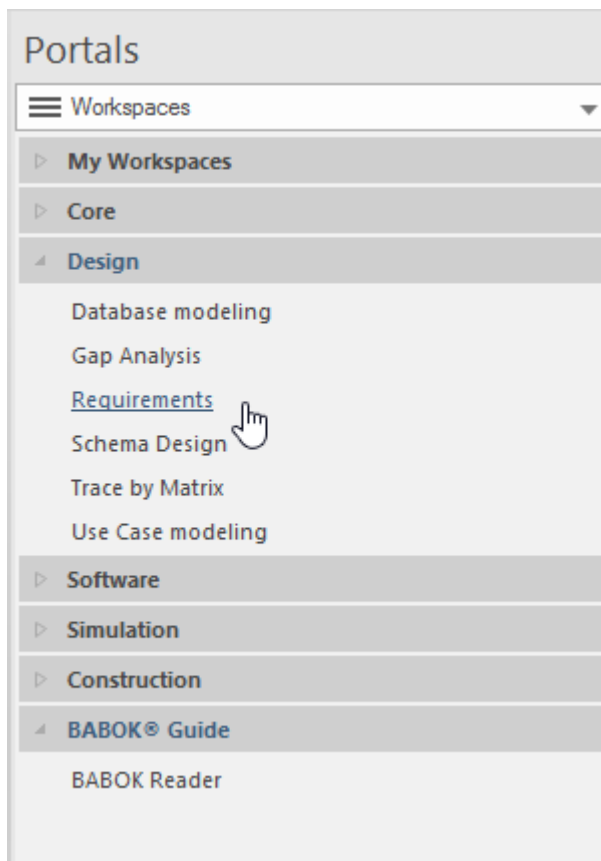
Workspace portal with selected workspace.

You can also create and save any number of your own workspaces with window and tool features that are instantly reopened when you select the saved workspace from the My Workspaces section of the Workspace portal.

Adding Model Content

Enterprise Architect allows you to add content in a variety of ways. Regardless of what type of modeling you are doing there are a number of convenient ways in which you can get your content into the model. The content you add will depend on what type of modeling you are doing; for example, a strategist might add drivers, goals and objectives; a requirement engineer could enter text-based requirements; and a database owner would typically add database objects such as tables and views. The method you chose will depend on your modeling context; for example, at the time you are setting up a repository it would be usual to import lists of elements from a spreadsheet. The commonest ways to add content to a repository are:

- Diagramming using the Toolbox pages
- Using the Browser window
- Model from Patterns
- Specification Manager
- Importing from a spreadsheet
- Importing images from files or the clipboard
- Copying from another repository
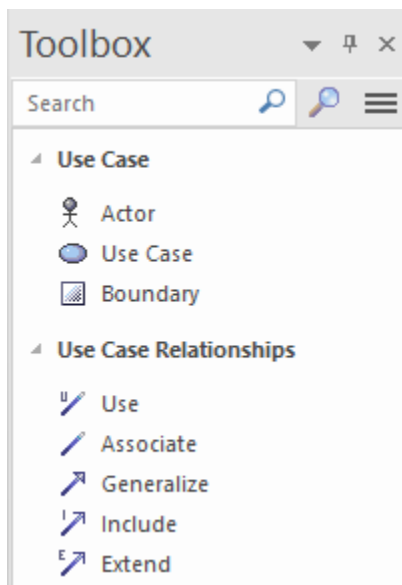
Diagramming

Creating diagrams is one of the easiest and most common ways to add content to your repository. When you add elements and connectors from the Toolbox to a new or existing diagram, these elements and connectors are also created and added to the Package that contains the diagram. The added elements will be immediately visible in the Browser window. In this example, a modeler has added a new Requirement and Use Case to the diagram and connected them using a UML Realization relationship.
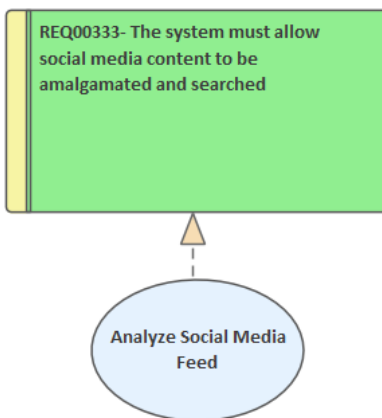
Diagram showing how elements and connectors can be created with diagrams.

As the elements are added from the Toolbox they are simultaneously added to the Browser window and will appear in the same Package as the diagram. (Connectors are not displayed in the Browser but in a series of other windows.)
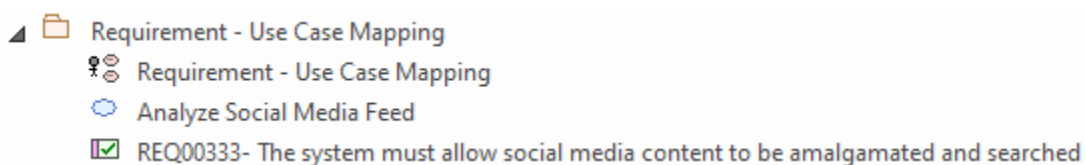
Browser window showing element and diagram

Using the Browser

The Browser window is the key mechanism for navigating through a repository and is also important when adding content. You select a location in the tree (typically a Package or element) and this will be the point in the repository where new content is added. There are four things that you might want to add to your repository:

- Patterns
- Packages
- Diagrams
- Elements

There is a convenient toolbar at the top of the Browser window that provides options for inserting new items into the repository, as well as a number of other options for moving items up and down the tree.

Browser toolbar and tabs showing useful icons such as the New Package and New Diagram icons.

The Hamburger menu provides more options, including to insert an element directly into the repository without using a diagram. The Browser window has a number of tabs that conveniently let you focus on particular parts of your model, including the:

- Entire Project
- Item in Context
- Current Diagram or
- Resources

Model from Patterns

Enterprise Architect has a productivity tool that will get you started modeling quickly and ensure your models comply with industry and tool best practices. Experts at Sparx Systems have created a catalog of pre-built model fragments called Model Patterns. Regardless of what you want to model, there will invariably be one or more patterns available to get you started. The pattern documentation shows you what to expect from the pattern and how to work with it. You can then choose a location in the Browser window and insert the pattern, including elements and diagrams, into your own repository. Typically the elements, connectors, and diagrams in a pattern will have generic names that you can change to suit your project. The pattern library is a living catalog and new patterns are added as the industry develops new standards and best practices.
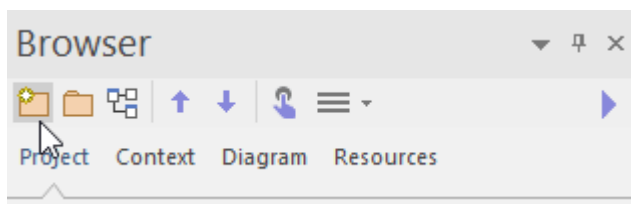
Browser toolbar and tabs showing the 'Model Builder (pattern library)' icon.

Whenever you change perspectives the available patterns will conveniently be displayed, or you can directly launch the Model Builder at any time from the Browser window toolbar or from the 'Model Builder' icon on the 'Package' panel of the Design ribbon.
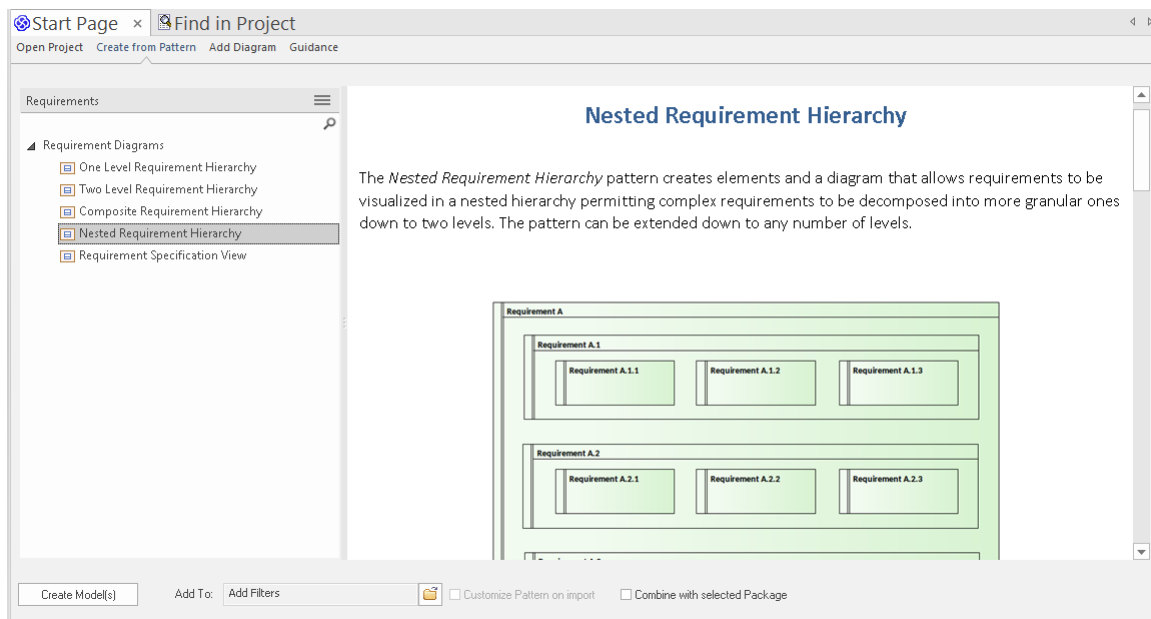
Model Builder showing patterns from the Requirements perspective.

Specification Manager

The *Specification Manager* is a great tool for viewing or adding content to the repository using a familiar word processor or spreadsheet-style interface. It is particularly useful when you have a list of items that contain descriptive names and textual descriptions, such as Requirements and Capabilities, but it can be used for any element, including information classes, processes, decisions, and more. It is a refreshing alternative to working with diagrams and a welcomed method for many business and technical team members who create or view catalogs of items. You can switch to other views from the Specification Manager, such as lists, diagrams, and Gantt views.

Specification Manager showing inline (spreadsheet) view of elements, notes and editable properties.

For those modelers or stakeholders accustomed to working with spreadsheets or word processor documents, the tool will seem natural and emulates both these modes of visualization, allowing you to toggle between spreadsheet mode and document mode quickly.

Importing from a Spreadsheet

Enterprise Architect has a useful facility to import (or export) content from a spreadsheet using a comma-separated values (csv) file. Any data in your favorite spreadsheet can be exported to a csv file and imported using a simple and intuitive interface where you specify which properties you want the data to be added to. You can also export data from Enterprise Architect into a spreadsheet if required. There are a number of tools that enable you to do this, but the most straightforward of these is available from the Publish ribbon.
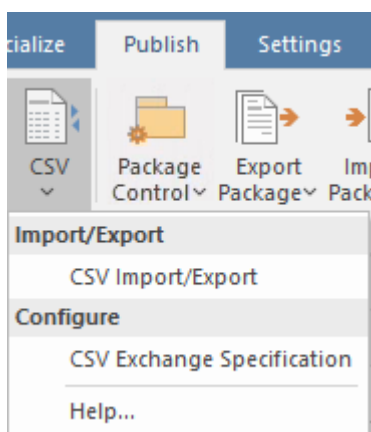
Facility to specify the fields to be exchanged between Enterprise Architect and a Spreadsheet.

Importing Images

Using Enterprise Architect, you can create expressive diagrams that comply with standards and industry best practices and also include compelling vector or raster-based images that will bring your diagrams to life and delight your audience. Many newcomers to modeling feel that they are straight-jacketed by the modeling languages and cannot create the type of diagrams that will appeal to their customers or managers, but with Enterprise Architect, you can have the best of both worlds.

Using the tool, you can add any number of images into a library or directly into the repository and then use those images freely on any diagram. You can import your images as a set at the start of a project or just as you need them for a particular diagram.
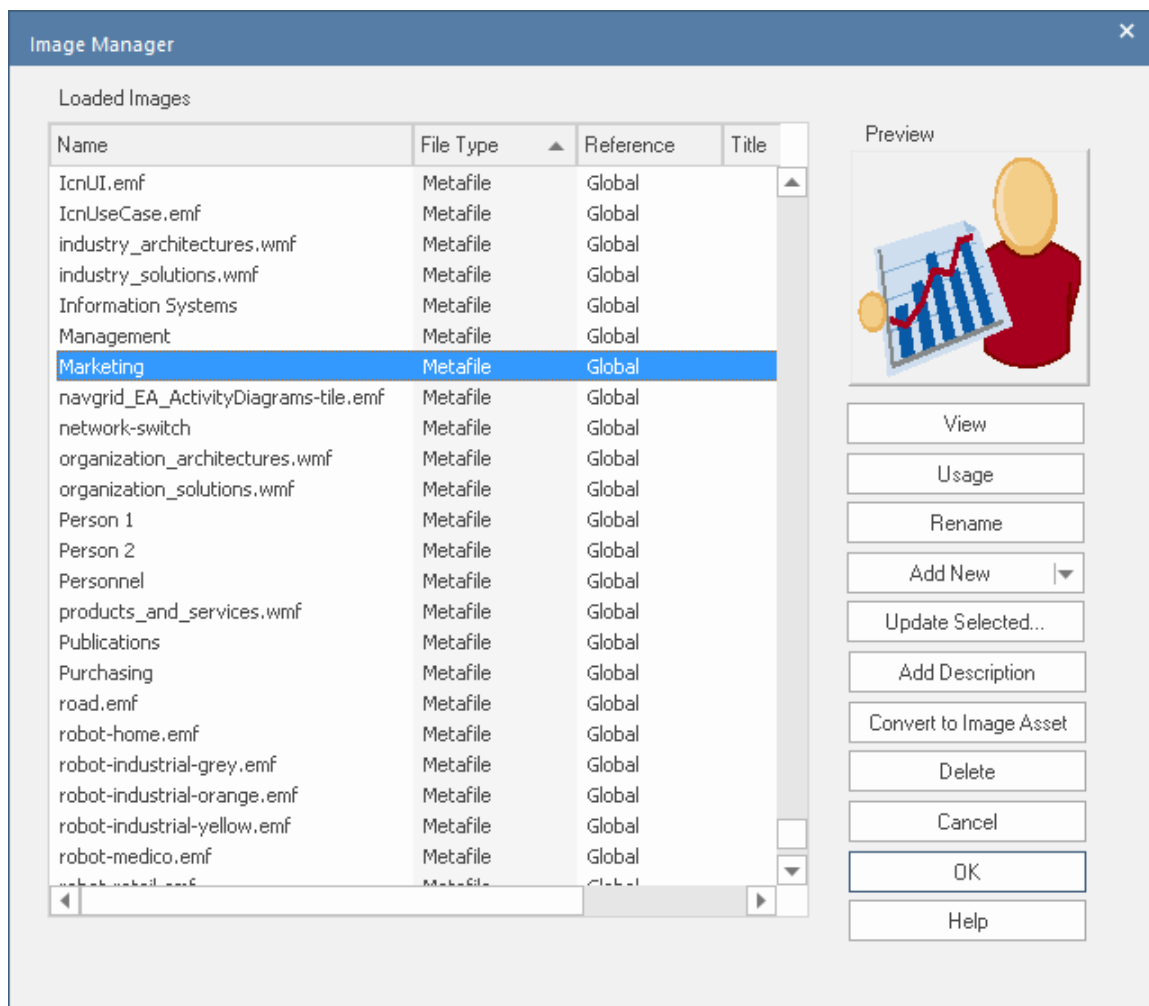
Image Manager showing a range of generic images in vector format including the marketing metafile being displayed.

Copying from another Repository

You can import modeled content from other repositories into the current repository in a number of ways, including:

- Simple copy and paste using the clipboard
- Exporting and importing a section of the model using xmi import/export
- Model transfer, which will copy an entire repository (including reference data)

Content can also be injected into a repository from a Reusable Asset Service, which your administrator or librarian would set up. You can also exchange reference data such as status and priority codes by exporting them from one repository and importing them into another using the Transfer options on the Settings ribbon.

Viewing Your Content

Enterprise Architect provides a range of ways to view the content that you and others have added to the repository, and many of these views also allow you to create content. Some views are suitable for the full range of technical and non-technical stakeholders from strategic levels down to engineering levels. The great thing about the views is that when you update information in one view, it is immediately reflected in all the other views.
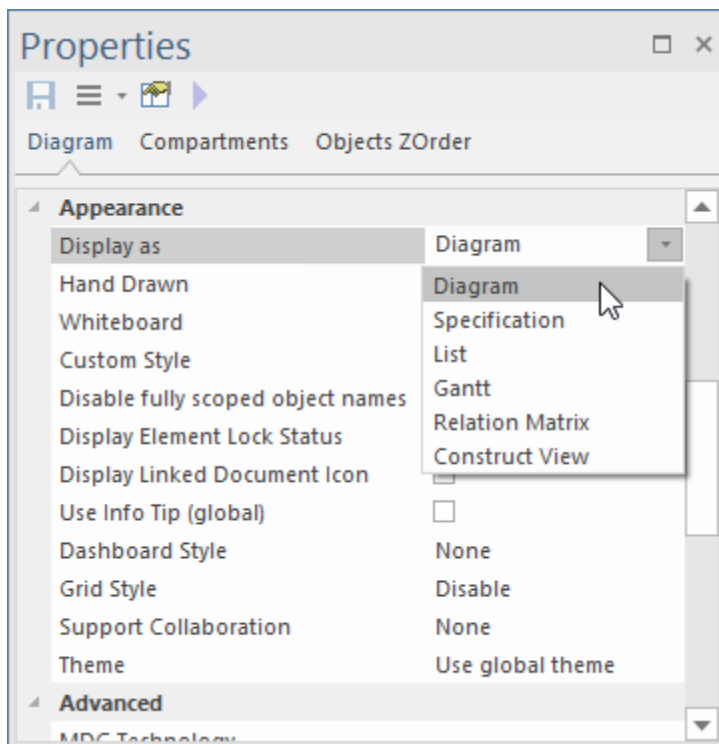
List of alternative views available from the diagram Properties window.

Diagram View

Diagrams are the most expressive and ubiquitous of all the views in the tool and, when constructed well, will appeal to both technical and non-technical stakeholders. We looked at Enterprise Architect's diagram feature in the *Adding Model Content Help* topic, and you will know they can be used for both creating and viewing elements and connectors in the model. You can access various styles and presentation options, including whiteboard, hand-drawn, and custom style.
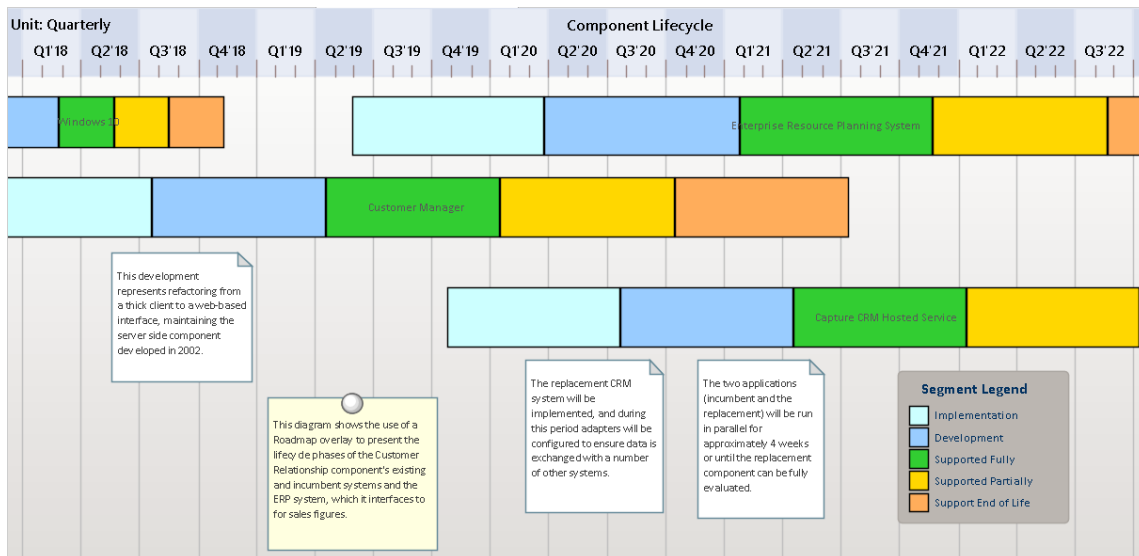
Roadmap diagram showing color used to visualize the status of the applications.

List View

You can use the List View to visualize the contents of a Package or a diagram as a list of elements. It is a useful alternative view to a diagram and allows element properties to be viewed and edited in a convenient spreadsheet-like view. Many analysts will prefer to view elements in a list, and when you make changes, these will be visible immediately in every other view of the element, including diagrams and the Browser window. There are also several options for filtering, sorting, and grouping elements in the list based on a range of system- and user-defined properties.

List view showing elements grouped by status and sub-grouped by type.

Matrix

The Relationship Matrix is a tool for visualizing the relationships between elements in a visually compelling view, resembling a matrix or spreadsheet. You can use the matrix to view the relationship between any two elements; for

example - between Stakeholders and their Requirements, how Use Cases relate to Business Requirements or Functional Requirements, how Capabilities relate to Business Drivers, or which Components implement a set of requirements. The matrix has great appeal for non-technical stakeholders and can be included in documentation and viewed through WebEA, and even saved to a spreadsheet. You can also create relationships through the matrix and visualize which elements are loners and don't have any connections.

Relationship matrix showing 'lone' elements (no connections - green and pink squares) and options.

Specification Manager

We looked at the Specification Manager in the *Adding Model Content* Help topic, and you will know that it can be used for both creating and viewing elements in the model. It is particularly useful when a team member is not familiar with diagrams and is perhaps even a little intimidated by the modeling languages such as UML or ArchiMate and just wants to read things in plain English in a familiar word processor or spreadsheet view.

Item	Priority	Status	Difficulty
1 REQ019 - Manage Inventory	Medium	Approved	Medium
The system MUST include a complete inventory management facility to store and track stock of books for the on-line bookstore.			
1.1 REQ122 - Inventory Reports	Medium	Proposed ▾	Medium
Inventory reports are required that detail the available stock for each item including back orders. Future stock level reports should be able to predict the quantity of stock at a specified future date.		Approved / Implemented / Mandatory / Proposed / Validated	
1.2 REQ023 - Store and Manage Books	Low	Mandatory	
A book storage and management facility will be required.			
1.2.1 REQ022 - Order Books	Medium	Implemented	Medium
A book order facility will be required to allow on-line ordering from major stockist's.			
1.2.2 REQ021 - List Stock Levels	Medium	Approved	Medium
A facility will exist to list current stock levels and to manually update stock quantities if physical checking reveals inconsistencies.			

Specification Manager showing requirements and editable properties.

Traceability

The Traceability window will be your friend and help you keep track of how elements in your model are connected. It gives you a hierarchical view of element connections and allows you to query and visualize traceability as you traverse elements in the model, including using diagrams and the Browser window. Your colleagues might enter relationships to elements you have created, which will appear in the Traceability window when you select the element. The tool is particularly useful because a modeler will often choose to hide diagram relationships in particular circumstances, but by selecting an element in the diagram and viewing its connections in the Traceability window, all its relationships will be displayed.

Traceability window showing the hierarchy of elements and their connections.

Charts and Graphs

Using Dashboard diagrams, you can create high-quality charts and graphs that display repository information in a visually compelling way, such as the ratio of a Requirement Priority like Status in a Pie Chart, or the task allocation in a Time-Series Chart. There is a Toolbox page of pre-configured charts and graphs, but you are free to create and save any number of charts, sourcing data from anywhere in the repository. The charts and graphs provide valuable summary information that helps you manage all aspects of the repository, including properties like Status and Resource Allocation.

*Charts showing team tasks and testing status.*

Publishing Your Content

Sharing your models by either giving people access to your repository or, if your models are hosted by the Pro Cloud Server, giving people browser-based views through WebEA or Prolaborate, is an easy way to publish the content. There will, however, be circumstances when you need to create formatted documentation for regulatory or contractual reasons, and Enterprise Architect has a range of publishing mechanisms that make it easy to generate first-class corporate documentation in a range of formats.
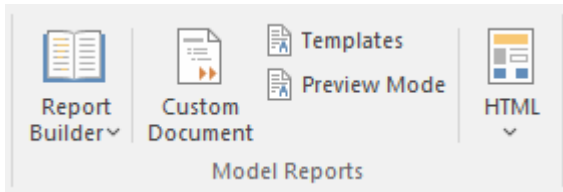
Custom document feature used to create documents that are flexible, intuitive and dynamic.

The easiest way to get started with document publishing is to use the Custom Document facility. Using this feature, you can create a document based on a template and add any content, formatting it as you go based on the template styles. You can then inject content into the document from the model. For example, you could have a set of Requirements in the repository and simply drag these from the browser onto the document; by selecting a template, the Requirements would be rendered in the document based on the formatting and styles specified in the template.
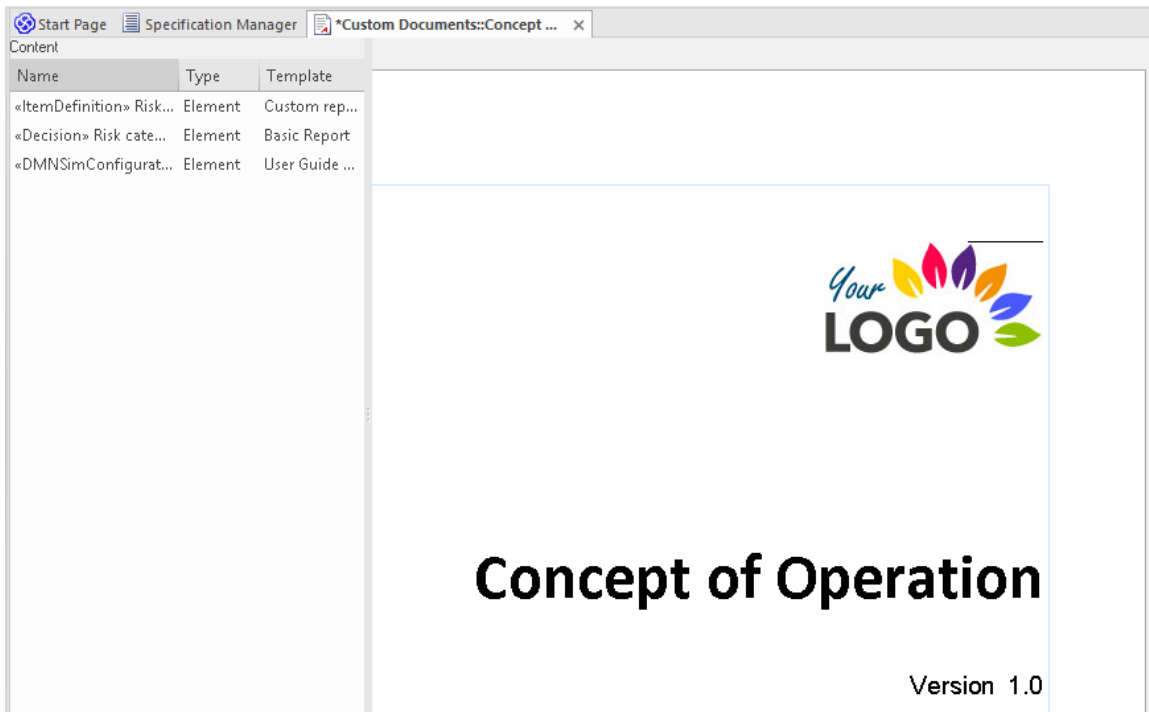

An example document showing the dynamic content panel and inserted logo and title.

Navigating and Searching

A well-organized repository will go a long way to helping you find the elements and diagrams you are looking for, but as the tool gets traction in your organization, models will grow in size and, before you know it, a repository might contain tens if not hundreds of thousands of items. Fortunately, Enterprise Architect has some useful tools available for locating content, including:

Browser

The *Browser* window is your go-to place for navigating around a model. Think of it as your favorite explorer tool for finding files on your computer, except that you use it to find things in the repository. It is a tree view, and nodes can be expanded and collapsed to locate items such as Packages, diagrams, and elements and their features (attributes, operations, receptions).
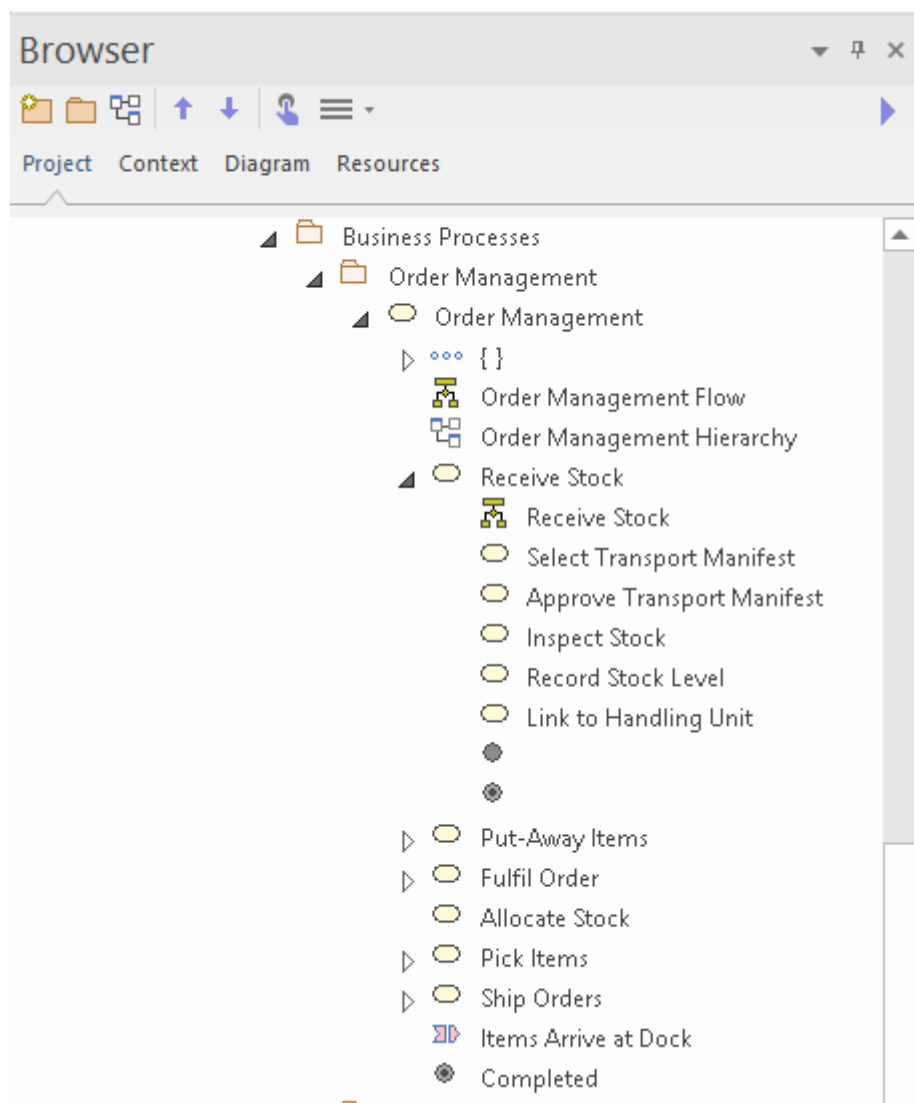
Browser showing business process Package and element hierarchy.

Navigator Bar

The *Navigator Bar* is like a breadcrumb trail that indicates your position in the hierarchy of Packages in the repository but with the additional feature to select the available Packages at any point in the trail. It is a convenient way of traversing the Package hierarchy without viewing all the Packages in an expanded tree view. Some modelers use this as their primary navigation mechanism.
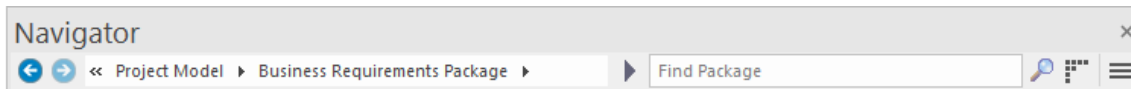
Navigator bar showing Package hierarchy.

Navigation Cells

Enterprise Architect allows you to create any number of navigation diagrams that contain *Navigation Cells* that a user can click on to go straight to a diagram regardless of its location in the repository. These same cells are available through the web-based tools WebEA and Prolaborate. They make it easy for a user to find a diagram without using the other navigation methods. The diagrams can be nested, where a navigation cell on a high-level diagram will take you to another page of cells, targeting specific diagrams.

*Top level navigation diagram showing clickable navigation cells.*

Model Search

The *Model Search* is a fully-featured facility to find almost any content in the repository. You can use it as a simple way of finding a word or phrase, or you can create sophisticated searches that can find the answer to complex questions. As your models grow in size, particularly when several people contribute content, it will become harder to locate items quickly as the model might contain hundreds or thousands of elements. Let's say you knew there was some information in the repository to do with issuing a refund when a medical certificate is submitted. You could launch the 'Search in Model' feature and, using the default settings, enter a keyword or phrase such as 'refund' or 'medical certificate', and the search tool would locate and list any objects with the name, alias or notes that contained these words.
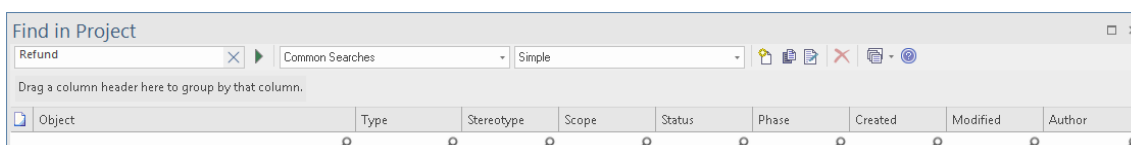
Model Search window showing a search for the word 'Refund'.

Collaborating and Sharing

Enterprise Architect is built from the ground up as a collaboration platform and while it is possible to work in isolation, great power of expression will come from collaborating with other people, including colleagues, customers, specialists and others. The tool has the power to create relationships between content that is typically disconnected and often kept in silos. The ability to see information from disparate disciplines and view points provides a refreshing and compelling view which is unique to Enterprise Architect and you and your team will see model connections and share ideas that you might not otherwise have been able to visualize.
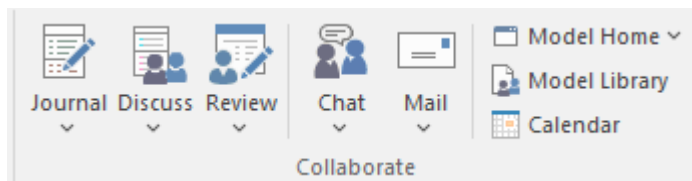
Collaboration features at your finger-tips on the Collaborate panel of the Start ribbon.

There is a range of features that facilitate collaborative modeling and can be used in isolation or together, creating unprecedented value in a project or an enterprise as people share knowledge, ideas and provide critical analysis of a model or concept. Regardless of where you are in the world or what language you speak, your colleagues are not far away and the tools allow you to collaborate as though working in the same office. These tools include:

- Discussions - discuss ideas and concepts

- Reviews - review model content with any number of people

- Chats - conduct informal and immediate chat sessions

- Mail - in the Model Mail system for detailed conversations and linking to model content

- Calendar - keep track of important project dates

- Library - a catalogue of important project documents and references
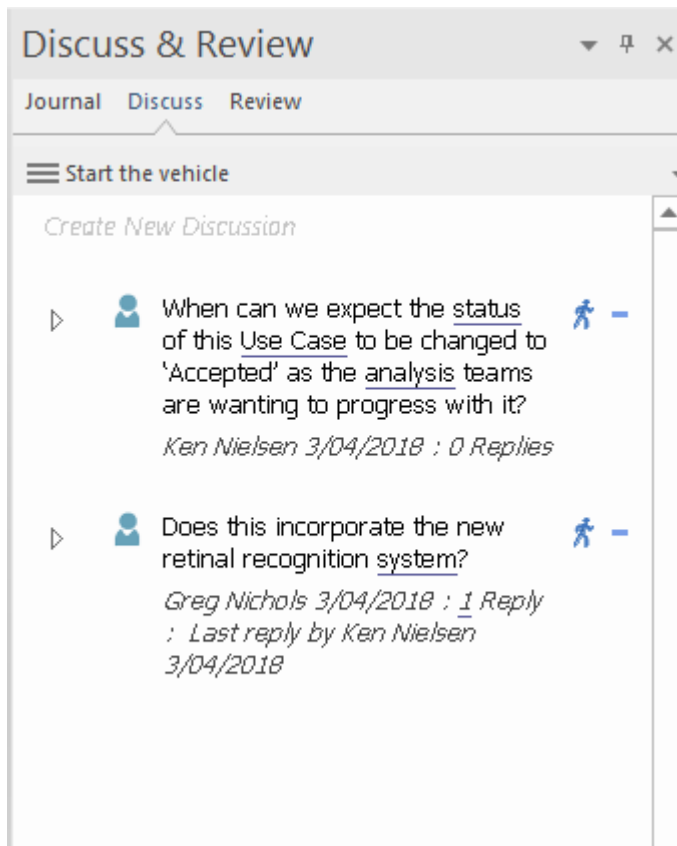
Discuss & Review window showing two separate discussions

Getting Help

Enterprise Architect has an extensive Help system that provides answers to help you throughout your modeling journey. The content you are reading is, in fact, the *Getting Started* topic of the Help system and is a very lightweight coverage of the information you need to get started. The other topics in the Help system will do a deep dive into all the details on how to get value from the tool, and how to use the many features in the product.

The Help System is in fact an online resource but can also be downloaded as a series of pages that you can access without an Internet connection. To launch the help from the tool simply use the Help icon on the Start ribbon or choose the Help button from tool windows:
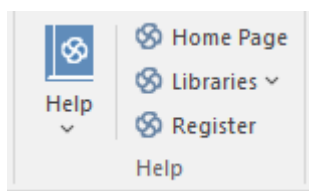

There are three ways that you can find information in the Help system:

1. Browse through the topics using the index, expanding and collapsing topics as you go.

2. Use the Search facility to locate a term or phrase of interest.

3. Select the Help button on a window or tool feature.

Browsing through the Index

When you launch Help, it will open a browser window, and the default welcome page will be displayed. You can select a topic from the list of navigable topics displayed down the left-hand side of the page. Items will expand and collapse as you click through, and a breadcrumb on the top of the page will conveniently keep track of your location in the Help system.
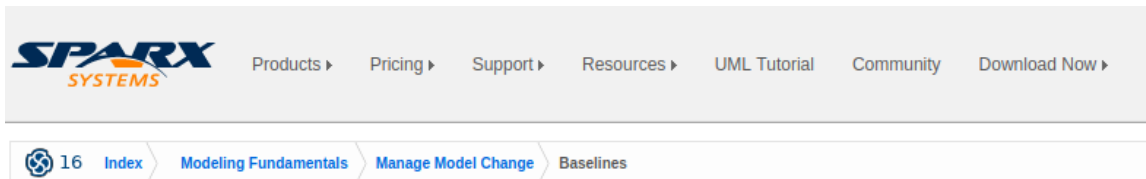

Help web pages showing the index of items down to 'Baselines'

Using the Search

While it is possible to browse the index topics, a faster and more direct way of finding content is by using the Search facility. When you enter a keyword or phrase, the search will return a results list. For example, you could be looking for information about how you baseline your content, so entering the word 'baselines' in the search box will return a list of entries related to baselines.
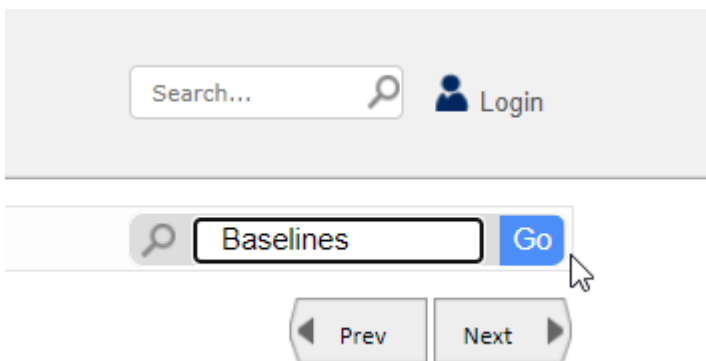

SImple model search feature looking for a user word or phrase 'Baselines'.

The result page conveniently shows a number of tabs with information about your keyword (e.g. Baselines) available in other resources:

1. Website
2. User Guide
3. Document
4. FAQs
5. Related Videos
6. Advanced Search

Selecting a Help Button

Enterprise Architect has rich and ubiquitous context-sensitive Help, so no matter where you are in the tool or which window or facility you are using, help is at hand. Simply launch the Help system from the 'Help' icon, typically at the far right of a toolbar or in another prominent position, and the search will display the relevant Help topic in your default web browser.
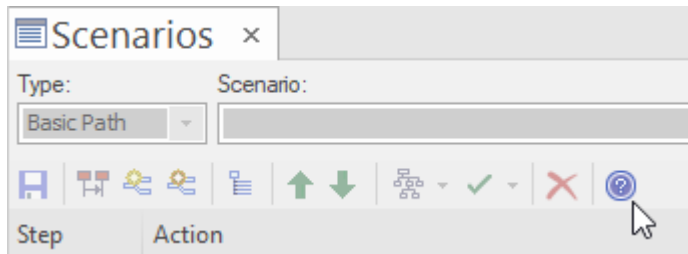
The Help icon available on the Scenario window.