

Framework Assisted Design

with

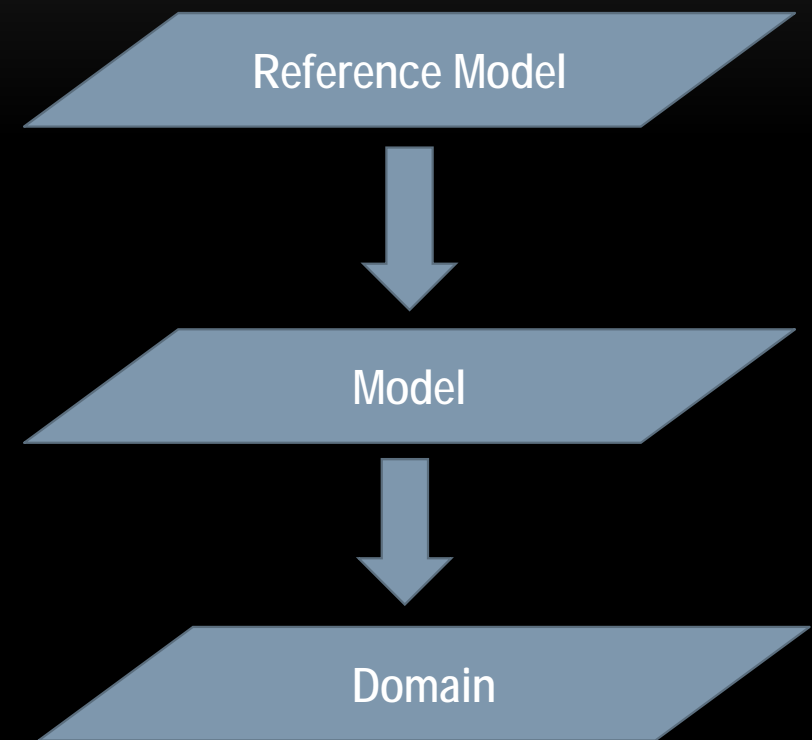


Presented by Terry Merriman

Levels of Abstraction



- **Reference Models Describe Abstracted Aspects of a Domain**
- **Models Describe a Particular Instance of a Domain, Leveraging the Abstract Concepts**
- **Frameworks Embed the Knowledge of the Reference Model into the Modeling Environment to Provide Real Time Guidance and Control**



- **Modeling Frameworks Succeed Because They...**
 - Provide Guidance
 - By abstracting away technical details
 - By incorporating experts' knowledge
 - Promote Consistency
 - By providing domain knowledge
 - By making it easier to design to standards than not to
 - Ensure Conformance
 - By finding infractions
 - By making it easier to correct infractions

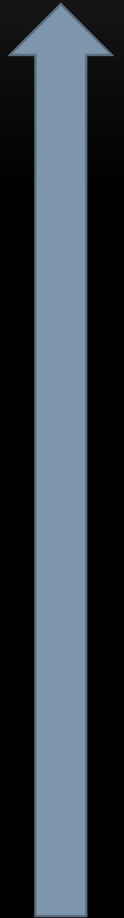
- **Modeling Frameworks Fail Because...**
 - They are not adaptable, forcing you to use their rigid approach
 - They impose an additional burden on designers who then resist their use
 - They are too limited in their scope and do not work with other frameworks
 - They are focused on the capturing of information but not on robust reporting mechanisms to provide a strategic vision from the models
 - New releases of the framework do not address model synchronization creating a maintenance nightmare
- **Frameworks Need to be Managed Along with their Models**

Modeling Environment Support



- **A Good Modeling Environment Provides...**
 - Framework Assisted Design (FAD) & Automation
 - Using framework (domain) knowledge to make things easier
 - Model Assisted Design (MAD) & Automation
 - Using model information to make things easier
 - General Automation Tasks
 - Extending general EA's capabilities to make things easier

Level of Support



Framework & Model Management



- **Provide Lifecycle Management of Profiles and Frameworks with Minimal Turn-around Time**
- **Provide Framework Aware Automation to Control Input to your Models**
- **Provide Model Aware Automation to Make Designing Easier**
- **Minimize Workflow Interruption Using a Series of Floating Control Panels**

- **Managing Your Frameworks and Models Requires...**
 - The flexibility to create and change your frameworks
 - An integrated approach to framework development and model synchronization
 - Addressing more than one area of concern with multiple, interoperating frameworks targeting different stakeholders
 - Providing the appropriate level of tool support, governance, and reporting to ensure that your models meet the needs of your stakeholders

What is Model Guardian?

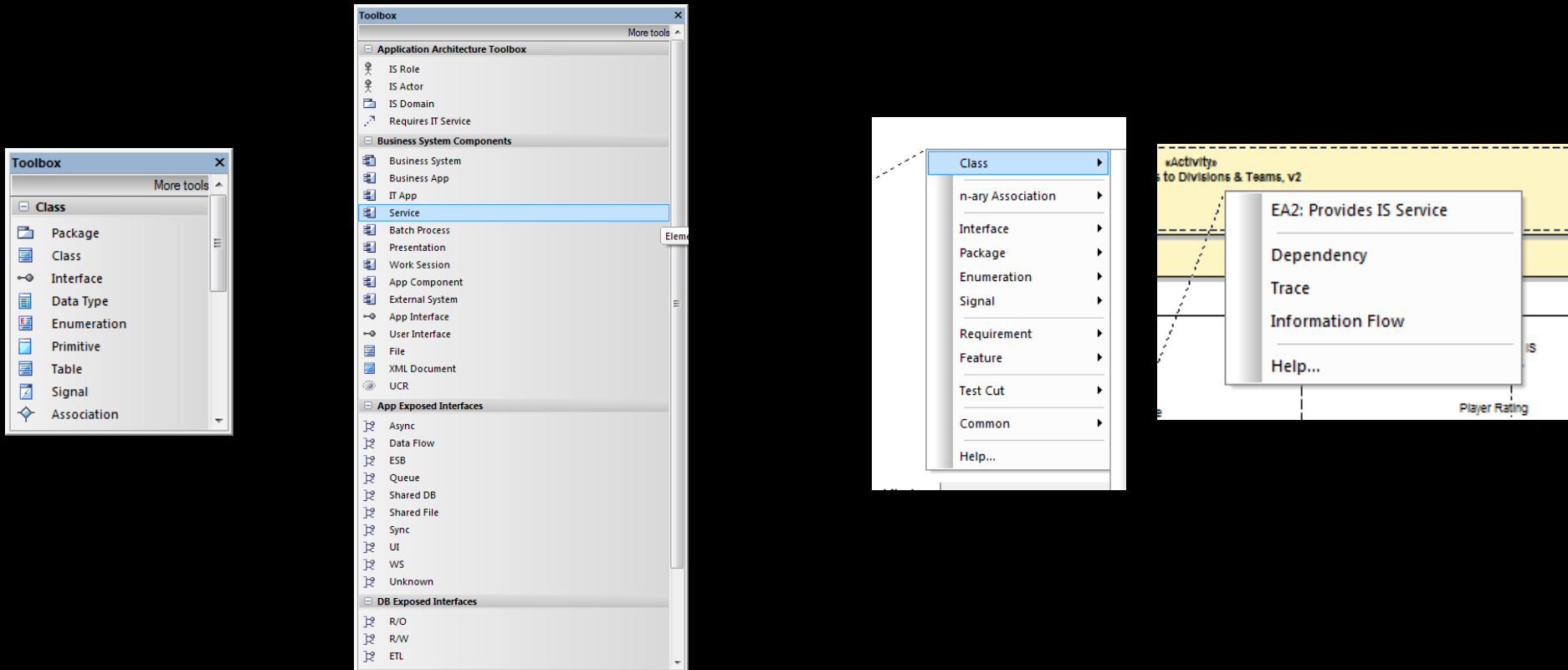


- **Model Guardian is an Extension to Sparx Systems' Enterprise Architect UML Design Tool**
- **Model Guardian Provides...**
 - A framework management system
 - A framework/model synchronization system
 - A modeling environment that provides tools and governance
- **Pre-defined Frameworks**
 - OAD Systems and its partners are developing pre-defined frameworks for use with Model Guardian, providing you with a head start
 - The (EA)2 Enterprise Architecture Modeling Framework is now part of the Model Guardian family of frameworks
- **Your Custom Frameworks**

What is Model Guardian?



- Enterprise Architect Lets You Extend UML with Domain Specific Toolboxes and QuickLinks (UML Profiles)



What is Model Guardian?

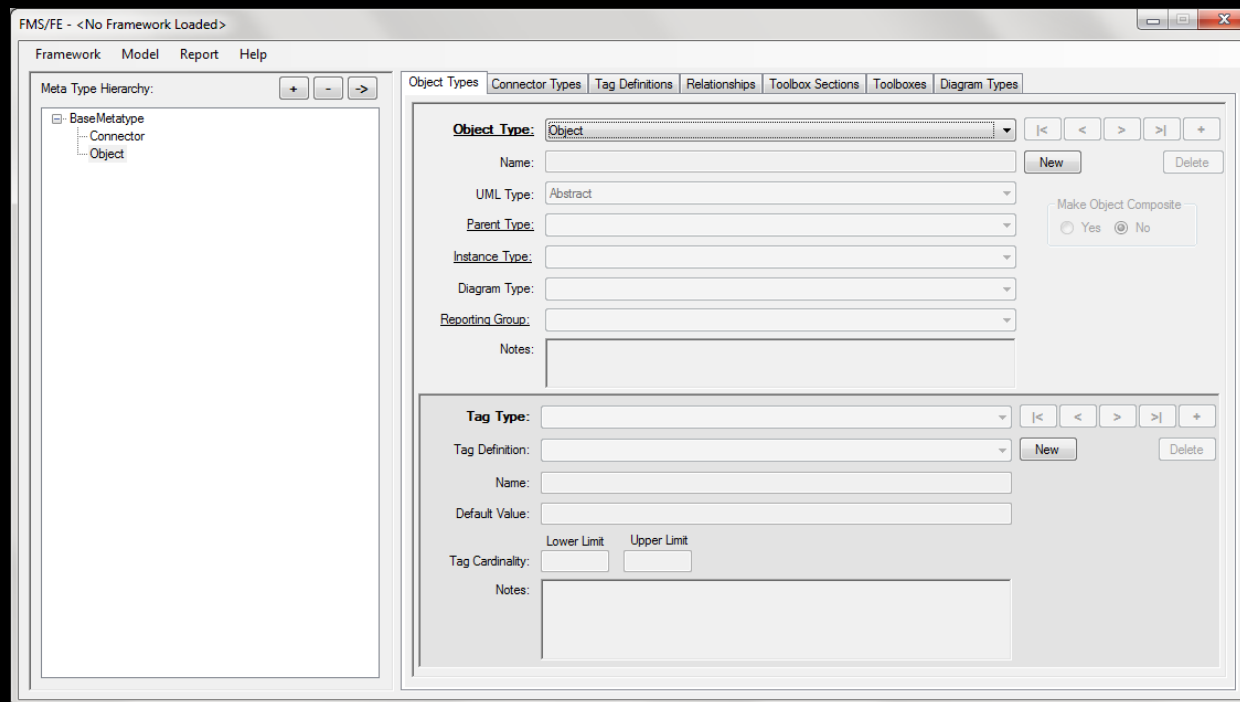


- **Model Guardian Makes Creating Frameworks (Profiles++)**
 - Easier
 - More intuitive
 - Faster
- **With a User Interface that Addresses**
 - Element and Connector Types
 - Tag Definitions
 - Relationships and QuickLinks
 - Toolboxes and Toolbox Sections
 - Diagram Types
 - And more

What is Model Guardian?



- **Model Guardian's Comprehensive User Interface...**
 - Leads you through the process of developing your framework
 - Provides an iterative, incremental approach to framework development

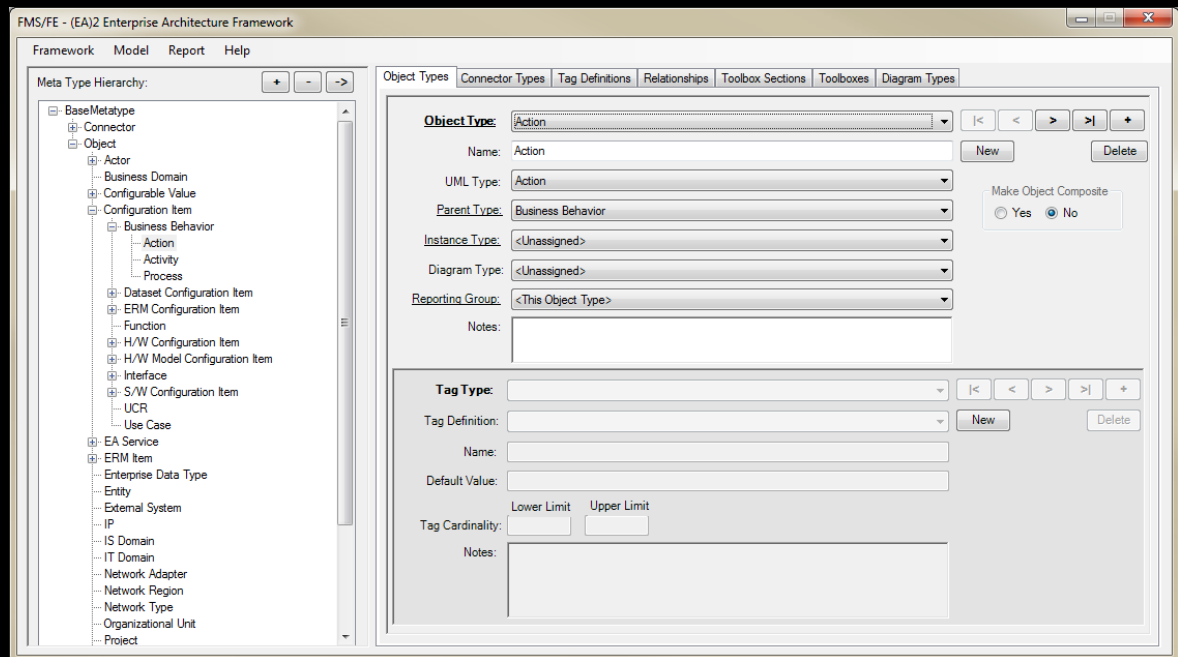


The Model Guardian User Interface

The Model Guardian User Interface



- The User Interface Has Two Sections
 - Metatype hierarchy of object and connector metatypes
 - Editor consisting of seven tabs
 - Object Types
 - Connector Types
 - Tag Definitions
 - Relationships
 - Toolbox Sections
 - Toolboxes
 - Diagram Types

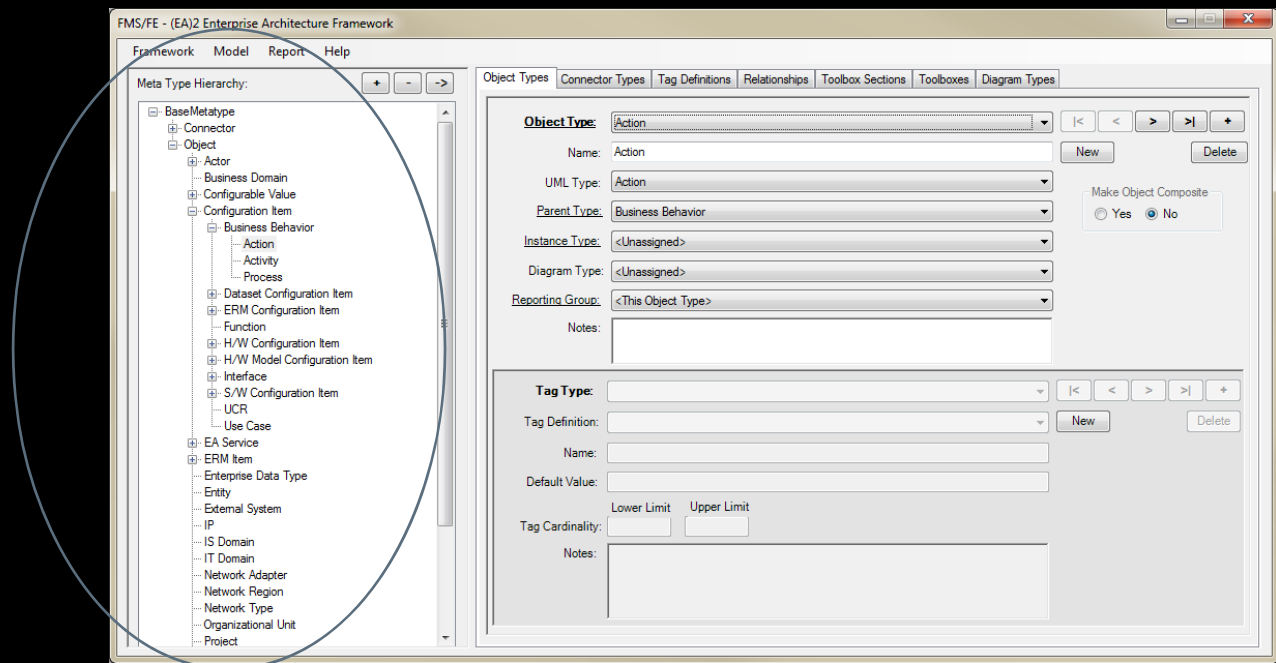


The Model Guardian User Interface

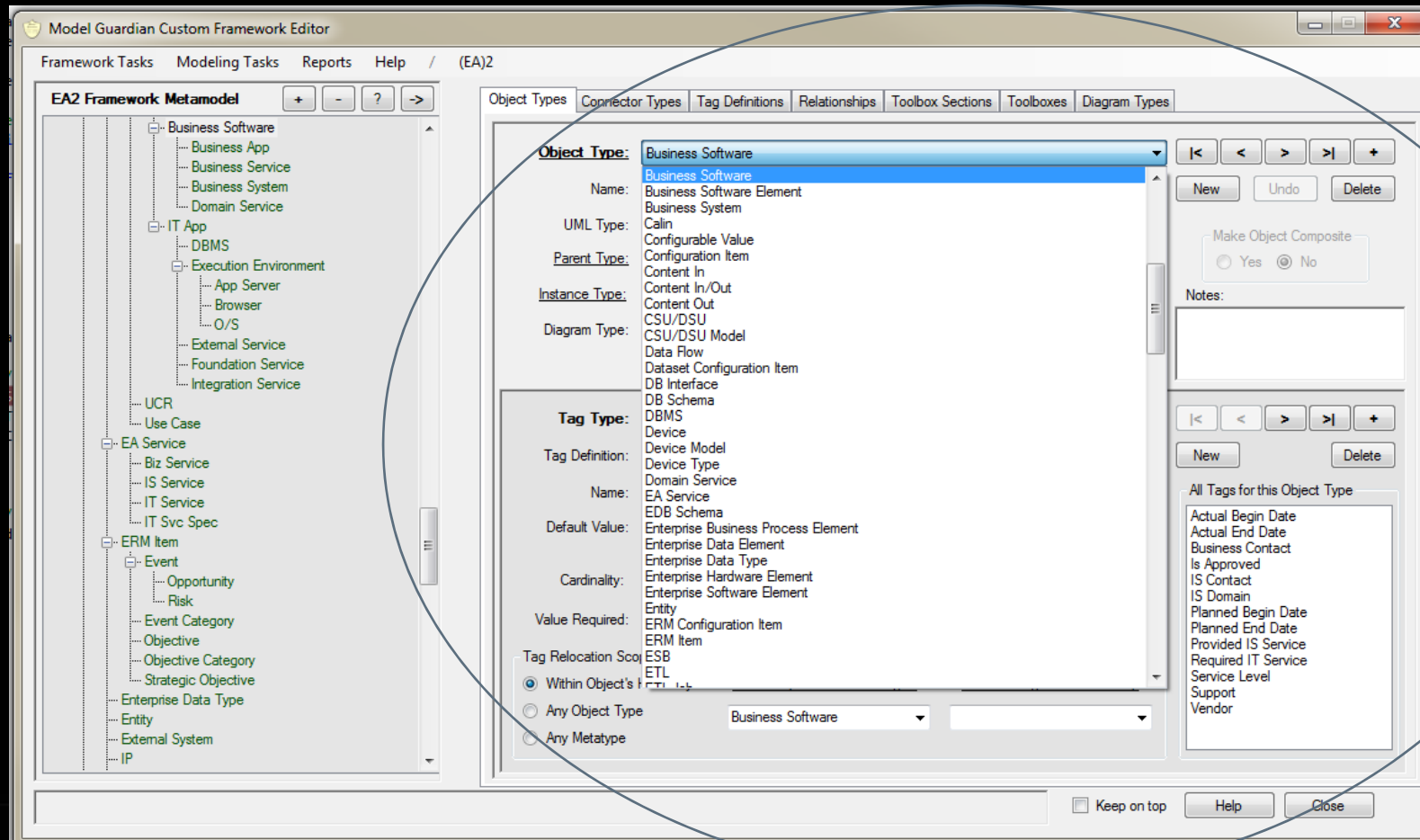


- **The Meta Type Hierarchy**

- Shows the structure of the framework
- Provides an understanding of how the meta types inherit tags and relationships from their ancestors
- Synchronizes with the Editor to show where the current meta type is within the hierarchy



- **The Framework Editor Section...**
 - Lets you manage your framework elements
 - Makes the elements immediately available via drop down lists



Attaining Framework Assisted Design

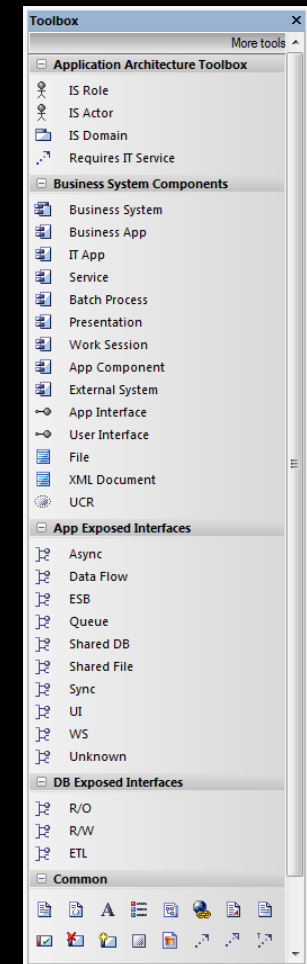
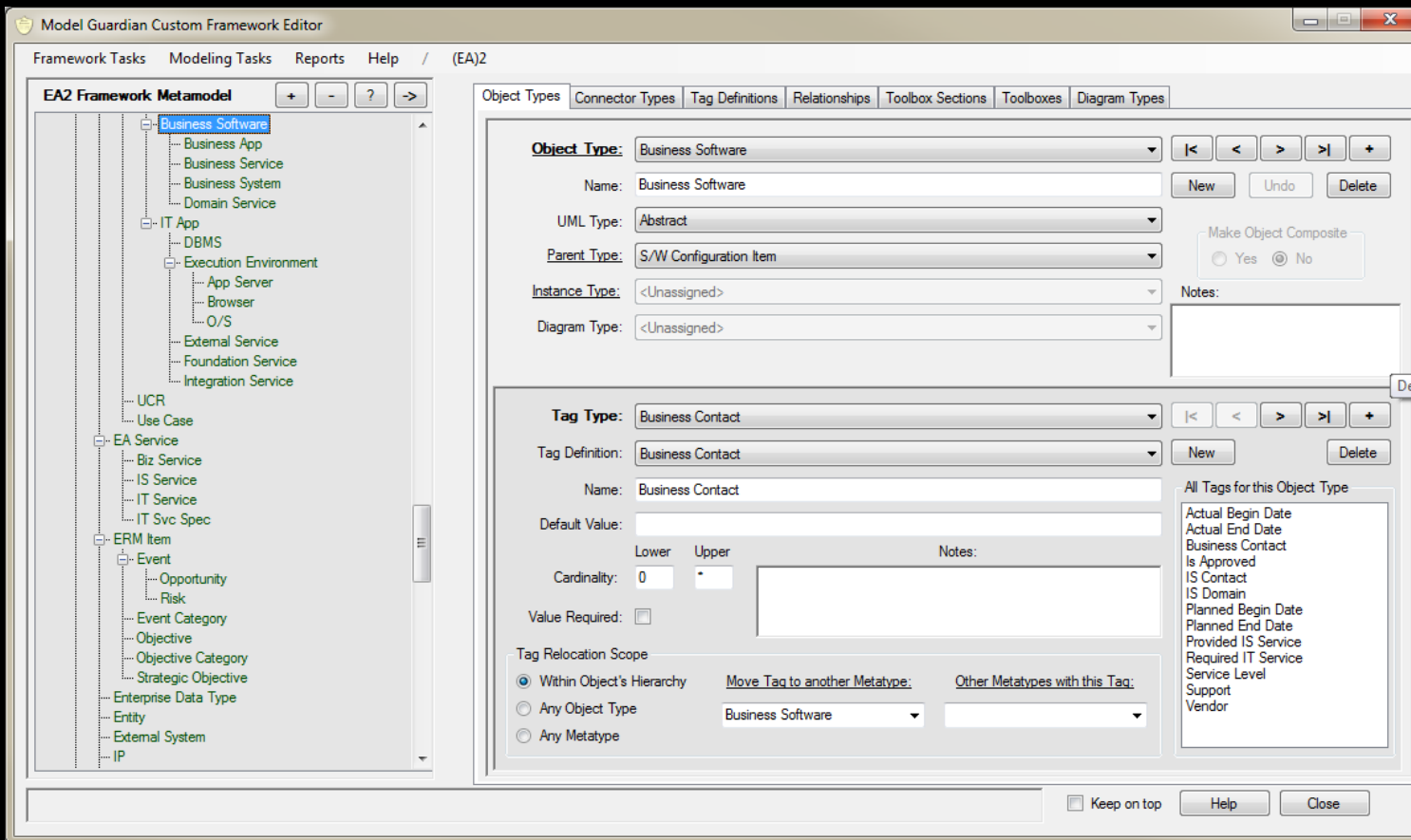


- **Lets Look at...**
 - Using the Framework Editor to Design your Framework
 - Applying the Framework to the Modeling Experience

Defining Object Types



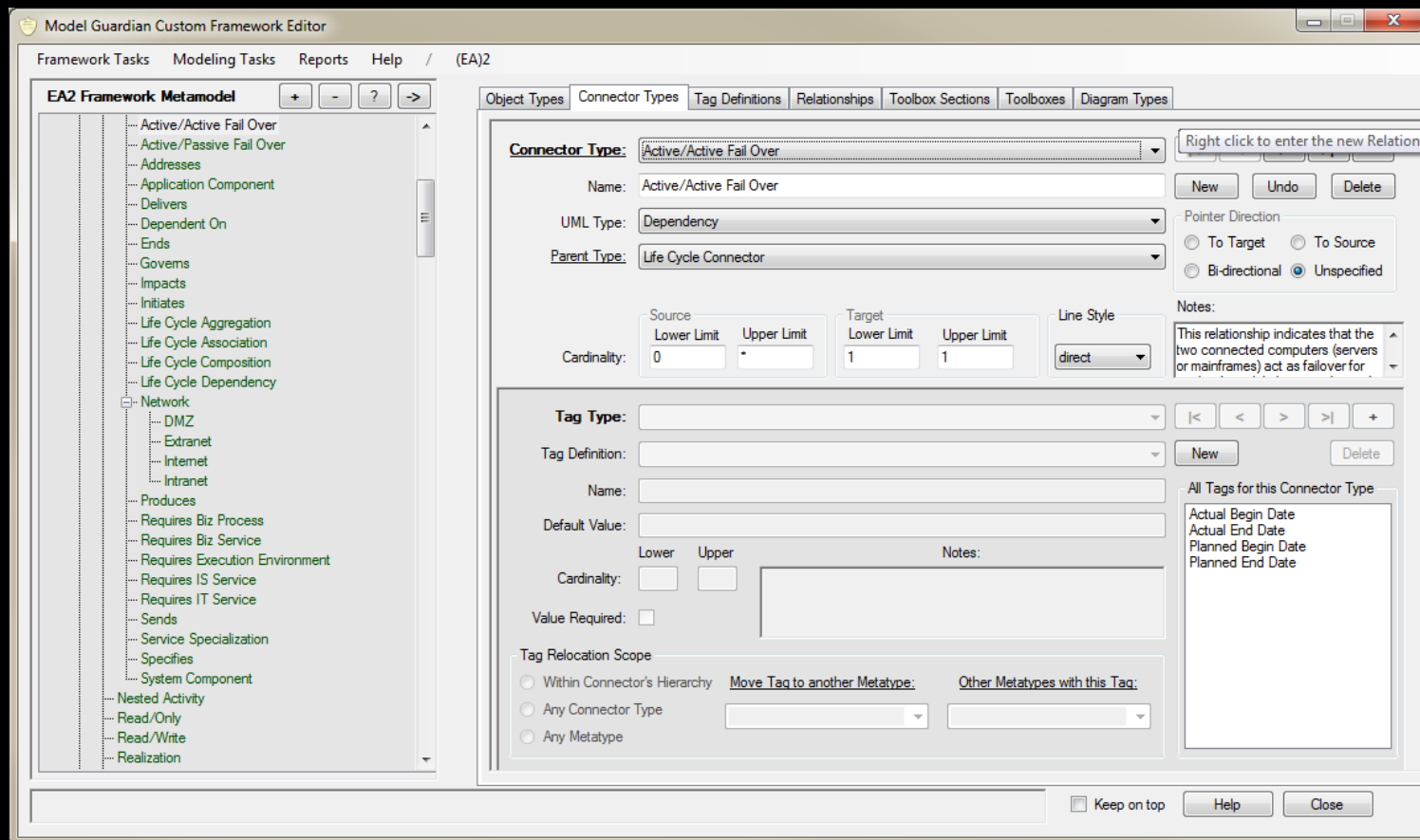
- Object Types Become Toolbox Elements
 - Hierarchical metamodel for inheriting tags and relationships



Defining Connector Types

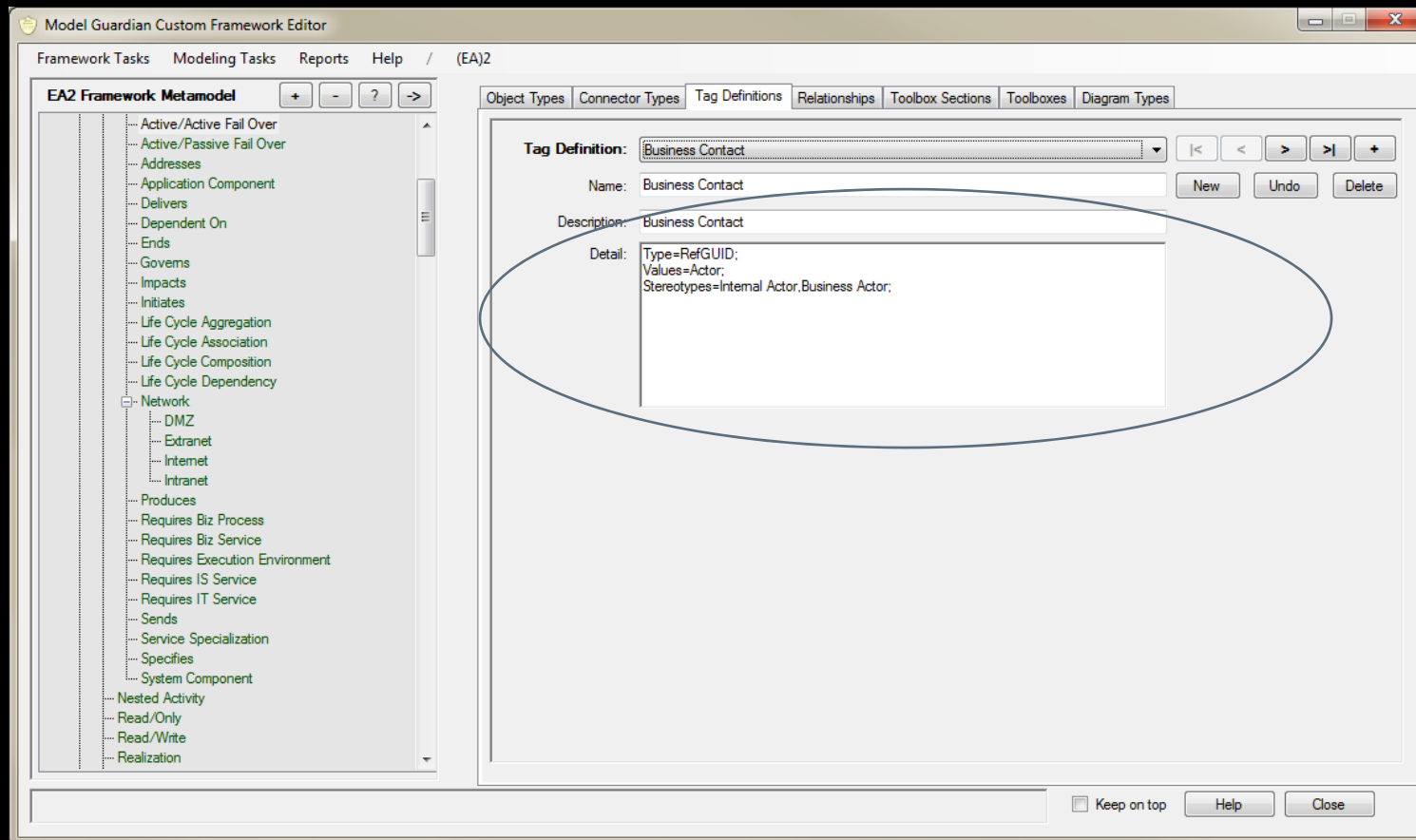


- Connector Types Become Toolbox Elements
 - Hierarchical metamodel for inheriting tags and relationships



Defining Tag Definitions

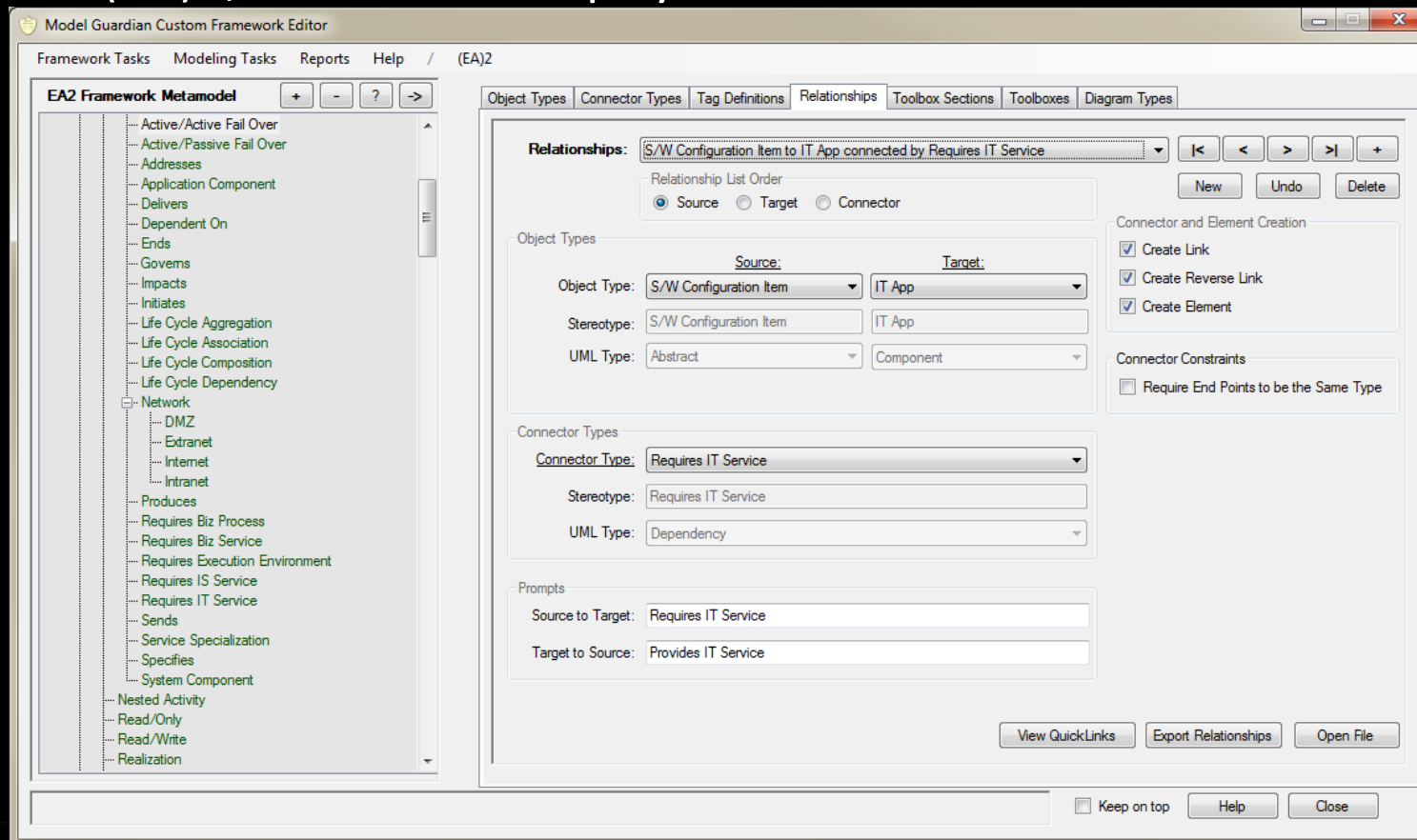
- Create Tag Definitions using EA's Native Format



Defining Relationships

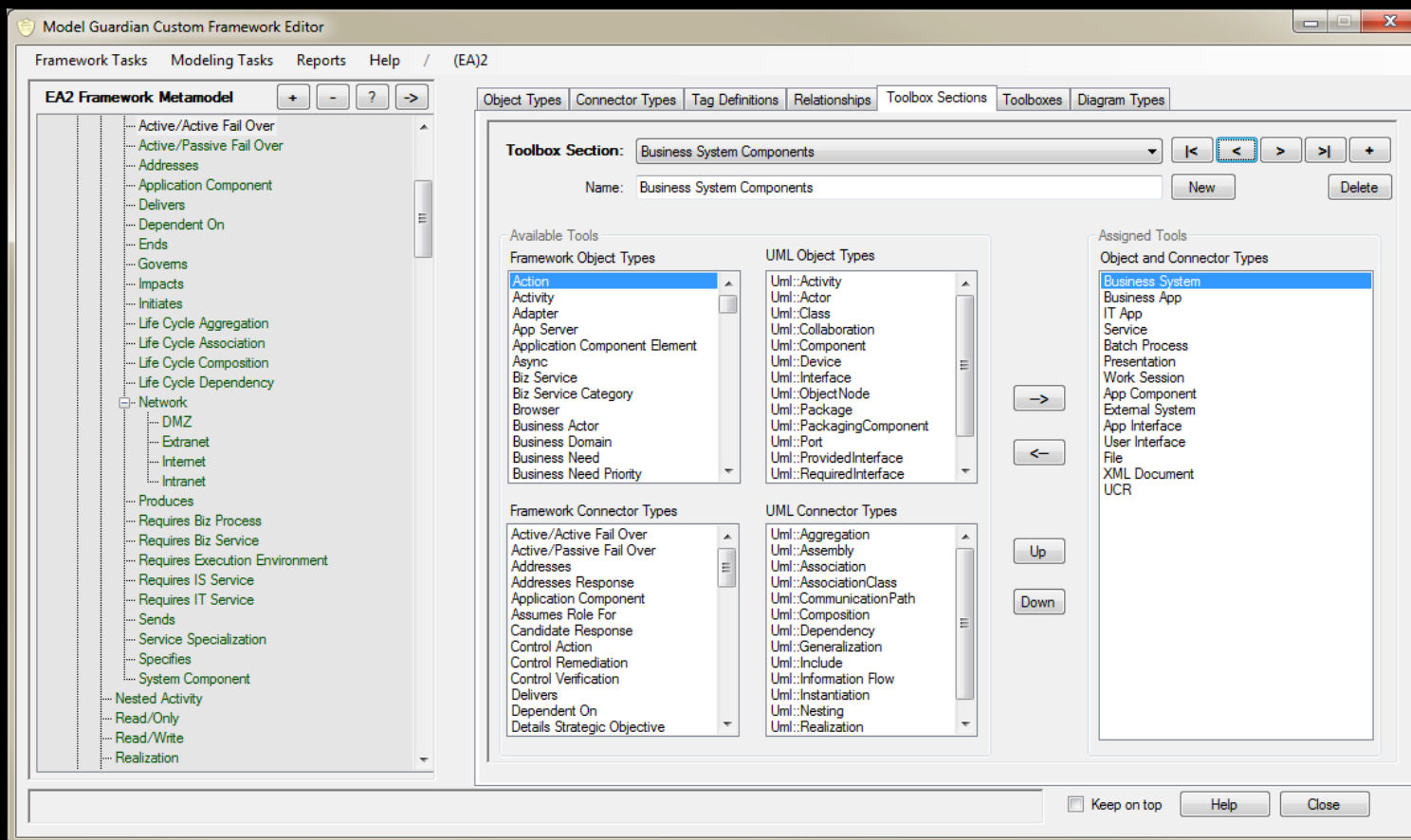


- Relationships
 - Define the Relationships and resulting QuickLinks
 - Child Elements inherit the Relationships
 - In (EA)2, 76 Relationships yielded over 1200 QuickLinks



Defining Toolbox Sections

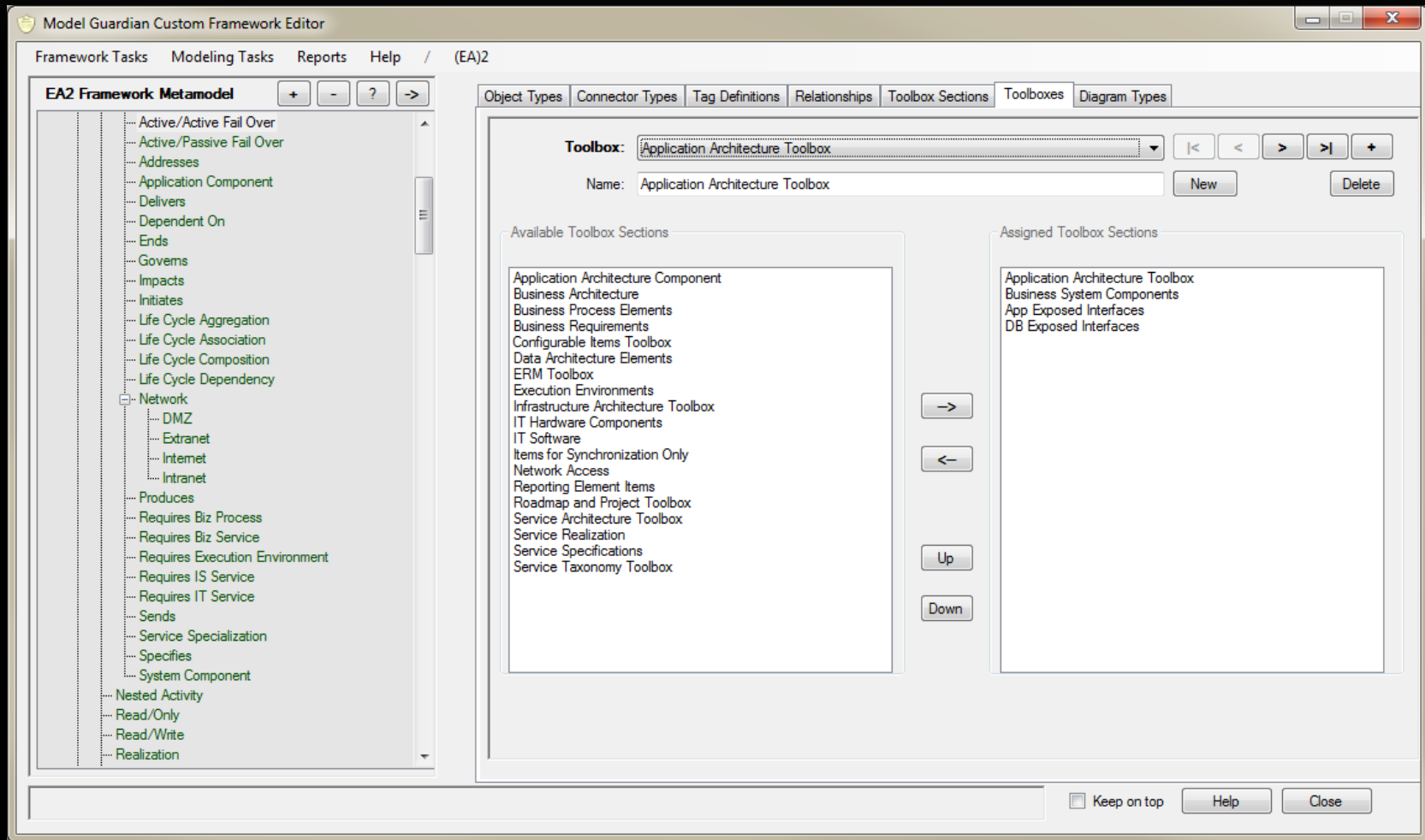
- Define Toolbox Sections Consisting of...
 - Framework metatypes (object and connector types)
 - UML types



Defining Toolboxes

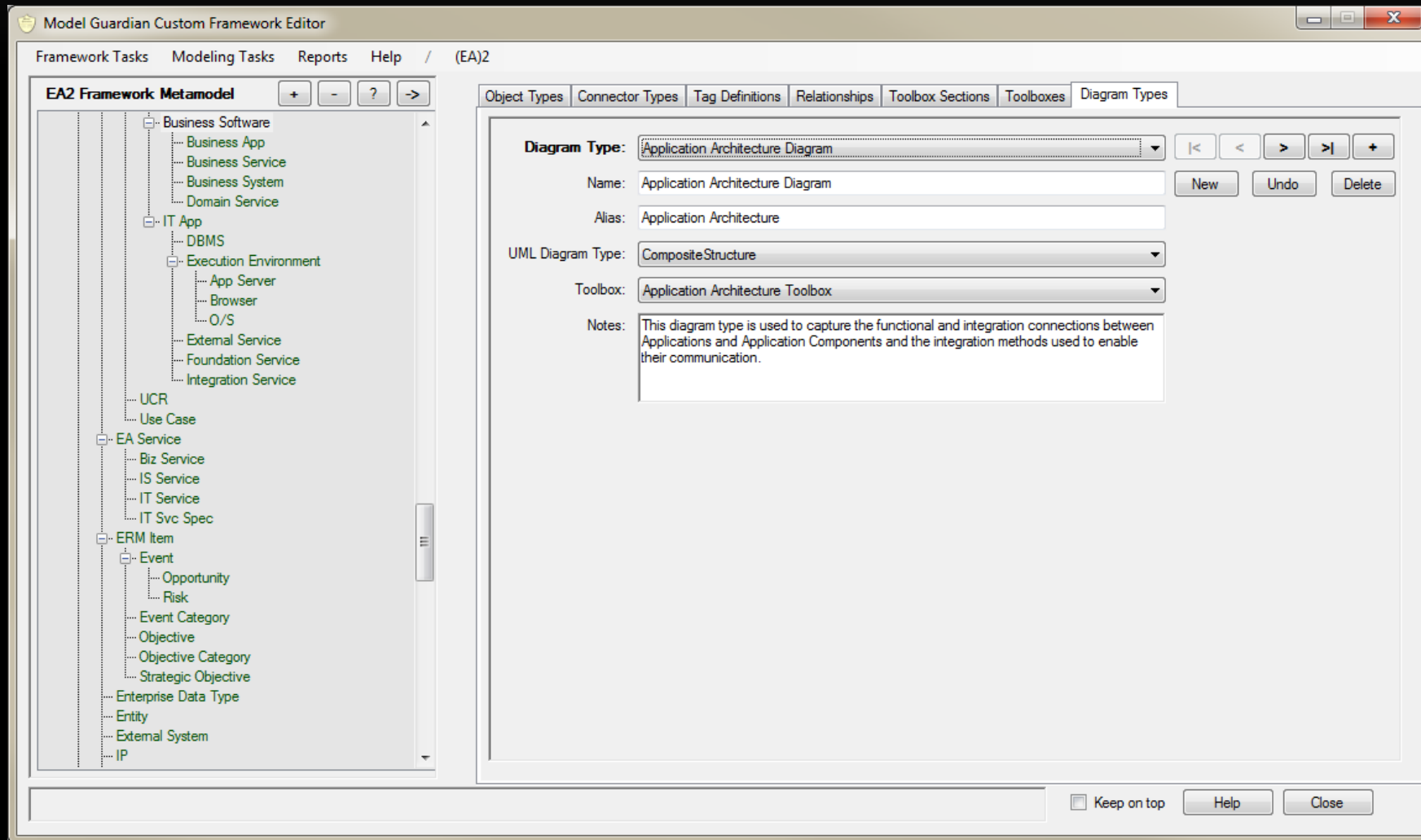


- Define Toolboxes Composed of Toolbox Sections



Defining Diagram Types

- Define Diagram Types with their Associated Toolbox



The screenshot displays the 'Model Guardian Custom Framework Editor' window. The left pane shows the 'EA2 Framework Metamodel' tree with categories like Business Software, IT App, Execution Environment, UCR, EA Service, ERM Item, and Enterprise Data Type. The right pane is the 'Diagram Types' configuration tab, showing the following details for the 'Application Architecture Diagram':

- Diagram Type:** Application Architecture Diagram
- Name:** Application Architecture Diagram
- Alias:** Application Architecture
- UML Diagram Type:** CompositeStructure
- Toolbox:** Application Architecture Toolbox
- Notes:** This diagram type is used to capture the functional and integration connections between Applications and Application Components and the integration methods used to enable their communication.

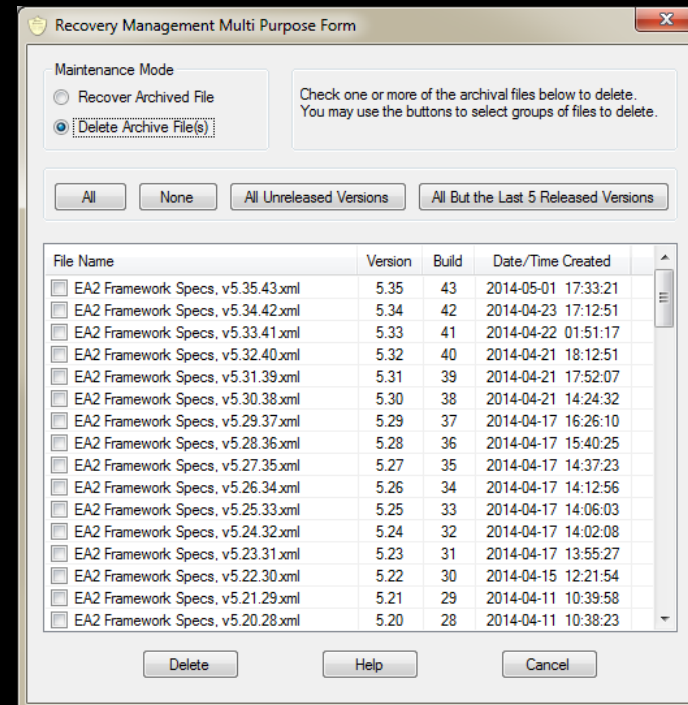
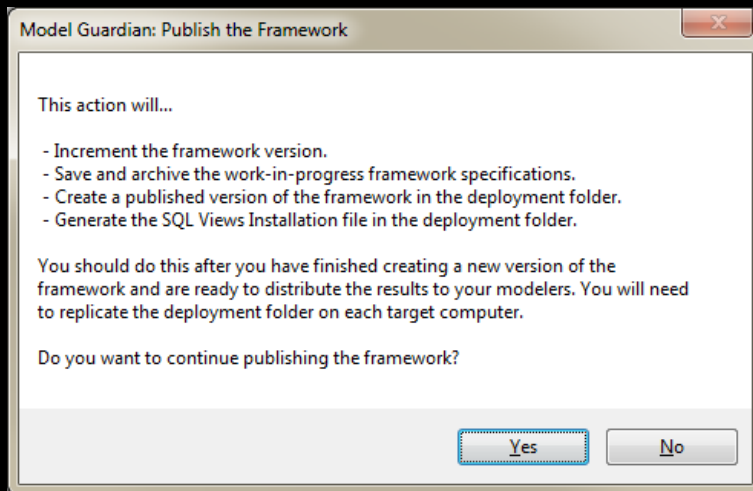
At the bottom of the window, there are buttons for 'Keep on top', 'Help', and 'Close'.

- **Now that the Framework has been Designed, how do You create the MDG file for Enterprise Architect?**
 - Simply restart Enterprise Architect!
 - The MDG is automatically created at start up from the Model Guardian framework file
 - Only one file must be deployed for others with the runtime version of Model Guardian to use the framework

Framework Lifecycle Management



- **Framework Development and Release**
 - Design the framework in a WIP area
 - Release the finished framework to production
 - Manage archived versions of the framework



Leveraging Your Framework and Models

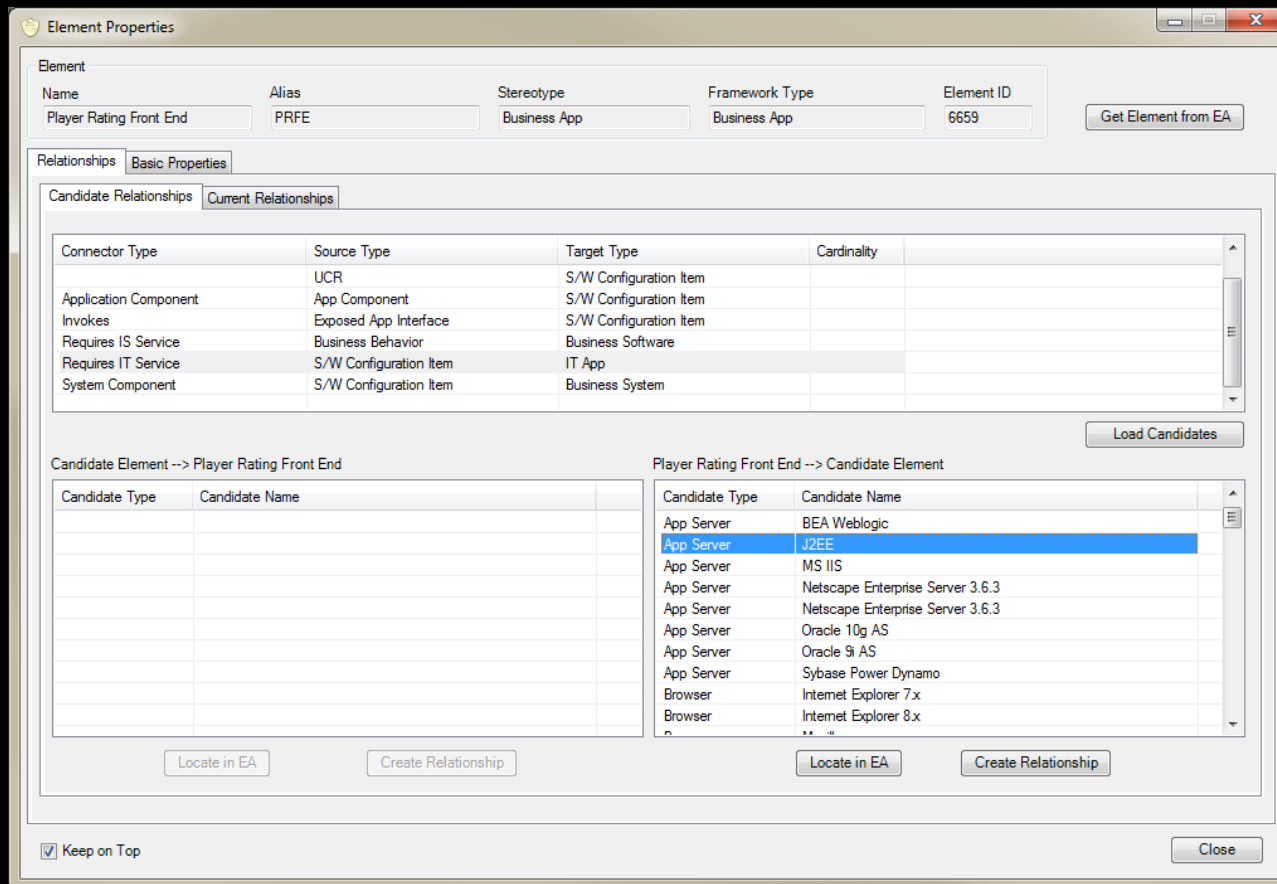


- **Framework Assisted Design (FAD)**
 - Leveraging the framework to provide guidance
- **Model Assisted Design (MAD)**
 - Leveraging the model contents to provide guidance

FAD - Using Relationships



- Use the Relationship Definitions from the Framework
 - Select a model element, select one of its allowed relationships, select from a list of all of the candidate elements that can be on the other end of the relationship



FAD – Global Stereotype Changes



- **Change a Stereotype for all Elements/Connectors with the Stereotype**
- **Synchronize Tagged Values**
- **Optionally Delete Non-framework Tags**
- **Bring Elements/Connectors Created Outside of the Framework Under Framework Control**

A screenshot of the 'Change Stereotypes' dialog box. The dialog has a title bar with a shield icon and the text 'Change Stereotypes'. Below the title bar is a warning message: 'Use this form to change all instances of a stereotype within the currently open model. This operation cannot be undone! Be sure to back up the model first.' The 'Set Up' section contains two groups of radio buttons: 'Target' with 'Element' selected and 'Connector' unselected; and 'Only Framework Types' with 'Yes' selected and 'No' unselected. Below these are two text input fields: 'Current Stereotype' containing 'Business App' and 'New Stereotype' containing 'Business Application'. A 'Find Matches' button is located below the 'New Stereotype' field. The 'Update Stereotypes' section contains a message: '18 elements will be updated with the new stereotype. This action cannot be undone. You may proceed, choose another stereotype, or close the form.' At the bottom of the dialog are three buttons: 'Change Stereotypes Only', 'Synchronize Stereotypes (+ Tags)', and 'Synchronize Stereotypes (+/- Tag)'. At the very bottom are 'Help' and 'Close' buttons.

FAD – Global Tag Name Changes



- Change a Tag Name for all Elements/Connectors with the Tag
- Fix Tag “Orphans” When Changing a Tag Definition’s Name in EA Leaving Tags Depending on that Definition Orphaned

Change Tag Name

Use this form to change all instances of a tag name within the currently open model. This operation cannot be undone! Be sure to back up the model first.

Set Up

Target

Element

Connector

Framework Types Only

Yes

No

Current Tag Name: Required Biz Service

New Tag Name: Required Business Service

OK Help Close

Finding Matches:

Update Tags

11 tag names for 8 elements will be updated.
This action cannot be undone.

Do you wish to continue?

Yes No

FAD - Checking Conformance



- Check Conformance to the Framework
 - Connector Cardinalities

The screenshot shows a window titled "Model Conformance to Framework" with three tabs: "Connector Cardinalities", "Tag Cardinalities", and "Non-Framework Tags". The "Connector Cardinalities" tab is active. It features a filter dropdown set to "<All>", a checked checkbox for "Blank means 0..*", and a "Number of Violations: 2" indicator. A "Get Violations" button is present. Below is a table with the following data:

Source Element	Connector	Target Element	Framework Cardinality	Model Cardinality
SCMS-102	Active/Active Fail Over	SCMS-103	0..* to 1..1	0..* to 0..*
SCMS-100	Active/Passive Fail Over	SCMS-101	0..* to 1..1	0..* to 0..*

At the bottom of the window, there are buttons for "Locate Source", "Locate Connector", "Locate Target", "Export Violations", "Help", and "Close". A "Keep on top" checkbox is also visible.

FAD - Checking Conformance



- Check Conformance to the Framework
 - Tag Cardinalities (How many birthdate tags should a Person have?)

The screenshot shows the 'Model Conformance to Framework' application window. The 'Tag Cardinalities' tab is active. The 'Tag Owner Type' is set to 'Elements'. The 'Filter by Tag Name' is '<All>' and the 'Filter by Element Type' is '<All>'. The 'Get Violations' button is visible, and the '# of Violations: 57' is displayed. The table below lists various elements and their associated tags, with columns for Element, Element Type, Tag Name, Cardinality, Tag Count, Null Values, and Bad References. Red 'X' marks indicate violations in the Null Values and Bad References columns.

Element	Element Type	Tag Name	Cardinality	Tag Count	Null Values	Bad References
ACME Rating Application	Business App	Business Contact	1..1	1	X	
Activity1	Activity	Provided Biz Service	0..*	1		X
Affiliation Registrar System	Business App	Business Contact	1..1	2	X	
Assign Players to Divisions & Teams	Domain Service	Business Contact	1..1	1	X	
Business App1	Business App	Business Contact	1..1	1	X	
Coach Service	Domain Service	Business Contact	1..1	1	X	
Common Player Rating Elements	Business App	Business Contact	1..1	1	X	
Data Storage Service	Domain Service	Business Contact	1..1	1	X	
Division Admin Service	Domain Service	Business Contact	1..1	1	X	
Division Service	Domain Service	Business Contact	1..1	1	X	
Game Official Service	Domain Service	Business Contact	1..1	1	X	
IndividualService	Domain Service	Business Contact	1..1	1	X	
Inventory Monitoring System	Business App	Business Contact	1..1	1	X	
League Service	Domain Service	Business Contact	1..1	1	X	
Logging Service	Domain Service	Business Contact	1..1	1	X	
Logging Service	Domain Service	Business Contact	1..1	1	X	
Member Management Application	Business App	Business Contact	1..1	1	X	
Member Service	Domain Service	Business Contact	1..1	1	X	
Message Composition / Decomposition Ser...	Domain Service	Business Contact	1..1	1	X	
Mv Business App	Business App	Business Contact	1..1	1	X	

FAD - Checking Conformance



- Check Conformance to the Framework
 - Existence of non-framework defined tags

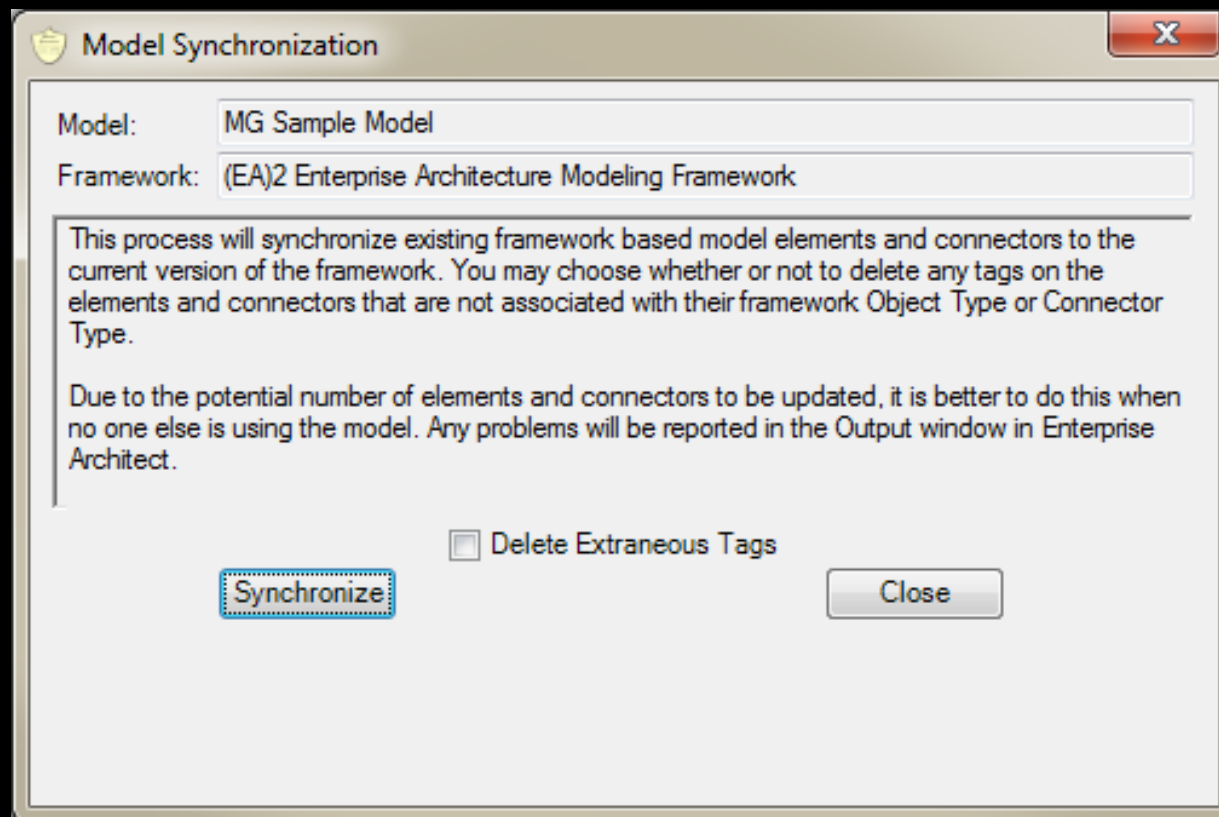
The screenshot shows the 'Model Conformance to Framework' application window. It has three tabs: 'Connector Cardinalities', 'Tag Cardinalities', and 'Non-Framework Tags'. The 'Non-Framework Tags' tab is active. In the top left, there are radio buttons for 'Tag Owner Type' with 'Elements' selected. To the right, it says 'Number of Violations: 12' and has a 'Get Violations' button. Below this is a table titled 'Elements with Non-Framework Tags' with columns 'Element', 'Framework Type', and 'Element ID'. The row 'Player Rating Front End' is highlighted in blue. To the right of the table are two text areas: 'Element's Framework Tags' containing a list of tags like 'Actual Begin Date', and 'Element's Non-Framework Tags' containing 'Some Tag'. At the bottom, there are buttons for 'Locate in Browser', 'Export Violations', 'Help', and 'Close', along with a 'Keep on top' checkbox.

Element	Framework Type	Element ID
aClubMember	External Role	5674
aCoach	External Role	5675
aCorporateSponsor	External Role	5676
aGameOfficial	External Role	5677
anAffiliate	External Role	5680
aPlayer	External Role	5678
aRegistrant	External Role	5679
Customers, Trading Partners, Regulators	External Role	8500
Member Management DB Schema	EDB Schema	6864
My Business App	Business App	13524
Player Rating Front End	Business App	6659
Program Development DB Schema	EDB Schema	6924

FAD - Synchronizing Models



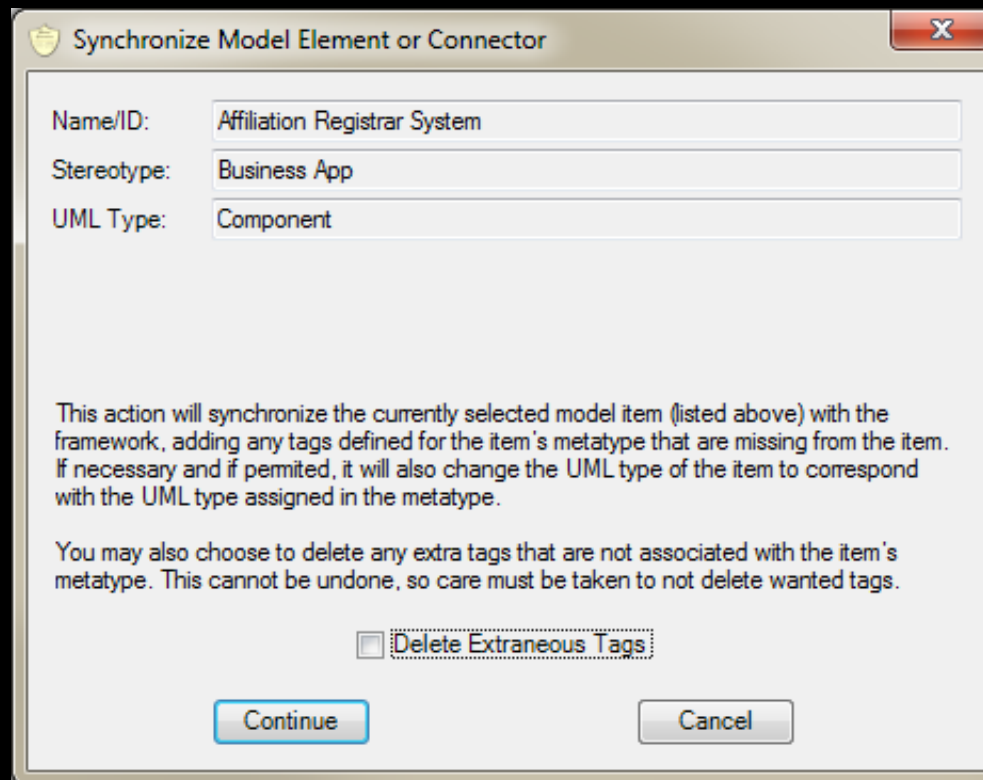
- **Frameworks Mature over Time**
 - If models cannot be synchronized with framework changes they become obsolete



FAD – Synchronizing Individual Items



- Synchronize Individual Elements and Connectors

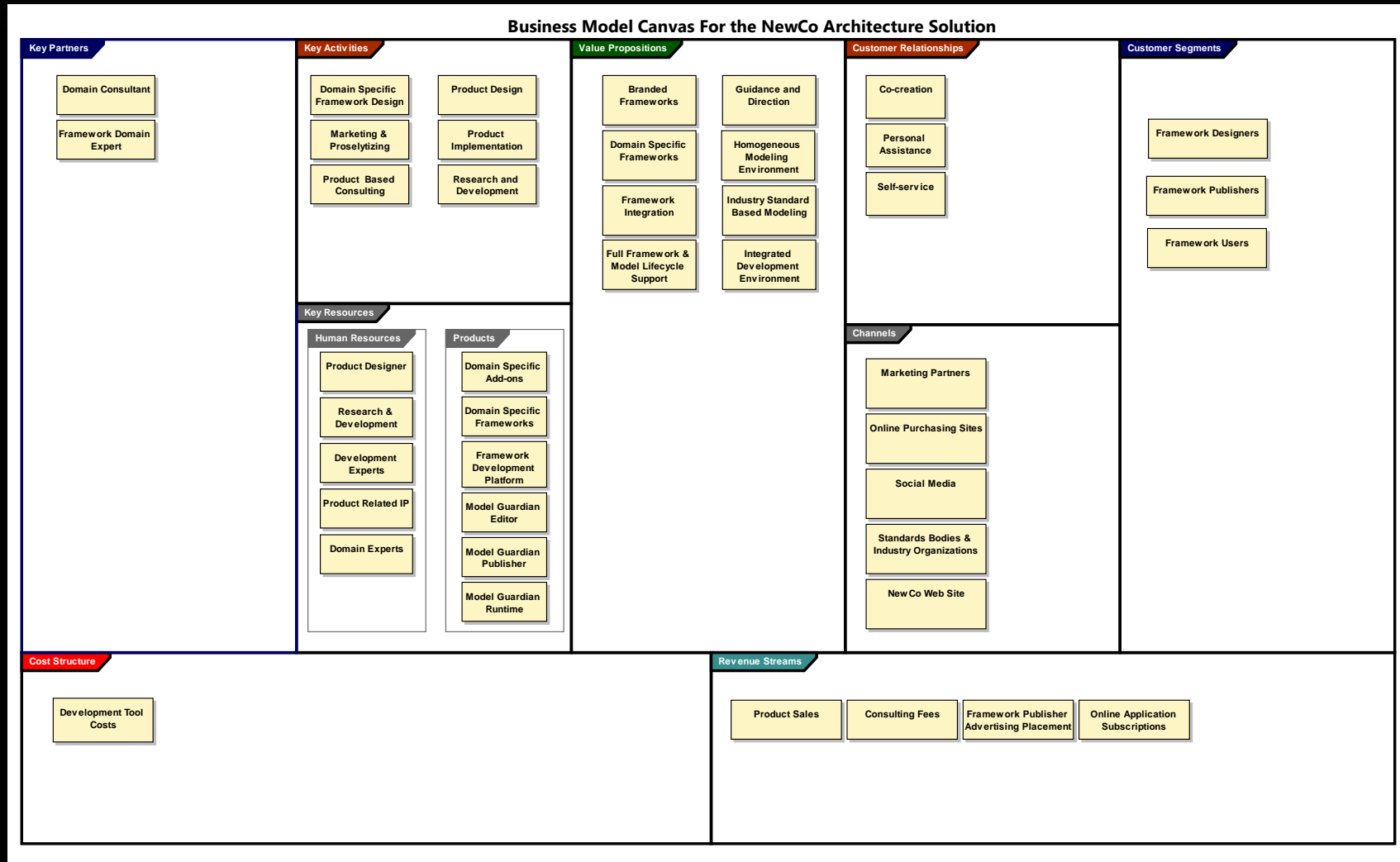


- **Use Diagram References to...**
 - Create elements in the appropriate package
 - Drag elements from the Toolbox onto a diagram reference to create the element in the package containing the referenced diagram
 - Move multiple elements to multiple target packages
 - Drag existing elements onto various diagram references and select the menu option to move the elements to the target packages
 - The following slide shows a Business Model Canvas diagram consisting of diagram references used for controlling element destinations

MAD - Auto Location of Elements



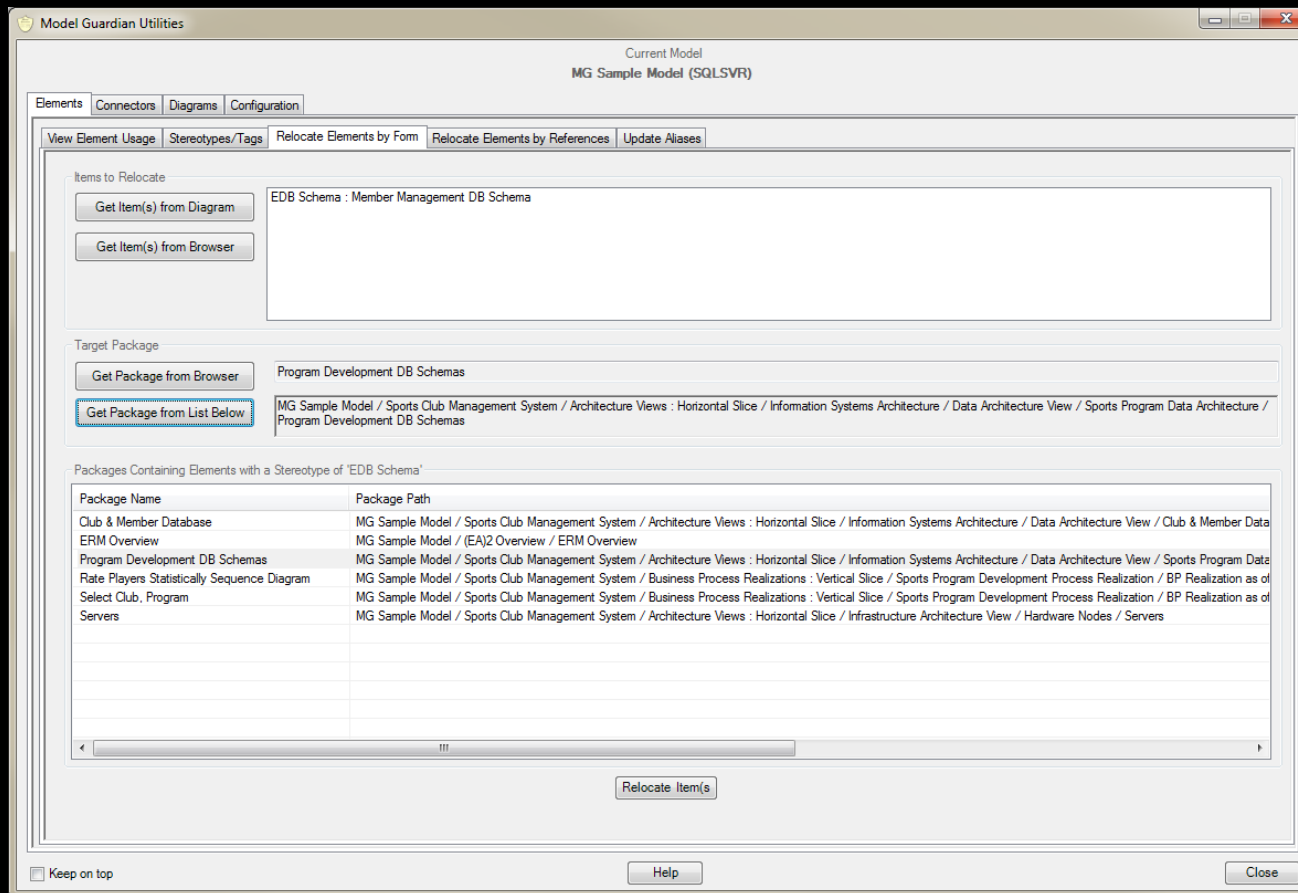
- Dropping New Elements on Diagram References Auto-Locates the Elements



MAD - Auto Location of Elements



- Use Element Relocator Dialog to Relocate Elements
 - Lists packages that contain elements with the same stereotype



MAD – Update Numerous Connectors



- Select Connectors to Change
- Select Characteristics to Change

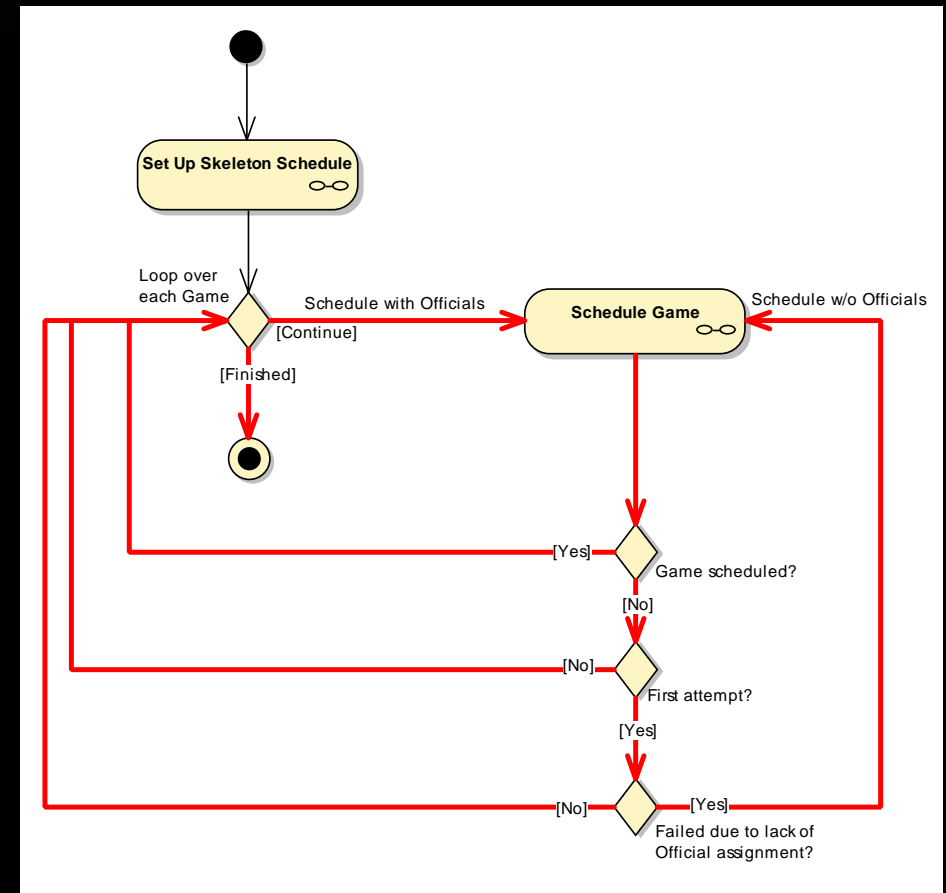
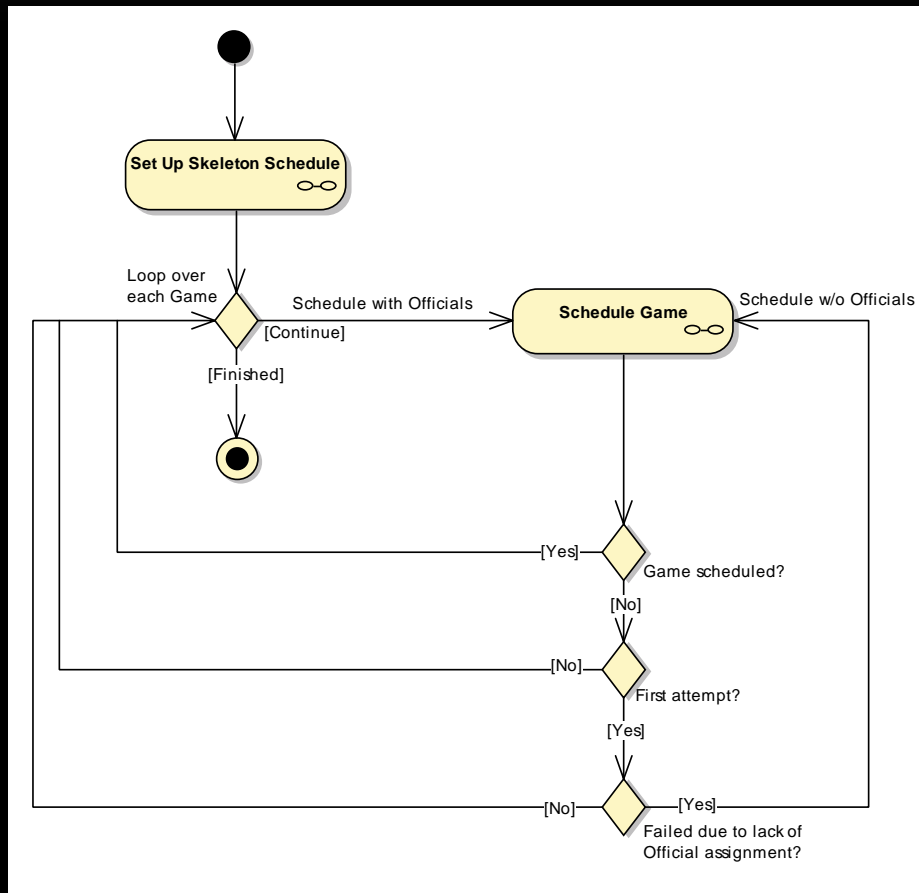
The screenshot shows the 'Model Guardian Utilities' window with the 'Connectors' tab selected. The current model is 'MG Sample Model (SQLSVR)'. The 'Connectors for 'Division Scheduling Process'' table is displayed, listing various connectors and their properties. Below the table, there are options to 'Select All' or 'Select None', and a note to 'Check the connectors above for which you want to apply the changes indicated below.' The 'Change Connector Properties and Characteristics' section is also visible, showing settings for Stereotype, Source Cardinality, Target Cardinality, Line Style, Direction, Line Width, Visibility, and Color.

Source's Parent	Source/Provider	Connector	Target/Client	Target's Parent	Hidden
<input type="checkbox"/> Division Scheduling Process	Unnamed Element (StateNode) [5731]	ControlFlow	Set Up Skeleton Schedule	Division Scheduling Process	No
<input type="checkbox"/> Division Scheduling Process	Unnamed Element (StateNode) [5731]	ControlFlow	Set Up Skeleton Schedule	Division Scheduling Process	No
<input checked="" type="checkbox"/> Division Scheduling Process	Failed due to lack of Official assignme...	ControlFlow	Loop over each Game	Division Scheduling Process	No
<input checked="" type="checkbox"/> Division Scheduling Process	Failed due to lack of Official assignme...	Schedule w/o Officials(ControlFlow)	Schedule Game	Division Scheduling Process	No
<input checked="" type="checkbox"/> Division Scheduling Process	First attempt?	ControlFlow	Failed due to lack of Official assignme...	Division Scheduling Process	No
<input checked="" type="checkbox"/> Division Scheduling Process	First attempt?	ControlFlow	Loop over each Game	Division Scheduling Process	No
<input checked="" type="checkbox"/> Division Scheduling Process	Game scheduled?	ControlFlow	First attempt?	Division Scheduling Process	No
<input checked="" type="checkbox"/> Division Scheduling Process	Game scheduled?	ControlFlow	Loop over each Game	Division Scheduling Process	No
<input checked="" type="checkbox"/> Division Scheduling Process	Loop over each Game	ControlFlow	Unnamed Element (StateNode) [5732]	Division Scheduling Process	No
<input checked="" type="checkbox"/> Division Scheduling Process	Loop over each Game	Schedule with Officials(ControlFlow)	Schedule Game	Division Scheduling Process	No
<input checked="" type="checkbox"/> Division Scheduling Process	Schedule Game	ControlFlow	Game scheduled?	Division Scheduling Process	No
<input type="checkbox"/> Division Scheduling Process	Set Up Skeleton Schedule	ControlFlow	Loop over each Game	Division Scheduling Process	No

MAD - Update Numerous Connectors for Confirmation



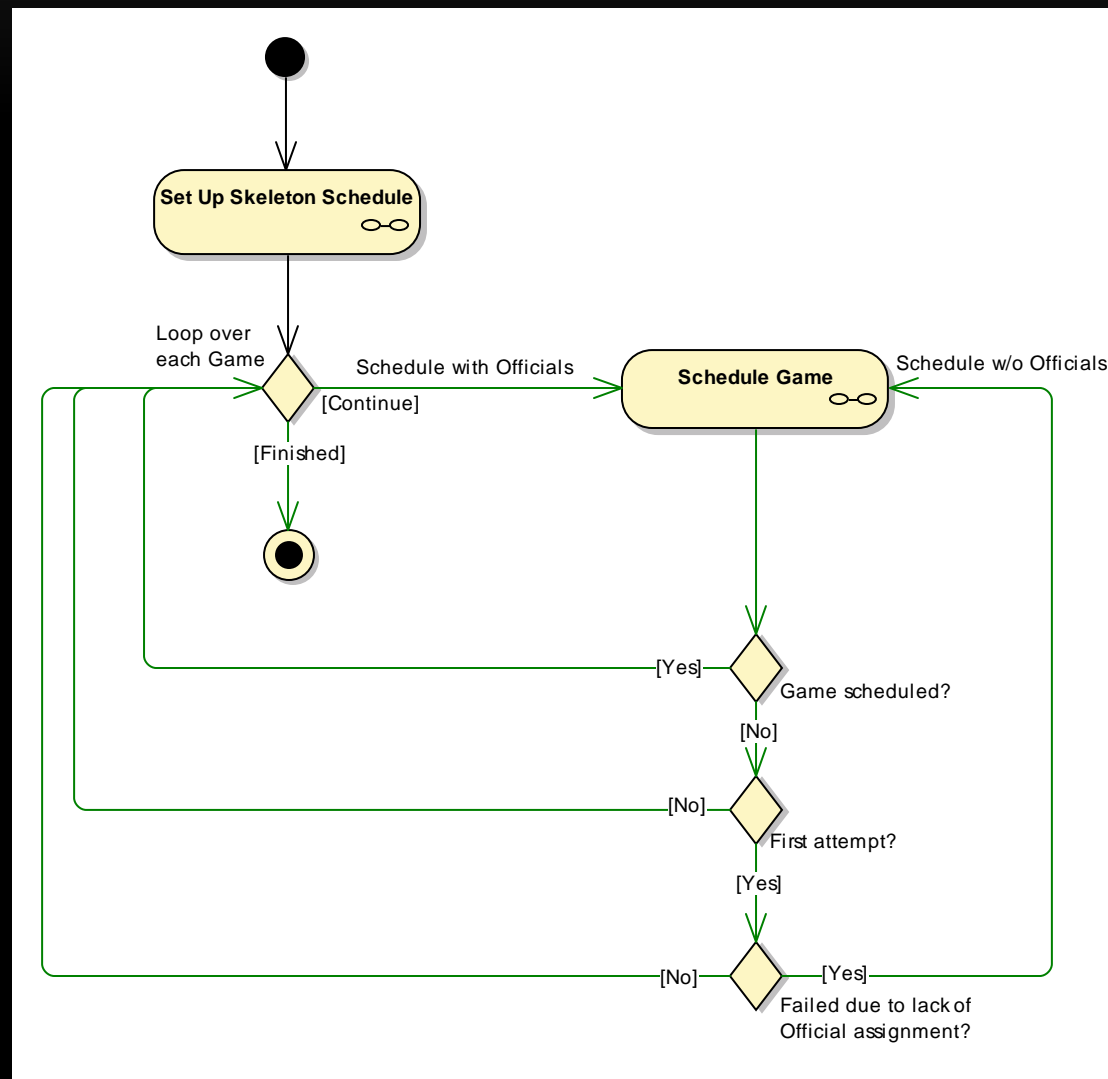
- Highlight Selected Connectors for Confirmation



MAD - Update Numerous Connectors



- Apply the Changes



MAD – Find Where Data Flows



- Find Connectors with Conveyed Information
- Locate Elements and Connector in EA
- Works with Exposed Interfaces

The screenshot shows the 'Model Guardian Utilities' window for the 'MG Sample Model (SQLSVR)'. The 'Information Flows' tab is active, displaying a table of data flows. Below the table, it indicates '7 Conveyed items found on 5 information flows'. A list of diagrams containing the information flow is shown, with 'Rate Players Statistically, v2.01 - Application Component View' selected. The 'View in Enterprise Architect' section has 'Diagram' selected, and the 'Export' section has 'Open File' selected.

Source's Parent	Source	Conveyed Information	Target	Target's Parent
Player Manual Rating Presentation	iPlayer Rating Pages	xmlCoach	iPlayer Rating Pages	Player Rating Session
Player Rating Front End	iPlayerRating	xmlCoach	iPlayerRating	Player Service
Player Rating Service	iPlayerRating	xmlPlayer	iPlayerRating	Player Rating Engine
Player Rating Service	iPlayerRating	xmlPlayerRating	iPlayerRating	Player Rating Engine
Player Rating Service	iPlayerRating	xmlPlayerRatingStats	iPlayerRating	Player Rating Engine
	Season Execution Process	xmlCoach	Post-Season Event Process	
	Season Opening Date	xmlTeam	Venues, Calendars, and Game Official...	

7 Conveyed items found on 5 information flows

Diagrams Containing the Information Flow

- Rate Players Statistically, v2.01 - Application Component View
- Rate Players Statistically, v2.01 - Integration View
- Player Rating Front End App

View in Enterprise Architect

Source Target
Source's Parent Target's Parent
Conveyed Info **Diagram**

Export

To XML
To CSV File
Open File

MAD - Find Diagrams

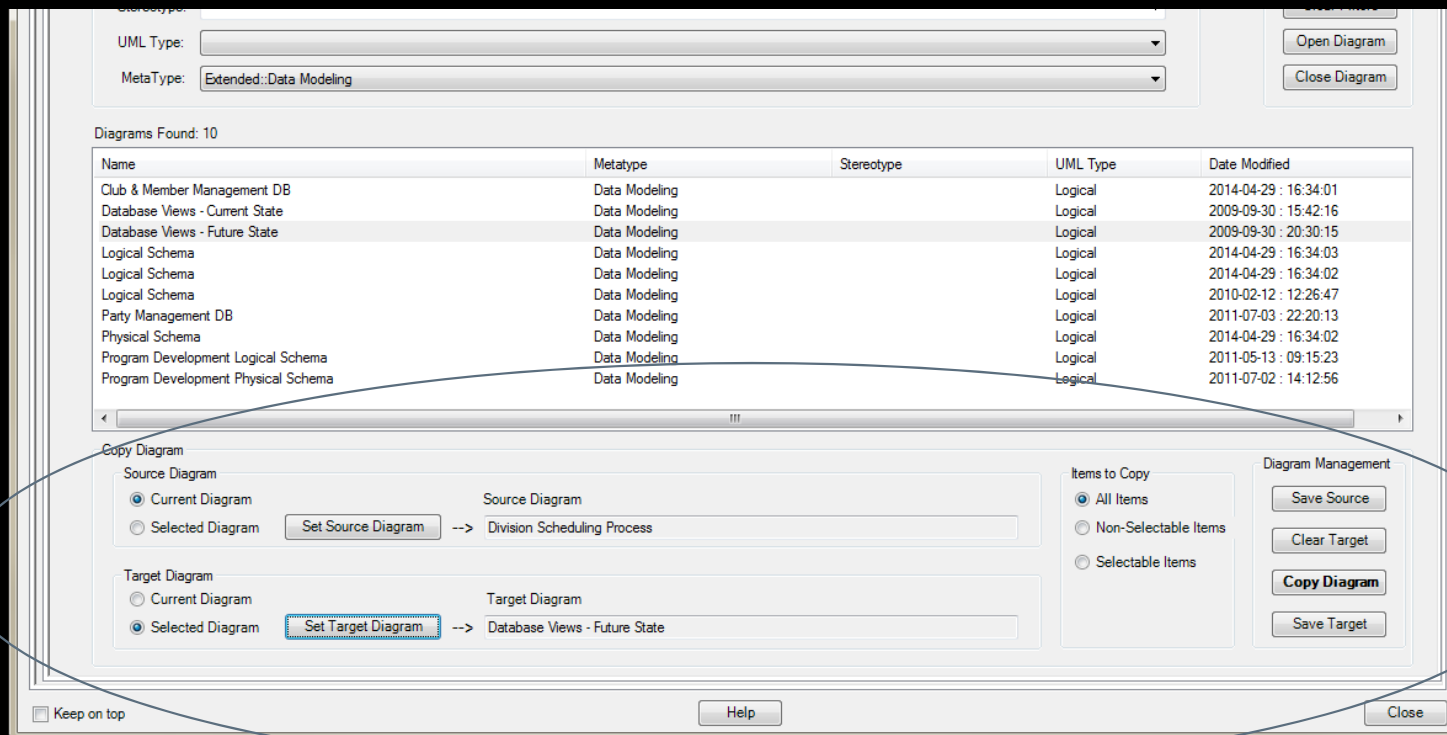


- Search for Diagrams Filtered by...
 - Name, Stereotype, UML Type, MDG metatype

The screenshot shows the 'Find/Copy Diagrams' dialog box in Model Guardian Utilities. The 'Current Model' is 'MG Sample Model (SQLSVR)'. The 'Diagrams' tab is selected. The 'Find/Copy Diagrams' section has search criteria: Name (empty), Stereotype (empty), UML Type (empty), and MetaType (Extended::Data Modeling). The 'Diagrams Found: 10' table lists 10 diagrams with columns for Name, Metatype, Stereotype, UML Type, and Date Modified. The 'Copy Diagram' section has 'Source Diagram' (Current Diagram) and 'Target Diagram' (Selected Diagram). The 'Items to Copy' section has 'All Items' selected. The 'Diagram Management' section has 'Copy Diagram' button highlighted.

Name	Metatype	Stereotype	UML Type	Date Modified
Club & Member Management DB	Data Modeling		Logical	2014-04-29 : 16:34:01
Database Views - Current State	Data Modeling		Logical	2009-09-30 : 15:42:16
Database Views - Future State	Data Modeling		Logical	2009-09-30 : 20:30:15
Logical Schema	Data Modeling		Logical	2014-04-29 : 16:34:03
Logical Schema	Data Modeling		Logical	2014-04-29 : 16:34:02
Logical Schema	Data Modeling		Logical	2010-02-12 : 12:26:47
Party Management DB	Data Modeling		Logical	2011-07-03 : 22:20:13
Physical Schema	Data Modeling		Logical	2014-04-29 : 16:34:02
Program Development Logical Schema	Data Modeling		Logical	2011-05-13 : 09:15:23
Program Development Physical Schema	Data Modeling		Logical	2011-07-02 : 14:12:56

- **Controlled Diagram Copying**
 - Copy only selectable elements
 - Copy only non-selectable elements (effectively making the source diagram a template)
 - Copy both types



MAD – Avoid Duplicate Elements



- **When Creating a New Element**
 - Look for existing elements with the same name
 - Choose to...
 - Use an existing element and place it on the diagram
 - Change the new element's name
 - Use the duplicate name

The screenshot shows a 'New Element' dialog box with two main sections: 'New Element Information' and 'Matching Elements'.

New Element Information:

- Name: Player Rating Engine
- Alias: (empty)
- Stereotype: Business App
- Notes: (empty text area)
- Open EA New Element Dialog

Matching Elements:

The following elements have the same name

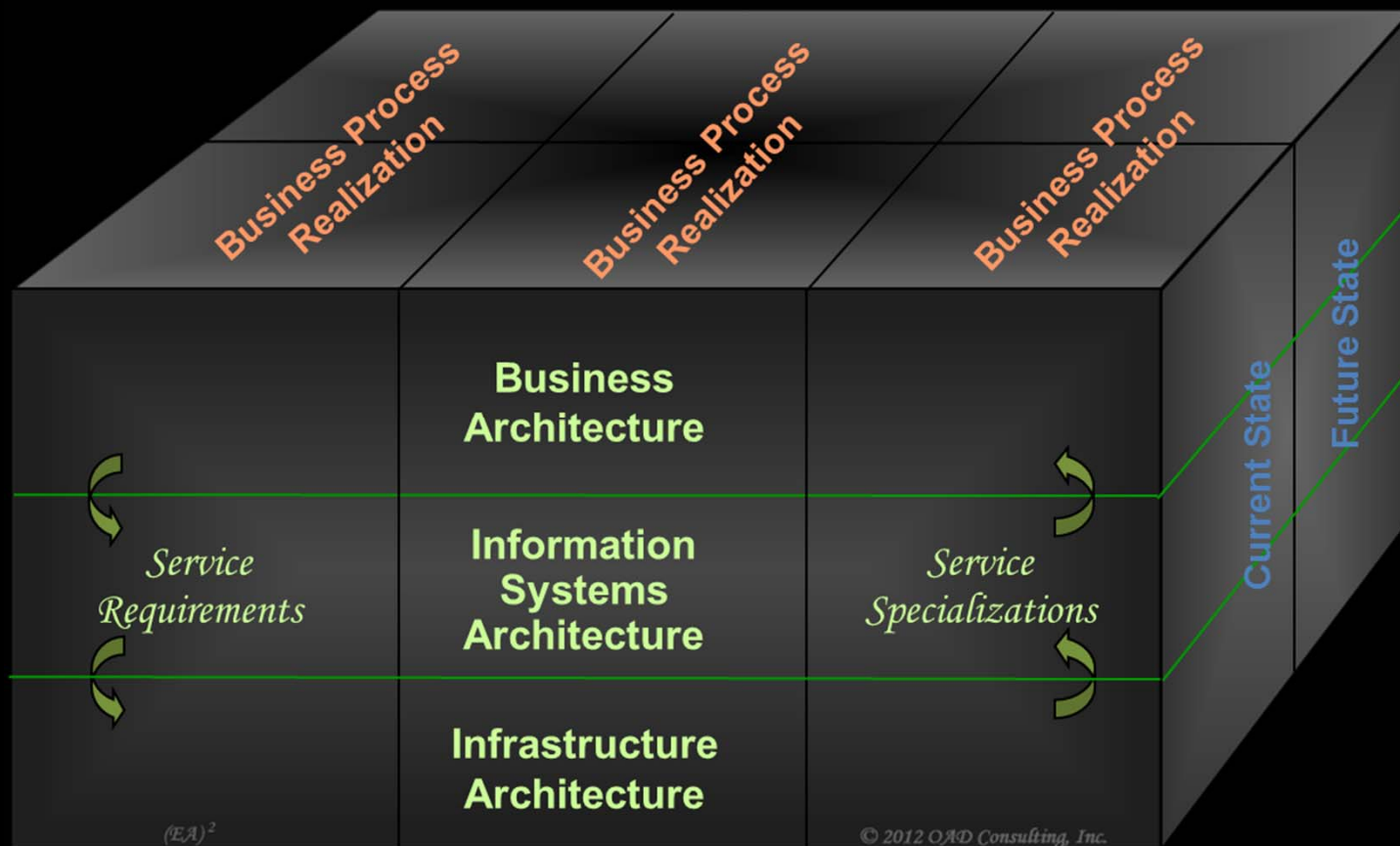
Name	Stereotype	UML Type
Player Rating Engine		Package
Player Rating Engine	Business App	Component

Buttons at the bottom: OK, Use Selected Item, Locate in EA, Create New Element.

Framework Specific Automation



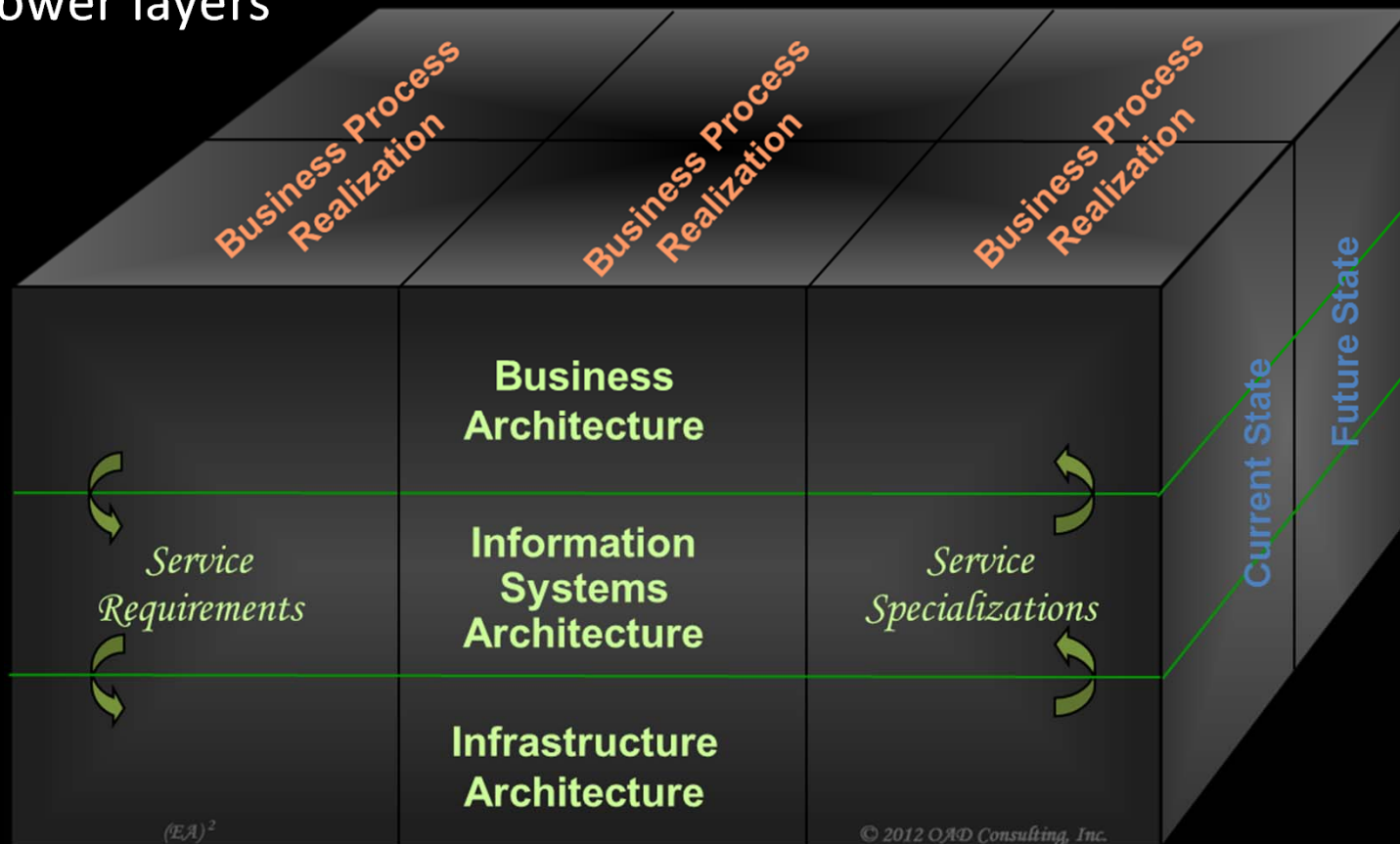
- **Model Guardian Adds Automation for Specific Frameworks**
 - Example: (EA)² Enterprise Architecture Modeling Framework



Framework Specific Automation



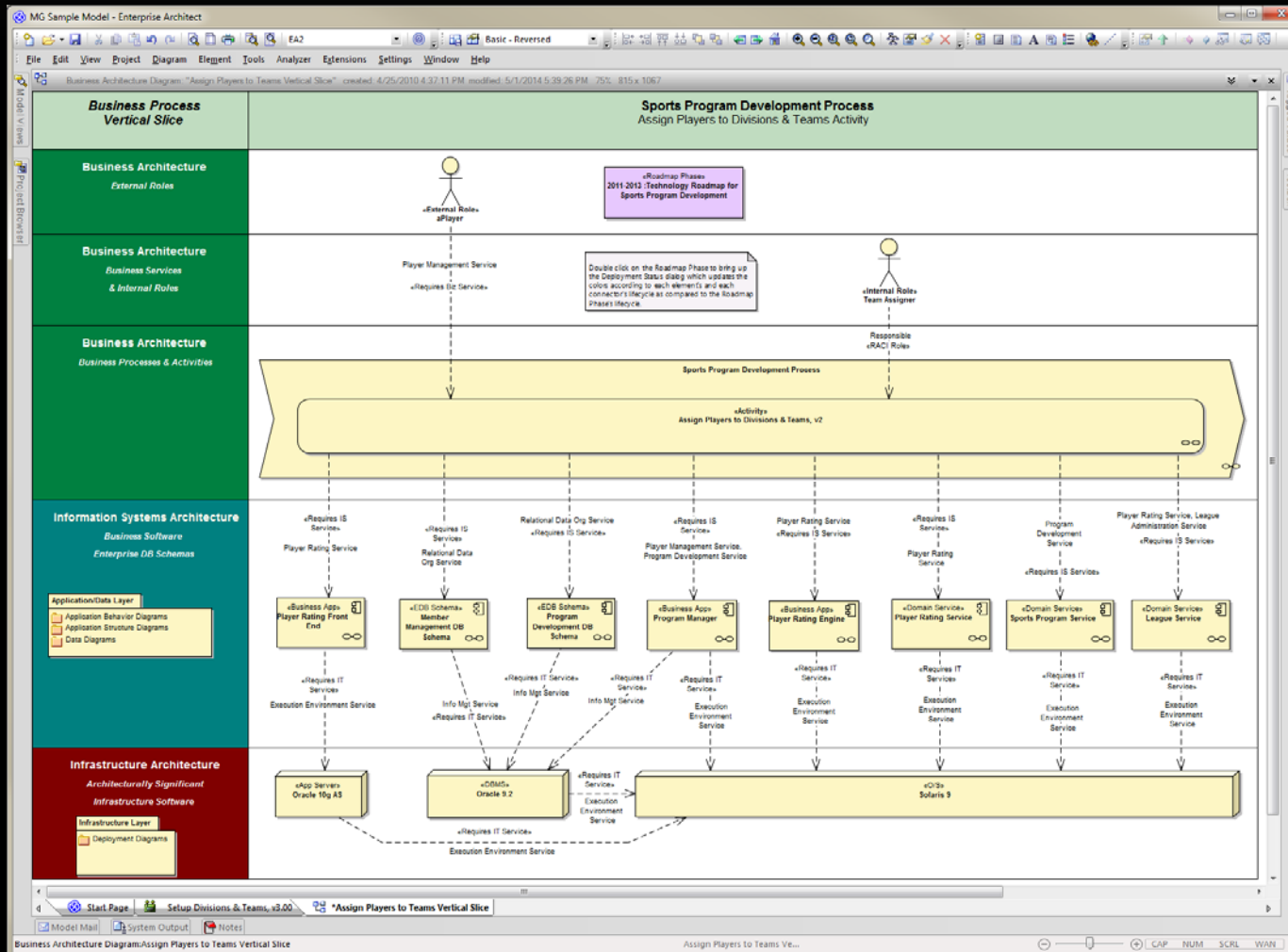
- **(EA)² Provides a Service Oriented Approach to Architectural Requirements**
 - Elements from higher layers require services from elements in lower layers



Framework Specific Automation



- Vertical Slices Show the Elements and Services Required to Realize a Business Process for a Particular Roadmap Phase

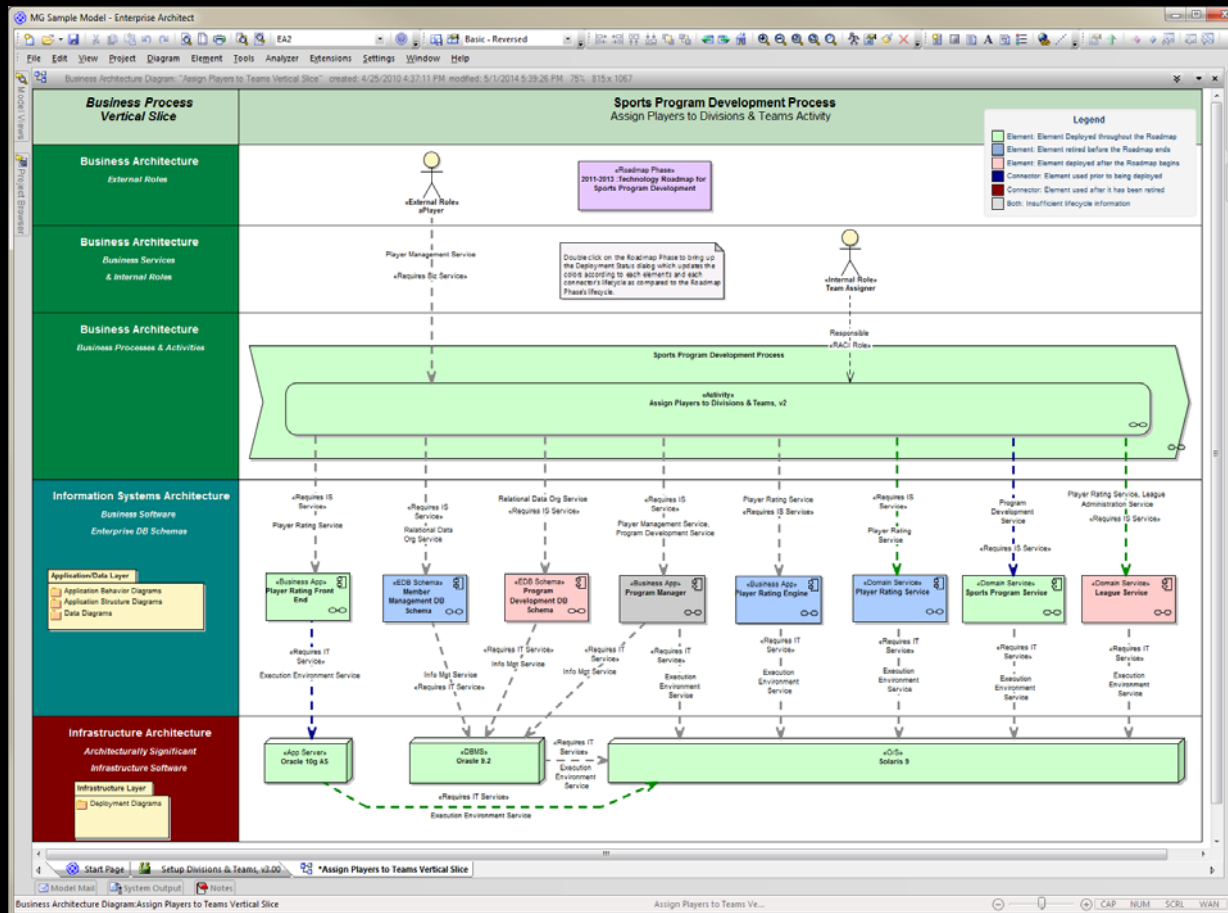


- **Service Tags on...**
 - Elements show the services they require and those they provide
 - Connectors show which of its services a provider provides to the client
- **Lifecycle Tags on...**
 - Elements show when they are/will be/were available
 - Connectors show when the provider provides the services to the client

Framework Specific Automation



- Model Guardian Can Automatically Color Elements and Connectors According to Their Availability During the Roadmap Phase



Framework Specific Automation



- A Dialog Shows the Results and Lets You Click Through to the Elements or Connectors to Make Adjustments

Deployment Status Map

Diagram Parameters

Planned Period Start Date: 2011-01-01 Process

Current Period End Date: 2013-12-31 Help

Normal

If the dates are left blank, only the Connectors' lifecycle dates will be verified against the supplying Elements' lifecycle.

Elements Connectors

Element	Error Condition	Actual Start Date	Actual End Date	Planned Start Date	Planned End Date
<input type="checkbox"/> League Service	Element deployed after Roadmap begins			2014	
<input type="checkbox"/> Member Management DB Schema	Element retired before Roadmap ends	1998	2000		
<input type="checkbox"/> Player Rating Engine	Element retired before Roadmap ends	2008			2013-03-01
<input type="checkbox"/> Player Rating Service	Element retired before Roadmap ends			2011-01-13	2013-07-01
<input type="checkbox"/> Program Development DB Schema	Element deployed after Roadmap begins			2016	
<input type="checkbox"/> Program Manager	Deployment information unavailable				2014-01-01

Select All Select None Export Adjust Element Dates

Keep on Top Close

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- A Dialog Shows the Results and Lets You Click Through to the Elements or Connectors to Make Adjustments

Deployment Status Map

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Elements | **Connectors**

Source Element	Connector	Target Element	Error Condition
<input type="checkbox"/> aPlayer	Player Management Service	Assign Players to Divisions & Teams, v2	Deployment information unavailable
<input type="checkbox"/> Assign Players to Divisions & Teams, v2	Relational Data Org Service	Member Management DB Schema	Deployment information unavailable
<input type="checkbox"/> Assign Players to Divisions & Teams, v2	Player Management Service, Program Developm...	Program Manager	Deployment information unavailable
<input type="checkbox"/> Assign Players to Divisions & Teams, v2	Player Rating Service	Player Rating Front End	Deployment information unavailable
<input type="checkbox"/> Assign Players to Divisions & Teams, v2	Relational Data Org Service	Program Development DB Schema	Deployment information unavailable
<input type="checkbox"/> Assign Players to Divisions & Teams, v2	Program Development Service	Sports Program Service	Usage begins before Element is deployed
<input type="checkbox"/> Assign Players to Divisions & Teams, v2	Player Rating Service	Player Rating Engine	Deployment information unavailable

Actual Start Date Actual End Date Planned Start Date Planned End Date

Select All Select None Export Adjust Connector Dates

Keep on Top Close

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- **The Color Mapping Feature has been Generalized to Work with Any Elements and Connectors that have the Lifecycle Tags**
- **Model Guardian Also Adds Automation for Managing the Service Provisioning**
 - Assign required and provided services to elements
 - Assign service providers along with when they will provide the services
 - Manage service provisioning via connectors

Framework Specific Automation



- Assign Required and Provided Services to Elements

The screenshot shows a software window titled "EA2: Service Provisioning - Manage Serviceable Element's Provided and Required Services". At the top, there are two dropdown menus: "Serviceable Element Type" set to "Activity" and "Serviceable Element" set to "Assign Players to Divisions & Teams, v2". Below these are two tabs: "Service Assignment" (which is active) and "Provider Management". The "Service Assignment" tab contains an "EA Service Taxonomy" section with four dropdown menus: "Service Level" (Business (Biz Services)), "Service Category" (Affiliation Management Services), "Service" (Team Registration Service), and "Service Specialization" (empty). Below the taxonomy are two panels. The "Required Services" panel lists "League Administration Service", "Player Rating Service", "Program Development Service", and "Relational Data Org Service", with buttons for "Add Service to Element", "Add Service to Element Type", and "Remove Service from Element". The "Provided Services/Service Specializations" panel lists "Player Management Service", with the same three buttons. At the bottom of the window are "Close" and "Help" buttons.

Framework Specific Automation



- Assign Service Providers along with When They will Provide the Services

EA2: Service Provisioning - Manage Serviceable Element's Provided and Required Services

Serviceable Element Type: Activity

Serviceable Element: Assign Players to Divisions & Teams, v2

Service Assignment | **Provider Management**

Required Service: League Administration Service

Available Service Providers

Business App : Program Manager
Domain Service : League Service

Service Provision Providers

League Service

Provider Lifecycle Dates

	Planned	Actual
Begin Date:		
End Date:	2014-01-01	

Service Provision Lifecycle Dates

	Planned	Actual
Begin Date:	2012	
End Date:		

Update Dates Reset Dates Assign Provider Update Dates Reset Dates Add to Diagram Unassign

Close Help

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- **Manage Service Provisioning via Connectors**
 - Add services and lifecycle dates to the connectors by selecting from the provider's set of provided services

The screenshot shows a software window titled "EA2: Service Provisioning - Assign Service to Service Provision". The window is divided into several sections:

- Client:** Contains a text field with "Assign Players to Divisions & Teams, v2" and a list of "Required Services": League Administration Service, Player Rating Service, Program Development Service, and Relational Data Org Service. A "Manage Client's Services" button is at the bottom.
- Provider:** Contains a text field with "Program Manager" and a list of "Provided Services": Coach Management Service, Division Administration Service, League Administration Service, Player Management Service, Program Development Service, and Team Management Service. A "Manage Provider's Service" button is at the bottom.
- Connectors:** Two buttons are shown: "Add to Selected Service Provision" and "Add to New Service Provision", separated by the word "Or".
- Existing Service Provisions:** A table with columns: Planned Begin Date, Planned End Date, Actual Begin Date, Actual End Date. It contains one row with values: --, 2013-08-31, --, --. A "Remove Service Provision" button is below.
- Selected Service Provision's Service Dates:** A table with columns: Planned Begin Date, Planned End Date, Actual Begin Date, Actual End Date. It contains one row with values: (empty), 2013-08-31, (empty), (empty). An "Update Service Dates" button is below.
- Selected Service Provision's Services:** A list containing "Player Management Service" and "Program Development Service". A "Remove Service from Provision" button is at the bottom.

At the bottom of the window are "Close" and "Help" buttons.

Framework Specific Automation



- **OAD Systems Can...**
 - Address custom automation needs you may have
 - Provide training and online mentoring on developing and using frameworks

Framework Assisted Design

with



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