# MISA MRM SA/XT Demo Script Outline

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## Introduction

A significant amount of information useful to municipal stakeholders exists in the form of printed documents, spreadsheets, diagrams, etc. This information is very valuable, but leveraging this value is challenged by having the content in a form that is difficult to access, extend and integrate, as well as developed using different vocabularies. The MRM provides a common vocabulary and comprehensive municipal model content that evolved out of harvesting these diverse documents into a common, proven framework.

The *Service Design Workbench* (SDW) provides an effective means of defining, extending, integrating and sharing the municipal reference models, and instantiations of those models for specific municipalities. SDW provides a collaborative environment in which municipal models can be created, validated, communicated across a wide range of stakeholders, reasoned about and acted upon to deliver value to target groups. It produces reports and work products that support different stakeholder viewpoints in order to address different concerns.

However, the level of expertise need to use the SDW is relatively high: both the municipal modeling skills and the tool usage skills. There are many other stakeholders who have more occasional use and limited authoring needs that may also need access to municipal models. System Architect/XT provides these capabilities through a relatively simple Web interface that presents a “Question Oriented Architecture” viewpoint into the municipal models. This allows more casual business users to explore, understand, validate and act on the model without having to be modelers, or tool experts.

The demo steps below are intended to summarize SDW/XT capabilities that support the MRM method as described in its business use cases, tasks, activities and functions using the simplified System Architect/XT capabilities. The demo does not describe the particular sequences of activities that would comprise municipal modeling projects or engagements. Rather it describes general capabilities that would be applicable to these activities.

The overall steps are similar to the SDW demo script, but modified and/or augmented to exploit the capabilities of SA/XT.

## Creating a municipal model from the MRM

The MRM is a reference model that represents a reusable asset capturing and best practices municipal governance business architecture. Each municipality that uses these MRM will create an instance municipal model from the MRM and will customize that instance for their particular needs.

SDW/XT users will not create new municipal models. Rather business users will use models created by the business architects.

## How municipalities access their municipal models

The municipal model is a shared resource among the business users and analysts who will be developing, communicating, validating, reasoning about and acting upon information captured in the model. These users must have controlled access to the shared resource in a manner that provides proper authentication and access control, role-specific viewpoints, efficient access, versioning and support for parallel development.

Rational System Architect provides a number of facilities that support these requirements that would be appropriate for business users using SDW/XT:

* A distributed, multi-user database server with full authentication and access control
* The ability to access a shared enterprise encyclopedia database from a Web browser in a WAN using SA/XT
* The ability to access different encyclopedia workspaces that represent different versions of the municipal model, or branches used to explore different service opportunities.

## Providing End-User Guidance

There are many stakeholders that participate in the development of a municipal model, and use that model in strategic planning, solution delivery and municipal governance. Many of these users will have only occasional use of the MRM and its supporting tools, and will need guidance for how to perform activities that address their needs and concerns.

SDW/XT uses a “Question Oriented Architecture” (QOA) to guide users through the understanding, validation and use of the municipal model data. The questions are organized by different concerns including organization units, programs, services, process, resources, etc. Users can click on a question to generate a report that provides information useful for answering that question.

1. Open the Start System Architect/XT in a Web browser and login to the MRMv2.1 encyclopedia

* Show how users can select different encyclopedias and workspaces for different projects

1. Show the Main Links component that organizes the access into the model.
2. Click on Municipal Questions

* Click on the “Organization Units accountable for Programs” entry in the Dashboard Analytics component
* Click on the “Programs that have no accountable Organization Unit” in the Program component

1. Show the Latest Additions, Last 10 changed by me and Task List viewlets

* These provide a summary of the latest changes that the tasks that remain to be completed
* A Task is a Task Item definition in System Architect

1. Show the on-line help for using SA/XT

* This is the help for the System Architect Suite
* The System Architect/XT help is on the bottom

## Viewing and editing the municipal model with role-specific viewpoints

The many stakeholders involved in municipal business architectures and strategic planning may play different roles and have different concerns. Each of these roles may have a preferred viewpoint through which they access and manipulate the municipal models in order to address their concerns.

System Architect/XT supports these viewpoints through Encyclopedia Profiles that can specify:

* The Configuration file that specifies the layout of the home page, and the questions that address stakeholder concerns
* The default IP (Information Publish) template (created by SA Publisher) used to define the reports and report templates for displaying diagrams and definitions selected in the SA/XT browser.

1. Show how to edit the Encyclopedia Profile to support different stakeholder viewpoints and concerns

* Show C:\Program Files\IBM\Rational\System Architect Suite\SAXT\PageFiles\Municipal Reference Model.xml
  + Show the reports
  + Show the municipal question components
* Indicate how the questions can be used to create reports to address different concerns
* Indicate how the IP template can be used to format the contents of the selected definitions.

## Searching for model elements

Users can search for model elements, diagrams, symbols or definitions, whose properties match the specified criteria. The result of the search is displayed in a view where the user can double-click on any matching element to open and view or edit that element.

1. Show an example of a search for all MRM Services whose name starts with “Fire”
2. Open one of the found services to see its definition
3. Show how Advanced Search allows you to create more complex queries

## Editing model elements

Definitions are model elements in System Architect that represent instances of the MRM metamodel that defines the encyclopedia. All definitions are created, edited, searched, navigated, reported on, etc. the same way.

Definitions are edited by clicking on the name of the definition in many places that it appears in System Architect/XT views and diagrams to display its properties, and then press the Edit button to edit the properties. The properties of the definition are displayed in a dialog organized by tabs, and rows and columns within a tab page. Tabs organize related properties. Properties can then be organized in row/column grids with grouping, labels and input fields.

1. Make sure SA/XT is in Updater mode – editing is only available in updater mode
2. Select the “Fire Rescue” service and show its properties. Click the edit button to edit the properties.
3. Show the properties on the introduction page, and on the MRM tab
4. Edit the Fire Rescue service description
5. Set the Service Type to Public
6. Set the service to a new output: “Rescued person or property”
7. Click the Define button to navigate to the “Rescued person or property” output
8. Edit the output description
9. Set the output type to Service
10. Set the Service Output Type to Interventions
11. Set the output’s outcome to the existing “Reduced loss of property from fire”
12. Add a new output outcome “Reduced loss of life from fire”
13. Navigate to the “Reduced loss of property from fire” outcome and show that its target group is “Home Owner”
14. Navigate to the new “Reduced loss of life from fire” outcome and set its target group to “People involved in fires”

## Showing relationships using matrices

Relationships are modeled using definition properties in System Architect that refer to other definitions. There are also cases where the relationship itself can have properties and has referencing properties for its ends. Relationships can be “mirrored” so that the can be navigated from either direction.

Relationships can be shown in diagrams. Relationships are usually depicted with lines that represent a particular definition. Click on the line to show the relationship properties.

Finally, relationship can be viewed using matrices, which provide a convenient way to explore a number of related elements very quickly, and to easily see where relationships might be missing.

1. Click Municipal Questions in the Main Links component on the Home page
2. In the Dashboard Analytics component, click on Organization Unit accountable for Programs Matrix
3. Show the “Fire Department” is accountable for the “Fire Safety” program
4. Note that “Fire Safety Promotion” is not administered by any program.
5. Show that row and column definitions can be navigated to and edited from the matrix as well

## Displaying related model elements

Sometimes it is convenient to quickly see all the elements related to a given element, and to be able to browse the definitions of those elements.

1. Navigate to the “Fire Rescue” service in the SA/XT Browser
2. Expand the Fire Rescue entry and show how to navigate the relationships through the relationship properties

## Using Diagrams

Diagrams can be used to show and (in some cases) edit relationships between model elements graphically. This can be a very effective way of visualizing elements in the municipal model, communicating the relationships and their business implications to stakeholders.

1. Open the “Fire Accountabilities” SIAM diagram. This diagram show the accountability chain from organization units to the programs they are accountable for to the services administrated by the programs to the target groups whose needs are addressed by the service.
2. Demonstrate Zoom
3. Demonstrate hovering the mouse over a node to show the relationships with that node.
4. Show editing an entity or relationship from the diagram

## Querying, validating, and reporting on model content

Besides simple search, it is also possible to quickly write reports that present information in the model. Reports can use diagrams, symbols or definitions as data sources, and can filter based on complex expressions involving property values and relationships to other entities.

Reports can be used to find matching elements in the model, or to validate elements by showing elements whose properties have missing or invalid values.

The MRM comes with a set of reports already created that support the functions and operations of the business use cases and their tasks.

For SA/XT, the reports are executed through the questions in the Question oriented Architecture.

1. Goto the SA/XT home page
2. Show the Main Links component that organizes the access into the model.
3. Click on Municipal Questions

* Show Dashboard Analytics
* Click on the “Organization Units accountable for Programs” entry in the Dashboard Analytics component
* Click on the “Programs that have no accountable Organization Unit” in the Program component

1. Go back to the Home page and click on CREATE MY OWN QUESTION/QUERY

* Show how to execute an SQL-like query  
  Select "Name"  
  Where Class = Definition  
  Where Type = "MRM Program"  
  OrderBy "Name"

## Municipal model versioning and lifecycle management

Municipal models are constantly evolving to address business influencers and changing environments and needs. Each municipality that uses the MRM will potentially discover new programs and services that were initially unique to their situation, but may later be discovered to be applicable to other communities. The value of the MRM can therefore grow over time by harvesting and reusing model content and best practices that are discovered over time. Making changes to municipal models, whether they are changes within a single community exploring different solution opportunities, or changes to the shared reference model itself require rich facilities for lifecycle management consistent with governance policies and principles.

System Architect/XT provides a number of features that can be exploited to support lifecycle management and governance of municipal models.

* Different municipal models can be managed in different encyclopedias. Users select the encyclopedia to connect to when logging in to SA/XT.
* Users can also select the desired workspace representing a version or variant of the municipal model they want to work on.