Merative SPM Intelligent Evidence Gathering (IEG) for Developers

9D82G

Course Description

Intelligent Evidence Gathering (IEG) is a Merative technology that is used to create dynamic scripts. IEG is used by Social Program Management (SPM) applications to gather data from citizens and internal workers using fixed and mobile devices. This course describes how to develop IEG scripts and integrate these scripts into SPM applications.

The course covers the following topics: the use of IEG; the Datastore schema; IEG elements; calling out to custom code; configuring and integrating scripts for client applications; customizing script artifacts, and tips for developing scripts. During the course, students will design and implement a simple script that uses key IEG features.
This training provides learners with the essential knowledge and hands-on skills required to implement and support SPM solutions that use IEG.

General Information

Delivery Method: Classroom (ILT) and self-paced with lab.

Audience: This course is intended primarily for developers and technical architects who will work on SPM implementation projects. The course is also useful for anyone who needs a technical understanding of IEG.

Topics: The course covers the following topics:
- The functions and features of SPM Intelligent Evidence Gathering (IEG)
- Implementing scripts using IEG elements
- Integrating IEG scripts into SPM applications
- Customizing scripts

Learning Objectives: After completing the course, learners should be able to:

- Briefly describe the SPM features that use IEG scripts
- Define Datastore schemas
- Create scripts consisting of flow control, relationships, and summary pages
- Configure validation and custom functions
- Configure features specific to the Java-based and React-based players
- Configure SPM Universal Access to run scripts
- Customize out-of-the-box Datastore schemas and IEG scripts
- Troubleshoot typical IEG scripting errors
- Access reference information

Prerequisites: It is recommended that learners complete the following course before taking this course:

- *Merative Social Program Management (SPM) 7.X Technical Overview* (9D76G)

Duration: 24 Hours (3.5 days ILT)

Skill Level: Intermediate

Version: This course was last updated for SPM V7. The course covers core topics that do not change much.

Notes

The course duration gives learners an estimate of how much time they need to allocate to the course. The course duration does not specify the actual time required to complete the course, which varies by learner. The course agenda shows the schedule for a classroom (ILT) delivery. Learners taking this course in a self-paced environment should allow more time for exercises.

Course Agenda

<u>Unit 1 - Introduction to IEG</u>

Lesson 1 – Course Introduction
Duration: 10 minutes
Learning objectives: After completing this lesson, learners should be able to:

- List the course objectives.
- Outline the course format and resources.
- List sources of help.

Lesson 2 – Intelligent Evidence Gathering (IEG) Overview
Duration: 35 minutes

Learning objectives: After completing this lesson, learners should be able to:

- State the purpose of Intelligent Evidence Gathering (IEG)
- List the main features of IEG
- Describe where IEG scripts are used in SPM applications.

Exercise 1 – Run a Script
Duration: 30 minutes

Lesson 3 – Developing IEG Scripts - An Overview
Duration: 20 minutes

Learning objectives: After completing this lesson, learners should be able to:

- Describe the purpose of the key components of IEG
- List the main steps for developing scripts
- Outline how scripts run

Exercise 2 – Design a Simple Schema and Screening Script
Duration: 45 minutes

Unit 2 – The Datastore

Lesson 1 – Developing Datastore Schemas
Duration: 25 minutes

Learning objectives: After completing this lesson, learners should be able to:

- List the users of the SPM Datastore Schema
- Explain the following Datastore-related concepts:
  - Domains
  - Includes
  - Entities
  - Attributes
  - Key Attribute

Exercise 3 – Define a Datastore Schema
Duration: 30 minutes

Lesson 2 – Storing Data in the Datastore
Duration: 15 minutes

Learning objectives: After completing this lesson, learners should be able to:

- List the database tables that are used to store answers to IEG scripts
- Describe the type of information that is stored in the Datastore when you run a script

Exercise 4 – Access the Datastore
Duration: 20 minutes

Unit 3 - Developing Basic IEG Scripts

Lesson 1 – Configuring Basic Question Pages
Duration: 30 minutes
Learning objectives: After completing this lesson, learners should be able to:
- Create the following IEG elements:
  o Sections
  o Pages
  o Clusters
  o Questions

Exercise 5 – Create a Basic Question Page
Duration: 40 minutes

Lesson 2 – Configuring Summary Pages
Duration: 15 minutes
Learning objectives: After completing this lesson, learners should be able to:
- State the purpose of summary pages
- Outline the purpose of the Edit link for summary clusters

Exercise 6 – Edit the XML for a Script
Duration: 15 minutes

Exercise 7 – Configure a Summary Page
Duration: 30 minutes

Lesson 3 – Configuring Conditions
Duration: 20 minutes
Learning objectives: After completing this lesson, learners should be able to:
- Describe the format of IEG expressions
- Explain how to create conditional sections, pages, and clusters
- Distinguish between static and dynamic clusters

Exercise 8 – Configure a Condition
Duration: 60 minutes

Lesson 4 – Configuring Loops
Duration: 30 minutes

Learning objectives: After completing this lesson, learners should be able to:
- Describe the purpose of the for, for-each, and while loops
- Describe how to implement a nested loop

Exercise 9 – Configure Loops
Duration: 70 minutes

Lesson 5 – Configuring Lists
Duration: 20 minutes

Learning objectives: After completing this lesson, learners should be able to:
- Add a list question to gather answers for multiple entities
- Add a summary page for a list
- Add edit links for the summary page
- Describe the options for adding grouped rows and footers

Exercise 10 – Configure Lists
Duration: 40 minutes

Lesson 6 – Configuring Relationships
Duration: 20 minutes

Learning objectives: After completing this lesson, learners should be able to:
- Outline how relationships are defined in the Datastore
- Describe how to create relationship pages and relationship summary pages

Exercise 11 – Configure a Relationship Page
Duration: 40 minutes

Unit 4 - Additional IEG Features

Lesson 1 – Configuring Custom Functions
Duration: 20 minutes

Learning objectives: After completing this lesson, learners should be able to:
- List the two types of custom functions in IEG
- List design considerations for implementing custom functions.

Exercise 12 – Configure a Callout

Duration: 40 minutes

Lesson 2 – Configuring Validations
Duration: 20 minutes

Learning objectives: After completing this lesson, learners should be able to:
- Define the following types of validations:
    - Validation expressions
    - Domain options
    - Custom function

Exercise 13 – Configure Validations
Duration: 30 minutes

Lesson 3 – Configuring Additional IEG Elements
Duration: 35 minutes

Learning objectives: After completing this lesson, learners should be able to:
- List the IEG elements for configuring additional features, such as subscripts, progress, and help
- Describe the session timeout and loss of connectivity feature

Exercise 14 – Configure Additional Features
Duration: 25 minutes

Unit 5 – Configuring Scripts for IEG Players and Applications

Lesson 1 – Configuring the Look and Feel
Duration: 20 minutes

Learning objectives: After completing this lesson, learners should be able to:
- Distinguish between the different IEG players and modes
- Describe the use of the Resource store for storing images and properties

Exercise 15– View a Script in Different Players and Modes
Duration: 30 minutes

Lesson 2 – Configuring Features for the Java-based Player
Duration: 35 minutes

Learning objectives: After completing this lesson, learners should be able to:
- Describe the options that are provided by the Layout element
- State the purpose of the skip element
- Describe the purpose of the custom-output element
- Describe the layout and container elements

- Describe how to manage resources in the Resource Store
- Associate property groups with IEG page elements

Exercise 16 – Configure Features Specific to the Java-Based IEG Player
Duration: 30 minutes

Lesson 3 – Configuring SPM Applications to run IEG Scripts
Duration: 20 minutes

Learning objectives: After completing this lesson, learners should be able to:
- Describe how to configure Universal Access features to use IEG scripts
- Describe the purpose of the finish and quit pages for SPM applications

Exercise 17 – Configure Universal Access to Run a Script
Duration: 45 minutes

Lesson 4 – Configuring Features for the React-based Player
Duration: 30 minutes

Learning objectives: After completing this lesson, learners should be able to:
- Describe how scripts are rendered by the React-based player
- List the following for the React-based player
  - o Features specific to the player
  - o Features that behave differently
  - o Features that do not apply

Exercise 18 – Configure Features Specific to the React-Based IEG Player
Duration: 40 minutes

Unit 6 - Development Approach

Lesson 1 – Customizing SPM Application Artifacts
Duration: 30 minutes

Learning objectives: After completing this lesson, learners should be able to:
- Outline the types of customizations that are typically performed for agencies
- Describe how to customize application resources and Datastore schemas
- Describe how to extract IEG artifacts to the file system

Exercise 19 – Customize an SPM Application Script
Duration: 60 minutes

Lesson 2 – Using the IEG and Datastore APIs
Duration: 20 minutes

Learning objectives: After completing this lesson, learners should be able to:
- State the purpose of the IEG API
- List the typical uses of the Datastore API
- Explain the importance of purging old script data

Exercise 20 – Access IEG and Datastore APIs
Duration: 20 minutes

Lesson 3 – Development Tips
Duration: 20 minutes

Learning objectives: After completing this lesson, learners should be able to:
- Identify the development tasks to help you plan script development more accurately
- List tips and tools for testing IEG scripts
- List useful reference documentation

Exercise 21 – Access Reference Documentation
Duration: 25 minutes

Lesson 4 – Course Conclusion
Duration: 5 minutes

Learning objectives: After completing this lesson, learners should be able to:
- Restate the course objectives
- List further training.