IMPLEMENTATION PLAN

Project Title: Rules Based Decision Aid Framework

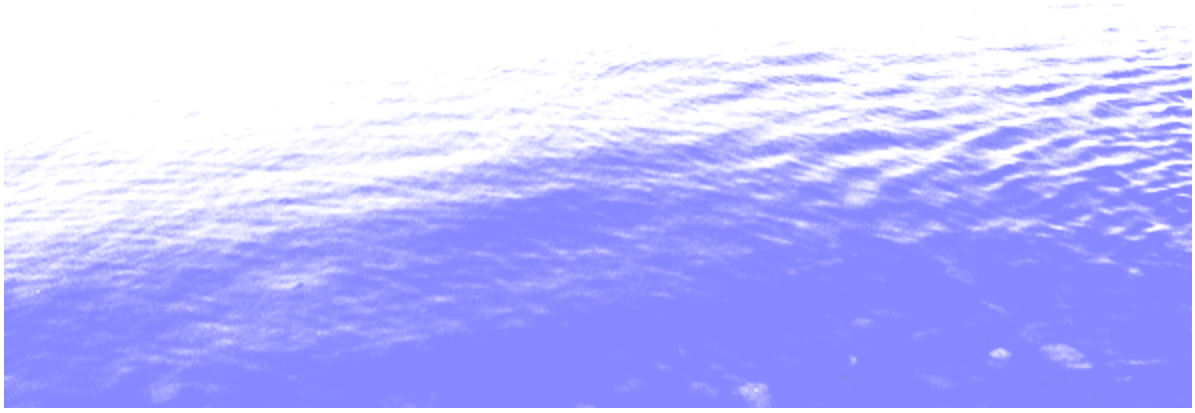
Distribution:

ASRC Federal Mission Solutions, Kimberly Davis

ASRC Federal Mission Solutions, Kevin Wainwright

ASRC Federal Mission Solutions, Christopher Barone

Rowan University, Professor Jack Myers



DOCUMENT VERSION HISTORY

Version	Date	Author(s)	Comments
1.0	12/1/16	Shiv Patel	Initial Version

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1. INTRODUCTION

1.1 PROJECT OBJECTIVE

The objective of the project is to create a framework which implements a Rule Based Decision Engine to help integrate with existing Command and Control System to facilitate decision aids execution. The main objective of the project is to create a prototype framework of the product which allows integration into Command and Control systems and should be created using a Rules Engine or Decision Engine like Drools and the product should meet all the basic necessary features.

1.2 SYSTEM OVERVIEW

1.2.1 SYSTEM DESCRIPTION

The Rule Based Decision Engine is a framework which should allow a user to import data from multiple format and should able to fire rules in order for the user to make decisions effectively. Also, the System should be able to create rules and actions dynamically. The RBDE System is created using Rules Engine named Drools, which executes rules and actions based upon the data provided.

1.2.2 ASSUMPTIONS

It is assumed that users of the RBDE system will be subject matter experts in their specific field. Users of the system are understood to have the ability to create specific rules based off of the imported data set. It is also assumed that data entering the RBDE will be one of the supported file types. To increase access to previously created rules, it is assumed that there will be some type of persistent storage system used to store data.

1.3 DOCUMENT ORGANIZATION

The remainder of the document is organized into 4 sub category. Each category is discussed in details with necessary information needed to support the implementation of the system.

1. Management Overview: This Section discusses about the management process of the system which includes description of implementation, point of contact and security and privacy of the implementation of the system.
2. Implementation Support: This Section of the document discusses the process of implementation and support for the system.
3. Change Management: This section of the document discusses the process of change and maintenance of the system.
4. Training: This section of the document discusses about the training process required for the systems.

2 MANAGEMENT OVERVIEW

2.1 DESCRIPTION OF IMPLEMENTATION

The following activities will be performed during the implementation

- ***Building a Model for Framework***: The purpose of this activity is to build a model which creates new rules which contains necessary components requirements and can meet the business requirements. Also, the model should be capable to applied to any data.
- ***Building necessary Controllers***: The purpose of this activity is to build various controllers necessary which can create, remove and edit data and objects which will be needed in the model.
- ***Building a GUI***: The purpose of this activity is to build and create simple User Interface which helps users navigate through the framework seamlessly and easily understand the framework. The building of GUI will focus on simple user interface.
- ***Conducting Unit Testing***: The purpose of this activity is to test a logical unit of work such as testing functions and classes within the framework model. The focus is on ensuring that the individual business processes in the above functionality work as specified.

2.2 POINTS-OF-CONTACT

The Scrum Team is the primary point of contact. Below table lists all the possible contacts needed for implementation of the RBDE System.

Name of Contact	Role of Contact	Contact Information
Klaydon Balicanta	Scrum Master	balicantk9@students.rowan.edu
Michael Moscariello	Product Owner	moscariem0@students.rowan.edu
Trae Lewis	Development Team	lewist4@students.rowan.edu
Ian Markind	Development Team	markindi1@students.rowan.edu
Shiv Patel	Development Team	patels7@students.rowan.edu
Michael Crinite	Development Team	crinitem0@students.rowan.edu

2.3 SECURITY AND PRIVACY

The RBDE System requires no special security clearance or other permission to implement it. However, the system needs sufficient permissions and access of the system where it is to be implemented in order for the system to work effectively. The system

does not accesses any other data outside its work scope. The system also requires access to store its data for efficient performance

3 IMPLEMENTATION SUPPORT

3.1 SYSTEM REQUIREMENTS

The RBDE is being developed and tested on computers owned by Rowan University students participating in Software Engineering. The products works perfectly on Macs and Windows. The minimum system requirements should include:

- OS: Microsoft Windows 10 or newer, Mac OS X El Capitan or newer
- System Type: x64-based
- Processor: Intel Core i7-5500U CPU @ 2.40GHz, 2401 Mhz
- RAM: 8.00 GB
- 500 MB hard drive or better

Other Software and plugins requirements includes:

- Java 8 or later
- Drools 6.0 or later plugins

3.2 IMPLEMENTATION IMPACT

The implementation of the System should not cause any major impact. The implementation should not prevent or block any other services on the host system. The

implementation may cause little performance impact in some host system depending on the configuration.

If implementation of the RBDE causes some major impact should contact the owner of the product in the Point of Contact section ASAP.

3.3 PERFORMANCE IMPACT

The implementation of the System should not cause any major performance impact. The implementation should cause other component on the system to run little slow as implementing the RBDE should take some CPU cycles when the System runs on complicate and complex rules.

If implementation of the RBDE causes some major impact should contact the owner of the product in the Point of Contact section ASAP.

3.4 COMMUNICATION PLAN

The Scrum team will be announcing the implementation of the system to stakeholders and provide updates on the sprints. Each communication will have following criteria:

- Goal of the Sprint: This provides a brief goal of what should have been achieved during the sprint
- A Sprint review: This is a formal announcement and release of the product's current goal.

- Next Sprint's Goal: This is a brief assumption of what should a stakeholder assume to see for next Sprint.

4 CHANGE MANAGEMENT

The Project Manager is required to manage changes during the Project Life Cycle by assessing whether they have an impact to scope, schedule, or cost. Getting the proper approval from the Project Board once the change is assessed is mandatory. The Project Initiation Report/Project Plan is the document that contains the project scope, high level schedule, and cost. The following written steps are documented as the "Change Impact Assessment Process.

1. The Product Owner will document the problem/change request in the Problem/Change Control Log.

2. The Product Owner will analyze the impact of the change, seeking assistance from team members as necessary. Consider the following factors:

· Benefits of the Change?

· Cost of the Change?

· Schedule of Change?

· Quality of Change?

3. If the change affects scope, schedule, or cost, the Product Owner will present the change request and its impact to the Project Board for a decision on how to proceed.

4. If the Project Board recommends not to implement the change, the Product Owner will update the "change approved by Board" (i.e. not approved) field in the Problem/Change Control Log and put the Board's decision in the "resolution" field. The process then ends.

5. If the Project Board recommends that the change be implemented, the Project Manager will update the Project Plan and other documents (detailed schedule, release strategy and scope, etc.) as required, using Document Version Control, and then update the appropriate fields in the Problem/Change Control Log.

5 TRAINING

Implementation Team will be using the Train-the-Trainer approach and the commitments of the three internal groups of MSE Staff are vital to the success of the training and user buy in:

Training Delivery Staff – consists of select members from MSE responsible for becoming intimately familiar with the RBDE, working with the training team to develop the training courses and material and finally delivering the End-User training classes.

End-Users – those employees whose job functions are affected by the new system and processes and need to learn them in order to do their job.

IT/Systems Admin Team – consists of individuals from MSE Technology responsible for ongoing technical support once the new system has been successfully implemented.