|  |  |
| --- | --- |
|  |  |

**Functional Specification Document**

Regression Tools - Alteration

Version: V1.0

Department Owner:

Product Development

Updated:

July 30th , 2018

**Approval**

By signing this section, the individuals listed below acknowledge that they have reviewed and approved the scope of the effort described in this Functional Specification Document (FSD) for ***Flow Alteration System***. The signatures below represent the approval for execution of this FSD.

|  |  |  |  |
| --- | --- | --- | --- |
| **Prepared by** | | | |
| **Name** | **Designation/Role** | **Date** | **Signature** |
| Hilman D. Utomo | Business Analyst | July 30 2018 |  |
|  |  |  |  |
| **Reviewed by** | | | |
| **Name** | **Designation/Role** | **Date** | **Signature** |
|  | Requestor Manager |  |  |
| **Approved by** | | | |
| **Name** | **Designation/Role** | **Date** | **Signature** |
|  | Project Owner (HOD) |  |  |

*\*please do not remove, but add as necessary*

**Revision History**

*Please replace all revision history in table below once you use this template for your project purposes*

|  |  |  |  |
| --- | --- | --- | --- |
| Version No. | Date | Created by | Revision Description/ Reason for Revision |
| 1.0 | 30 July 2018 | Hilman D. Utomo | Initial new requirement |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Distribution List**

This document shall be made available as soft copies to the following users below:

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Name** | **Designation/Role** | **Department** |
| 1. |  |  |  |
| 2. |  |  |  |
| 3. |  |  |  |

**TABLE OF CONTENT**

[1. Introduction 1](#_Toc521003464)

[1.1 Purpose 1](#_Toc521003465)

[1.2 Objectives 1](#_Toc521003466)

[1.3 Scope 1](#_Toc521003467)

[1.4 Out of Scope 1](#_Toc521003468)

[1.5 Assumptions, Dependencies, Constraints 1](#_Toc521003469)

[2. Flow System alter 2](#_Toc521003470)

[3. Functional Requirements 4](#_Toc521003471)

[3.1 System Requirements 4](#_Toc521003472)

[3.1.1 Regression Tools Alteration – Upload 4](#_Toc521003473)

[3.2 Non-Functional Requirements 5](#_Toc521003474)

[3.3 Data/Database Requirements 6](#_Toc521003475)

[3.3.1 Database Requirements 6](#_Toc521003476)

[4. GLOSSARY 11](#_Toc521003477)

[1. REFERENCE DOCUMENT 11](#_Toc521003478)

[1.1 Attachments/Appendix 11](#_Toc521003479)

[1.2 Site Map 11](#_Toc521003480)

[1.3 Use Case Diagram 11](#_Toc521003481)

[1.4 Page Specification 11](#_Toc521003482)

[1.5 Report Design 11](#_Toc521003483)

[1.6 User Interface and User Experience Design 12](#_Toc521003484)

# Introduction

## Purpose

The purpose of this Functional Specification Document (FSD) is to define the functional and non-functional requirements for Regression Tools Alteration. The requirements specified in this document define the system from a functional perspective. It includes the system, data, performance, configuration, security, operational, and maintenance capabilities that the system must provide in order to meet business needs.

## Objectives

The main objectives of Regression Tools Alteration system are:

1. Can upload .zip file to the system

2. Can translate .csv file into json

3. Can send a request and receive a response from ME

4. Can do a comparation and generate an output

## Scope

Regression Tools Alteration will only do the following process:

1. Upload file to the system

2. Send a request and receive a response from ME

3. Compare the data and generate an output

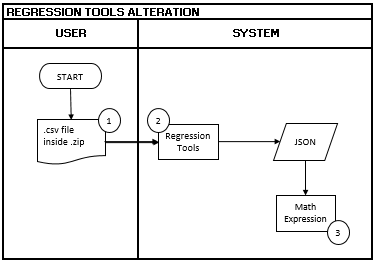
## Out of Scope

There is no calculation process in Regression Tools Alteration. All the calculation will be done in ME.

## Assumptions, Dependencies, Constraints

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Type** | **Description** | **Associated Risks** | **Mitigation** |
| 1 | Assumption | <Description> | <Risk> | <Mitigation> |
| 2 | Dependency | <Description> | <Risk> | <Mitigation> |
| 3 | Constraint | <Description> | <Risk> | <Mitigation> |

# Flow System alter - UPLOAD



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Process | PIC | SLA | Remarks |
| 1 | User have a .csv file inside .zip file | User | Real Time |  |
| 2 | Via RT, user upload the file into the system and RT will send a request in Json data type | System & User | Real Time | Main Process |
| 3 | ME will receive the request from RT | System | Real Time |  |

# Functional Requirements

## System Requirements

### 3.1.1 Regression Tools Alteration – Upload

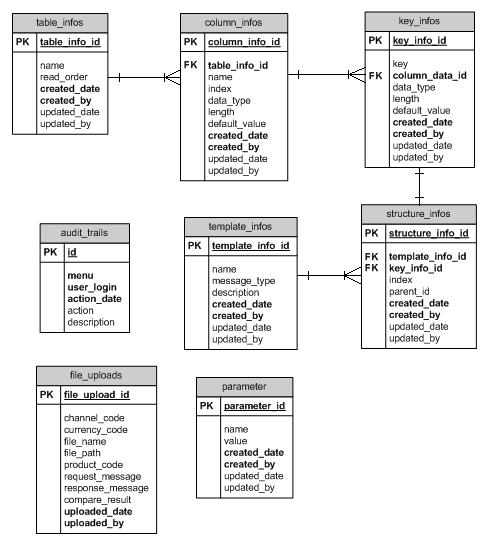
|  |  |
| --- | --- |
| **Requirement ID 3.1.1** | **Requirement Description** |
| **Function** | **Regression Tools Alteration – Upload**  One of the main functionalities of Regression Tools Alteration is to upload the file into the system |
| **Business Process** | **Role**  User  **Pre-condition**   1. User has access Login to PruForce.   **Main Flow / Flow of Events**   1. User upload .zip file that contain .csv file via Regression Tools   **Post-condition**   1. User wait the output result from Regression Tools |
| **Interface Requirement** |  |
| **Data Requirement** | Data requirement for each field already prepared |

## 3.2 Non-Functional Requirements

| **Requirement ID** | **Requirement Description** |
| --- | --- |
| **3.2.1** | **Security**  The system must include an authorization procedure where the user must identify with username and password. Only user who have authority through this procedure can manage the data |
| **3.2.2** | **Availability**  The system shall be available for use 24/7 |
| <ID> | <Performance Requirements:  Response times (application loading, refresh time etc.)  Processsing times (functions, calculations etc.) > |
| <ID> | <Capacity Requirements:  Throughput (transactions to be handled by the system per hour)  Storage (how much data should the system be able to store)  Year on year growth requirements> |
| <ID> | <Reliability Requirements:  Acceptable threshold for down-time  Mean time to Recovery – maximum time before which system has to be brought back up> |
| <ID> | <Usability Requirements:  Look and feel standards – color, branding, logo etc.  Internationalization/Localization requirements – languages, spellings, translations etc.> |

## 3.3 Data/Database Requirements

### 3.3.1 Database Requirements



| **Requirement ID** | **Requirement Description** |
| --- | --- |
| **3.3.1.1** | **Table Name: table\_infos**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Column Name** | **Type** | **Primary Key** | **Nullable** | **Foreign Key** | | table\_info\_id | integer | Y | N |  | | name | varchar | N | Y |  | | read\_order | varchar | N | Y |  | | created\_date | datetime | N | N |  | | created\_by | varchar | N | N |  | | updated\_date | datetime | N | Y |  | | updated\_by | varchar | N | Y |  | |
| **3.3.1.2** | **Table Name: column\_infos**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Column Name** | **Type** | **Primary Key** | **Nullable** | **Foreign Key** | | column\_info\_id | integer | Y | N |  | | table\_info\_id | varchar | N | N | table\_infos.table\_info\_id | | name | varchar | N | Y |  | | index | integer | N | Y |  | | data\_type | varchar | N | Y |  | | length | integer | N | Y |  | | default\_value | varchar | N | Y |  | | created\_date | datetime | N | N |  | | created\_by | varchar | N | N |  | | updated\_date | datetime | N | Y |  | | updated\_by | varchar | N | Y |  | |
| **3.3.1.3** | **Table Name: key\_infos**   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Column Name** | **Type** | **Primary Key** | **Nullable** | **Foreign Key** | | | key\_info\_id | integer | Y | N |  | | column\_data\_id | integer | N | N | column\_infos.column\_info\_id | | key | varchar | N | Y |  | | data\_type | varchar | N | Y |  | | length | integer | N | Y |  | | default\_value | varchar | N | Y |  | | created\_date | datetime | N | N |  | | created\_by | varchar | N | N |  | | updated\_date | datetime | N | Y |  | | updated\_by | varchar | N | Y |  | |
| **3.3.1.4** | **Table Name: template\_infos**   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Column Name** | **Type** | **Primary Key** | **Nullable** | **Foreign Key** | | | template\_info\_id | integer | Y | N |  | | name | varchar | N | Y |  | | message\_type | varchar | N | Y |  | | description | text | N | Y |  | | created\_date | datetime | N | N |  | | created\_by | varchar | N | N |  | | updated\_date | datetime | N | Y |  | | updated\_by | varchar | N | Y |  | |
| **3.3.1.5** | **Table Name: structure\_infos**   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Column Name** | **Type** | **Primary Key** | **Nullable** | **Foreign Key** | | | structure\_info\_id | integer | Y | N |  | | template\_info\_id | integer | N | N | template\_infos.template\_info\_id | | key\_info\_id | integer | N | N | key\_infos.key\_info\_id | | index | integer | N | Y |  | | parent\_id | integer | N | Y |  | | created\_date | datetime | N | N |  | | created\_by | varchar | N | N |  | | updated\_date | datetime | N | Y |  | | updated\_by | varchar | N | Y |  | |
| **3.3.1.6** | **Table Name: audit\_trails**   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Column Name** | **Type** | **Primary Key** | **Nullable** | **Foreign Key** | | | id | integer | Y | N |  | | menu | varchar | N | N |  | | user\_login | varchar | N | N |  | | action\_date | datetime | N | N |  | | action | varchar | N | Y |  | | description | text | N | Y |  | |
| **3.3.1.7** | **Table Name: file\_uploads**   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Column Name** | **Type** | **Primary Key** | **Nullable** | **Foreign Key** | | | file\_upload\_id | integer | Y | N |  | | channel\_code | varchar | N | Y |  | | currency\_code | varchar | N | Y |  | | file\_name | varchar | N | Y |  | | file\_path | varchar | N | Y |  | | product\_code | varchar | N | Y |  | | request\_message | text | N | Y |  | | response\_message | text | N | Y |  | | compare\_result | text | N | Y |  | | updated\_date | datetime | N | N |  | | updated\_by | varchar | N | N |  | |
| **3.3.1.8** | **Table Name: parameter**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Column Name** | **Type** | **Primary Key** | **Nullable** | **Foreign Key** | | parameter\_id | integer | Y | N |  | | name | varchar | N | Y |  | | value | varchar | N | Y |  | | created\_date | datetime | N | N |  | | created\_by | varchar | N | N |  | | updated\_date | datetime | N | Y |  | | updated\_by | varchar | N | Y |  | |

# GLOSSARY

These are the abbreviations, acronyms, and terms that are specific to this FSD:

| **Abbreviation, Acronym, and Term** | **Definition** |
| --- | --- |
| Regression Tools (RT) | The main module of this document |
| Math Expression (ME) | The calculation module that will do the calculation of data that will be sent via Regression Tools |
| .csv | Type of file format, its stand for comma separated variable |
| .zip | Type of file compression format |
| json | Type of file format that contains policy data |

## 

# REFERENCE DOCUMENT

The following reference documents were used during the development of this FSD:

| Document Number | Document Title | Document Type |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |



## Attachments/Appendix

There are no attachments in this FSD

<OR>

## Site Map

<Attachment>

## Use Case Diagram

## Page Specification

<Attachment>

## Report Design

<Attachment>

## User Interface and User Experience Design

<Attachment>