

Smart Reconfigurable Test

Software Design Description

**Author: Sean McMahon**

**Department: Software**

**Contributors: Sarah Brady**

**Most Marvellous Company Ltd.**

9 Inchicore Terrace North, Inchicore, Dublin 8, Ireland

[ww.mostmarv.com](http://mostmarv.com/)

# Data Item Description

## Revision History

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Status** | **Date** | **Author** | **Change Description** |
| 0.1 | Draft | 13/11/2019 | S McMahon | Initial draft |
| 0.2 | Draft |  |  | Document Review |
| 1.0 | Release |  |  |  |

## Purpose

Describe the SR Test Architecture, Decision Rationale and Highlight Items for Review

## Stakeholders

Stakeholder should indicate their approval.

|  |  |  |
| --- | --- | --- |
| **Position** | **Name** | **Date** |
|  |  |  |

# SR Test High Level Architecture

LabVIEW Component Object Design



## SR Test Program Flow



## Process Descriptions

### Load Function

**Option A**

INI files.

Advantages : Users cannot arbitrarily add sections to the INI file, (LabVIEW required)

Disadvantages: Users cannot arbitrarily add sections to the INI file, (LabVIEW required)

**Option B**

Text files and Sorter

Advantages : Users can arbitrarily add sections to the INI file, (LabVIEW not required)

Disadvantages : Users can arbitrarily add sections to the INI file, (LabVIEW not required).

**Decision**

Text file will point to a folder in which the configurable sections are contained. Easy to add in new functions without the need for LabVIEW on an executable system.

### Settings Review

INI files.

Advantages : Users cannot arbitrarily add sections to the INI file, (LabVIEW required)

Disadvantages: Users cannot arbitrarily add sections to the INI file, (LabVIEW required)

**Option B**

Text files and Sorter

Advantages : Users can arbitrarily add sections to the INI file, (LabVIEW not required).

Disadvantages : Users can arbitrarily add sections to the INI file, (LabVIEW not required). Complexity increases

Decision: Option A. Time is limited and considerable thought and development required to investigate benefit of configurability of settings via text files. System is still reconfigurable but LabVIEW, Source Code and deployment capability required. Essentially, provider will redeploy.