Software Build Procedure for the IMA System Integration and Verification Bench Reflect Memory Converter

Prepared by:

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Revision History

| **Change Order** | **Rev.** | **Rev. Date** | **Change Description** | **Release Date** | **Released By** |
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# Introduction

## Purpose

This document has been prepared by GE AVIC Civil Avionics Systems Company Limited, hereinafter called AVIAGE SYSTEMS. This document describes the procedures to build the software correctly.

## Scope

This document could only be used to build the SOFTWARE, IMA System Integration and Verification Bench Reflect Memory Converter, with AVIAGE SYSTEMS part number XXXXXXX, Rev 1.

## Definition of Terms

|  |  |
| --- | --- |
| I-SIVB | System Integration and Verification Bench for  IMA system |
| I-SIVB RMC | I-SIVB Reflect Memory Converter |
| VAIS | Virtual Aircraft Integration Software |

## Used Tools

The following tools or software are used or to be used together with I-SIVB RMC software.

|  |  |
| --- | --- |
| VAI Control Panel | VAI Tool provide by GE. |
| General Model Bridge | Software developed by AVIAGE SYSTEMS, to convert VAIS parameters in different protocal (ARINC664 to ARINC429, for example). |

# Referenced Documents

The following documents of the exact issue shown form a part of this document to the extent specified herein. For those documents showing no date of issue, the latest issue applies.

AVIAGE SYSTEMS

|  |  |
| --- | --- |
| ED3688  XXyyyy | Software Development Plan for Test Systems Software.  Design document for I-SIVB Reflect Memory Converter. |

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| --- | --- |
| E-C289JB054 | C919 Aircraft Avionics Laboratory Reflective Memory Network User Standard. |

# Build Procedure

## Source Code Files

The source code files of this software are archived and base-lined in Dimensions. See Table 1 for the baselines. The appendix 5 describes the list of source code files that are used to build the I-SIVB RMC (I-SIVB Reflect Memory Converter) software.

Table 1. Source Code Baselines

|  |  |
| --- | --- |
| **Baseline ID** | **Software Name** |
| SIM:XXXXX-001-01 | SOFTWARE, I-SIVB RMC |
| SIM:XXXXY-001-01 | SOFTWARE, I-SIVB RMC Csharp Library |

## Supporting Files

Table 2. Supporting Files and Libraries Baselines

|  |  |
| --- | --- |
| **Baseline ID** | **Software Name** |
| SIM:1000065-001\_VENDOR | SOFTWARE, VENDOR, VIRTUAL AIRCRAFT INTEGRATION SYSTEM |
| SIM:1000065-00X\_VENDOR | SOFTWARE, VENDOR, GE Intelligent Platforms, PCI RFM2g Card Driver. |

## Environment

Computer installation: Desktop PC

Operating system: Windows 7 Pro 64-Bit (1000060-001)

Compiler(s): VS2010 + Service Pack 1 (1000061-001)

Assemblers: VS2010 + Service Pack 1 (1000061-001)

## Build Instruction

### Get Files

1. In Dimensions, perform a Get action on baselines described in section 3.1 and section 3.2
2. Go to the folder **…/Sim/Vendor(GE Intelligent Platforms\RFM2g)**, to unzip all .zip files to the current folder.

### Building Supporting Files

Building Target Files

1. Go to the folder, …/Sim/Product/I-SIVB-ReflectMemoryConverter/Library, open ILibrary.sln and set the Configuration to Release and Target platform to Any CPU. Select Rebuild Solution command from menu to build the reflect memory card CSharp library.
2. The output files, Rfm2gDriverCsharp.dll, will be generated in the folders, ..\ Sim\Product\I-SIVB-ReflectMemoryConverter\Library\Release.
3. Go to the folder, …/Sim/Product/I-SIVB-ReflectMemoryConverter/,Open I-SIVB-ReflectMemoryConverter.sln and set the Configuration to Release and Target platform to Any CPU. Select Rebuild Solution command from menu to build the I-SIVB RMC software, I-SIVB-ReflectMemoryConverter.exe, which will be generated in the folder: ..\Sim\Product\I-SIVB-ReflectMemoryConverter\I-SIVB-ReflectMemoryConverter\bin\Release.
4. In addition, the ‘rfm2gdll\_stdc\_32.dll’ (or ‘rfm2gdll\_stdc\_64.dll’ in x 64 platforms) should be copied to release folder (\Sim\Product\I-SIVB-ReflectMemoryConverter\Library\Release), from folder..\Sim\Vendor\GE Intelligent Platforms\RFM2g\Bin.

## Permissible Errors and Warnings

# Appendix A: Source Code File list

| I-SIVB-ReflectMemoryConverter

| +--- src

| |+---Configuration\_src

| | | ConfigDefinitions.cs

| | | ConfigReader.cs

| |+--- Operation\_src

| | | Adapter.cs

| | | RfmOpr.cs

| | | RfmViasDataConvert.cs

| | | VaisOpr.cs

| | LogManager.cs

| | Program.cs

| ReflectMemoryCardDriverCpp

| | + Header Files

| | | Rfm2gDrv.h

| | | stdafx.h

| | | targetver.h

| | + Source Files

| | | dllmain.cpp

| | | ReflectMemoryCardDriverCpp.cpp

| | | stdafx.cpp

| Rfm2gDriverCsharp

| | Rfm2gDriverCsharp.cs

# Appendix B: Config Files

| VAIS\_Config.vaisproj

| VAIS\_Config.system

| VAIS\_Config.resource

| VAIS\_Config.participant

| VAIS\_Config.icduser

| VAIS\_Config.icdimport

| I\_SIVB\_Config.xml