





prostep ivip Short Report

ReqIF Benchmark 2019

#### **Disclaimer**

This document is a prostep ivip Documentation (PSI Documentation). Those are freely available for all prostep ivip e.V. members and VDA members. Anyone using these recommendations is responsible for ensuring that they are used correctly.

This PSI Documentation gives due consideration to the prevailing state-of-the-art at the time of publication. Anyone using PSI Documentations must assume responsibility for his or her actions and acts at their own risk. The prostep ivip Association and the parties involved in drawing up the PSI Documentation assume no liability whatsoever.

We request that anyone encountering an error or the possibility of an incorrect interpretation when using the PSI Documentations contact the prostep ivip Association (psi-issues@prostep.org) immediately so that any errors can be rectified.

### Copyright

- I. All rights on this PSI Documentation, in particular the copyright rights of use and sale such as the right to duplicate, distribute or publish the Documentation remain exclusively with the prostep ivip Association and its members.
- II. The PSI Documentation may be duplicated and distributed unchanged, for instance for use in the context of creating software or services.
- III. It is not permitted to change or edit this PSI Documentation.
- IV. A suitable notice indicating the copyright owner and the restrictions on use must always appear.

## **Table of Contents**

1 Introduction	2
<ul> <li>2 Approach</li> <li>2.1 Four Steps</li> <li>2.2 Scenario: Simple Roundtrip Without Changes to the Specification Structure by Customer or Supplier (PING-PONG)</li> <li>2.3 Participants</li> <li>2.4 Reference File</li> <li>2.5 Test Criteria</li> <li>2.6 Testing</li> <li>2.7 Documentation</li> </ul>	2 2 4 4 7 7 8 8
3 Results 3.1 Ping Results 3.2 Pong Results	<b>9</b> 9 9
4 Summary and Outlook	11
5 Acknowledgements	

# **Figures**

Figure 1	Process and Actors	3
Figure 2	Ping-Pong Scenario	4
Figure 3	Overview Ping Results - Import Successful: import completed; Office Files: embedded docx, pptx and xlsx files transferred; Image Files: embedded image files transferred	9
Figure 4	Overview Pong Results – Intentional Changes	10
Figure 5	Overview Pong Results – Unintentional Changes	10
Figure 6	JT in V-Model by (prostep ivip Association 2019, S. 7)	11

## **Tables**

Table 1	Tested software	4
Table 2	Test case matrix	6
Table 3	est Criteria	7

#### 1 Introduction

Requirements Management has been established to ensure seamless specifications along the product creation process. In order to manage complex specification processes and requirements dependencies companies introduced requirements management systems.

To support a proper requirements exchange between partners using different tools, the project group "Simulation and Tools" of the HIS (Hersteller Initiative Software) specified the generic "Requirement Interchange Format (RIF)".

In summer 2008 the prostep ivip association initiated the project group IntRIF to increase the acceptance and application of RIF by transferring the recommendation into an international standard. With the successful standardization in April 2011 OMG ReqIF 1.0.1 has been published as the official successor of RIF.

prostep ivip established two project groups to further drive the ReqIF format:

The goal of the RegIF Implementor Forum is to ensure interoperability between different RegIF-based implementations. Therefore, the ReqIF-IF works very tight together with the newly established ReqIF Workflow Forum.

In 2016, the community of relevant user representatives consequently made the next step: Specifying relevant use cases for RegIF application in industry.

Thus, mayor aim of the prostep ivip / VDA ReqIF-WF is to specify use cases as well as reference processes (customer-customer, customer-Supplier etc.) and, related to this, deriving process requirements and test cases. The work is performed in close collaboration with the RegIF Implementor Forum.

To prove the applicability of the ReqIF format, the project groups have decided to perform benchmarks. The first benchmark in 2018 focused on basic functionalities. The first benchmark was well received by the users and implementers, as it provided valuable information for the usage and further development of requirement management tools.

In this second benchmark, the tested scenario is a simple roundtrip without changes to the specification structure by customer or supplier. Goal of the benchmarks is a neutral evaluation of the current capabilities in requirement data exchange with ReqIF. Additionally, issues that require further development of either the format itself or of the tested software tools will be identified and addressed.

## 2 Approach

The following sections describe the basic conditions for the benchmark.

#### 2.1 Four Steps

Based on lessons learned from previous benchmarks, the RegIF Workflow and RegIF Implementor Forum agreed on the following four-step approach:

1. The ReqIF Workflow Forum clarified the target intent for the benchmark and provided details on the expected outcome.