

prostep ivip/VDA

# ReqIF Benchmark 2019

## Long Report

Version 1.0, 21.12.2019

Status: Final



**VDA**

Verband der  
Automobilindustrie

## **Abstract**

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. The generic „Requirement Interchange Format (RIF)“ was created to enable the exchange of information across different requirements management systems.

In summer 2008 the prostep ivip association initiated the project group InTRIF in order 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.

Two project groups are currently working on the enhancement of the format and its application. In 2011 the ReqIF Implementor Forum was established for realizing strong technological basis. In 2016 the community of relevant user representatives then consequently made the next step: Specifying relevant use cases for ReqIF application in industry.

To evaluate the feasibility of requirement data exchange with ReqIF, benchmarks are conducted, the very first in 2018. 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. The benchmark was run at prostep ivip site with support of the 6 participating vendors. The criteria and test data were defined by the users.

## 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](mailto: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.

## Contents

### Table of Contents

1 Introduction.....	1
2 Approach .....	1
2.1 Four Steps .....	1
2.2 Scenario: Simple Roundtrip Without Changes to the Specification Structure by Customer or Supplier (PING-PONG).....	2
2.3 Participants .....	3
2.4 Reference Files.....	5
2.5 Test Criteria.....	8
2.6 Testing.....	10
2.7 Documentation .....	10
3 Results .....	11
3.1 Overview .....	11
3.1.1 Ping Results .....	11
3.1.2 Pong Results .....	11
3.2 Detailed Results .....	13
3.2.1 Results for Asaro ReqIF for Active Workspace as Customer Tool.....	14
3.2.2 Results for :em AG ReqMan as Customer Tool .....	16
3.2.3 Results for IBM DOORS as Customer Tool .....	18
3.2.4 Results for IBM DOORS Next Generation as Customer Tool.....	20
3.2.5 Results for INTLAND codeBeamer as Customer Tool.....	22
3.2.6 Results for PTC Integrity Requirements Connector + IBM DOORS as Customer Tool .....	24
3.2.7 Results for PTC Integrity Requirements Connector + PTC Integrity as Customer Tool.....	26
3.2.8 Results for Siemens Polarion as Customer Tool.....	28
4 Summary and Outlook.....	30
5 Acknowledgements .....	30

### Figures

Figure 1: Process and Actors .....	2
Figure 2: Ping-Pong Scenario.....	3
Figure 3: Structured headings and indented text .....	6
Figure 4: Bullet points .....	6
Figure 5: Numbered lists .....	7
Figure 6: Tables .....	7

Figure 7: Embedded document.....	7
Figure 8: Embedded images (examples) .....	8
Figure 9: Text with fore- and background colors and different font styles .....	8
Figure 10: Overview Ping Results .....	11
Figure 11: Overview Pong Results – Intentional Changes.....	12
Figure 12: Overview Pong Results – Comments with Attachments.....	12
Figure 13: Overview Pong Results – Unintentional Changes .....	13

## Tables

Table 1: Tested software .....	4
Table 2: Test case matrix.....	5
Table 3: Test Criteria .....	9
Table 4: Legend for result tables.....	13
Table 5: Ping Results for Asaro ReqIF for Active Workspace .....	14
Table 6: Pong Results for Asaro ReqIF for Active Workspace + Siemens Teamcenter as Customer Tool .....	15
Table 7: Ping Results for :em AG ReqMan.....	16
Table 8: Pong Results for :em AG ReqMan as Customer Tool .....	17
Table 9: Ping Results for IBM DOORS.....	18
Table 10: Pong Results for IBM DOORS as Customer Tool.....	19
Table 11: Ping Results for IBM DOORS Next Generation .....	20
Table 12: Pong Results for IBM DOORS Next Generation as Customer Tool .....	21
Table 13: Ping Results for INTLAND codeBeamer .....	22
Table 14: Pong Results for INTLAND codeBeamer as Customer Tool.....	23
Table 15: Ping Results for PTC Integrity Requirements Connector + IBM DOORS.....	24
Table 16: Pong Results for PTC Integrity Requirements Connector + IBM DOORS as Customer Tool.....	25
Table 17: Ping Results for PTC Integrity Requirements Connector + PTC Integrity .....	26
Table 18: Pong Results for PTC Integrity Requirements Connector + PTC Integrity as Customer Tool .....	27
Table 19: Ping Results for Siemens Polarion .....	28
Table 20: Pong Results for Siemens Polarion as Customer Tool .....	29