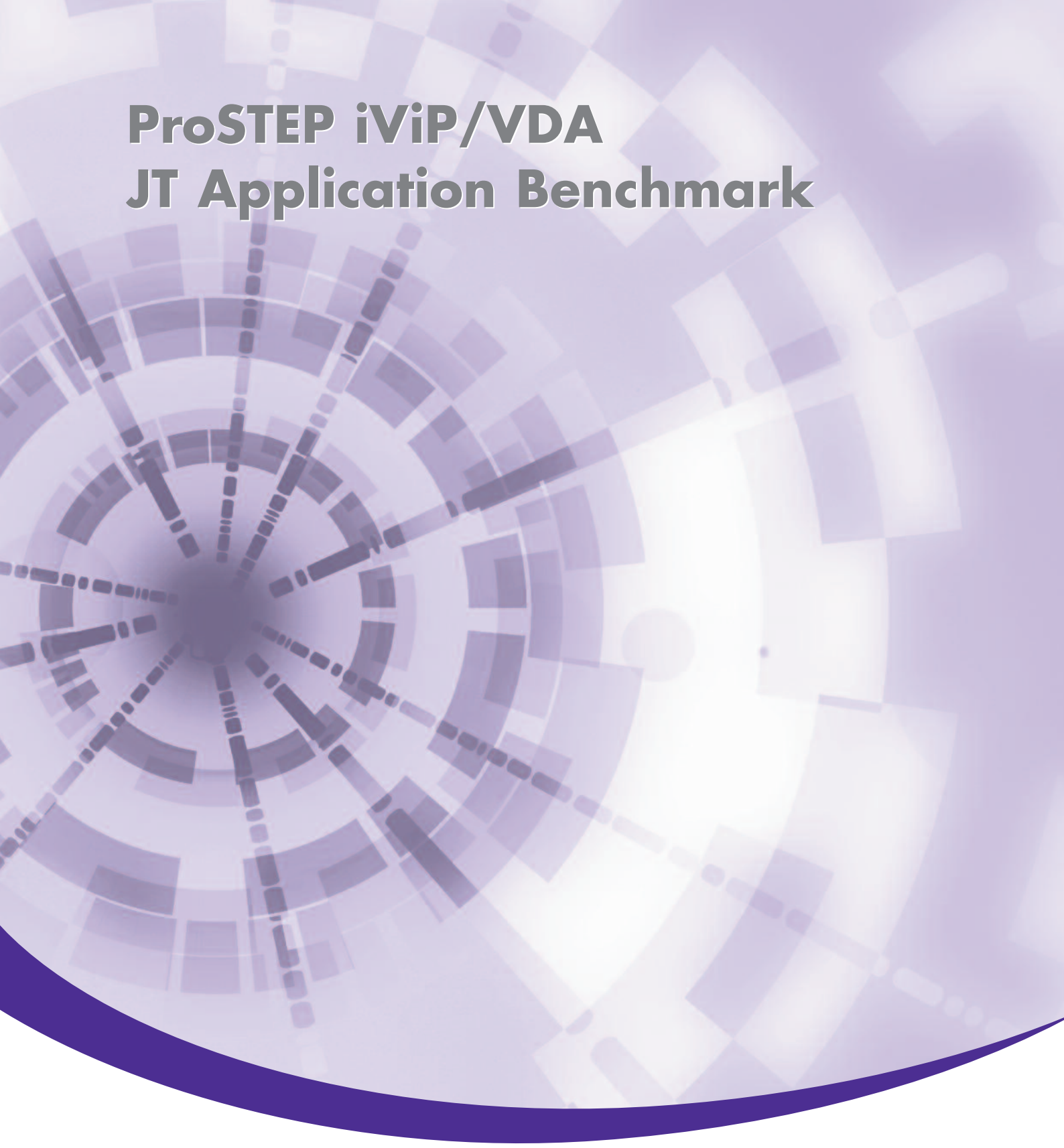
ProSTEP iViP/VDA
JT Application Benchmark



4th JT Benchmark

SHORT REPORT

ProSTEP iViP

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1 Introduction

JT has become a widely used format for product visualization during the product development process. The ProSTEP iViP Association and the German Association of the Automotive Industry (VDA) have launched three JT-related projects in succession which are being coordinated with each other: the ProSTEP iViP/VDA JT Workflow Forum, the ProSTEP iViP/VDA JT Application Benchmark and the ProSTEP iViP/VDA JT Implementor Forum.

As the latest in a row of four benchmarks, the JT Application Benchmark was carried out in 2013 to achieve an independent evaluation of the progress being made with regard to the development of JT translators. The object of the testing was ISO 14306:2012 (JT 9.5). Additionally, the interoperability between JT and the STEP AP242 XML schema (publication as ISO Standard planned for Q1/2014) was also part of the Benchmark. Thus, this 4th Benchmark covers results far beyond state-of-the-art technology.

The benchmark was managed by the JT Workflow Forum and JT Implementor Forum. Because the benchmark is an independent activity, it was financed directly by the two organizations, the ProSTEP iViP Association and the VDA, and not by the participating companies whose products were tested. It is a neutral comparison of trendsetting JT applications with regard to the selected test criteria. Therefore the results of the benchmark cannot only be used to evaluate the application of JT in PLM environments but also for improvement of the interoperability of the applications.

As such applications are undergoing a permanent development; the Benchmark can only give a snapshot of the functions and qualities of the applications.

2 Approach

Focal points of this 4th Benchmark are the quality of visualization, the handling of the applications as well as gathering first experiences with regard to the interaction of JT with STEP AP242 XML.

2.1 Four steps

Based on the Lessons Learned from the previous benchmarks, the JT Workflow and JT Implementor Forum agreed on the following 4-step approach:

1. The JT Workflow Forum clarifies the target intent for the Benchmark and provides details on the expected outcomes (e.g. PMI visualization vs. semantics).
2. The vendors make proposals for the JT file scope, configuration settings and evaluation approach which in their eyes will best fit the requirements.
3. A proof of concept/test run for the Benchmark is conducted, using the agreed-on settings and test models, as a test round in the JT Implementor Forum.
4. If the test run is successful, the actual Benchmark is conducted.

2.2 Building blocks

This benchmark is composed of two independent building blocks:

- JT-Loop test: Translation from JT to CAD and CAD to JT, focus on XT-BREP, PMI and CAD-Attributes.
- JT with AP242 XML test: Export from CAD to JT with STEP AP242 XML and import of JT with STEP AP242 XML files into CAD systems and viewers with focus on Product Structure and Attributes (Meta Data).