



EWIS Interoperability Forum Test Round 01E

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Document History

Release	Date	Change
1.0	2019-09-11	Initial Release

1 Introduction

This document describes the suite of test cases to be used for the first round of testing in the Electrical Wire Harness Interconnect System (EWIS) Implementer Forum (IF). The EWIS-IF is a joint testing forum, organized and facilitated by AFNeT and PDES, Inc.. The test rounds of the EWIS-IF concentrate primarily on testing the interoperability and compliance of STEP processors based on AP242 Ed. 2.

The test rounds in general combine testing of synthetic and production models. Production models will in most cases be provided by the member companies of the organizations AFNeT and PDES, Inc.. When production models are not available from the member companies, “production-like” models will be solicited from the various EWIS-IF participants.

This test round focuses on the AP242ed2 Domain Model XML format.

1.1 *Functionality tested in this round*

Functionality tested in this round relates to:

- **EWH Assembly** with the specific needs for
 - part categories:
 - discrete_part, raw_material_by_length
 - wire, cable, connector, lug
 - WiringHarnessAssemblyDesign, subtype of AssemblyDefinition
 - QuantifiedOccurrence, WireOccurrence, CableOccurrence
- **EWH Topology**
 - WiringHarnessAssemblyDesign with topology
 - ConnectedEdgeWithLengthSetRepresentation with EdgeWithLength, Vertex, ConnectedEdgeSet
 - HarnessSegment, HarnessNode

1.2 *General testing instructions for this round*

The general procedures for communication of models and statistics are outlined in a separate document, named ‘General Testing Instructions’ (to be provided at a later time).

All documents and public results of the EWIS-IF will be published on the web (URL to be provided at a later time).

1.3 Testing Schedule

The following schedule has been agreed on for Round 1:

2019-08-28	Training session for content of round 1
2019-09-11	1st Round1 meeting, Atlanta, GA, USA Tutorial and Test Suite available
2019-11-12	2st Round1 Conference Call / reviewing initial start up problems
2020-02-11	3rd Round1 Conference Call / Initial release of files for testing
2020-02-25	4th Round1 Preliminary results available
2020-03-11/13	EWIS-IF Round1E Review Meeting in Toulouse, France

The EWIS-IF Round1E Review meeting will take place in conjunction with LOTAR workshop. In addition, conference calls and web sessions will be available for those not attending the meeting to dial in.

2 Document references

This test round is based on the following documents:

- STEP: ISO 10303 “Industrial automation systems and integration -- Product data representation and exchange”
 - AP242 ed2: ISO/DIS(2) 10303-242 (2018): Application protocol: Managed model-based 3D engineering”
 - XSD of AP242 ed2 DIS2, derived from the Domain Model documented in SysML.
- Recommended Practices for AP242 Business Object Model XML Assembly Structure, Release 2.0; 2018-10-30 (https://www.cax-if.org/joint_testing_info.html#recpracs). Note: This document is based on AP242 ed1
- STEP AP 242 Electrical Harness XML Tutorial, Version: pre 1.2, Date: 2019-02-22
 - Example file: HarnessExample.xml (hierarchical assembly)
 - Example file: HarnessExample_flat.xml
- AP242 ed2 Electrical Wire Harness (EWS) Tutorial – Slides part 1, v1.0, 2019-08-27
- EWIS Interoperability Forum, Test Suite v1.0, 2019-09-11

3 Synthetic Test Case Specifications

The details for testing are documented in the EWIS-IF Test-Suite v1.0.

This round contains the following formal test cases

- EWH-Unit-Assembly1
- EWH-UseCase-Topology1

At of today these test cases are only suitable for preprocessor testing, as no example EWIS corresponding XML files are available yet. The responsible team is trying to make such files available as soon as possible.

In addition implementers are encouraged to try to import the provided XML files from the EWIS tutorial and to report about the results.