

Interoperability SIG Progress Report 2018

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Task:

To provide tools and advice to support the achievement of CAPE-OPEN interoperability and to carry out interoperability testing where appropriate.

Key Responsibilities:

- Provide new tools, as required, to support the achievement of CAPE-OPEN interoperability by PMC and PME developers**
- Develop and maintain the existing CO-LaN portfolio of software tools**
- Use the suite of vendor-licensed software available to CO-LaN to assist in interoperability testing**

Unchanged!

Interoperability SIG Annual Report: Membership

❑ As of October 2018

- Malcolm Woodman, MR Woodman Consulting
- Michael Halloran, CO-LaN contractor
- Michel Pons, CO-LaN contractor

❑ Work process

- Monthly conference calls to survey progress and identify actions
- MP and MH implement, test and resolve defects

Activities 2017-2018: Versioning

- ❑ Future developments of the CO-LaN specifications will not easily fit into the current versioning scheme
 - How to evaluate a versioning proposal?
- ❑ Versioning scheme must support use cases such as
 - Addition of (for example) flowsheet monitoring
 - Minor breaking change, e.g. change in *ICapeUtilities::Edit*
 - Major breaking change, e.g. COBIA
 - Deprecation of existing interface, e.g. Thermo v1.0
- ❑ Criteria developed to test any versioning proposal:
 - List of stakeholders
 - List of their specific requirements
- ❑ SIG working with M&T to identify a versioning proposal that satisfies these criteria

Activities 2017-2018: Versioning

❑ Stakeholder: End User

- Allow the end user to know which PMEs and PMCs are designed to interoperate
 - Without manual testing
 - Based on vendor literature
 - As easy and simple as possible

❑ Stakeholder: Software vendor with existing implementations

- Unambiguous versioning scheme against which to certify
- No code change needed to allow existing implementations to continue
 - to work
 - to interoperate

Activities 2017-2018: Versioning

- ❑ **Stakeholder: New software vendor (or existing software vendor with new or upgraded interface)**
 - **Clarify which versions of the CAPE-OPEN standard are available for implementation**
 - **Allow unchanged interfaces to interoperate**
 - even when PME and PMC implement different versions of the standard
 - **Allow automated recognition by a PME of the version(s) supported by PMC**

- ❑ **Stakeholder: CO-LaN**
 - **Minimise effort to maintain the CAPE-OPEN standard**

Activities 2017-2018

❑ Certification

- Proposal provided to MB for development of self-certification test suite
- M. Woodman to take forward under separate contract with CO-LaN
- Moving to activities of Certification SIG

❑ COLTT

- No significant changes over the year
 - ~150 downloads for each x86/x64 versions since October 2017

❑ CAPE-OPEN Type Libraries/PIA installers

- Minor issue found: solution to be experimented

❑ COBIA installers

- Interop SIG to provide support to M&T on requirements for COBIA installation on 3rd party machines
 - COBIA End-User Redistributable
 - COBIA Software Development Kit

A few thoughts on Quality Assurance

- ❑ **CO-LaN delivers software, not only textual specifications**
 - **More and more software, including middleware**
- ❑ **QA requires both**
 - **Significant time**
 - **Suitable skills in the coding and/or delivery methods used**
- ❑ **QA requires access to multiple organisations with the necessary skills and resources**
 - **Currently largely reliant on self QA by organisation undertaking developments**
- ❑ **A significant risk on (especially) the reputation of CO-LaN and the CAPE-OPEN standard**

Questions?

Thank you for your attention!