

Interoperability SIG Progress Report 2016

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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**

Interoperability SIG Annual Report: Membership

◆ As of October 2016

- 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
- Relies on repositories
 - One for each CO-LaN product
 - Ensures traceability
 - Enables collaboration

Activities 2015-2016

◆ Code signing certificate

- Make software issued by CO-LaN recognized as CO-LaN
- Signing proves CO-LaN code has not been altered / compromised by a 3rd party
- With sufficient downloads, CO-LaN will become a “trusted provider”
- Reduced warning messages at installation

◆ Current situation

- Solution tested
- Certificate purchased for 3 years
- TLB/PIA installers and COLTT both now use certificate
- Available for signing of all CO-LaN Software
- A documented process is required for the use of the certificate

◆ Repositories

- All hosted in Repository Hosting
- SourceForge no longer in use for COLTT
- Interoperability SIG fulfills an administrative role
 - Set-up, back-ups, account management, permissions, wikis (one per repository)
- Support for collaborative work
 - Software: COLTT (open-source), TLB/PIA installers, Source code examples, CAPE-OPEN Tester Suite, etc...
 - Documents: let Management Board / SIG members / CO-Lan Members share documents (e.g. Word, Visio, Powerpoint etc.) files being revised/developed
 - Representative(s) of each Full/Associate Member: account
 - Permissions defined according to role in organization

◆ CAPE-OPEN Logging & Testing Tool (COLTT)

■ Status

- Installer and source available as open source, via Repository Hosting
- Installer code signed
 - Ensures end-users are using the “definitive” version
- A mature product
 - In use by non CO-LaN Members

■ Progress

- Intermediate release 2.3.1
 - Minor functioning issues resolved
 - Issue with Microsoft Visual Studio run-time version fixed
 - Dependency on .Net Framework 2 removed

◆ COLTT (Cont.)

■ Roadmap

- Address & close the open tickets
- Enhance for use in 64-bit applications
 - Business case already made, as 64 bit PME's already available / in development
 - Requires changes to the COLTT controller
 - Development already ~ 50% complete
 - Is 64-bit / 32-bit interoperability required?
- Reference counting

◆ Type Libraries / Primary Interop Assemblies installers

▪ Purpose

- Deliver the files common to all CAPE-OPEN software
- Should be used by all software vendors/developers
 - Improves reliability of interoperability
 - Must be possible to safely install / uninstall many times
- Becomes part of commercial software releases
 - Increases requirements for high quality development and testing
 - Already in use in current releases of DWSIM and PRO/II

◆ Type Libraries / Primary Interop Assemblies installers (Cont.)

■ Progress

• Version 2.0 released in July 2016

- Installers tested by several Member organizations leading to enhancement and corrections
- Developer Guide also has been reviewed, and amended / improved as required

• Version 2.1 about to be released

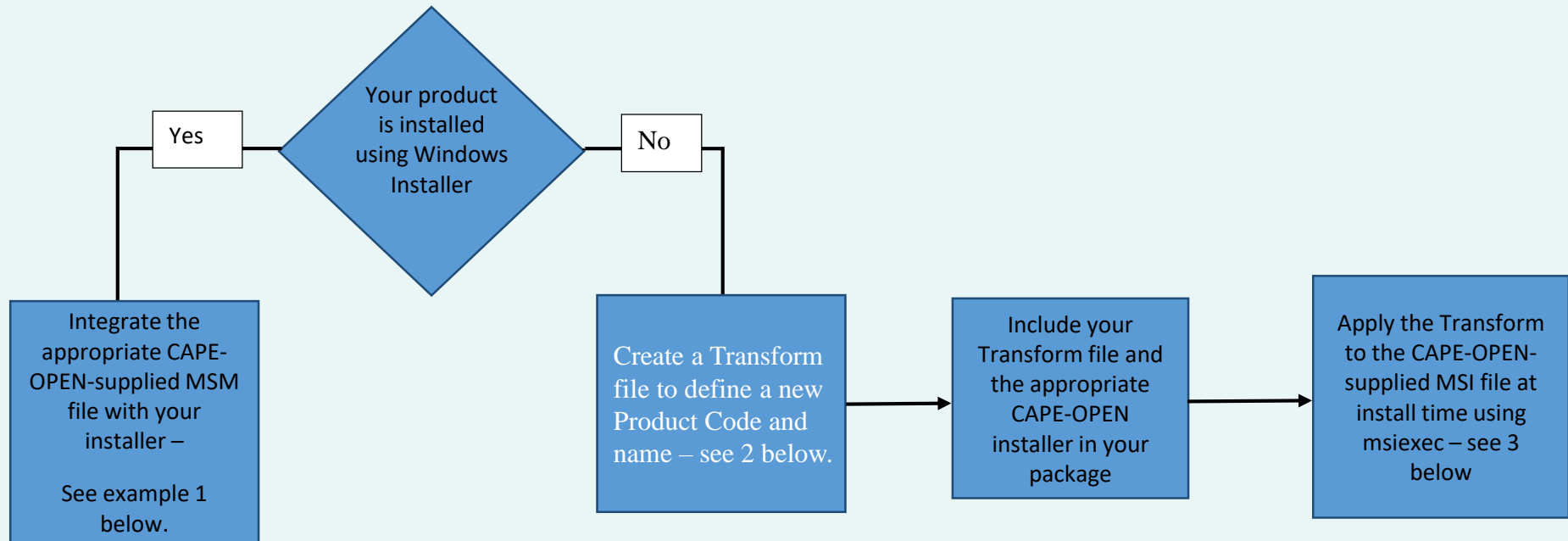
- Addresses remaining issues found in testing and Developer Guide review
- Issue with persistence interfaces fixed (found very late in end-user testing)
- Developer Guide current in final proof reading, will be published at the same time

• Lessons Learnt

- MH is preparing a “Lessons Learnt” document
- Will provide important information in development of other CO-LAN software & tools

◆ Type Libraries / Primary Interop Assemblies installers (Cont.)

▪ Extract from Developers Guide:



Future Plans

◆ New “Tester Suite” needed to support self-certification proposals

- Could be based on COLTT as core module
- Re-use existing CO-LaN software where possible
- Possibility to use Open Source test harness / automation frameworks?
- Again, increased emphasis on quality code and maintenance

◆ Challenges

- Very few people have requisite knowledge to do developments and testing
- MH is doing work in his spare time
- Need to identify additional funding and resource if developments are to be delivered in a timely fashion

Questions?

Thank you for your attention!



Go CAPE-OPEN!