Interoperability SIG Progress Report 2017

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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!

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Interoperability SIG Annual Report: Membership

♦ **As of October 2017**
- **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**

Activities 2016-2017: Repositories

- ◆ **Repository Hosting**

  - ▪ **Originally set up and now managed by Interoperability SIG**

  - ▪ **One project for each CO-LaN product**

    - • **CAPE-Open Logging & Testing Tool (COLTT)**

    - • **IDL & Type Libraries**

    - • **CAPE-Open Tester Suite**

    - • **CAPE-OPEN Examples**

    - • **COBIA**

    - • **Etc.**

  - ▪ **Allows use of Trac (defect tracking), Wiki, downloads etc. per project**

  - ▪ **Ensures traceability of software versioning**

  - ▪ **Enables collaboration**

    - • **Each project has different access rights, guaranteeing correct controlled access**

    - • **More than 100 accounts have been created for CAPE-OPEN members**

- ◆ **SourceForge projects have been deleted**

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Activities 2016-2017: Type Library Installers

- **Final version of v1.1 Type Library installer has been released**
    - **>150 downloads**
    - **Should (Must?) be used by all CAPE-OPEN developers**
- **Developer Guide has been issued**
    - **Reviewed by interested parties**
    - **Approved by Management Board for release**
    - **>200 downloads**
- **Conference call with the vendors**
    - **Explained rationale and usage for Type Library installer**
- **Lessons Learnt document**
    - **Covers lessons learnt from both software design and testing process**
    - **Lessons Learnt are applicable to all software development projects undertaken by CO-LaN**

Activities 2016-2017: Lessons Learnt

♦ **Overall recommendations:**

■ **Review the scope of the development and the assumptions being made about the vendors' software and the end-users environment early in the development process**

■ **Define Test scenarios and have them reviewed early in the development process**

■ **Agree a test programme with the software vendors**

• **Prior to publication**

• **Such a test programme may be a formal beta test phase**

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Activities 2016-2017: Addition of new IDL

- **M&T SIG are developing the new Flowsheet Monitoring interface specification**
  - **New IDL will be available**
  - **Additive, doesn't change existing IDL**
- **How to handle this?**
- **One option is to include in v1.1 Type Library**
  - **Results in confusion in which version of v1.1 Type Library is in use**
- **Interoperability SIG recommendation**
  - **Create a new Type Library and PIA – version 1.2**
    - **References existing v1.1 IDL**
    - **Adds new Flowsheet monitoring IDL**
  - **An updated Type Libraries installer will install all 3 versions of the type library & PIAs**
  - **All vendors to start to use the new Type Library installer with their next release**
  - **However, complete backwards compatibility is maintained**
- **A survey will be conducted to gather views from all vendors**

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Activities 2016-2017: COLTT

- **Updated roadmap is under development**
  - **There will be a future request for feedback on proposals**
  - **Management Board will need to approve revised roadmap**
- **Focus has been on Type Library Installer**
  - **So little development over last year**
  - **But has been adapted for 64-bit software**
- **>40 downloads for each of current 32-bit & 64-bit versions**
  - **Since July 2017**
- **Previous version downloaded >200 times**

Activities 2016-2017: 64-bit COLTT (Current)

Operating System

| 32-bit | 64-bit |

Process Modelling Environment

| 32-bit | 64-bit |

Process Modelling Component
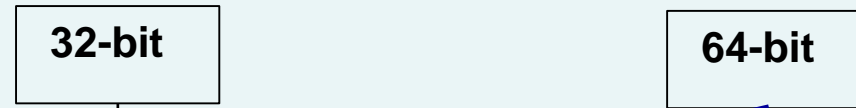
| 32-bit | 64-bit |

32-bit COLTT:

Viewer

Controller

Logger

64-bit COLTT:
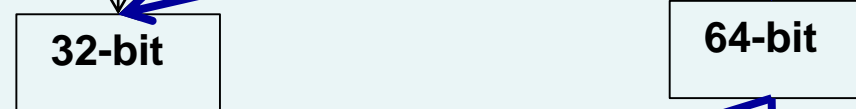
Viewer

Controller

Logger

♦ **Need to install both COLTT versions; User selects which controller to use**
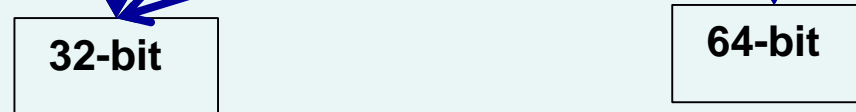
Future Activities: 64-bit COLTT

Operating System

32-bit   64-bit

Process Modelling Environment

32-bit   64-bit

Process Modelling Component

32-bit   64-bit

COLTT:

64-bit Viewer

64-bit Controller

32-bit & 64-bit Loggers

♦ **One COLTT version; Single Controller works with both 32-bit & 64-bit PMCs**

♦ **No support for 32-bit operating systems**

Activities 2016-2017: COBIA

♦ **Have provided feedback at various stages of project**

♦ **Our primary focus is on achieving sustainable interoperability with COM implementations**

♦ **Will continue to provide input as required, including:**

 ■ **Development of test plans**

 ■ **Interoperability testing**

  • **Using the full suite of CAPE-OPEN compliant software available to CO-LaN**

♦ **Questions:**

 ■ **Are vendors actually going to re-write their software to use COBIA?**

 ■ **Advantages of COBIA will only be achieved if a significant number of vendors switch to COBIA**

 ■ **SIG (and CO-LaN in general) has a backlog of activities**

  • **Where should we prioritise COBIA?**

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Activities 2016-2017: Tester Suite

- ◆ **Have suggested that COLTT could form the basis of a future tester suite**
  - ▪ **Would replace existing tester suite, which is little used & not maintained**
  - ▪ **Could form basis for self-certification process**
- ◆ **On hold**
  - ▪ **Pending feedback & recommendations from MB**

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Questions?

Thank you for your attention!

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