Methods & Tools Special Interest Group

Charter

Improve integration, and expand utilization of Computer-Aided Process Engineering (CAPE) applications within the enterprise through identification and resolution of existing cross-cutting issues with the CAPE-OPEN platform, develop mechanisms for use of CAPE within other application domains, and incorporate advances in information technology into the CAPE-OPEN platform.

Key responsibilities

- Resolve issues with the common interface specifications.
- Develop and maintain standards and protocols for CAPE-OPEN implementations.
- Incorporate advances in information technology into the CAPE-OPEN protocols.
- Identify novel uses of CAPE and provide standards for utilizing CAPE within these applications.

Deliverables for 2013:

- Object Model:
    a. Develop design criteria for the CAPE-OPEN Object Model.
- Common Interfaces and Integrated Guidelines:
    a. Review the common interface specification documents to identify issues exposed through implementation.
    b. Review of Integrated Guidelines to identify issues exposed through implementation.
    c. Address errata, provide clarifications, and develop best practices guidance to address the issues identified in (a.) and (b.).
- Flowsheet monitoring:
    a. Complete SIG draft version the Flowsheet Monitoring Specification

Deliverables for 2014:

- Object Model:
    a. Provide a roadmap for development of the CAPE-OPEN Object Model.
    b. Develop a prototype implementation of the CAPE-OPEN Object Model for one computational platform so that benefits may be seen and interoperability along with COM demonstrated.
- Common Interfaces and Integrated Guidelines:
    a. Continue the review of the common interface specification documents to identify issues exposed through implementation.
    b. Continue the review of Integrated Guidelines to identify issues exposed through implementation.
    c. Address errata, provide clarifications, and develop best practices guidance to address the issues identified in (a.) and (b.).
- Flowsheet monitoring:
    a. Complete adoption of the Flowsheet Monitoring Specification

Deliverables for 2015[1]:

- Integrated Guidelines:

   a. Update the integrated guidelines document to specify an Object Model that will allow CAPE-OPEN to be implemented and utilized across multiple platforms including Microsoft Windows, Unix/Linux based systems, and computational clusters.
   b. Include in the updated integrated guidelines document all interim guidance that has been developed to date and provide guidelines for resolving other outstanding issues related to the CAPE-OPEN standards.
- Object Model:
   a. Deliver and test a beta version of the implementation of the CAPE-OPEN Object Model for one computational platform.
- Common Interfaces:
   a. Update common interface specifications to reflect the CAPE-OPEN Object Model.

Deliverables for 2016[1]:

- Object Model:
   a. Deliver final implementation of the CAPE-OPEN Object Model for one computational platform.
- Business Interfaces:
   a. Coordinate development of business interfaces (such as thermodynamics and unit operations) with the respective special interest groups.

Deliverables for 2017[1]:

- Interface Specifications:
   a. Publish final versions of the common interface specifications based upon the CAPE-OPEN Object Model.
   b. Help other SIGs finalize their CAPE-OPEN Object Model interface specifications

Membership as of 2013:

Bill Barrett
US EPA

Jasper van Baten
AmsterCHEM

Bjørn Maribo-Mogensen
Technical University of Denmark

Daniel Wagner

Jorge Martinis, Michael Hlavinka
Bryan Research and Engineering

Loic d'Anterroches
Céondo, Ltd.

Marc-Olivier Andrez
Process Systems Enterprise Limited

David Jerome, Krishna Penukonda
SIMSCI/INVENSYS

Tony Garratt
Reaction Design

[1] Deliverables for years 2015 and beyond represent a strategic vision for the SIG. Deliverables for those years may be adjusted based upon progress, available resources, changes in objectives/needs/priorities, etc, of CO-LaN. This will allow other SIGs to anticipate activities related to the CAPE-OPEN Object Model and provide measurable objectives for the M&T SIG related to completion of the CAPE-OPEN Object Model. Future year deliverables will be re-evaluated at the end of the preceeding year to make sure they are still applicable.