

CAPE-OPEN Test Suite for PMEs

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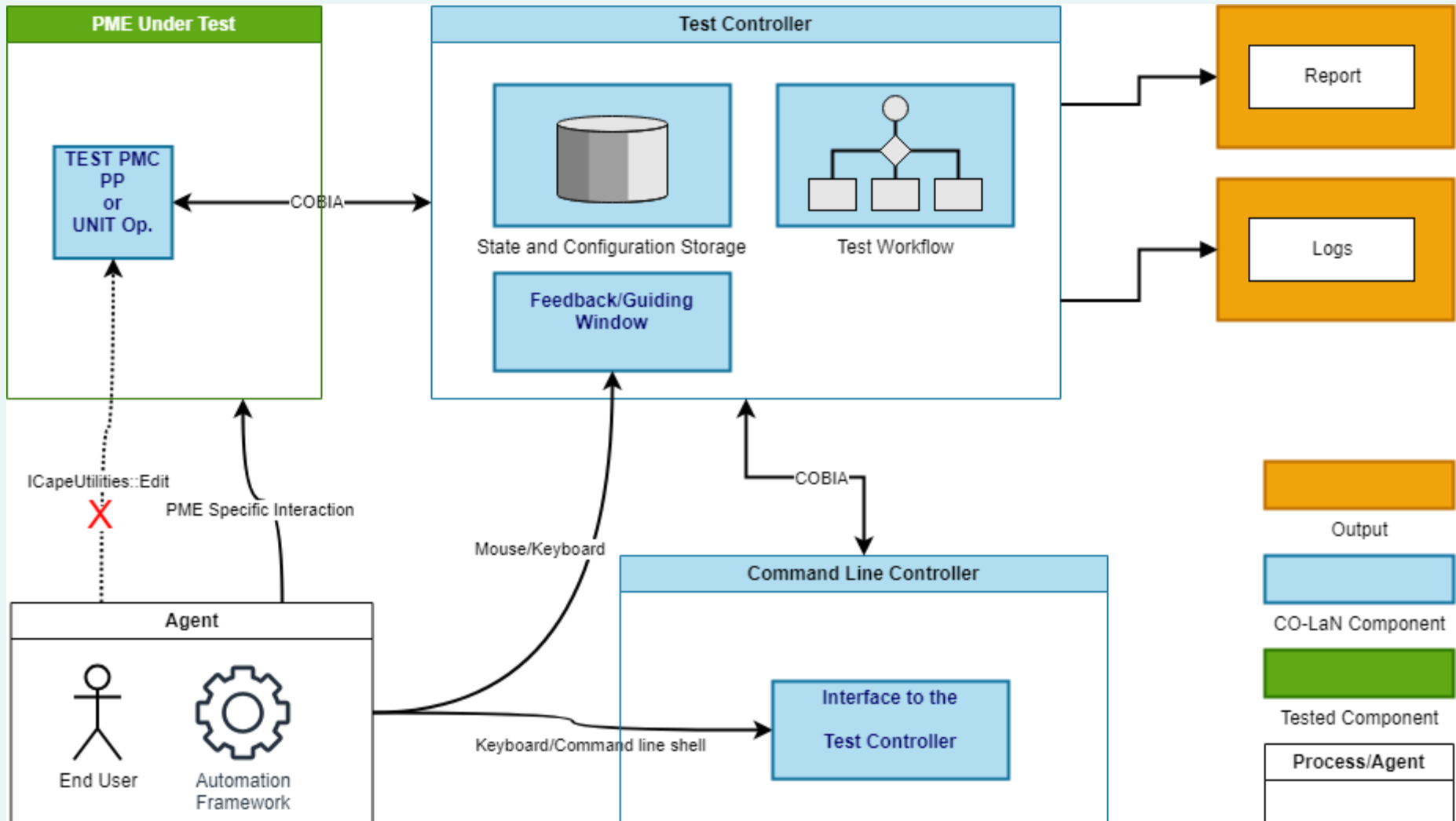
Overview

- The challenge
- The proposal
- Next Steps (2023/24)
- Discussion

The Challenge

- ❑ **The Process Modelling Environment (PME) is in control of the lifecycle of a CAPE-OPEN PMC**
 - ⇒ **The CAPE-OPEN Test Suite can't mandate the order of interactions between PME & PMC**
- ❑ **Every PME has a different user interface**
 - ⇒ **Only the PME vendor or an experienced user knows how to “drive” the PME**
 - ⇒ **The CAPE-OPEN Test Suite can't automate the test process**

The Proposal



The Proposal - Summary

- ❑ All the following provided by CO-LaN
- ❑ **Test PMC**
 - ⇒ Property Package
 - ⇒ Unit Operation
 - ⇒ Provide the interfaces exercised by PME
 - ⇒ Relay results & triggered events to *Test Controller*
- ❑ **Test Controller**
 - ⇒ Communicates with Test PMC
 - ⇒ Allows for configuration of Test PMC
 - Not all PMEs allow use of ICapeUtilities::Edit on all types of PMC
 - ⇒ Guides the Test Suite end user through the required workflow
 - ⇒ Maintains the state of the test workflow
 - ⇒ Produces test reports & logs

The Proposal – Summary (2)

- ❑ **Command Line Controller**
 - ⇒ **Facilitates communication between end-user & *Test Controller***
 - ⇒ **Allows for automation of testing via an automation framework**
 - **Leaving the choice of automation framework to the end-user**

- ❑ **All communication between these components will be via COBIA**

- ❑ **Pre-requisites**
 - ⇒ **Published COBIA Phase 3**
 - ⇒ **Definition of COBIA interface for inter-process communication**
 - ⇒ **COBIA language bindings to support windowing technology**

Next Steps (2023/24)

□ 2023

⇒ Complete design document

- Design of:
 - Components
 - Interfaces
 - Workflow
- Choice of windowing technology
- Architecture decisions
 - e.g. in-process vs. out-of-process
- Data structures

⇒ Ultra-minimal Proof of Concept

- Will be sufficient to allow vendors to provide feedback

□ 2024

⇒ Full prototype

Discussion

☐ Thank you!

☐ Discussion

⇒ Is the current design acceptable?

⇒ Will the Command Line Controller be sufficient to allow automation of PME testing?

⇒