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Cadence

Kitalpha

PolarSys

OPEN

Version 1.0.0

THALES

Agenda

1 **Introduction**

2 **Cadence**

What is Cadence?
Principles
Implementation

3 **Example**

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Purpose

Context

- The issue is to inject actions between processes of a workflow.

Purpose

Providing injection of actions in a workflow after ending a process and before the beginning of the next one.

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What is Cadence?

Definition

Cadence is an Eclipse component which allows injecting actions between two sub-processes of a workflow.

Vocabulary

Workflow: a process where sub-processes are sequentially executed.
Workflow element: a workflow step between two sub-processes.
Activity: a contribution to a workflow element; it is executed as an independent program.

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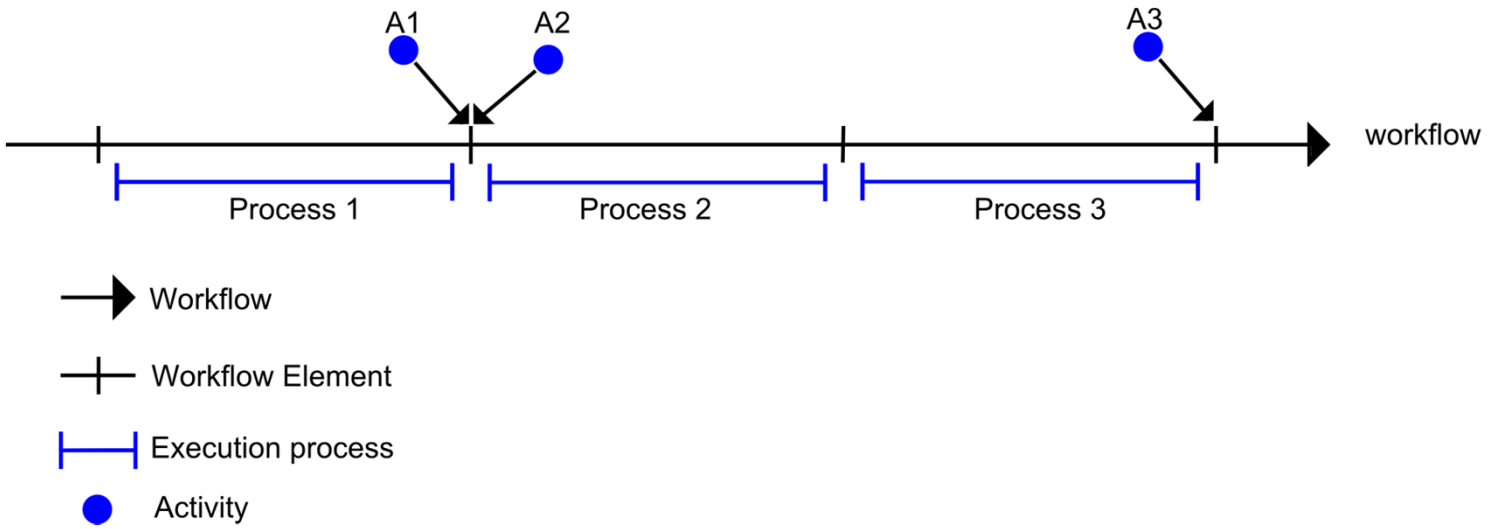
Principles 1/2



Generic representation of a Cadence workflow

Sub-processes are represented with blue segments (process 1, process 2…) in the figure and are sequentially executed.

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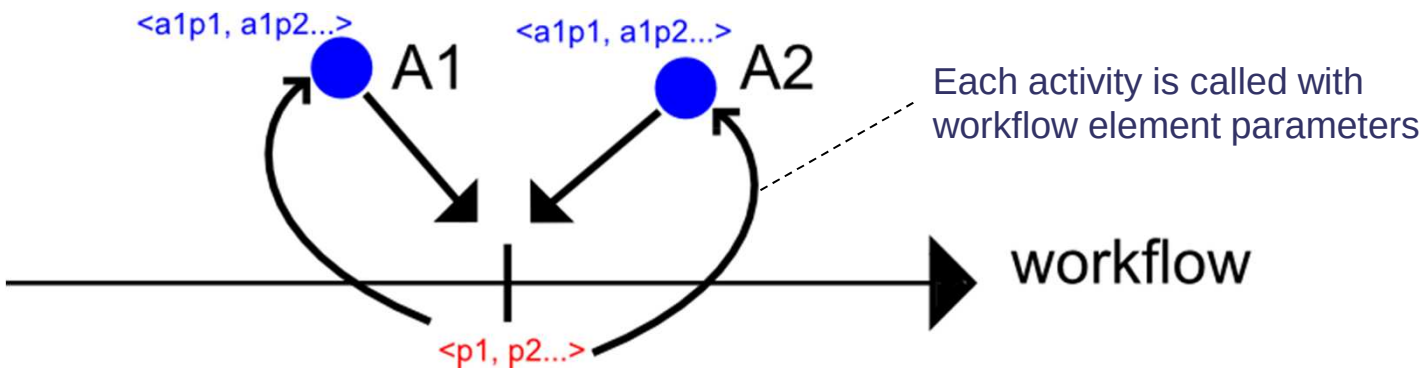
Principles 2/2



Workflow element and activity parameters

A Workflow element declares parameters (red ones in capture above).
Activities that contribute to this workflow element receive these parameters.
Activities also declares its own parameters (blue ones in the figure).

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How to use Cadence?

Cadence provides two extension points:

Definition of workflow and its workflow elements:

- com.thalesgroup.mde.cadence.core.workflow.declaration [EP1]

Definition of activities:

- com.thalesgroup.mde.cadence.core.activity.declaration [EP2]

Activities must implement the contract defined by the IActivity interface (See the example below).

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How to use Candence?

Cinematic to use Cadence

1. Declare a workflow with the extension point [EP1]
2. Declare workflow elements in a previous workflow
3. For each workflow element, declare its required parameters
4. Declare activities and its workflow element with the extension point [EP2]
5. For each activity, declare the required parameters
6. Define a Java class for each activity

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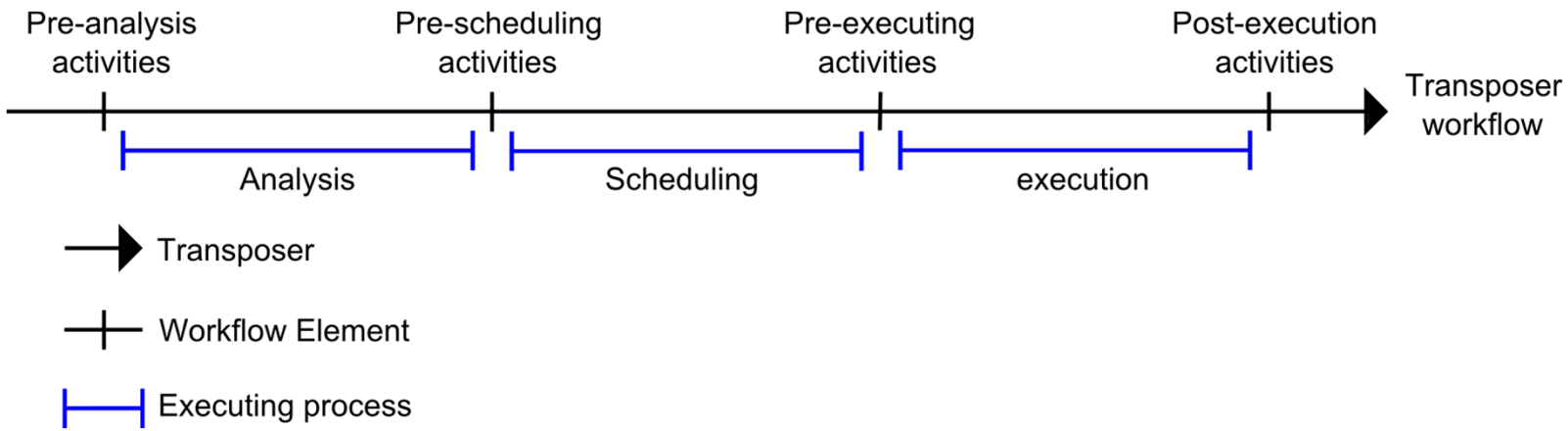
Example

Cadence does not provide a standalone execution.
It is involved by components such as Composer and Transposer during execution of workflow activities.

Example: Transposer defines one workflow and four workflow elements.



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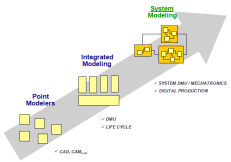

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Thank You!

https://www.polarsys.org/projects/polarsys.kitalpha

https://polarsys.org/wiki/Kitalpha

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