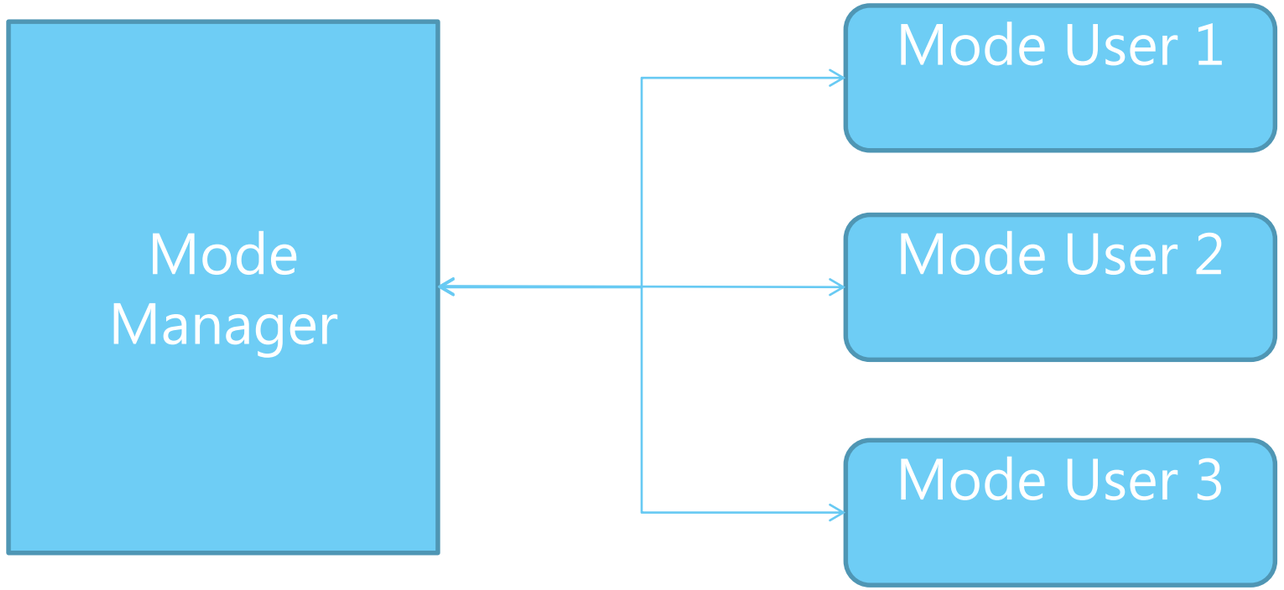
Mode Switch

KPIT

Agenda

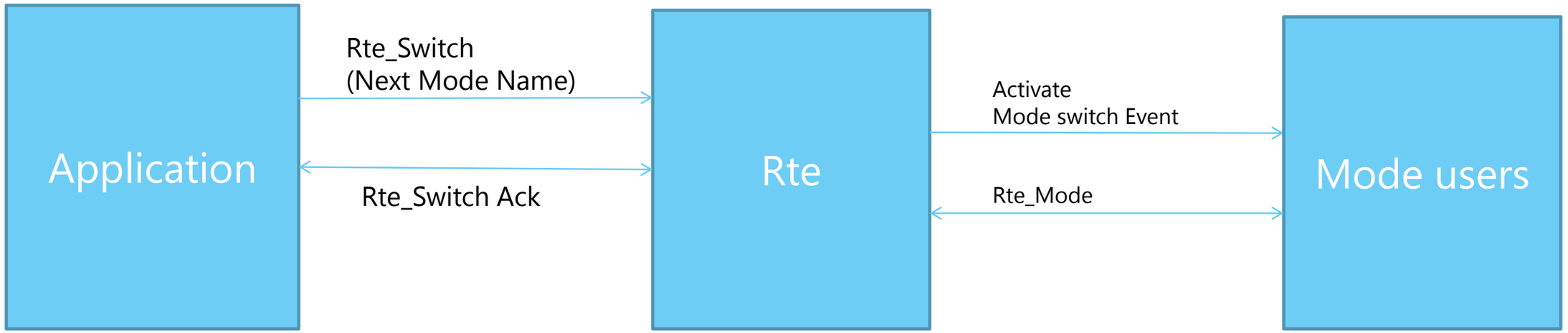
- Introduction to Mode Switch
- Working Principle of Mode Switch
- Mode Switch Events
- Mode Manager
- Mode Users
- Basic Entities required for Mode Switch
- How to configure Mode Switch
- How to configure Ecu Extract for the configured System Description
- Practice on Mode Switch

Introduction to Mode Switch

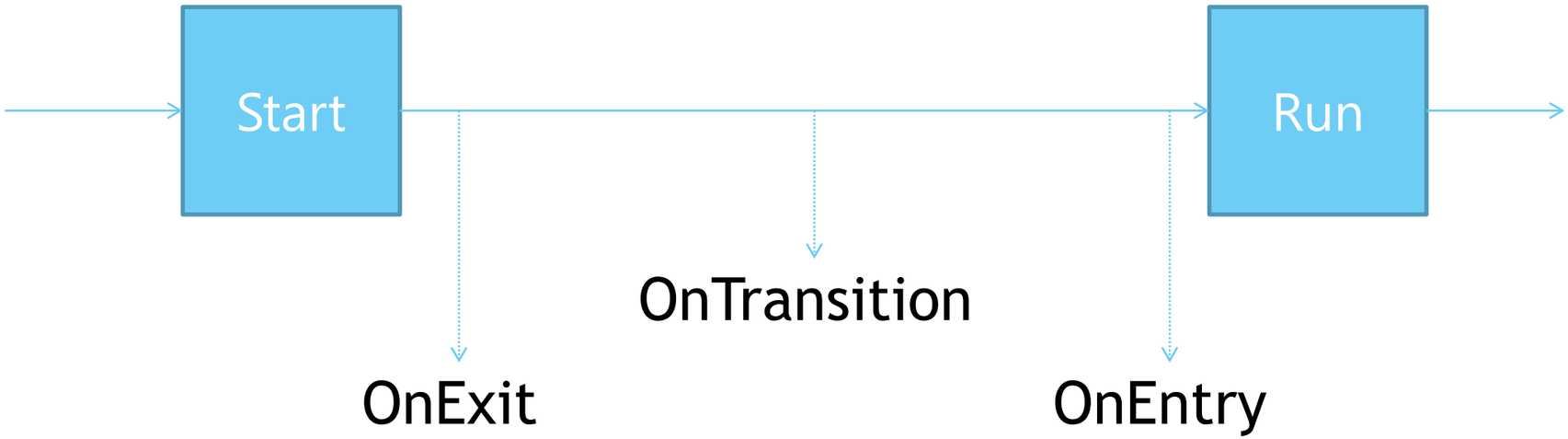


- Invoke Runnable / Schedulable
- Disable Runnable / Schedulable (Mode Disabling)

Working Principle of Mode Switch



Mode Switch Events



Mode Manager

- Master State Machine
- Only one Mode Manager
- Initiates Mode Switching
- Mode transition Status

Mode User

- Get current Mode [Rte_Mode]
- Execute Functionalities Depending on Mode value
- Multiple Mode users can connect single Manager

Basic Entities required for Mode Switch

Application SW Component (Mode User) [R-port] [1..*]

- Mode switch event (onExit, onEntry and onTransistion)
- Runnable
- Mode Access Point.
- R-Port

Application SW Component (Mode Manager) [P-port][1..1]

- Timing Event and Mode switch Ack Event (Optional)
- Runnable
- Mode Switch Point
- P-Port

Mode Switch Interface

- Mode Group Prototype

Mode Declaration Group

Data type and Data type Mapping set

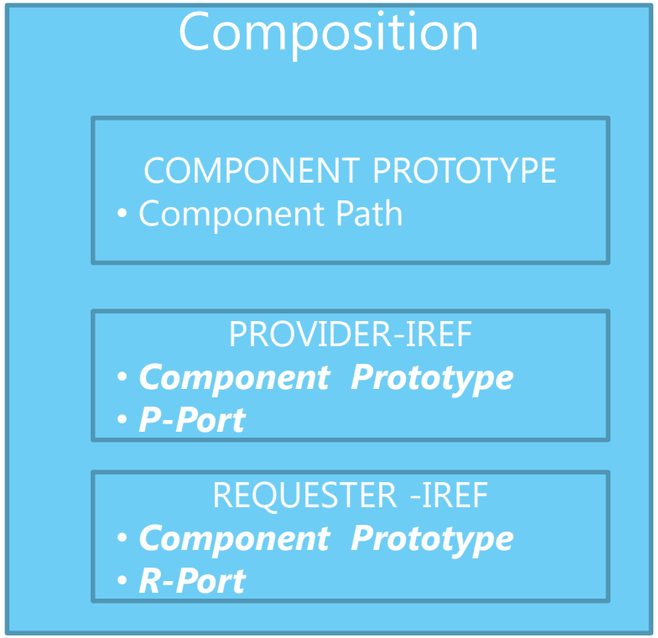
Connectors

Basic Entities for Ecu Extract

- Rte
  - Rte Event To Task Mapping
    - Position in Task
    - Task Reference
    - Event reference
- Os
  - Alarm
    - Task Reference
    - Event Reference
    - Counter reference
  - Counter
    - Os Second per tick
  - Task
    - Task Priority

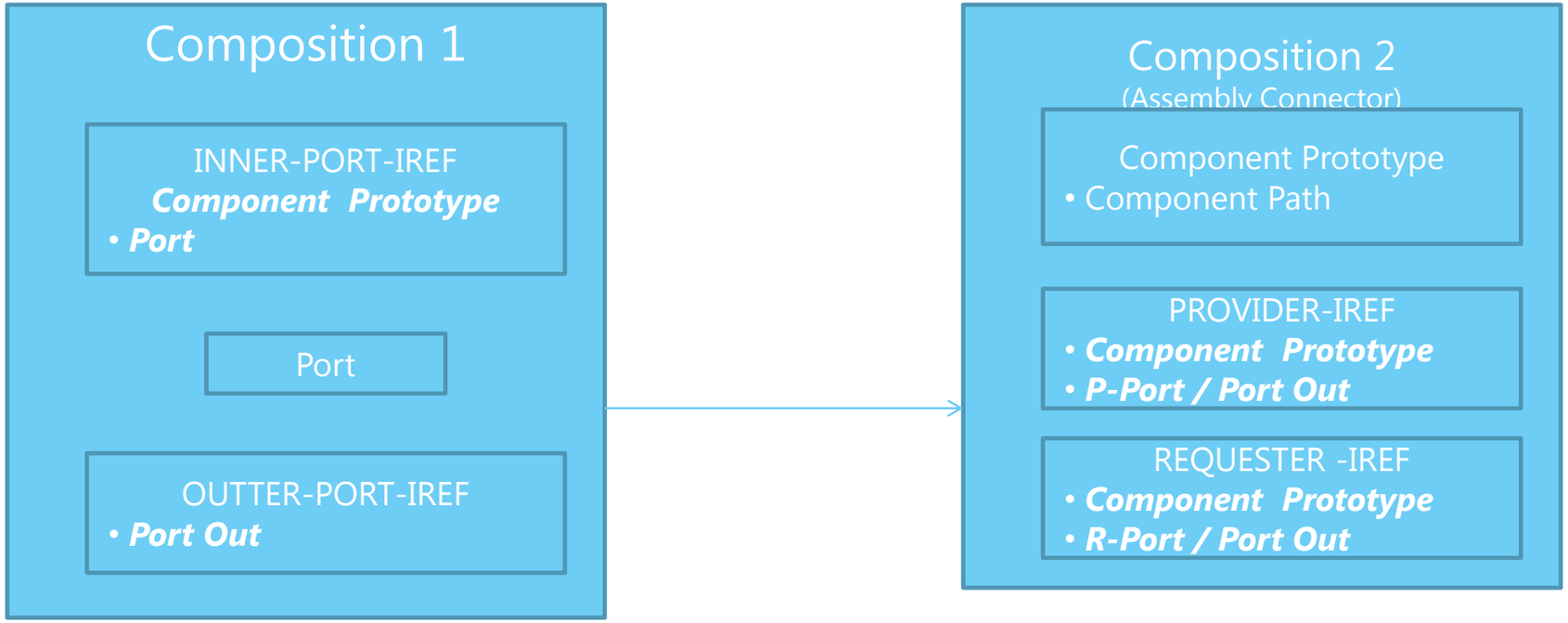
Assembly Connector

- Assembly Connector



Delegation Connector

- Delegation Connector



Questions

Thank You

www.kpit.com