Activity diagram

Overview

An Activity diagram falls under the behavioral diagramming family. An Activity can be used to model any logic - from workflow to Use Cases to methods. It focuses on flows driven by the internal processing, e.g., the implementation of an Operation, or a Use Case, as opposed to external events. Activity diagrams are organized according to Actions.

Although Activity diagrams are often associated with Interaction diagrams, they focus more on the work performed by a system, rather than an object interaction. Additionally, they do not make the links among actions and objects very clear. Instead, Activity diagrams capture Actions and display their results.

You can create a new activity diagram under the following elements: Action, Structured Activity Node, Expansion Region, Conditional Node, Loop Node, Sequence Node.

Purpose

The purpose of this diagram is to focus on flows driven by the internal processing as opposed to external events. It provides a convenient way to describe complex algorithms, parallel operations, and business processes. Together with the Communication and Sequence diagrams, they are used to relate Use Cases. Use the Activity diagrams in situations in which all or most of the events represent the completion of internally-generated actions, i.e. procedural flow of control.

Usage

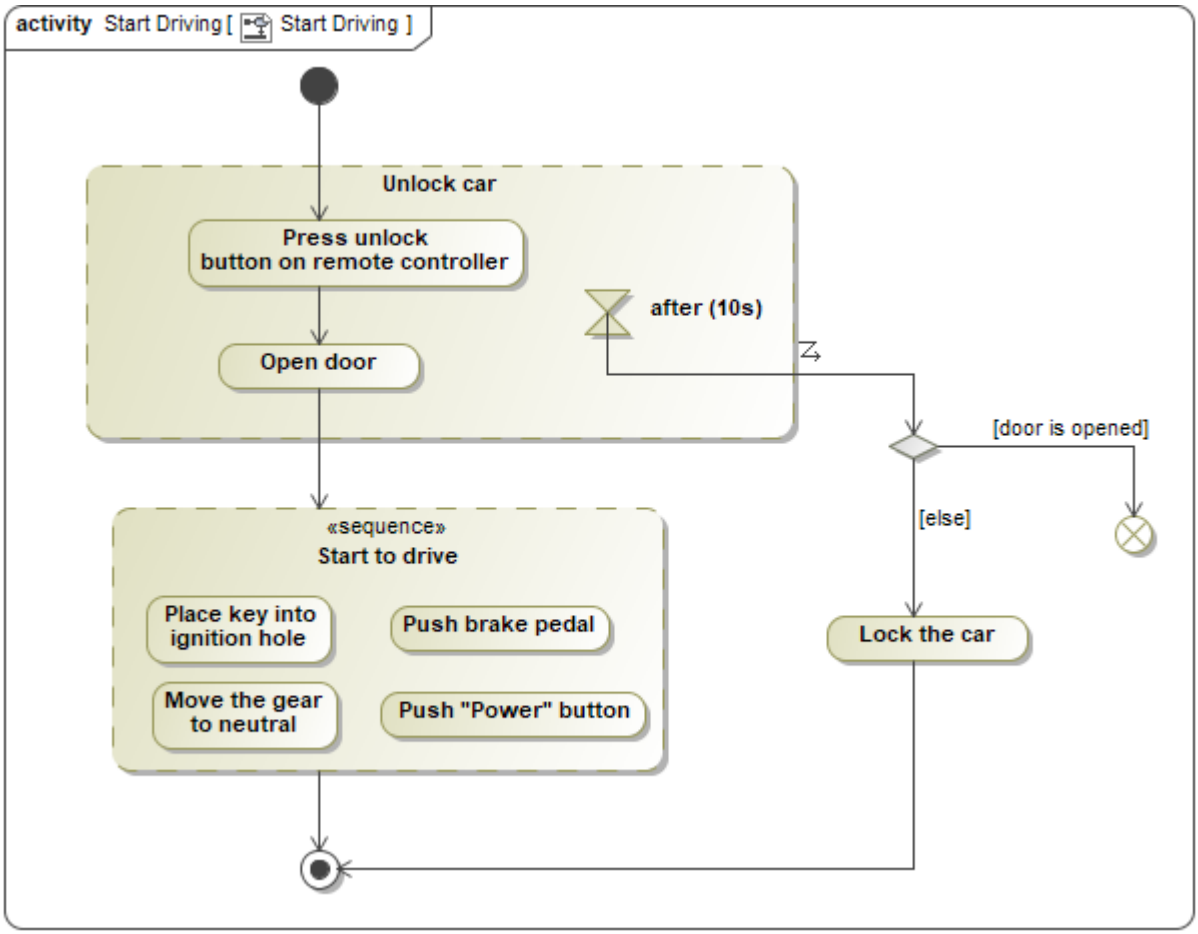
An Activity diagram can be used to:

- illustrate a business process or workflow between users and the system
- simplify and improve processes by clarifying complicated Use Cases
- understand workflow across many Use Cases
- analyze and describe the steps performed in a UML Use Case
- demonstrate the logic of an algorithm
- model method, function, operation, and other software architecture elements.

Summary

Activity diagrams are valuable because they:

- represent the logic that is necessary to implement system behaviors
- represent logic at any level the design needs, from system workflow to individual method implementations
- can be learned quickly
- are relatively familiar to users since it borrows a portion of its notation from flowcharts.
- support and encourage parallel behavior, which makes them a great tool for workflow modeling and multi-threaded programming.



Example of an Activity Diagram

Related pages

- Creating diagrams
- Dragging in Activity diagrams