

jUCMNav Report



<http://www.softwareengineering.ca/jucmnav/>

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Author:	gunterm
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UCM Scenario Groups documentation

1. End-to-End Scenarios:

1. Send Super Observer + External First Aid Worker
2. Send Super Observer by Helicopter

1. Capture Witness Report - Exceptional Scenarios:

1. Disconnected at Stage 1
2. Disconnected at Stage 2
3. Disconnected at Stage 3
4. Location Not Covered
5. Fake Crisis

1. Assign Internal Resources - Exceptional Scenarios:

1. CMS Employee Not Available
2. CMS Employee Rejects Mission

1. Init:

1. Init

1. Request External Resources - Exceptional Scenarios:

1. External Resource Denied
2. External Resource Partially Approved

1. Resolve Crisis - Exceptional Scenarios:

1. Internal Resource Rejects Mission + External Resource Denied

1. Confirm Arrival - Exceptional Scenarios:

1. Super Observer Confirms
2. Resource Status Overdue

1. Confirm Departure - Exceptional Scenarios:

1. Super Observer Confirms
2. Resource Status Overdue

1. Execute Rescue Mission - Exceptional Scenarios:

1. VictimID Not Found

Variables

1. DisconnectedStage1 (boolean)
2. DisconnectedStage2 (boolean)
3. DisconnectedStage3 (boolean)
4. LocationCoveredByVideo (boolean)
5. FakeCrisis (boolean)
6. CMSEmployeeAccepts (boolean)
7. HelicopterNecessary (boolean)
8. ResourceConfirmsArrival (boolean)
9. SuperObserverInitiated (boolean)
10. Mission (Enum MissionType)
11. SuperObserverPresenceRequired (boolean)
12. Departed (boolean)

- 13. ResourceConfirmsDeparture (boolean)
- 14. MissionReportCreated (boolean)
- 15. SuperObserverDesiredMission (boolean)
- 16. ERSResponse (Enum ERSResponseType)
- 17. ctrMissions (integer)
- 18. Mission01 (Enum MissionType)
- 19. Mission02 (Enum MissionType)
- 20. NrMissions (integer)
- 21. NoOtherEmployeesAvailable (boolean)
- 22. NrInternalResources (integer)
- 23. NrExternalResources (integer)
- 24. NrTotalResources (integer)
- 25. NrInternalResources01 (integer)
- 26. NrInternalResources02 (integer)
- 27. NrExternalResources01 (integer)
- 28. NrExternalResources02 (integer)
- 29. VictimIDFound (boolean)
- 30. ctrMissionsClosed (integer)
- 31. HelicopterNecessary01 (boolean)
- 32. HelicopterNecessary02 (boolean)
- 33. SuperObserverInitiated01 (boolean)
- 34. SuperObserverInitiated02 (boolean)
- 35. ctrMissions2 (integer)
- 36. MissionsRecommended (boolean)
- 37. MissionFailed (boolean)

Enumeration Types

- 1. MissionType: SUPEROBSERVER, RESCUE, HELICOPTERTRANSPORT, OBSTACLEREMOVAL
- 2. ERSResponseType: APPROVED, PARTIAL, DENIED

Assign Internal Resource

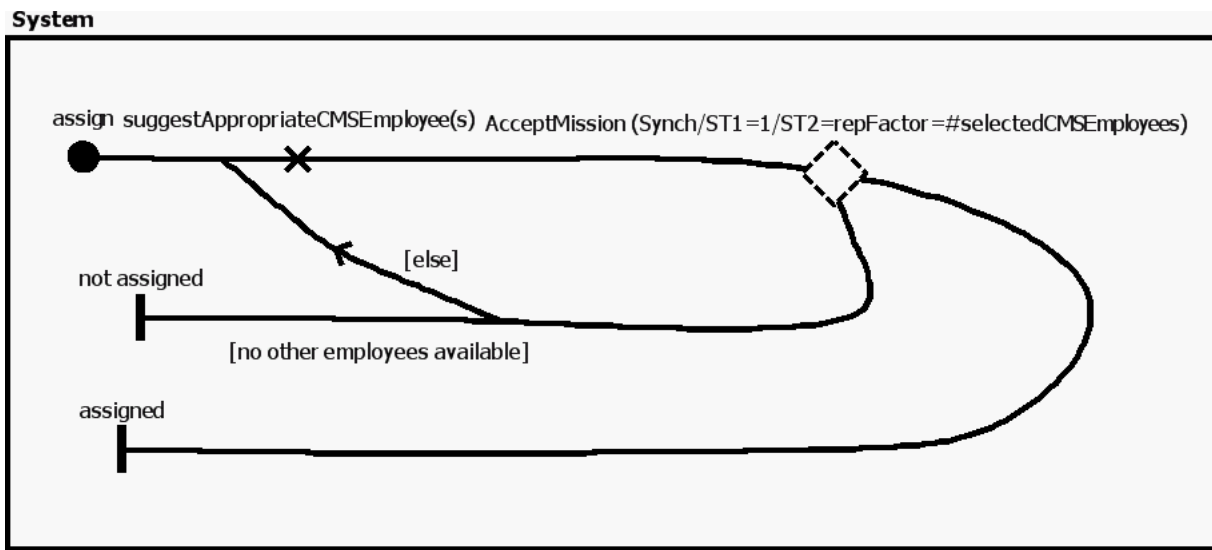


Figure 1 - Assign Internal Resource

Stub

Dynamic Stub - AcceptMission (Synch/ST1=1/ST2=repFactor=#selectedCMSEmployees)

Plugin Map - Accept Mission

Input Bindings:

IN 1 <-> accept

Output Bindings:

OUT 1 <-> accepted

OUT 2 <-> fail

Precondition:

Expression: true

Transaction: false

Probability: 1.0

Capture Witness Report

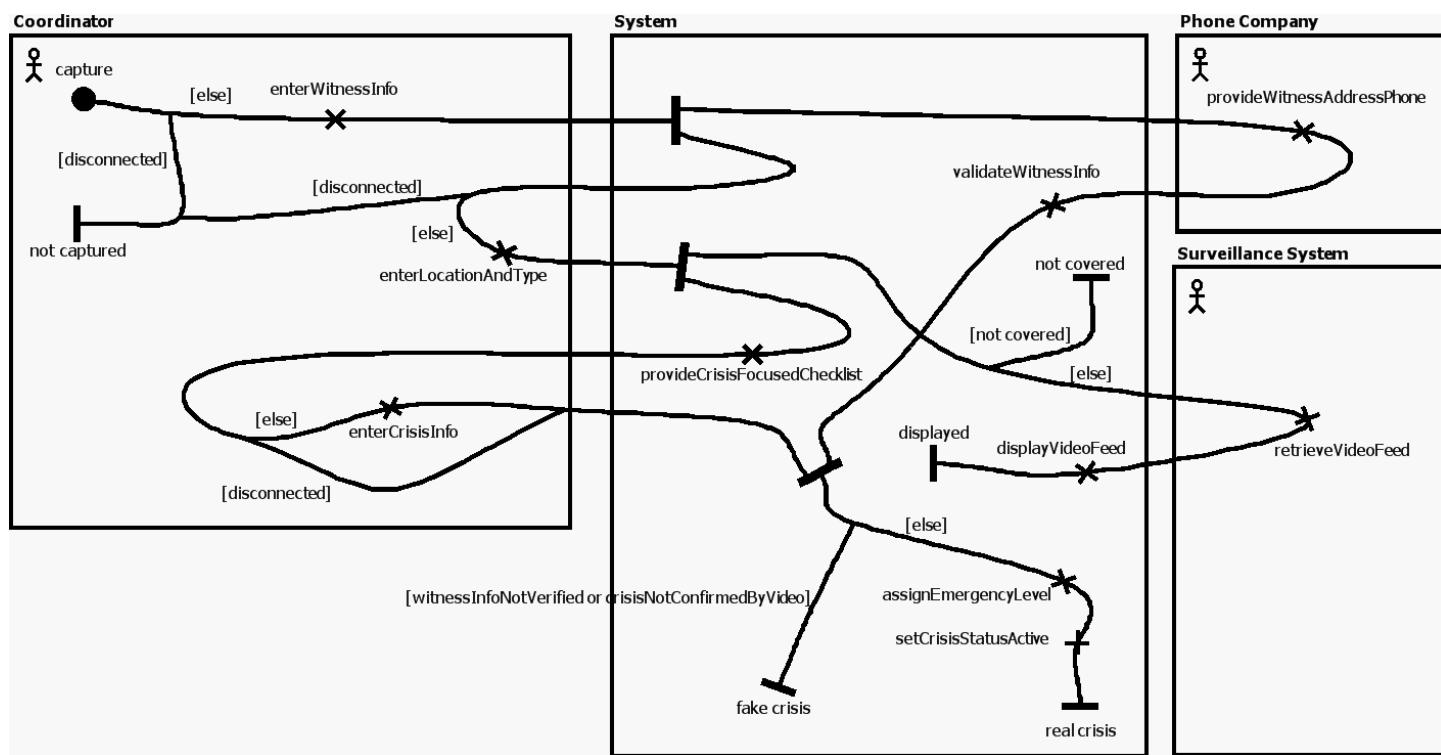


Figure 2 - Capture Witness Report

Execute Helicopter Transport Mission



Figure 3 - Execute Helicopter Transport Mission

Request External Resource

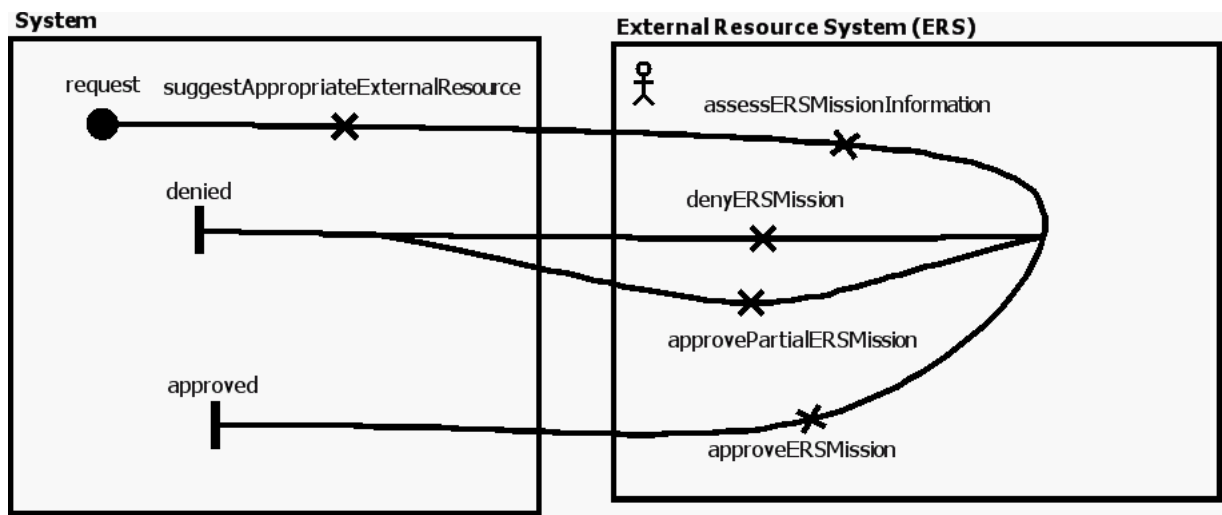


Figure 4 - Request External Resource

Accept Mission

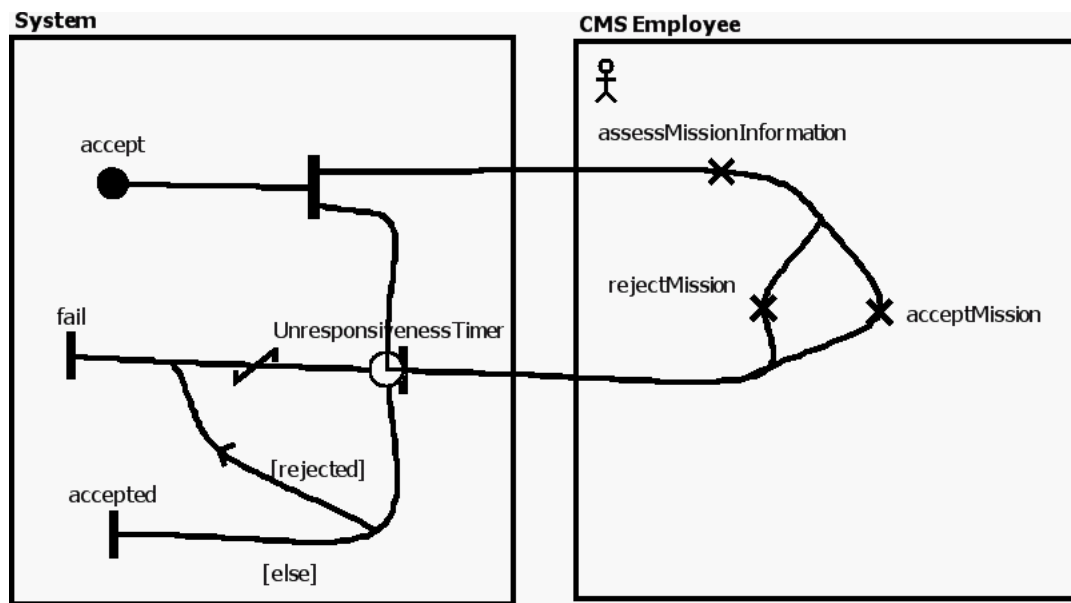


Figure 5 - Accept Mission

Confirm Departure

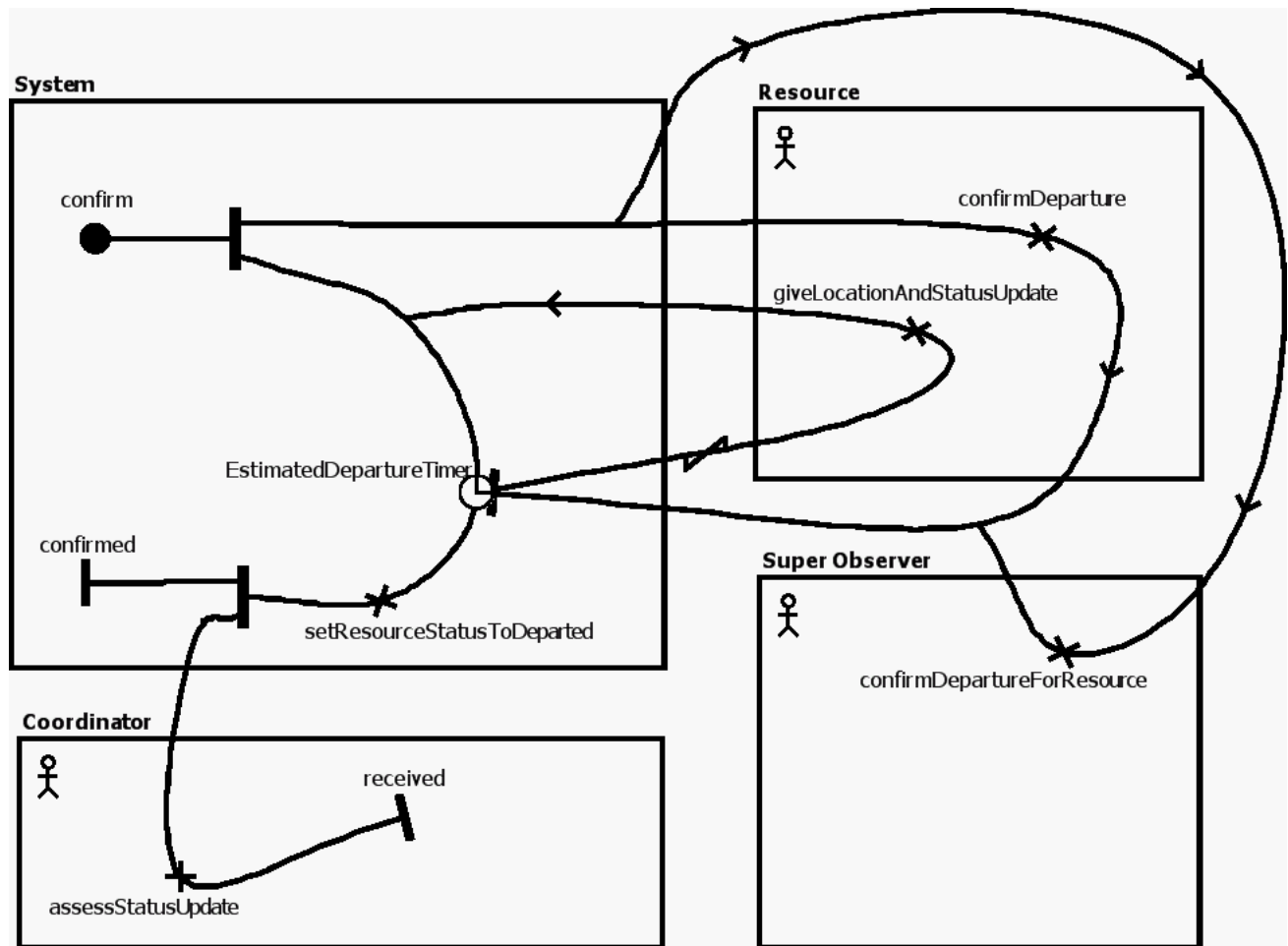


Figure 6 - Confirm Departure

Update Mission Info

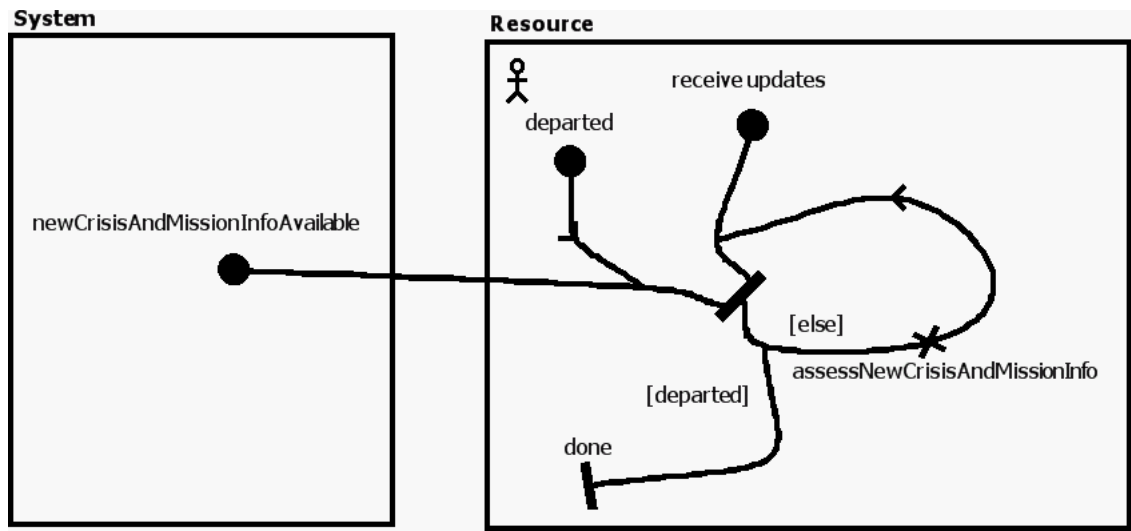


Figure 7 - Update Mission Info

Confirm Arrival

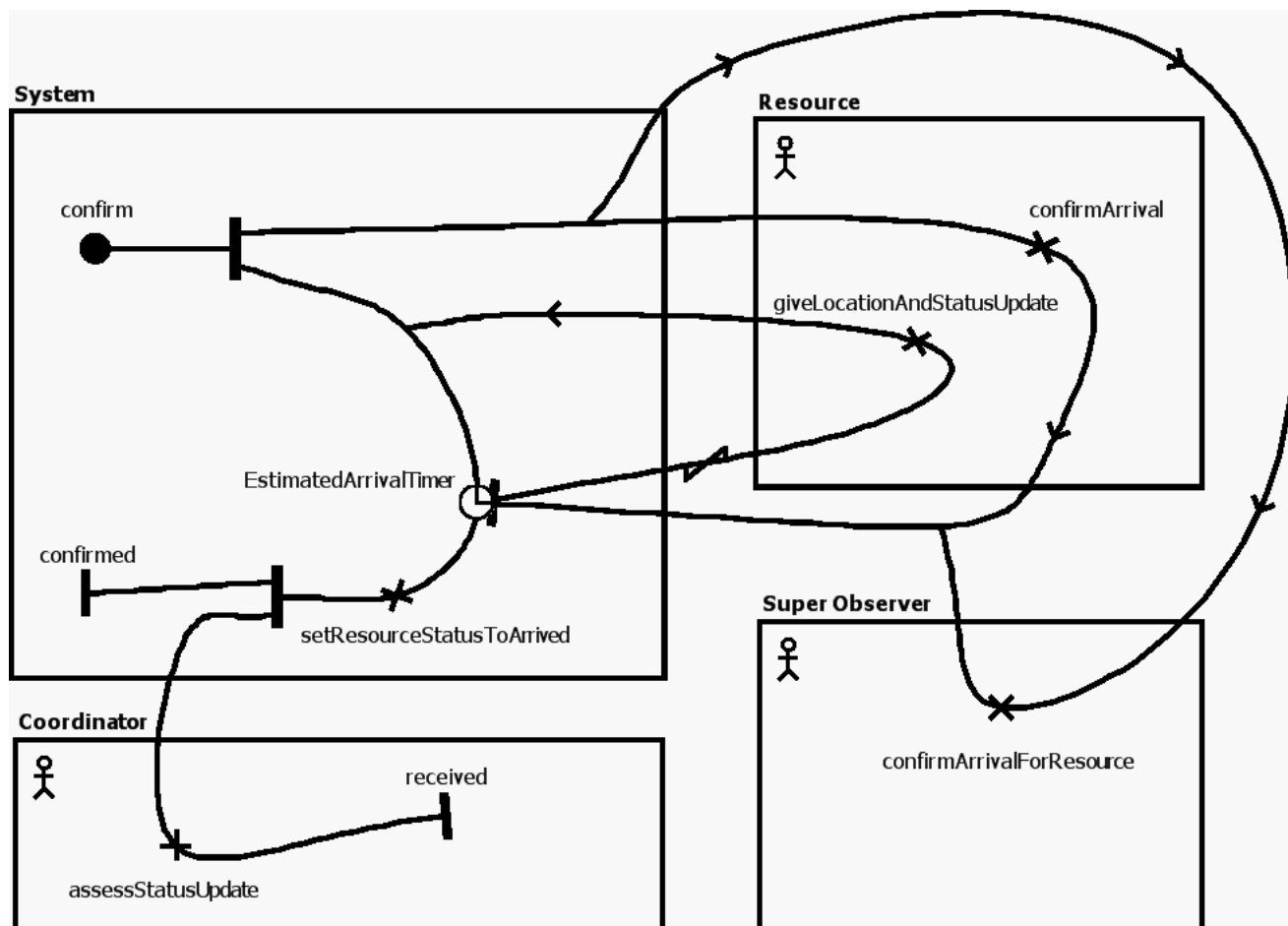


Figure 8 - Confirm Arrival

Execute Super Observer Mission

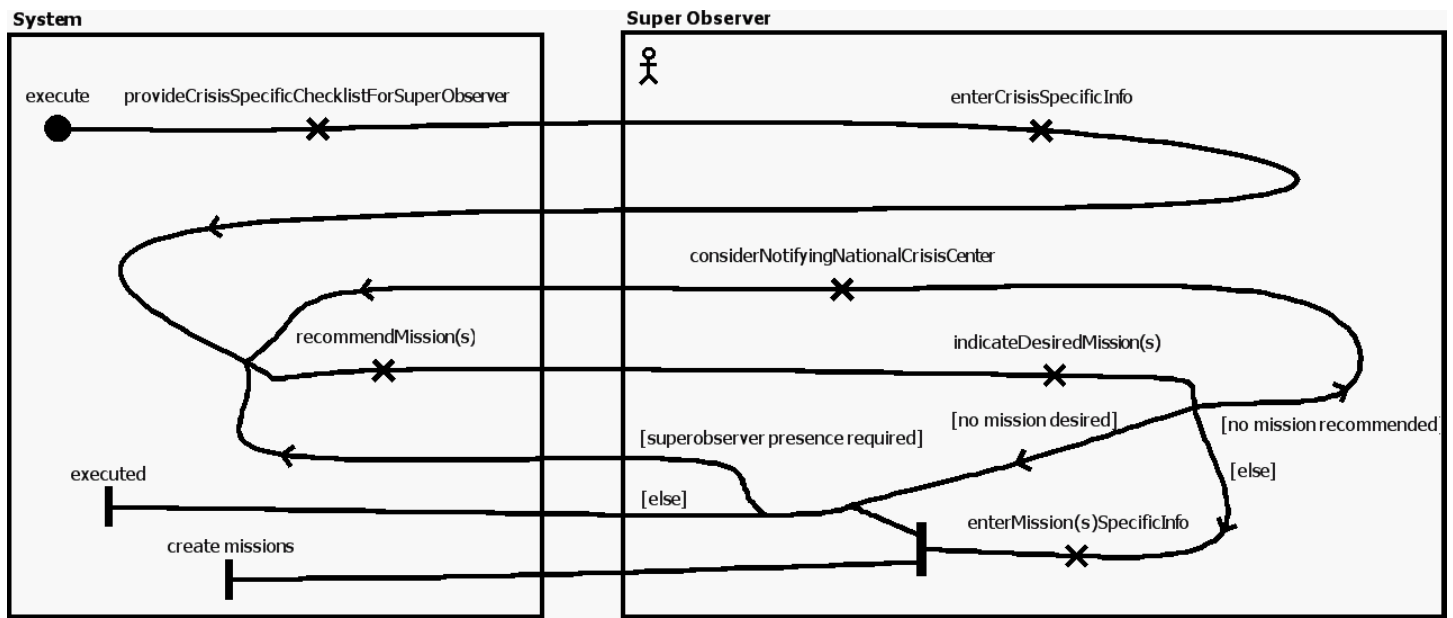


Figure 9 - Execute Super Observer Mission

Execute Remove Obstacle Mission

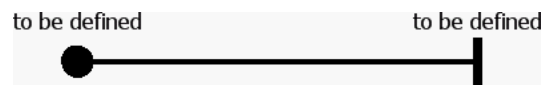


Figure 10 - Execute Remove Obstacle Mission

Default



Figure 11 - Default

Execute Rescue Mission

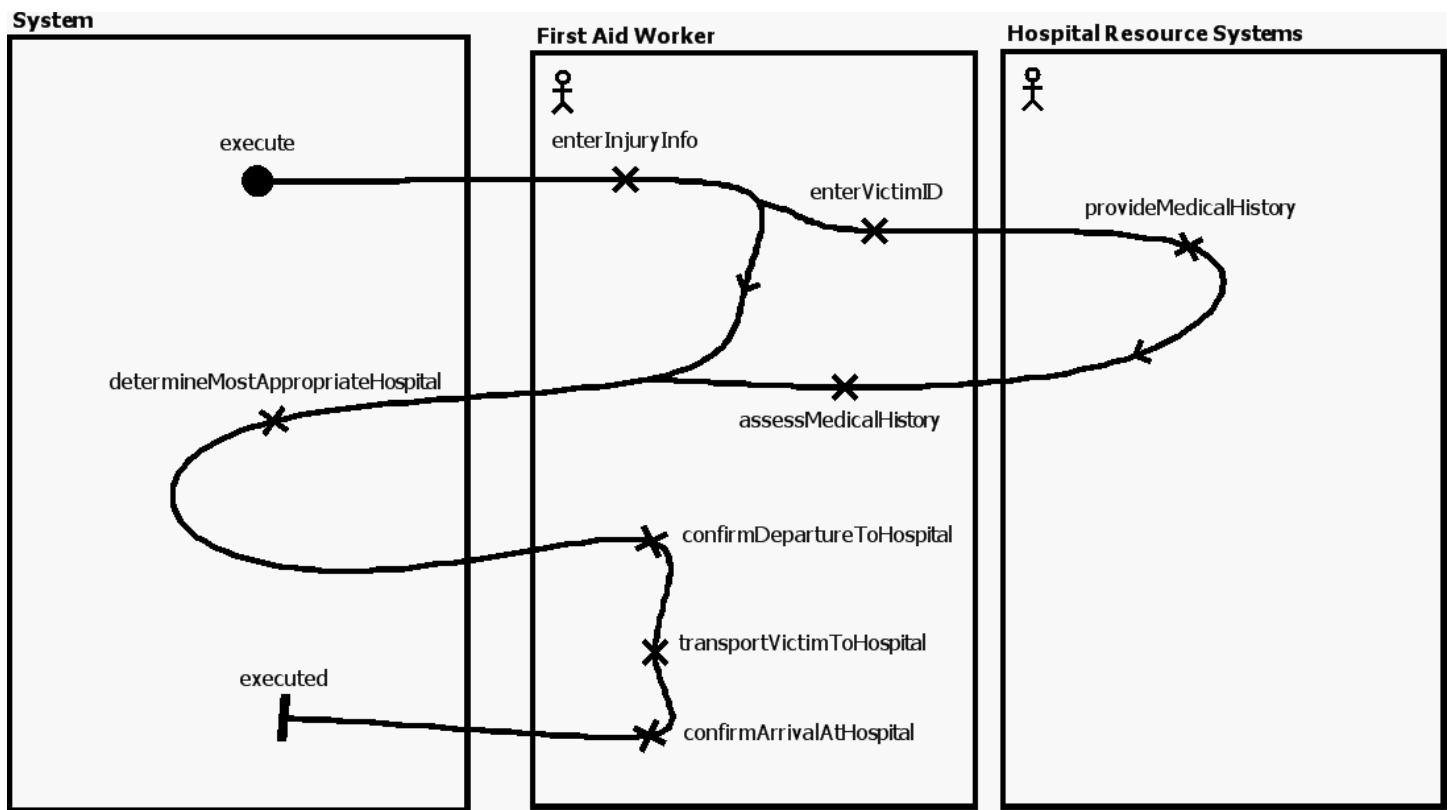


Figure 12 - Execute Rescue Mission

Resolve Crisis

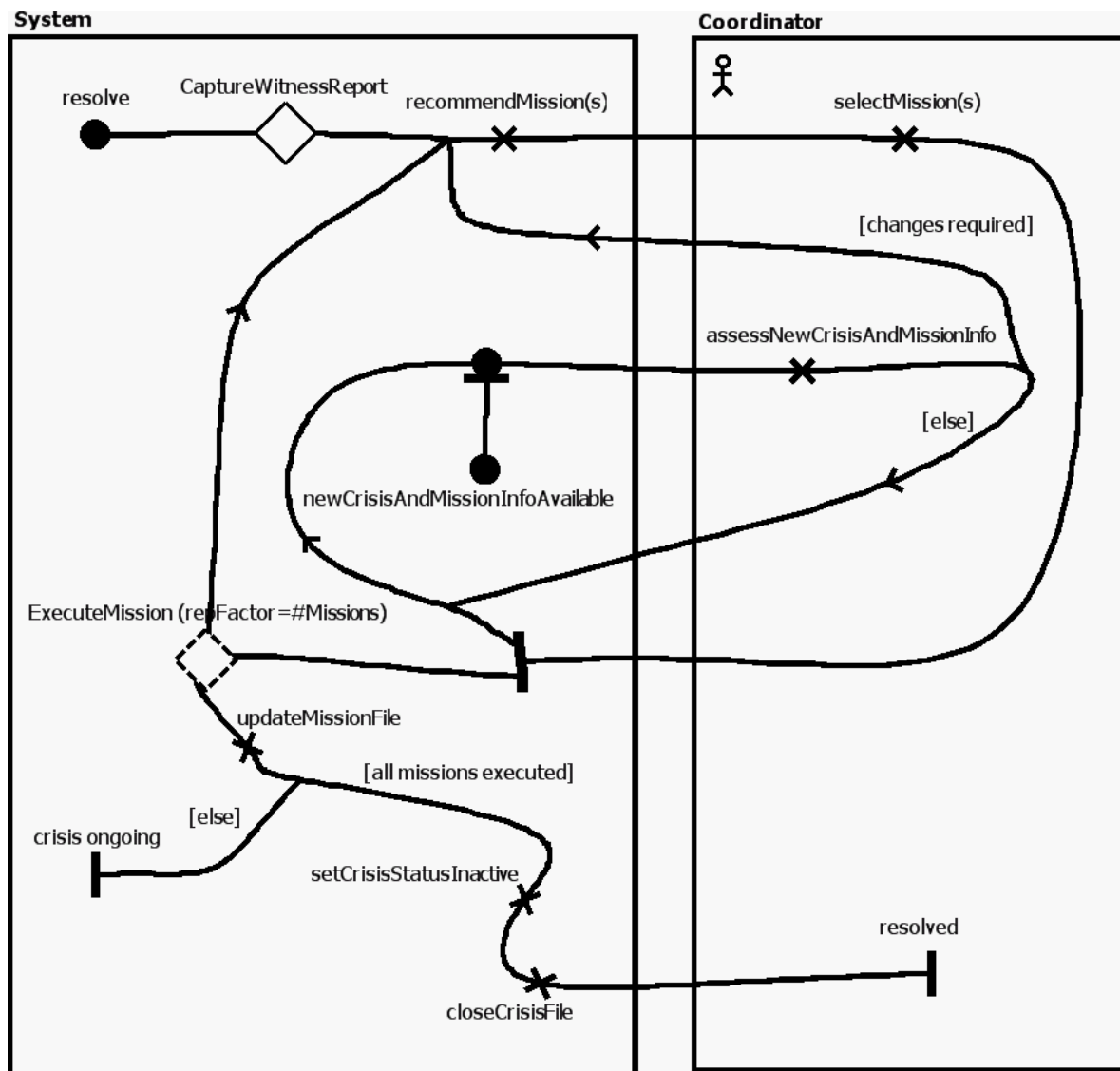


Figure 13 - Resolve Crisis

Stub

Dynamic Stub - ExecuteMission (repFactor=#Missions)

Plugin Map - Execute Mission

Input Bindings:

IN 1 <-> execute

Output Bindings:

OUT 1 <-> executed

OUT 2 <-> resource not available/more missions required/mission failed

Precondition:

Expression: NrMissions > 0

Transaction: false

Probability: 1.0

Plugin Map - Default

Input Bindings:

IN 1 <-> default

Output Bindings:

OUT 1 <-> default

Precondition:

Expression: NrMissions == 0

Transaction: false

Probability: 1.0

Static Stub - CaptureWitnessReport

Plugin Map - Capture Witness Report

Input Bindings:

IN 1 <-> capture

Output Bindings:

OUT 1 <-> real crisis

Precondition:

Expression: true

Transaction: false

Probability: 1.0

Execute Mission

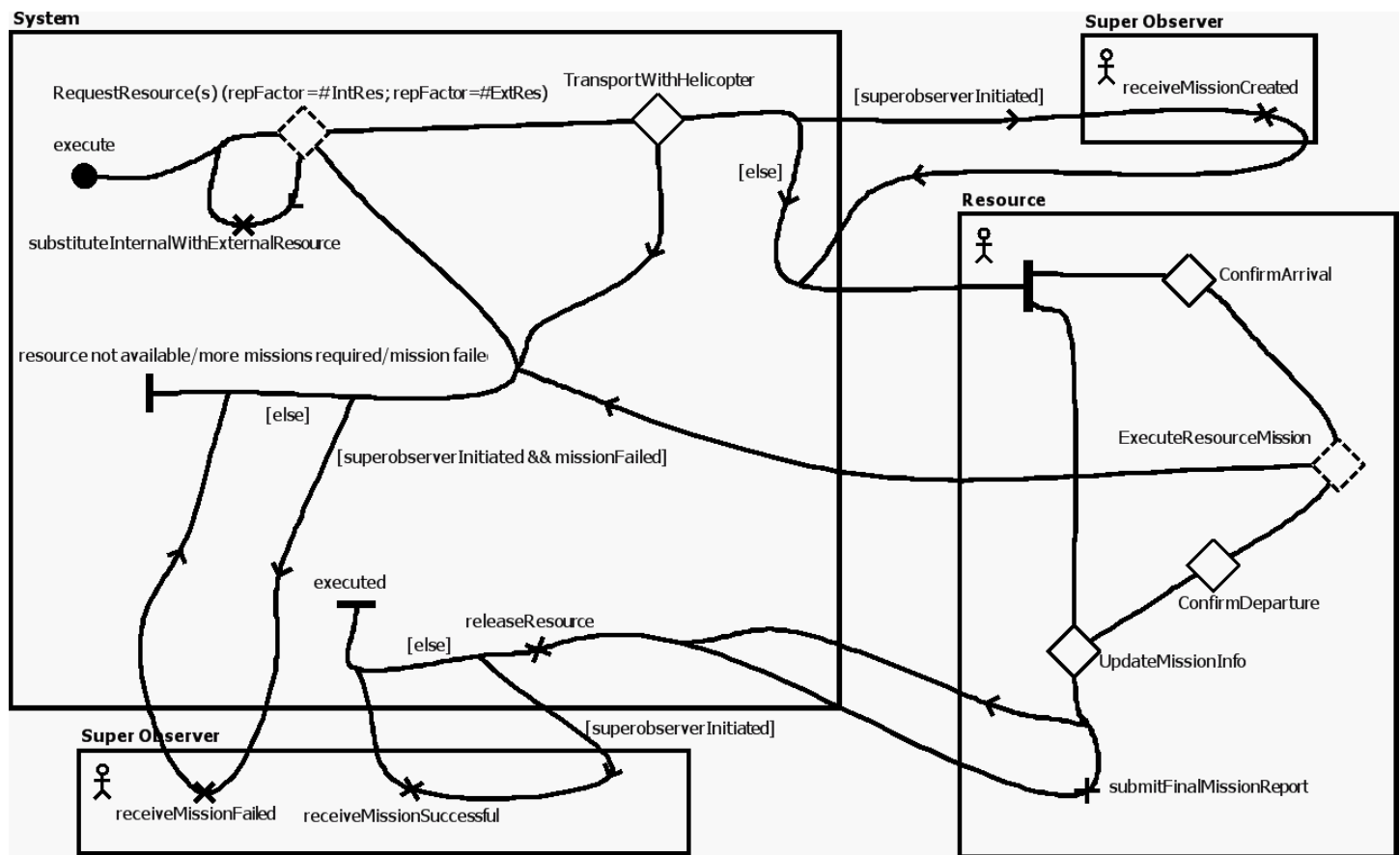


Figure 14 - Execute Mission

Stub

Dynamic Stub - RequestResource(s) (repFactor=#IntRes; repFactor=#ExtRes)

Plugin Map - Assign Internal Resource

Input Bindings:

IN 1 <-> assign

Output Bindings:

OUT 1 <-> assigned

OUT 2 <-> not assigned

Precondition:

Expression: NrInternalResources > 0

Transaction: false

Probability: 1.0

Plugin Map - Request External Resource

Input Bindings:

IN 1 <-> request

Output Bindings:

OUT 1 <-> approved

OUT 3 <-> denied

Precondition:

Expression: NrExternalResources > 0

Transaction: false

Probability: 1.0

Dynamic Stub - ExecuteResourceMission

Plugin Map - Execute Super Observer Mission

Input Bindings:

IN 1 <-> execute

Output Bindings:

OUT 1 <-> executed

OUT 2 <-> create missions

Precondition:

Expression: Mission == SUPEROBSERVER

Transaction: false

Probability: 1.0

Plugin Map - Execute Rescue Mission

Input Bindings:

IN 1 <-> execute

Output Bindings:

OUT 1 <-> executed

Precondition:

Expression: Mission == RESCUE

Transaction: false

Probability: 1.0

Plugin Map - Execute Helicopter Transport Mission

Input Bindings:

IN 1 <-> to be defined

Output Bindings:

OUT 1 <-> to be defined

Precondition:

Expression: Mission = HELICOPTERTRANSPORT

Transaction: false

Probability: 1.0

Plugin Map - Execute Remove Obstacle Mission

Input Bindings:

IN 1 <-> to be defined

Output Bindings:

OUT 1 <-> to be defined

Precondition:

Expression: Mission == OBSTACLEREMOVAL

Transaction: false

Probability: 1.0

Static Stub - ConfirmArrival

Plugin Map - Confirm Arrival

Input Bindings:

IN 1 <-> confirm

Output Bindings:

OUT 1 <-> confirmed

Precondition:

Expression: true

Transaction: false

Probability: 1.0

Static Stub - ConfirmDeparture

Plugin Map - Confirm Departure

Input Bindings:

IN 1 <-> confirm

Output Bindings:

OUT 1 <-> confirmed

Precondition:

Expression: true

Transaction: false

Probability: 1.0

Static Stub - TransportWithHelicopter

Plugin Map - Helicopter Transport Mission

Input Bindings:

IN 1 <-> transport

Output Bindings:

OUT 1 <-> continue

OUT 2 <-> start helicopter mission

Precondition:

Expression: true

Transaction: false

Probability: 1.0

Static Stub - UpdateMissionInfo

Plugin Map - Update Mission Info

Input Bindings:

IN 1 <-> receive updates

IN 1 <-> departed

Output Bindings:

OUT 1 <-> done

Precondition:

Expression: true

Transaction: false

Probability: 1.0

Helicopter Transport Mission

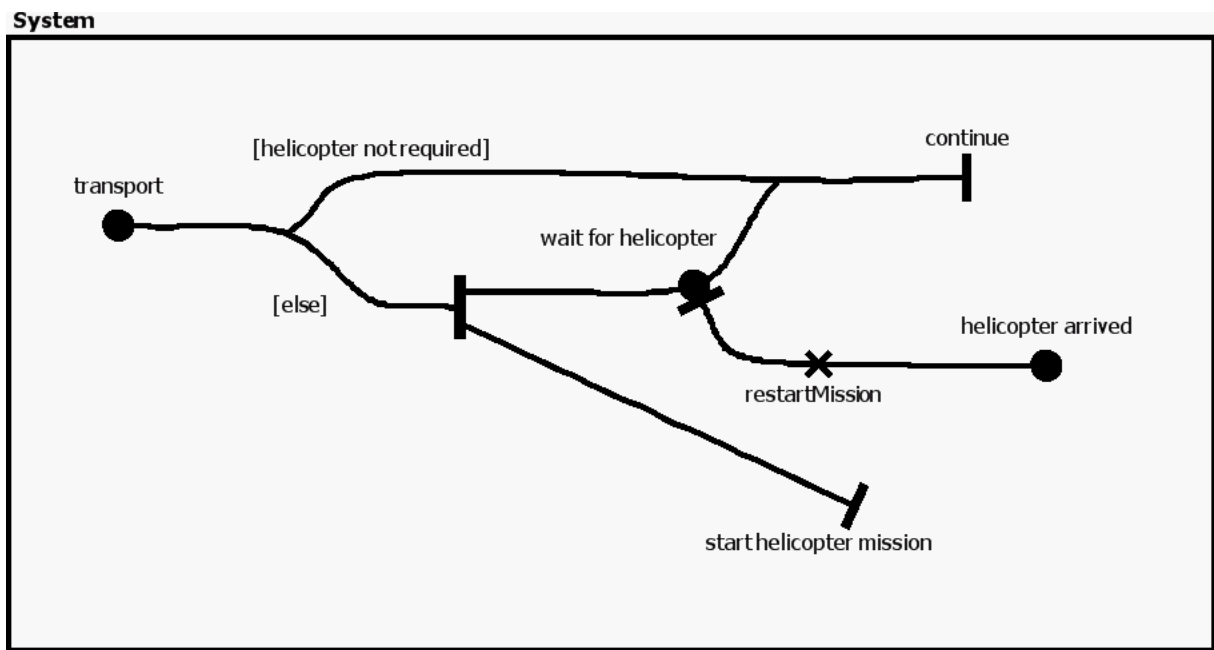


Figure 15 - Helicopter Transport Mission