

# Car Crisis Management - Introductory class about evolving SPL specifications

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## **1 Scenario SC01**

### **1.1 Description:**

This scenario allows a crisis analyst (the coordinator) to create a crisis record (here, a car crash record) based on the information obtained from witnesses.

### **1.2 Related feature**

None

### 1.3 Flow of events

Feature	Code	User Action	System Response
None	SC01.1	Coordinator informs location and type of crisis as reported by the witness.	CMS (Crisis Management System) provides Coordinator with a crisis-focused checklist.
None	SC01.2	Coordinator provides crisis information to CMS as reported by the witness.	CMS assigns an initial emergency level to the crisis and sets the crisis status to active.
Camera Surveillance	SC01.3(A)	Coordinator request visual information from CMS.	CMS requests video feed from Surveillance System.
Camera Surveillance	SC01.3(B)	-	Surveillance System starts sending video feed to CMS.
Camera Surveillance	SC01.3(C)	-	CMS starts displaying video feed for Coordinator.
Registered	SC01.4(A)	-	CMS requests the witness data (name, residence and phone)
Registered	SC01.4(B)	Coordinator fills in the requested data.	CMS contacts Phone Company to verify witness information.
Registered	SC01.4(C)	-	CMS validates information received from the Phone Company. This scenario proceeds only if the witness information is correct.
Registered	SC01.4(D)	-	CMS update the crisis information by providing witness data.
None	SC01.5	-	CMS recommends to Coordinator the missions (\$Mission) that are to be executed based on the current information about the crisis and available resources.
None	SC01.6	Coordinator selects one or more missions recommended by the system.	For each selected mission, the CMS assigns internal and external resources so as to properly solve the crisis.

## 2 Scenario SC02

### 2.1 Description:

After a previous assignment, this scenario allows an (local site) Observer to monitor the situation at the crisis site and to notify the CMS any relevant information related to the crisis.

### 2.2 Related feature

Observe

## 2.3 Flow of events

Feature	Code	User Action	System Response
None	SC02.1	Observer notifies the CMS his (her) arrival at the mission location.	CMS sends a crisis-specific checklist to Observer.
None	SC02.2	Observer feeds CMS with additional crisis information.	CMS reports the information to the system's coordinator.
Observe - Request Add. Missions	SC02.3(A)	-	CMS suggests crisis-specific missions to Observer.
Observe - Request Add. Missions	SC02.3(B)	For each mission he (she) wants to create, the observer selects one of the suggested missions.	CMS sends a mission-specific information request to Observer.
Observe - Request Add. Missions	SC02.3(C)	Observer sends mission-specific information to CMS.	CMS acknowledges the mission creation to Observer.
Observe - Request Add. Missions	SC02.3(D)	-	After being notified by each specific mission, CMS informs Observer that all additional missions were completed successfully.
None	SC02.4	Observer judges that his (her) presence is no longer needed at the crisis location and request the CMS to finish the corresponding mission.	CMS finishes the observer mission.
None	SC02.5	-	CMS updates the log file, registering all relevant actions performed for concluding this mission.
None	SC02.6	-	CMS updates the statistics data about crisis handling.

## 3 Scenario SC03

### 3.1 Description:

After a previous assignment, this scenario allows the crisis analyst to monitor the process of transporting possible victims of the car crash.

### 3.2 Related feature

Transport

### 3.3 Flow of events

Feature	Code	User Action	System Response
Remote	SC03.01A	The External Transport Manager acknowledges the mission assignment to the CMS.	CMS sends detailed information about the crisis location to the Transport Manager.
Local	SC03.01B	The Transporting Leader acknowledges the mission assignment to the CMS.	CMS presents the list of available ambulances to the Transporting Leader. Detailed data of the ambulances (equipment, current location, distance to the car crash site, etc.) have to be presented.
Remote	SC03.02A	-	CMS request transport data (such as estimated time of arrival and helicopter identification) to the Transport Manager.
Local	SC03.02B	The transporting leader selects one or more of the available ambulances.	CMS places a radio voice message to the corresponding ambulance drivers.
Remote	SC03.03A	The External Transport Manager fills in the requested data.	CMS updates the crisis data and notifies the Coordinator.
Local	SC03.03B	-	CMS waits until each ambulance driver informs the estimated time of arrival.
None	SC03.04	-	CMS interacts with the Hospital External System, requesting an appropriate hospital for receiving the victims.
None	SC03.05	-	CMS recommends to the Coordinator the list of suitable hospitals.
None	SC03.06	-	After receiving a notification of the Hospital External System, CMS notifies the Coordinator that the victims had arrived at the hospital.
None	SC03.07	Based on his (her) experience, coordinator selects one of the recommended hospitals.	CMS interacts with the Hospital External System, informing that all possible victims of the accident will be sent to the selected hospital.
None	SC03.08	The coordinator request the CMS to finish the corresponding mission.	CMS finishes the transporting mission.
None	SC03.09	-	CMS updates the log file, registering all relevant actions performed for concluding this mission.
None	SC03.10	-	CMS updates the statistics data about crisis handling.

## 4 Scenario SC04

### 4.1 Description:

After a previous assignment, this scenario allows the crisis analyst to monitor the process of first aid procedures.

### 4.2 Related feature

Rescue

### 4.3 Flow of events

Feature	Code	User Action	System Response
None	SC04.1	The First Aid Leader acknowledges the mission assignment to the CMS.	CMS presents detailed information (possible number of victims, location, transporting data) about the car crash.
None	SC04.2	-	CMS presents a list of first aid collaborators that are present.
None	SC04.3	The First Aid Leader selects one or more collaborators to send to the car crash location.	CMS sends a beep message to the selected collaborators.
None	SC04.4	-	CMS request transporting for bring the selected collaborators to the car crash location.
None	SC04.5	At the car crash location, the First Aid Leader informs each medical procedure that had been taken at the car crash location.	CMS reports the information to the system coordinator.
None	SC04.6	The First Aid Leader the CMS to finish the corresponding mission.	CMS finishes the rescue mission.
None	SC04.7	-	CMS updates the log file, registering all relevant actions performed for concluding this mission.
None	SC04.8	-	CMS updates the statistics data about crisis handling.