Sentient VOC Monitoring System

Initialize Monitor

Version <1.0>

Revision History

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| --- | --- | --- | --- |
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Use Case: Shut Down Monitor

# Shut Down Monitor

## Brief Description

This use case gives the VOC Monitor Manager the ability to install an embedded VOC system. It covers the initial setup of the monitor.

## Requirements Trace

13.1, 13.2, 13.3, 13.4, 14

## Involved Actors

VOC Monitor Manager

## Preconditions

* The Embedded VOC monitoring system is on.
* The Embedded VOC monitoring system is connected to the mobile client.

## Post conditions

* The Embedded VOC monitoring system is initialized.

## Invariants

* Volatile System’s distance from XBee is less than XBEE\_DISTANCE\_MAX

# Flow of Events

## Basic Flow

This use case starts when the VOC Monitor Manager wants to initialize an embedded VOC monitoring system.

1. VOC Monitor Manager selects ‘initialize’ area
2. VOC Monitor Manager enters destination latitude and longitude into mobile client.
3. VOC Monitor Manger selects ‘enter’ area.
4. Mobile client sends Initialize packet to Embedded VOC monitoring system.
5. Embedded VOC monitoring system logs longitude and latitude.
6. Embedded VOC monitoring system begins sensor data retrieval loop.
7. Embedded VOC monitoring system sends Initialize Complete packet to Mobile client.
8. Mobile Client notifies VOC Monitor Manager of successful shut down of Embedded VOC monitoring system.

## Alternate Course – None

# Extension Points

None

# Scenarios

## Happy Day

Assumptions: Data Downloader – Curious George

Current Connection: Connected

Steps:

1. Curious George selects ‘initialize’ area.
2. Curious George enters 42.2233° N, 121.7775° W into mobile client.
3. Curious George selects ‘enter’ area.
4. Mobile client sends Initialize packet to Embedded VOC monitoring system.
5. Embedded VOC monitoring system logs location 42.2233° N, 121.7775° W.
6. Embedded VOC monitoring system begins sensor data retrieval loop.
7. Embedded VOC monitoring system sends Initialize Complete packet to Mobile client.
8. Mobile Client notifies Curious George of successful shut down of Embedded VOC monitoring system.

## Rainy Day 1 – VOC Monitor is already initialized

Assumptions: Data Downloader – Curios George

Current Connection: Connected

Steps:

1. Curious George selects ‘initialize’ area.
2. Mobile client notifies Curious George the VOC monitoring system is already initialized.
3. Curious George selects ‘accept’ area.
4. Curious George enters 42.2233° N, 121.7775° W into mobile client.
5. Curious George selects ‘enter’ area.
6. Mobile client sends Initialize packet to Embedded VOC monitoring system.
7. Embedded VOC monitoring system logs location 42.2233° N, 121.7775° W.
8. Embedded VOC monitoring system restarts sensor data retrieval loop.
9. Embedded VOC monitoring system sends Initialize Complete packet to Mobile client.
10. Mobile Client notifies Curious George of successful shut down of Embedded VOC monitoring system.