Velomobile Control & Telemetry System

Use Case Specification

Retrieve Telemetry Data

Version 1.1

Revision History

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| --- | --- | --- | --- |
| **Date** | **Ver.** | **Description** | **Author** |
| March 3, 2010 | 1.0 | Initial Composition | Daniel Johnson |

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# Access Web System

## Brief Description

The persistence layer is called by another piece of the system like display to retrieve sensor data from the database.

## Requirements Trace

2.2.2, 2.2.3, 2.3.1

## Involved Actors

Display – The display portion of the system requests sensor data for a devices sensor.

# Flow of Events

## Basic Flow

This use case begins when display requests a number of sensor information from the persistence layer.

1. The display requests a number of telemetry data for a devices sensor.
2. The system checks to verify that the devices sensor is defined in the database
   1. The system logs an error in the error log if it is not.
3. The system queries the database for the number of telemetry data.
4. The system returns the collection of data to display.

# Preconditions

Database is accessible to persistence layer.

# Post Conditions

Sensor data is returned to requestor.

# Scenarios

## Happy Day

**Assumptions**: The display requests information for the VeloMobiles light sensor.

**Steps:**

1. The display requests 10 pieces of telemetry data for the VeloMobile’s light sensor.
2. The system checks to verify that the devices sensor is defined in the database, and it is.
3. The system queries the database for 10 pieces of telemetry data for the VeloMobile.
4. The system returns the collection of data to display.

## Rainy Day

**Assumptions**: The display requests information for the VeloMobiles light sensor, however the light sensor is not define for the device VeloMobile

**Steps:**

1. The display requests a number of telemetry data for a devices sensor.
2. The system checks to verify that the devices sensor is defined in the database, it is not.
3. The system logs an error in the error log, noting the date, device, and sensor along with a short description of the error.