

**Use Case 1: Request Measured Data****Scope:** Weather Station**Level:** User Goal**Primary Actor:** User**Scenario:** None**Related Use Cases:** None**Stakeholders & Interests:**

- User: wants the current weather data

**Preconditions:** The System is online and is periodically measuring the weather instruments.**Success Gurantees:** The System returns the entire Weather Data suite to the User.**Main Success Scenario:**

User	System
1. Request all the current Weather Data	
	2. Measures the Themometer, converts the Temperature data into Fahrenheit and Kelvin and returns the data in all three units
	3. Measures the Hygrometer and reuturns the data
	4. Measures the Barometer, converts the Pressure data into miilimeters of Mercury, and inches of Mercury and re- turns the data in all three units
	5. Calculates the Dewpoint, converts the data into Fahrenheit and Kelvin and returns the Dewpoint Data in all three units.
	6. Calculates the Heatindex, converts the data into Fahrenheit and Kelvin and returns the Heatindex data in all three units.
7. Outside of Humidity, the User choses the units to view the data returned in 2-6	

**Extensions:**

2a,3a,4a. If any or all of the Sensors are broken, then the System alerts the User of the Issue.

**Frequency Of Occurence:** Almost continuous

**Special Requirements:**

- The System periodically monitors the sensors, measuring the for the measured data
- On every occurrence of the System monitoring the sensors, the System uses the measured data and calculates Weather Data that is calculated
- On every occurrence of the System monitoring the sensors, the System broadcasts the Weather Data for observers

**Open Issues:**

- What if one or many of the Sensors are broken? Does the System continue to measure/collect other measured Weather Data?