

## Use Case S6: Detailed Description

Use Case Name: Save Meteorological Data

Scenrio: Save Temperature Data

Brief Description: With the System running, the System saves the daily temperature data—including the Extreme data (minium and maximum).

Actors: System.

Related Use Cases:

**Use Case S1:** *The System Shall Monitor Temperature Data*

**Stakeholders:** Local and National Weather Bureaus and individuals monitoring local weather data.

**Preconditions:** The System is running, the temperature data is saved periodically in System Memory.

**Postconditions:** The Data is saved off in the appropriate format (.csv, .txt): all three units are saved off (Celsius, Fahrenheit, Kelvin).

### Flow of Events

System	One Wire Temperature Sensor
	1. Return requested temperature data (See <i>Use Case S1–Request Temperature Data</i> )
2. Stores the data in memory	
3. Grabs the Month and Day of the stored data and compares to the Month and Day of the current date.	
4. From #3, if the Compared Month and Day are diffent, save off all the temperature data and the date recorded.	
5. From #3, save off the Temperature Extremes including the Date and Time of the Extreme	

### Exception Conditions

4a. If the One Wire Temperature Sensor stops working and the System Records the default temperature, then the System does not save the entry for that record.

5a. If the Extreme Temperature is recorded as the default Etrreme temperatures (-999.9 for maximum, 999.9 for minimum), the the System does not save the extreme data for that date, indicating no extreme temperature data was recorded for that date.

**Note:** This would be an indication the Temperature sensor stopped working completely for that date. indication the