<div align="center">**Use Case I3S4: Detailed Description**</div>

Use Case Name: Manage Mission Data
Scenario: S4 View Heat Index Data
Brief Description: With the System Running, the User requests to view the current Heat Index Data (regardless if an IButton Mission is running).
Actors: User
Related Use Cases:
Use Case I3S1: **View Temperature Data**
Use Case I3S2: **View Humidity Data**

Stakeholders: User who want to view the Current Heat Index Data from the current IButton Mission.

Preconditions: The System is running, the IButton device is connected to the receptor or other reading device. The IButton receptor (adapter) or other reading device is connected to the computer.

Postconditions: The Heat Index data is calculated by the system and presented to the User for display. (In either textual or graphical form)

Flow of Events

User	System
1. Request the Heat Index Data for viewing.	
	2. Retrieves the current Temperature data.
	3. Retrieves the current Humidity data.
	4. Calculates the current Heat Index
	5. Separates the Heat Index data by Date.
	6. Determines the Min/Max of the current Heat Index data and the associated Date/Time
	7. Presents the requested Heat Index data to the User for viewing.
8. Determines how to view the date (in **Text** or **Graphical** format) and makes the request to the System.	
	9. Presents the data in the requested format.

Exception Conditions
1a. If no iButton Device is connected to the network, then the system indicates the error to the user a with the reason (no iButton Attached).

2a. If the Temperature Data of the current mission cannot be retrieved, then the system indicates the error to the use with the reason (See **Use Case I3S1, Exception Condition 2a**).

3a. If the Humidity Data of the current mission cannot be retrieved, then the system indicates the error to the user with the reason (See **Use Case I3S2, Exception Condition 2a**).

4a. If the measured temperature is below 70°F, then the system does not compute the Heat Index, and indicates that to the user by returning an ambigous value.

4b. If the System is not capable of calculating the Heat Index data (See **Exception Conditions 2a, 3a**), then the System indicates the issue and the reason.

5a. If the associated Date/Time of the requested Heat Index data is not retrievable, then the System indicates the error to the User with the reason (*One Wire Network Issues, One Wire Device Issues, other forms of data retrieval exceptions*).