# Sample Defect list and improvement

| No.         | 1                                 |
|-------------|-----------------------------------|
| Location    | 4.1.1                             |
| Description | State too many things in one item |
| Severity    | Minor                             |

## **Improvement**

- The DigitalHome System shall allow a web-ready computer, cell phone or PDA to control a home's temperature, humidity, lights, security, and the state of small appliances.
- The communication center of the DH system shall be a DH home web server, through which a user shall be able to monitor and control home devices and systems.

| No.         | 2  |
|-------------|--|
| Location    | 4.1.3  |
| Description | State too many things in one item and the statement for data |
| _           | transferring are confusing                                   |
| Severity    | Major  |
| T .         |  |

## **Improvement**

- The DigitalHome shall be equipped with various environmental controllers and sensors (temperature controller-sensors: thermostats, humidity controller-sensors: humidistats, contact sensors, security sound and light alarms, and power switches).
- Using wireless communication, sensor values can be read and saved in the home database.
- Controller values can be sent to controllers to change the DH environment.

| No.         | 3   |
|-------------|---|
| Location    | 4.2.1.1   |
| Description | The actor is incorrect and lack of details of how to set up the |
| _           | temperatures  |
| Severity    | Major   |
| Improvement |   |

### Improvemen

+ A DH user shall be able to set the thermostat temperatures to between 60  $^\circ$  F and 80  $^\circ$  F, inclusive, at one degree increments.

| No.         | 4                      |
|-------------|------------------------|
| Location    | 4.2.1.2                |
| Description | The actor is incorrect |
| Severity    | Minor                  |
| Improvement |                        |

• A DH user shall be able to read the temperature at a thermostat position.

| No.         | 5                                 |
|-------------|-----------------------------------|
| Location    | 4.2.2                             |
| Description | State too many things in one item |
| Severity    | Minor                             |
| Improvement |                                   |

- Up to eight thermostats shall be placed in rooms throughout the home.
  The thermostats may be controlled individually or collectively, so that temperature can be controlled at different levels in different home spaces.

| No.         | 6  |
|-------------|--|
| Location    | 4.2.2.3  |
| Description | Lack of details of how to response for manual change |
| Severity    | Major  |
| Improvement |  |

• If a thermostat device allows a user to make a manual temperature setting, the setting shall remain in effect until the end of the planned or default time period, at which time the planned or default setting will be used for the next time period.

| No.  | 7  |
|--|--|
| Location   | 4.3.1.1  |
| Description  | confusing requirement, the actor should be DH user |
| Severity   | Major  |
| Improvement  |  |
| • A DH user shall be able to read the humidity at a humidistat position. |  |

| No.         | 8                                      |
|-------------|--|
| Location    | 4.3.5                                  |
| Description | Lack of details of how to set humidity |
| Severity    | Major                                  |
| Improvement |  |

• A DH user shall be able to set the humidity level for a humidistat, from 30% to 60%, inclusive, at 1% increments.

| No.         | 9                   |
|-------------|---------------------|
| Location    | 4.3                 |
| Description | Missing requirement |
| Severity    | Major               |
| Improvement |                     |

• A single humidistat shall be placed in an enclosed space (e.g., a room in the house) for which the humidity is to be controlled.

| No.         | 10                  |
|-------------|---------------------|
| Location    | 4.3                 |
| Description | Missing requirement |
| Severity    | Major               |
| Improvement |                     |

• If a humdistat device allows a user to make a manual temperature setting, the setting shall remain in effect until the end of the planned or default time period, at which time the planned or default setting will be used for the next time period.

| No.            | 11                  |
|----------------|---------------------|
| Location       | 4.3                 |
| Description    | Missing requirement |
| Severity Major |                     |
| Improvement    |                     |

• For each humidistat, up to twenty-four one hour settings per day for every day of the week can be scheduled.

| No.         | 12  |
|-------------|---|
| Location    | 4.4.1   |
| Description | Alarm system shall be activated when contact sensor is set OPEN |
| Severity    | Major   |

## **Improvement**

- The DigitalHome security system consists of contact sensors and a set security
- When a security breach occurs and a contact sensor is set OPEN, the alarm system shall be activated.

| No.            | 13                |  |
|----------------|-------------------|--|
| Location       | 4.4.5             |  |
| Description    | Empty requirement |  |
| Severity       | Minor             |  |
| Improvement    |                   |  |
| • Delete 4.4.5 |                   |  |

| No.         | 14                            |  |
|-------------|-------------------------------|--|
| Location    | 4.5.2                         |  |
| Description | hard to understand the "unit" |  |
| Severity    | Minor                         |  |
| Improvement |                               |  |

• The Appliance Manager shall be able to manage up to forty 115 volt, 10 amp power switches.

| No.   | 15                  |  |
|---|---------------------|--|
| Location  | 4.5                 |  |
| Description   | missing requirement |  |
| Severity  | Major               |  |
| Improvement   |                     |  |
| • The system shall be able to change the state of a power switch (OFF to ON, or ON to |                     |  |
| OFF) in turn changing the state of an appliance connected to the power switch         |                     |  |

OFF), in turn changing the state of an appliance connected to the power switch.

| No.         | 16                  |  |
|-------------|---------------------|--|
| Location    | 4.5                 |  |
| Description | missing requirement |  |
| Severity    | Major               |  |
| Improvement |                     |  |

• If a user changes the state of power switch device manually, the device shall remain in that state until the end of the planned or default time period, at which time the planned or default setting will be used for the next time period.