

## Test Plan Results

In this test plan we will be writing black box tests to test all the components of our product. Many of these tests were run by the Fall 2015 SEADS team, but we added additional tests.

### 1. Acceptance Tests

Requirements of the product	Test Pass Status
User can create an account	Pass
User can login and logout	Pass
User can register and delete devices	Pass
User can monitor device usage	Pass
User can see a graph	Pass
User can zoom on graph	Pass
User can download data from graph	Pass
User can adjust graph date ranges	Pass
User can adjust granularity	Pass
User can add plug emulator as a device to site and see the data in the graph	Pass ( <i>Just add device id 1</i> )
User can add the raspberry pi as a device and see the data in the graph	Pass ( <i>Just add device id 100000</i> )
User can open any browser anywhere, anytime to view the site	Pass ( <i>Worked in Chrome and Firefox</i> )

### 2. Testing Broken Up by Page

#### Registration

- *Per Field in Registration Form*
  - 0 characters | **Pass**
  - min # of characters | **Pass**
  - min # < x number < max # | **Pass**
  - max # of characters | **Pass**
  - max # of characters + 1 | **Pass**
  - Ensure that all fields are filled in | **Pass**

- *Validating Format*
  - email field is in an email format | **Pass**
  - phone number field matches a phone number format | **Pass**
- *Invalid Data Types*
  - Username is unique | **Pass**
  - Letters inside of phone number. Expected: fail. | **Pass**
  - Numbers inside of name. Expected: fail. | **Pass**
  - Test that each field is filled in: if there is a missing field, is the error obvious to the user? | **Pass**
  - Test what happens if no field is filled in | **Pass**
  - Test all fields being filled in. Expected: Pass. | **Pass**

## Dashboard

- *Deleting a Device*
  - Device appears on the page | **Pass**
  - Device is no longer marked as active in the database for that user. | **Pass**
- *Adding a Device*
  - Device appears on page immediately | **Pass**
  - Device is added to database for that user, based on unique username | **Pass**
  - Device has visualization data to be shown immediately when it is plugged in. | **Pass**
  - Device has visualization data graph that is shown with no data on it, but in a presentable way at the time before they have added any data. Possible message to the user that they must first plug in their device to see data can be shown. | **Pass**
  - Unplugging a device and seeing an expected response on the Dashboard | **Pass**
- *Visualization*
  - Showing ALL data points with expected outcome. | **Pass**
  - Selection of each time frame shows data from the expected time frame. | **Pass**
  - Clicking rapidly on each button does not have an unexpected failure. | **Pass**
  - Going from a visualization page, then to another page, and then using the browser's "back" button to go back to the visualization page does not cause an unexpected error. | **Pass**
  - Clicking and dragging on the graph performs a zoom over the selected range | **Pass**
  - Sliding the granularity changes the number of points displayed over the given range | **Pass**
  - Date Pickers adjust the domain to a selected range | **Pass**
  - Graph can handle at least 1000+ data points? | **Pass**
  - Graph can handle 0 data points? | **Pass**
  - Graph can switch between Current/Voltage/Wattage? | **Pass**

### **SEADS Plug Emulator**

- Plug emulator can be added to devices with no error | **Pass**
- After navigating to the visualization page for the device, graph displays data | **Pass**

### **Raspberry Pi**

- Raspberry Pi can be added to devices with no error | **Pass**
- After navigating to the visualization page for the device, graph displays data | **Pass**
- Raspberry Pi can send data for many days at a time? | **Pass**

### **Live Site**

- Site appears when navigating to db.seadssystem from any computer using any browser | **Pass**