**SERIS**

Solar Energy Research Institute Singapore



Cloud Based Realtime Analytical Monitoring of Photovoltaic Systems and Weather Parameters Project

**User Interface Specifications**

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# Introduction

This document is intended for the user interface identified for Cloud Based Realtime Analytical Monitoring of Photovoltaic Systems and Weather Parameters project for SERIS.

This document only covers the web-based user interface for the system. Additional user interface shall be developed on top of this as an addendum or enhancements to this set of user interface.

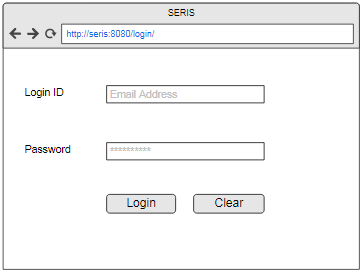
The purpose of this User Interface Specification document is to give users a high-level view of the various web-based user interface function available for the application.

# User Interface

The Below are list of the web-based user interfaces available for Cloud Based Realtime Analytical Monitoring of Photovoltaic Systems and Weather Parameters system for SERIS.

## Login Page

This provides functionality for user login using user ID/email and password.



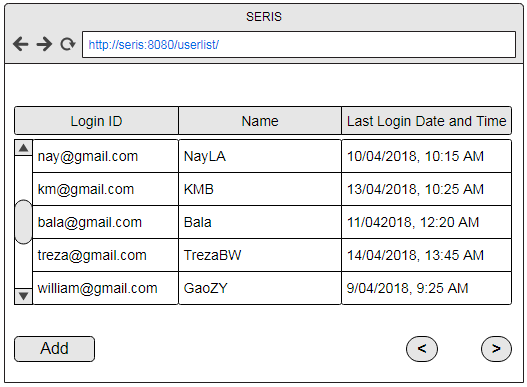
| **Attribute** | **Description** | **Data Type** | **Verification/Validation** | **Error Code/Message** |
| --- | --- | --- | --- | --- |
| Login ID | The Login ID of the End-User to log into the system. E.g. SERIS\_user | Alphanumeric | - Field cannot be null.  - Blanks or Spaces are not accepted. |  |
| Password | The password associated with the Login ID. (Note: Password Field, 8-15 characters long.) | Alphanumeric | - Field cannot be null. |  |

## **User Management**

This provides functionality for viewing list of users and associated information.

New user can be added from this page.

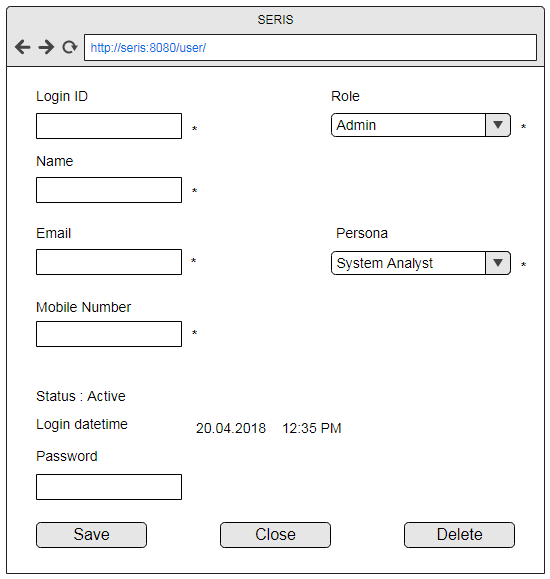
### **User List Page**



| **Attribute** | **Description** | **Data Type** | **Verification/Validation** | **Error Code/Message** |
| --- | --- | --- | --- | --- |
| Login ID | The Login ID of the End-User to log into the system. E.g. SERIS\_user | Alphanumeric | - Field cannot be null.  - Blanks or Spaces are not accepted. |  |
| Name | The Name associated with the Login ID. (Note: 8-20 characters long.) | Alphanumeric | - Field cannot be null. |  |
| Last Login Date and Time | Last login date and time performed by the user. | Alphanumeric | - The date and time will be recorded and updated by the system. |  |

### **User Page**

This provides functionality for viewing a particular user and updating associated information.

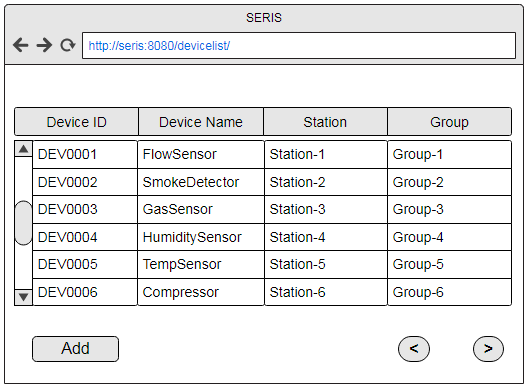


| **Attribute** | **Description** | **Data Type** | **Verification/Validation** | **Error Code/Message** |
| --- | --- | --- | --- | --- |
| Login ID | The Login ID of the End-User to log into the system. E.g. SERIS\_user | Alphanumeric | - Field cannot be null.  - Blanks or Spaces are not accepted. |  |
| Name | The Name associated with the Login ID. (Note: 8-20 characters long.) | Alphanumeric | - Field cannot be null. |  |
| Email | Email associated with the user. | Alphanumeric | - Field cannot be null. |  |
| Mobile number | Mobile number associated with the user. | Integer | - Field cannot be null. |  |
| Status | Current status of the user. | String | - Field cannot be null.  - Field shows status of the user. |  |
| Login DateTime | Last login date and time performed by the user. | Alphanumeric | - The date and time will be recorded and updated by the system. |  |
| Password | Password associated with the user ID | Alphanumeric | - Field cannot be null.  - Field cannot be less than 8 characters.  - Field cannot be greater than 15 characters. |  |
| Role | Role of the user to the system with respective right/access | String | - Field cannot be null. |  |
| Persona | Main acting job associated with the user. | String | - Field cannot be null. |  |

## Device Management

### **Device List**

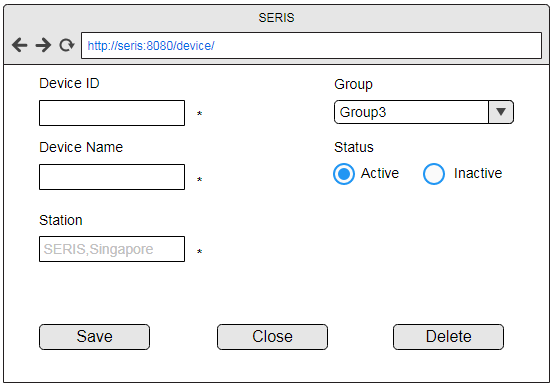
This provides functionality for viewing list of installed devices and associated information. New device can be added from this page.



| **Attribute** | **Description** | **Data Type** | **Verification/Validation** | **Error Code/Message** |
| --- | --- | --- | --- | --- |
| Device ID | ID associated with the device. | Alphanumeric | - Field cannot be null.  - Blanks or Spaces are not accepted. |  |
| Device Name | The Name associated with the Device. (Note: 8-20 characters long.) | Alphanumeric | - Field cannot be null. |  |
| Station | Station name associated with the device | Alphanumeric | - Field cannot be null. |  |
| Group | Group name associated with the device | Alphanumeric | - Field cannot be null. |  |

### **Device Page**

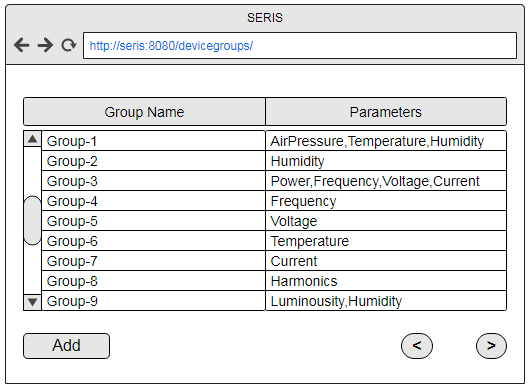
This page provides functionality to update respective device’s details and delete the device.



| **Attribute** | **Description** | **Data Type** | **Verification/Validation** | **Error Code/Message** |
| --- | --- | --- | --- | --- |
| Device ID | ID associated with the device. | Alphanumeric | - Field cannot be null.  - Blanks or Spaces are not accepted. |  |
| Device Name | The Name associated with the Device. (Note: 8-20 characters long.) | Alphanumeric | - Field cannot be null. |  |
| Station | Station name associated with the device | Alphanumeric | - Field cannot be null. |  |
| Group | Group name associated with the device | Alphanumeric | - Field cannot be null. |  |
| Status | Current status of the device | String | - Field cannot be null. |  |

### **Device Group Page**

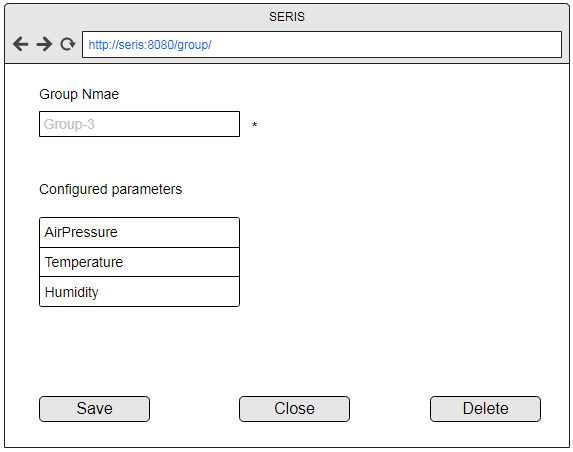
This provides functionality for viewing list of group and their configurable parameters. New group can be added from this page.



| **Attribute** | **Description** | **Data Type** | **Verification/Validation** | **Error Code/Message** |
| --- | --- | --- | --- | --- |
| Group Name | Group name associated with device’s parameter settings | Alphanumeric | - Field cannot be null. |  |
| Parameters | Parameters that can be configured for devices associated with a particular group. | Alphanumeric | - Field cannot be null. |  |

### **Group Page**

This provides functionality for viewing and updating details of a particular group and associated parameter information.

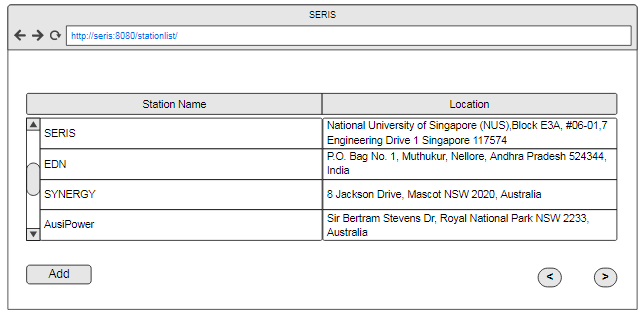


| **Attribute** | **Description** | **Data Type** | **Verification/Validation** | **Error Code/Message** |
| --- | --- | --- | --- | --- |
| Group Name | Group name associated with device’s parameter settings | Alphanumeric | - Field cannot be null. |  |
| Configured parameters | Configurable parameters associated with a particular group. | Alphanumeric | - Field cannot be null. |  |

## Station Management

### **Station List**

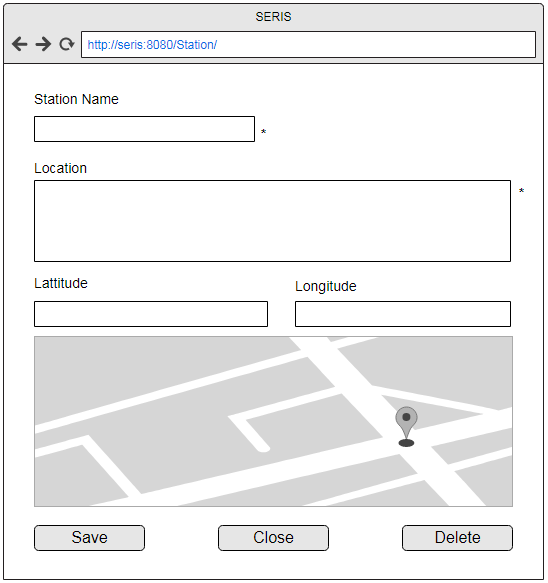
This provides functionality for viewing list of stations and associated location information. New station can be added from this page.



| **Attribute** | **Description** | **Data Type** | **Verification/Validation** | **Error Code/Message** |
| --- | --- | --- | --- | --- |
| Station Name | Name of a particular Station where system is located. | Alphanumeric | - Field cannot be null. |  |
| Location | Address of a particular station | Alphanumeric | - Field cannot be null. |  |

### **Station**

This provides functionality for viewing and updating details of a particular station and its location with map view.

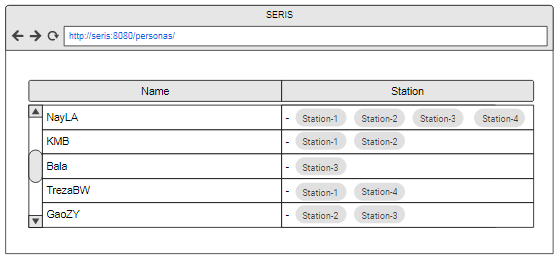


| **Attribute** | **Description** | **Data Type** | **Verification/Validation** | **Error Code/Message** |
| --- | --- | --- | --- | --- |
| Station Name | Name of a particular Station where system is located. | Alphanumeric | - Field cannot be null. |  |
| Location | Address of a particular station | Alphanumeric | - Field cannot be null. |  |
| Latitude | Geospatial latitude of the station | Alphanumeric | optional |  |
| Longitude | Geospatial longitude of the station | Alphanumeric | optional |  |
| Map | Map associated to the latitude and longitude of the station | Image | optional |  |

## Persona Management

### **Personas**

This provides functionality for viewing list of persons responsible for particular station/stations.



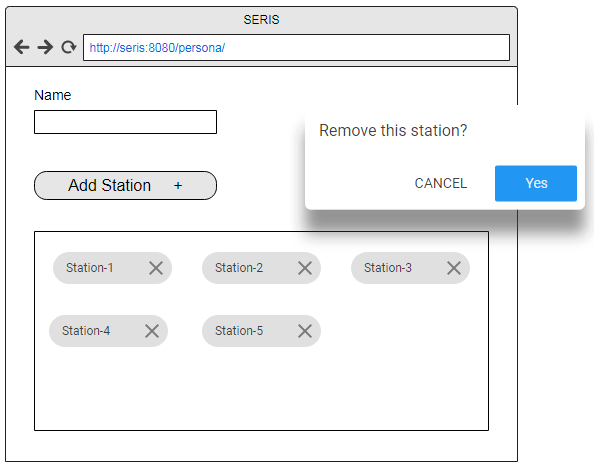
| **Attribute** | **Description** | **Data Type** | **Verification/Validation** | **Error Code/Message** |
| --- | --- | --- | --- | --- |
| Name | Name of user/person who is responsible for particular station/stations | Alphanumeric | - Field cannot be null. |  |
| Station | Station/stations that are under a particular person’s care/responsibility. | Alphanumeric | - Field cannot be null. |  |

### **Persona**

This provides functionality for viewing and adding a particular person’s responsible station/stations. A dialog box will pop up when user removes particular station, and user will have to confirm his action.



| **Attribute** | **Description** | **Data Type** | **Verification/Validation** | **Error Code/Message** |
| --- | --- | --- | --- | --- |
| Name | Name of user/person who is assigned for particular station/stations. | Alphanumeric | - Field cannot be null. |  |
| Add Station | Add station/stations for respective person/user. | Alphanumeric | - Field cannot be null. |  |



| **Attribute** | **Description** | **Data Type** | **Verification/Validation** | **Error Code/Message** |
| --- | --- | --- | --- | --- |
| Dialog box | Alert for confirmation when removing a particular ststion. | N.A | N.A |  |

**Appendix :**