# User Interface Requirements

The following section contains the user interface requirements of the system; these are requirements that specify what the system will have as far as buttons, textboxes, labels, etc.

## Training Wizard

The following are the user interface requirements for the training wizard, which will be used to help the user understand how to use the system.

1. The system shall contain the following interface items:
   1. A button labeled ‘next’ in the ‘select a sensor’ screen allowing the user to move to the next screen.
   2. A button labeled ‘previous’ in the ‘select a sensor’ screen allowing the user to move to the previous screen.
   3. A button labeled ‘exit’ in the ‘select a sensor’ screen allowing the user to exit the wizard training guide.
2. The system shall have a next button in the ‘specify a scope’ screen allowing the user to move to the next screen.
3. The system shall have a previous button in the ‘specify a scope’ screen allowing the user to move the pervious screen.
4. The system shall have an exit button in the ‘specify a scope’ screen allowing the user to exit the wizard training guide.
5. The system shall have a next button in the ‘specify a pattern’ screen allowing the user to move to the next screen.
6. The system shall have a previous button in the ‘specify a pattern’ screen allowing the user to move to the previous screen.
7. The system shall have an exit button in the ‘specify a pattern’ screen allowing the user to exit the wizard training guide.

## Login

The following are the user interface requirements for the login page, which will be used by registered users to log into the system to gain access to the full functionality of the system.

1. The system shall contain the following interface items:
   1. A textbox that will allow users to enter their username.
   2. A textbox that will allow users to enter their password.
   3. A button labeled ‘submit’.
   4. A ‘username’ label for the username textbox.
   5. A ‘password’ label for the password textbox.
   6. A button labeled ‘cancel’.
   7. A button labeled ‘forgot username’.
   8. A button labeled ‘forgot password’.
   9. A button labeled ‘create user’.

## Preferences

1. The preference screen shall have the following text fields labeled:
   1. Email
   2. Phone
   3. Password
   4. Affiliation
2. The preference screen shall have a cancel and save button.
3. The preference screen shall have a drop down menu labeled "Alert Notification" with the following values:
   1. Email
   2. Text

## Select A Sensor

1. The system shall display an image represented a map of the world
2. The map shall have the following functions:
   1. Zoom in/Zoom out
   2. Drag image
   3. Scrolling
3. The map shall be separated into four different zooming levels; world, regions, country, section.

# Stimulus Requirements

The following are stimulus requirements or requirements on how the system will react to user input or interactions, such as what will the system do when a button is pressed.

## Training Wizard

The following requirements are the stimulus requirements that have to do with the user interaction in the training wizard functionality.

1. When the wizard training guide button is pressed the system shall display a screen that will instruct the users on how to properly select a sensor though images, icons, and text explaining what the user must do in order to narrow down the sensor list and select a sensor they wish to view.
2. When the next button is pressed from the ‘select a sensor’ screen the system shall display a screen that will instruct the users on how to specify a scope though images, icons, and text explaining what the user must do in order to properly set a scope or a point of interest in the selected sensor’s dataset.
3. When the previous button is pressed in the ‘specify a scope’ screen the system shall display the screen for how to select a sensor.
4. When the next button is pressed the system shall display a screen on how to specify a scope screen the system shall display a screen that will instruct the users on how to specify a pattern though images, icons and text explaining what the user must do in order to specify a pattern to be applied to a selected sensor’s dataset.
5. When the previous button is pressed the system shall display the screen for how to specify a scope.

## Login

Following are stimulus requirements that have to do with the user interaction in the login functionality.

1. When the user clicks on the submit button the system shall verify the user inputted username and password are correct by comparing the supplied username and password against the saved username and password in the database.
2. When the user clicks on the cancel button the system shall close the login screen overlay and return to the main page.
3. If the user inputted username and password is incorrect the system shall display a login error message.
4. When the user clicks on the forgot username button the system shall prompt the user to enter their email address to have their username sent to their email.
5. When the user clicks on the forgot password button the system shall prompt the user to enter their email address to have their password sent to their email.
6. When the user clicks on the create user button the system will prompt the user to enter their email address, username, password, affiliated institution, and name.

## Preferences

1. A user shall be able to update the following information from the Preference screen:
   1. Email Address
   2. Phone Number
   3. Alert Notification
   4. Affiliation
2. The system shall verify the email entered is valid
3. The system shall verify phone entry has 10 digits
4. When all fields are filled, a user can save changes

## Select A Sensor

1. The system shall zoom in to a country when user clicks on a country on the world view.
2. The system shall zoom in to a region when user clicks on a region on the country view.
3. The system shall zoom in to a section when user clicks on section on the region view.
4. The system shall display icons representing active sensors on the selected section.

# Functional Requirements

The following requirements are functionalities the system will perform independently of any user interaction.

## Training wizard

The following requirements are the functional requirements of the training wizard functionality.

1. In the ‘select a sensor’ screen the system shall have the previous button disabled as the ‘select a sensor’ screen is the first screen in the tutorial and there is no screen before it.
2. In the ‘specify a pattern’ screen the system shall disable the next button as the ‘specify a pattern’ screen will be the last screen in the tutorial and there is no screen after to move to.

## Login

The following requirements are the functional requirements of the login functionality.

1. The system shall mask the user’s password input into the password textbox as a series of black dots.
2. If the user inputted username and password is verified the system shall log the user into the system and displays the tracking page.