

**AAGMI**

(Australian Agricultural Graphical Mapping Interface)

**Software Testing Plan**

**Version 1.2**

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## Document History

|  |  |
| --- | --- |
| Version 1.0 | 26/04/2010 |
|  | |
| Version 1.1 | 05/05/2010 |
| Test results for hardware and internet speed trials updated in response to site optimisation.  Testing key added.  Display Data on Map, Data Adding, and Upload Data Set via Batch Tool added.  Testing completed for adding new Data Types and Unit Types to system. | |
|  | |
| Version 1.2 | 08/05/2010 |
| MAC OS browser compatibility testing results.  Entering personal and organisational details test results.  Plotting data sections added with test results.  Sample end user testing performed  Password changing testing and results  Registering for login testing and results  Updated Batch Tool testing results | |
|  |  |
|  |  |
|  |  |
|  |  |

## Introduction

## Testing Key

Green results mean that the system has been tested as working correctly or without fault under a given testing condition. These results only require review if a change to the system has been made since the last date of testing that may impact the results of that specific test.

Orange is used to signify results of testing a section of the system that; is borderline an error, does not perform the function as well as it should, unsure if the result is an actual error, an error that is minor or even unnoticeable to the user, etc. These are flagged in orange for review by other members of the testing team or development team. If a result is marked in orange because the tester is unsure if this is an error, the colour will be changed at a later stage where possible to red or green to signify its’ actual status. These are subject to change based on reviews from all parties and do not represent any major errors.

Results flagged in red are errors generated by the system or errors in the way the system performs in relation to that specific feature/function being tested. These can be an error or also a feature that does not meet the requirements set out of the project for that function/feature in the planning stages of the system. Items flagged in red need to be reviewed by other members of the testing team as well as development team to see if a solution can be implemented to fix the bug or error, or whether this will remain in the red and be reported to the client and/or the system’s users. If a fix has been implemented, the development team is to notify the testing team to re-do any testing in this area and any other areas that may be affected. This may change to orange or green status depending on any solutions implemented.

**Findings / Comments section**

This field follows each section of the testing for the testing party to fill out with any major issues or comments on the tests performed and that section of the software. This allows the reader of the document to have all issues of that section of testing summed up in one convenient location rather than having to read through significant quantities of tests that may or may not be understood. These sections are to be used as general quick reference for the important issues that need addressing.

## User Interface and Navigation

Initial User Interface (UI) testing will be performed using Microsoft’s Internet Explorer 7 web browser, which is currently the most commonly used browser worldwide. The basic functionality for each section of the Interface will be tested to ensure that all features are operating how they should. Once the software has been tested operating in the most common browser, tests will be performed in a variety of popular alternative browsers across Microsoft Windows and Apple Macintosh platforms to see how the interface operates under these conditions. All alternate browsers will be compared back to the ‘common browser’ as the standard for how the site operates. This testing is important to establish a stable and working interface and define under what conditions this interface will operate, and under which it will operate best for the End User.

### User Interface Test 1 – Common Conditions

|  |  |
| --- | --- |
| **Tester:** |  |
| **OS:** | Windows 7 |
| **Browser:** | Internet Explorer 7 |
| **Testing Purpose:** | To assess the overall functionality of the AAGMI User Interface under the most common conditions. General test to identify any existing flaws in the software interface that need to be addressed before release to end user. |

**Login Page**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Header displays correctly** | YES |  |
| **Logos displayed** | YES |  |
| **Layout correct** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that login works to allow access to the system | Enter correct username and password combination  Username: Test  Password: devteam | Login portal will redirect to main page of system | Login successful, redirected to main page of system |
| **2** | Test login reaction with invalid credentials | Enter incorrect username and password combination  Username: Test  Password: dexdev | Login portal will refuse access and display “Incorrect Username /Password” error | Incorrect Username / Password error message |

**Basic Navigation**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **View Data button navigates to View Data page** | YES |  |
| **Plot Data button navigates to Plot Data page** | YES |  |
| **My Details button navigates to My Details page** | YES |  |
| **Logout Button disengages from system** | YES | Took multiple clicks to work |

**Google Map**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Map displays correctly on page** | YES |  |
| **Hand drag tool works to navigate map** | YES |  |
| **Zoom in and out using Google Maps navigation** | YES |  |
| **Map View** | YES |  |
| **Satellite View** | YES |  |
| **Hybrid View** | YES |  |
| **Terrain View** | YES |  |

**View Data - Search**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test if search via coordinates works in current setup | Test search by coordinates entering valid longitude and latitude.  Input: 126, 312 | Google Maps navigates to “Kanga” in Finland | Navigated to “Kanga” in Finland |
| **2** | Test if search via keyword works in current setup | Test search by coordinates entering a local suburb.  Input: “Livingston” | Google Maps navigates to “Livingston, Perth” in Perth. | Navigated to Livingston |

**View Data – Dataset Display**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Drop down boxes function** | YES |  |
| **“Filter By Data Type” drop down activates “Show Data” drop down field** | YES |  |
| **“Show Points” works for displaying data over map** | YES |  |
| **“Heat Map” works for displaying data over map** | YES |  |
| **Mouse over of data displays in “Data Value” field** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Check display of data set on map | Select sample data “Barley Yield” from *Filter By Data Type* dropdown. Select “Rudi Barley (20/04/10)” from *Show Data* drop down. | Map navigates to Corrigin and displays mapping of data. | Map navigates to Corrigin and displays mapping of data. |
| **2** | Check display of data set on map – verification of previous test | Select sample data “Thorium Levels” from *Filter By Data Type* dropdown. Select “Rudi Thorium (20/04/10)” from *Show Data* drop down. | Map navigates to Corrigin and displays mapping of data. | Map navigates to Corrigin and displays mapping of data. |

**Plot Data – Using GUI Tools**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **All icons displayed and displayed correctly** | YES |  |
| **Clicking on Batch Tool and Circle Tool changes tool on map** | YES |  |
| **Can scroll in map while using tools** | YES |  |
| **Can zoom in map while using tools** | YES |  |
| **Buttons all click** | YES |  |
| **Circle tool can be moved around** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that polygon tool works | Draw shape with more than 4 sides for using polygon tool. Select Data Type, Value, and then submit | Should store data and revert back to View Data page | Reverts back to main page. Appears to work correctly |
| **2** | Test that circle tool works | Click point on map using circle tool.  Change Point Diameter value to 1.75 | Should expand circle | Size of circle on display does not change when a different radius is entered |

**My Details**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Page displayed correctly with organisational and personal details fields separate** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Submitting organisational details, testing If system will submit | Enter in the following details and submit: Name: DexDev  Phone: 0899995555  Fax:  0855559999  Address:  29 Happy Lane Port Kennedy , WA, 6172  Leave Personal fields blank | Should submit with no errors generated and return to main page | Submits with no error message |
| **2** | Submitting Personal details, testing if will submit | Enter the following details and submit: First Name: John  Last Name: Doe  Phone Number:  0457222666  Leave organisational information fields blank | Should submit without any errors generated and return to main page | Submits with no error message |

|  |
| --- |
| **Findings / Comments** |
| * Logout button takes multiple clicks to allow user to logout of system. * Circle radius doesn’t change on the graphic based on the value entered in circle radius text field. |

### User Interface Test 2 – Alternate Browsers – Apple Macintosh

|  |  |
| --- | --- |
| **Tester:** | Jie Shen Law |
| **OS:** | Mac OSX 10.6 |
| **Browser:** | Safari |
| **Testing Purpose:** | To assess the overall functionality of the AAGMI User Interface under alternative browser for the Apple Macintosh computer OS; Safari. Identify flaws in display of software on alternate browsers and compare display results with the most common browser, and all other alternate browsers tested. |

**Login Page**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Header displays correctly** | YES |  |
| **Logos displayed** | YES |  |
| **Layout correct** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that login works to allow access to the system | Enter correct username and password combination  Username: Test  Password: devteam | Login portal will redirect to main page of system | Login works, and redirects to main page of system |
| **2** | Test login reaction with invalid credentials | Enter incorrect username and password combination  Username: Test  Password: dexdev | Login portal will refuse access and display “Incorrect Username /Password” error | Refuses access to the system, and displays invalid username / password error message |

**Basic Navigation**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **View Data button navigates to View Data page** | YES |  |
| **Plot Data button navigates to Plot Data page** | YES |  |
| **My Details button navigates to My Details page** | YES |  |
| **Logout Button disengages from system** | YES |  |

**Google Map**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Map displays correctly on page** | YES |  |
| **Hand drag tool works to navigate map** | YES |  |
| **Zoom in and out using Google Maps navigation** | YES |  |
| **Map View** | YES |  |
| **Satellite View** | YES |  |
| **Hybrid View** | YES |  |
| **Terrain View** | YES |  |

**View Data - Search**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test if search via coordinates works in current setup | Test search by coordinates entering valid longitude and latitude.  Input: 126, 312 | Google Maps navigates to “Kanga” in Finland | Navigates map to “Kanga” in Finland |
| **2** | Test if search via keyword works in current setup | Test search by coordinates entering a local suburb.  Input: “Livingston, Perth, Australia” | Google Maps navigates to “Livingston, Perth” in Perth. | Navigates map to “Livingston, Perth, Australia” |

**View Data – Dataset Display**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Drop down boxes function** | YES |  |
| **“Filter By Data Type” drop down activates “Show Data” drop down field** | YES |  |
| **“Show Points” works for displaying data over map** | YES |  |
| **“Heat Map” works for displaying data over map** | YES |  |
| **Mouse over of data displays in “Data Value” field** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Check display of data set on map | Select sample data “Barley Yield” from *Filter By Data Type* dropdown. Select “Rudi Barley (20/04/10)” from *Show Data* drop down. | Map navigates to Corrigin and displays mapping of data. | Displays data correctly on map |
| **2** | Check display of data set on map – verification of previous test | Select sample data “Thorium Levels” from *Filter By Data Type* dropdown. Select “Rudi Thorium (20/04/10)” from *Show Data* drop down. | Map navigates to Corrigin and displays mapping of data. | Displays data correctly on map |

**Plot Data – Using GUI Tools**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **All icons displayed and displayed correctly** | YES |  |
| **Clicking on Batch Tool and Circle Tool changes tool on map** | YES |  |
| **Can scroll in map while using tools** | YES |  |
| **Can zoom in map while using tools** | YES |  |
| **Buttons all click** | YES |  |
| **Circle tool can be moved around** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that polygon tool works | Draw shape with more than 4 sides for using polygon tool. Select Data Type, Value, and then submit | Should store data and revert back to View Data page | Accepts input and loads to main page of system |
| **2** | Test that circle tool works | Click point on map using circle tool.  Change Point Diameter value to 1.75 | Should expand circle | Accepts input and loads to main page of system |

**My Details**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Page displayed correctly with organisational and personal details fields separate** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Submitting organisational details, testing If system will submit | Enter in the following details and submit:  First Name: Testjie  Last Name: Testjie  Name:jietest  Address: village  Phone Number:8888888  Fax Number:888888 | Should submit with no errors generated and return to main page | Submitted with no errors |
| **2** | Submitting Personal details, testing if will submit | Enter the following details and submit: First Name: John  Last Name: Doe  Phone Number:  0457222666  Leave organisational information fields blank | Should submit without any errors generated and return to main page | Submitted with no errors |

|  |
| --- |
| **Findings / Comments** |
|  |

### User Interface Test 2 – Alternate Browsers – Microsoft Windows

#### UI 2.1 Internet Explorer 6

|  |  |
| --- | --- |
| **Tester:** | Andrew Bullen |
| **OS:** | Windows 7 |
| **Browser:** | Internet Explorer 6 |
| **Testing Purpose:** | To assess the overall functionality of the AAGMI User Interface under alternative browser for the Microsoft Windows computer OS; Internet Explorer 6. Identify flaws in display of software on alternate browsers and compare display results with the most common browser, and all other alternate browsers tested. |

**Login Page**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Header displays correctly** | YES |  |
| **Logos displayed** | YES |  |
| **Layout correct** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that login works to allow access to the system | Enter correct username and password combination  Username: Test  Password: devteam | Login portal will redirect to main page of system | Login works, and redirects to main page of system |
| **2** | Test login reaction with invalid credentials | Enter incorrect username and password combination  Username: Test  Password: dexdev | Login portal will refuse access and display “Incorrect Username /Password” error | Refuses access to the system, and displays invalid username / password error message |

**Basic Navigation**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **View Data button navigates to View Data page** | YES |  |
| **Plot Data button navigates to Plot Data page** | YES |  |
| **My Details button navigates to My Details page** | YES |  |
| **Logout Button disengages from system** | YES | Took multiple clicks to get system to logout |

**Google Map**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Map displays correctly on page** | YES |  |
| **Hand drag tool works to navigate map** | YES |  |
| **Zoom in and out using Google Maps navigation** | YES |  |
| **Map View** | YES |  |
| **Satellite View** | YES |  |
| **Hybrid View** | YES |  |
| **Terrain View** | YES |  |

**View Data - Search**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test if search via coordinates works in current setup | Test search by coordinates entering valid longitude and latitude.  Input: 126, 312 | Google Maps navigates to “Kanga” in Finland | Navigates map to “Kanga” in Finland |
| **2** | Test if search via keyword works in current setup | Test search by coordinates entering a local suburb.  Input: “Livingston” | Google Maps navigates to “Livingston, Perth” in Perth. | Navigates Map to “Livingston” |

**View Data – Dataset Display**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Drop down boxes function** | YES |  |
| **“Filter By Data Type” drop down activates “Show Data” drop down field** | YES |  |
| **“Show Points” works for displaying data over map** | YES |  |
| **“Heat Map” works for displaying data over map** | YES | Very slow to load |
| **Mouse over of data displays in “Data Value” field** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Check display of data set on map | Select sample data “Barley Yield” from *Filter By Data Type* dropdown. Select “Rudi Barley (20/04/10)” from *Show Data* drop down. | Map navigates to Corrigin and displays mapping of data. | Displays data correctly on map |
| **2** | Check display of data set on map – verification of previous test | Select sample data “Thorium Levels” from *Filter By Data Type* dropdown. Select “Rudi Thorium (20/04/10)” from *Show Data* drop down. | Map navigates to Corrigin and displays mapping of data. | Displays data correctly on map |

**Plot Data – Using GUI Tools**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **All icons displayed and displayed correctly** | YES |  |
| **Clicking on Batch Tool and Circle Tool changes tool on map** | YES |  |
| **Can scroll in map while using tools** | YES |  |
| **Can zoom in map while using tools** | YES |  |
| **Buttons all click** | YES |  |
| **Circle tool can be moved around** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that polygon tool works | Draw shape with more than 4 sides for using polygon tool. Select Data Type, Value, and then submit | Should store data and revert back to View Data page | Accepts input and loads to main page of system |
| **2** | Test that circle tool works | Click point on map using circle tool.  Change Point Diameter value to 1.75 | Should expand circle | Does not expand circle when a radius is entered into circle radius text field |

**My Details**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Page displayed correctly with organisational and personal details fields separate** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Submitting organisational details, testing If system will submit | Enter in the following details and submit: Name: DexDev  Phone: 0899995555  Fax:  0855559999  Address:  29 Happy Lane Port Kennedy , WA, 6172  Leave Personal fields blank | Should submit with no errors generated and return to main page | Submitted with no errors |
| **2** | Submitting Personal details, testing if will submit | Enter the following details and submit: First Name: John  Last Name: Doe  Phone Number:  0457222666  Leave organisational information fields blank | Should submit without any errors generated and return to main page | Submitted with no errors |

|  |
| --- |
| **Findings / Comments** |
| * Logout button takes multiple clicks to allow user to logout of system. * Circle radius doesn’t change on the graphic based on the value entered in circle radius text field. * Heat map is very slow to load in contrast to other features. |

#### UI 2.2 Internet Explorer 8

|  |  |
| --- | --- |
| **Tester:** | Andrew Bullen |
| **OS:** | Windows 7 |
| **Browser:** | Internet Explorer 8 |
| **Testing Purpose:** | To assess the overall functionality of the AAGMI User Interface under alternative browser for the Microsoft Windows computer OS; Internet Explorer 8. Identify flaws in display of software on alternate browsers and compare display results with the most common browser, and all other alternate browsers tested. |

**Login Page**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Header displays correctly** | YES |  |
| **Logos displayed** | YES |  |
| **Layout correct** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that login works to allow access to the system | Enter correct username and password combination  Username: Test  Password: devteam | Login portal will redirect to main page of system | Logged in and redirected to main page of the system |
| **2** | Test login reaction with invalid credentials | Enter incorrect username and password combination  Username: Test  Password: dexdev | Login portal will refuse access and display “Incorrect Username /Password” error | Refused login with invalid username / password error message |

**Basic Navigation**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **View Data button navigates to View Data page** | YES |  |
| **Plot Data button navigates to Plot Data page** | YES |  |
| **My Details button navigates to My Details page** | YES |  |
| **Logout Button disengages from system** | YES | Took multiple clicks for system to respond |

**Google Map**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Map displays correctly on page** | YES |  |
| **Hand drag tool works to navigate map** | YES |  |
| **Zoom in and out using Google Maps navigation** | YES |  |
| **Map View** | YES |  |
| **Satellite View** | YES |  |
| **Hybrid View** | YES |  |
| **Terrain View** | YES |  |

**View Data - Search**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test if search via coordinates works in current setup | Test search by coordinates entering valid longitude and latitude.  Input: 126, 312 | Google Maps navigates to “Kanga” in Finland | Google Maps navigates to “Kanga” in Finland |
| **2** | Test if search via keyword works in current setup | Test search by coordinates entering a local suburb.  Input: “Livingston” | Google Maps navigates to “Livingston, Perth” in Perth. | Google Maps navigates to “Livingston, Perth” in Perth. |

**View Data – Dataset Display**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Drop down boxes function** | YES |  |
| **“Filter By Data Type” drop down activates “Show Data” drop down field** | YES |  |
| **“Show Points” works for displaying data over map** | YES |  |
| **“Heat Map” works for displaying data over map** | YES |  |
| **Mouse over of data displays in “Data Value” field** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Check display of data set on map | Select sample data “Barley Yield” from *Filter By Data Type* dropdown. Select “Rudi Barley (20/04/10)” from *Show Data* drop down. | Map navigates to Corrigin and displays mapping of data. | Map navigates to Corrigin and displays mapping of data. |
| **2** | Check display of data set on map – verification of previous test | Select sample data “Thorium Levels” from *Filter By Data Type* dropdown. Select “Rudi Thorium (20/04/10)” from *Show Data* drop down. | Map navigates to Corrigin and displays mapping of data. | Map navigates to Corrigin and displays mapping of data. |

**Plot Data – Using GUI Tools**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **All icons displayed and displayed correctly** | YES |  |
| **Clicking on Batch Tool and Circle Tool changes tool on map** | YES |  |
| **Can scroll in map while using tools** | YES |  |
| **Can zoom in map while using tools** | YES |  |
| **Buttons all click** | YES |  |
| **Circle tool can be moved around** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that polygon tool works | Draw shape with more than 4 sides for using polygon tool. Select Data Type, Value, and then submit | Should store data and revert back to View Data page | Appears to store data and no errors are populated |
| **2** | Test that circle tool works | Click point on map using circle tool.  Change Point Diameter value to 1.75 | Should expand circle | Circle graphic does not expand when radius is entered into circle radius field |

**My Details**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Page displayed correctly with organisational and personal details fields separate** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Submitting organisational details, testing If system will submit | Enter in the following details and submit: Name: DexDev  Phone: 0899995555  Fax:  0855559999  Address:  29 Happy Lane Port Kennedy , WA, 6172  Leave Personal fields blank | Should submit with no errors generated and return to main page | Submitted with no errors |
| **2** | Submitting Personal details, testing if will submit | Enter the following details and submit: First Name: John  Last Name: Doe  Phone Number:  0457222666  Leave organisational information fields blank | Should submit without any errors generated and return to main page | Submitted with no errors |

|  |
| --- |
| **Findings / Comments** |
| * Logout button takes multiple clicks to allow user to logout of system. * Circle radius doesn’t change on the graphic based on the value entered in circle radius text field. |

#### UI 2.3 Mozilla Firefox

|  |  |
| --- | --- |
| **Tester:** | Andrew Bullen |
| **OS:** | Windows 7 |
| **Browser:** | Mozilla Firefox 3.6 |
| **Testing Purpose:** | To assess the overall functionality of the AAGMI User Interface under alternative browser for the Microsoft Windows computer OS; Mozilla Firefox. Identify flaws in display of software on alternate browsers and compare display results with the most common browser, and all other alternate browsers tested. |

**Login Page**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Header displays correctly** | YES |  |
| **Logos displayed** | YES |  |
| **Layout correct** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that login works to allow access to the system | Enter correct username and password combination  Username: Test  Password: devteam | Login portal will redirect to main page of system | Login works, and redirects to main page of system |
| **2** | Test login reaction with invalid credentials | Enter incorrect username and password combination  Username: Test  Password: dexdev | Login portal will refuse access and display “Incorrect Username /Password” error | Refuses access to the system, and displays invalid username / password error message |

**Basic Navigation**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **View Data button navigates to View Data page** | YES |  |
| **Plot Data button navigates to Plot Data page** | YES |  |
| **My Details button navigates to My Details page** | YES |  |
| **Logout Button disengages from system** | YES | Took multiple clicks to get system to logout |

**Google Map**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Map displays correctly on page** | YES |  |
| **Hand drag tool works to navigate map** | YES |  |
| **Zoom in and out using Google Maps navigation** | YES |  |
| **Map View** | YES |  |
| **Satellite View** | YES |  |
| **Hybrid View** | YES |  |
| **Terrain View** | YES |  |

**View Data - Search**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test if search via coordinates works in current setup | Test search by coordinates entering valid longitude and latitude.  Input: 126, 312 | Google Maps navigates to “Kanga” in Finland | Navigates map to “Kanga” in Finland |
| **2** | Test if search via keyword works in current setup | Test search by coordinates entering a local suburb.  Input: “Livingston” | Google Maps navigates to “Livingston, Perth” in Perth. | Navigates Map to “Livingston” |

**View Data – Dataset Display**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Drop down boxes function** | YES |  |
| **“Filter By Data Type” drop down activates “Show Data” drop down field** | YES |  |
| **“Show Points” works for displaying data over map** | YES |  |
| **“Heat Map” works for displaying data over map** | YES | Very slow to load |
| **Mouse over of data displays in “Data Value” field** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Check display of data set on map | Select sample data “Barley Yield” from *Filter By Data Type* dropdown. Select “Rudi Barley (20/04/10)” from *Show Data* drop down. | Map navigates to Corrigin and displays mapping of data. | Displays data correctly on map |
| **2** | Check display of data set on map – verification of previous test | Select sample data “Thorium Levels” from *Filter By Data Type* dropdown. Select “Rudi Thorium (20/04/10)” from *Show Data* drop down. | Map navigates to Corrigin and displays mapping of data. | Displays data correctly on map |

**Plot Data – Using GUI Tools**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **All icons displayed and displayed correctly** | YES |  |
| **Clicking on Batch Tool and Circle Tool changes tool on map** | YES |  |
| **Can scroll in map while using tools** | YES |  |
| **Can zoom in map while using tools** | YES |  |
| **Buttons all click** | YES |  |
| **Circle tool can be moved around** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that polygon tool works | Draw shape with more than 4 sides for using polygon tool. Select Data Type, Value, and then submit | Should store data and revert back to View Data page | Accepts input and loads to main page of system |
| **2** | Test that circle tool works | Click point on map using circle tool.  Change Point Diameter value to 1.75 | Should expand circle | Does not expand circle when a radius is entered into circle radius text field |

**My Details**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Page displayed correctly with organisational and personal details fields separate** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Submitting organisational details, testing If system will submit | Enter in the following details and submit: Name: DexDev  Phone: 0899995555  Fax:  0855559999  Address:  29 Happy Lane Port Kennedy , WA, 6172  Leave Personal fields blank | Should submit with no errors generated and return to main page | Submitted with no errors |
| **2** | Submitting Personal details, testing if will submit | Enter the following details and submit: First Name: John  Last Name: Doe  Phone Number:  0457222666  Leave organisational information fields blank | Should submit without any errors generated and return to main page | Submitted with no errors |

|  |
| --- |
| **Findings / Comments** |
| * Logout button takes multiple clicks to allow user to logout of system. * Circle radius doesn’t change on the graphic based on the value entered in circle radius text field. * Heat map is very slow to load in contrast to other features. |

#### UI 2.4 Google Chrome

|  |  |
| --- | --- |
| **Tester:** | Andrew Bullen |
| **OS:** | Windows 7 |
| **Browser:** | Google Chrome 4 |
| **Testing Purpose:** | To assess the overall functionality of the AAGMI User Interface under alternative browser for the Microsoft Windows computer OS; Google Chrome. Identify flaws in display of software on alternate browsers and compare display results with the most common browser, and all other alternate browsers tested. |

**Login Page**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Header displays correctly** | YES |  |
| **Logos displayed** | YES |  |
| **Layout correct** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that login works to allow access to the system | Enter correct username and password combination  Username: Test  Password: devteam | Login portal will redirect to main page of system | Allows access to the system and redirects to main page |
| **2** | Test login reaction with invalid credentials | Enter incorrect username and password combination  Username: Test  Password: dexdev | Login portal will refuse access and display “Incorrect Username /Password” error | Refuses access to the system with Incorrect Username / password error message |

**Basic Navigation**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **View Data button navigates to View Data page** | YES |  |
| **Plot Data button navigates to Plot Data page** | YES |  |
| **My Details button navigates to My Details page** | YES |  |
| **Logout Button disengages from system** | YES | Takes multiple click to logout of system |

**Google Map**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Map displays correctly on page** | YES |  |
| **Hand drag tool works to navigate map** | YES |  |
| **Zoom in and out using Google Maps navigation** | YES |  |
| **Map View** | YES |  |
| **Satellite View** | YES |  |
| **Hybrid View** | YES |  |
| **Terrain View** | YES |  |

**View Data - Search**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test if search via coordinates works in current setup | Test search by coordinates entering valid longitude and latitude.  Input: 126, 312 | Google Maps navigates to “Kanga” in Finland | Google Maps navigates to “Kanga” in Finland |
| **2** | Test if search via keyword works in current setup | Test search by coordinates entering a local suburb.  Input: “Livingston” | Google Maps navigates to “Livingston, Perth” in Perth. | Google Maps navigates to “Livingston, Perth” in Perth. |

**View Data – Dataset Display**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Drop down boxes function** | YES |  |
| **“Filter By Data Type” drop down activates “Show Data” drop down field** | YES |  |
| **“Show Points” works for displaying data over map** | YES |  |
| **“Heat Map” works for displaying data over map** | YES |  |
| **Mouse over of data displays in “Data Value” field** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Check display of data set on map | Select sample data “Barley Yield” from *Filter By Data Type* dropdown. Select “Rudi Barley (20/04/10)” from *Show Data* drop down. | Map navigates to Corrigin and displays mapping of data. | Map navigates to Corrigin and displays mapping of data. |
| **2** | Check display of data set on map – verification of previous test | Select sample data “Thorium Levels” from *Filter By Data Type* dropdown. Select “Rudi Thorium (20/04/10)” from *Show Data* drop down. | Map navigates to Corrigin and displays mapping of data. | Map navigates to Corrigin and displays mapping of data. |

**Plot Data – Using GUI Tools**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **All icons displayed and displayed correctly** | YES |  |
| **Clicking on Batch Tool and Circle Tool changes tool on map** | YES |  |
| **Can scroll in map while using tools** | YES |  |
| **Can zoom in map while using tools** | YES |  |
| **Buttons all click** | YES |  |
| **Circle tool can be moved around** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that polygon tool works | Draw shape with more than 4 sides for using polygon tool. Select Data Type, Value, and then submit | Should store data and revert back to View Data page | Polygon tool works. Appears to store data with no error messages |
| **2** | Test that circle tool works | Click point on map using circle tool.  Change Point Diameter value to 1.75 | Should expand circle | Circle does not expand when a radius is entered in the circle radius field |

**My Details**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Page displayed correctly with organisational and personal details fields separate** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Submitting organisational details, testing If system will submit | Enter in the following details and submit: Name: DexDev  Phone: 0899995555  Fax:  0855559999  Address:  29 Happy Lane Port Kennedy , WA, 6172  Leave Personal fields blank | Should submit with no errors generated and return to main page | Submits with no errors generated |
| **2** | Submitting Personal details, testing if will submit | Enter the following details and submit: First Name: John  Last Name: Doe  Phone Number:  0457222666  Leave organisational information fields blank | Should submit without any errors generated and return to main page | Submits with no error generated |

|  |
| --- |
| **Findings / Comments** |
| * Logout button takes multiple clicks to allow user to logout of system. * Circle radius doesn’t change on the graphic based on the value entered in circle radius text field. |

#### UI 2.5 Opera

|  |  |
| --- | --- |
| **Tester:** | Andrew Bullen |
| **OS:** | Windows 7 |
| **Browser:** | Opera 10.50 |
| **Testing Purpose:** | To assess the overall functionality of the AAGMI User Interface under alternative browser for the Microsoft Windows computer OS; Opera. Identify flaws in display of software on alternate browsers and compare display results with the most common browser, and all other alternate browsers tested. |

**Login Page**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Header displays correctly** | YES |  |
| **Logos displayed** | YES |  |
| **Layout correct** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that login works to allow access to the system | Enter correct username and password combination  Username: Test  Password: devteam | Login portal will redirect to main page of system | Allows access to the system and redirects to main page |
| **2** | Test login reaction with invalid credentials | Enter incorrect username and password combination  Username: Test  Password: dexdev | Login portal will refuse access and display “Incorrect Username /Password” error | Refuses access to the system with Incorrect Username / password error message |

**Basic Navigation**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **View Data button navigates to View Data page** | YES |  |
| **Plot Data button navigates to Plot Data page** | YES |  |
| **My Details button navigates to My Details page** | YES |  |
| **Logout Button disengages from system** | YES | Takes multiple click to logout of system |

**Google Map**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Map displays correctly on page** | YES |  |
| **Hand drag tool works to navigate map** | YES |  |
| **Zoom in and out using Google Maps navigation** | YES |  |
| **Map View** | YES |  |
| **Satellite View** | YES |  |
| **Hybrid View** | YES |  |
| **Terrain View** | YES |  |

**View Data - Search**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test if search via coordinates works in current setup | Test search by coordinates entering valid longitude and latitude.  Input: 126, 312 | Google Maps navigates to “Kanga” in Finland | Google Maps navigates to “Kanga” in Finland |
| **2** | Test if search via keyword works in current setup | Test search by coordinates entering a local suburb.  Input: “Livingston” | Google Maps navigates to “Livingston, Perth” in Perth. | Google Maps navigates to “Livingston, Perth” in Perth. |

**View Data – Dataset Display**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Drop down boxes function** | YES |  |
| **“Filter By Data Type” drop down activates “Show Data” drop down field** | YES |  |
| **“Show Points” works for displaying data over map** | YES |  |
| **“Heat Map” works for displaying data over map** | YES |  |
| **Mouse over of data displays in “Data Value” field** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Check display of data set on map | Select sample data “Barley Yield” from *Filter By Data Type* dropdown. Select “Rudi Barley (20/04/10)” from *Show Data* drop down. | Map navigates to Corrigin and displays mapping of data. | Map navigates to Corrigin and displays mapping of data. |
| **2** | Check display of data set on map – verification of previous test | Select sample data “Thorium Levels” from *Filter By Data Type* dropdown. Select “Rudi Thorium (20/04/10)” from *Show Data* drop down. | Map navigates to Corrigin and displays mapping of data. | Map navigates to Corrigin and displays mapping of data. |

**Plot Data – Using GUI Tools**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **All icons displayed and displayed correctly** | YES |  |
| **Clicking on Batch Tool and Circle Tool changes tool on map** | YES |  |
| **Can scroll in map while using tools** | YES |  |
| **Can zoom in map while using tools** | YES |  |
| **Buttons all click** | YES |  |
| **Circle tool can be moved around** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that polygon tool works | Draw shape with more than 4 sides for using polygon tool. Select Data Type, Value, and then submit | Should store data and revert back to View Data page | Polygon tool works. Appears to store data with no error messages |
| **2** | Test that circle tool works | Click point on map using circle tool.  Change Point Diameter value to 1.75 | Should expand circle | Circle does not expand when a radius is entered in the circle radius field |

**My Details**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Comments** |
| **Page displayed correctly with organisational and personal details fields separate** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Submitting organisational details, testing If system will submit | Enter in the following details and submit: Name: DexDev  Phone: 0899995555  Fax:  0855559999  Address:  29 Happy Lane Port Kennedy , WA, 6172  Leave Personal fields blank | Should submit with no errors generated and return to main page | Submits with no errors generated |
| **2** | Submitting Personal details, testing if will submit | Enter the following details and submit: First Name: John  Last Name: Doe  Phone Number:  0457222666  Leave organisational information fields blank | Should submit without any errors generated and return to main page | Submits with no error generated |

|  |
| --- |
| **Findings / Comments** |
| * Logout button takes multiple clicks to allow user to logout of system. * Circle radius doesn’t change on the graphic based on the value entered in circle radius text field. |

## Hardware and Internet Connection

With all software it is important to test the operation on different systems with different requirements to find the minimum specification that can run the software to an appropriate efficiency. The AAGMI is web based, so the internet connection speeds and types utilised by the end user also need to be taken into account. The system will be accessed from some remote regions and likely on laptops, so the testing will involve different internet connections across notebook and netbook computers. The different internet connections will be used to determine which is the most appropriate for use with the AAGMI software, and what the minimum connection to be used for good operation can be. Testing on netbooks will establish whether the software runs on the most basic computer system with the lowest specifications available today.

#### HIC 1.1 ADSL Internet Connection

|  |  |
| --- | --- |
| **Tester:** | Andrew Bullen |
| **OS:** | Windows 7 |
| **Hardware:** | Dell XPS 1530 Notebook |
| **Internet Connection:** | ADSL - Wifi |
| **Testing Purpose:** | To test the operation of the AAGMI system running from an ADSL internet connection of typical speeds 256kbps – 1500kbps |

**Login Page**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **Login Page Loads** | YES | 1.1 seconds |
| **Login function** | YES | 1.5 seconds |
| **Logos displayed** | YES | N/A |
| **Layout correct** | YES | N/A |
| **Logout function** | YES | 0.9 seconds |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that login works to allow access to the system | Enter correct username and password combination  Username: Test  Password: devteam | Login portal will redirect to main page of system | Login ok, redirected to main page of the system. |

**Google Map**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **Map displays correctly on page** | YES | N/A |
| **Hand drag tool** | YES | N/A |
| **Zoom in and out using Google Maps navigation** | YES | N/A |
| **Map View** | YES | 0.8 seconds |
| **Satellite View** | YES | 0.7 seconds |
| **Hybrid View** | YES | 2.3 seconds |
| **Terrain View** | YES | 0.7 seconds |

**View Data - Search**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **View Data page loads** | YES | 0.2 seconds |
| **Search via Coordinates**  **217, 285** | YES | 2 seconds |
| **Search via Keyword/Address**  **“Alice Springs”** | YES | 1.8 seconds |

**View Data – Dataset Display**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **Drop down boxes function** | YES | N/A |
| **Select sample data “Barley Yield” from *Filter By Data Type* dropdown. Select “Rudi Barley (20/04/10)” from *Show Data* drop down.** | YES | 2.3 seconds |
| **Select sample data “Thorium Levels” from *Filter By Data Type* dropdown. Select “Rudi Thorium (20/04/10)” from *Show Data* drop down. Heat Map** | YES | 3.2 seconds |

**Plot Data – Using GUI Tools**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that polygon tool works under internet speed and bandwidth conditions | Draw shape with more than 4 sides for using polygon tool. | Should display graphical overlay of polygon with minimal to no delay | Displays polygon overlayed on map. Minimal delay. |
| **2** | Test that circle tool works under internet speeds and bandwidth conditions | Click point on map using circle tool.  Change Point Diameter value to 2.0 | Should expand circle overlay with minimal time. | Displays circle overlay on map. Minimal delay. |

**My Details**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **Load page** | YES | 0.2 seconds |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Submitting organisational details, testing If system will submit | Enter in the following details and submit: Name: DexDev  Phone: 0899995555  Fax:  0855559999  Address:  29 Happy Lane Port Kennedy , WA, 6172  Leave Personal fields blank | Should submit with no errors generated and return to main page promptly | Submits with no errors and returns to main page |
| **2** | Submitting Personal details, testing if will submit | Enter the following details and submit: First Name: John  Last Name: Doe  Phone Number:  0457222666  Leave organisational information fields blank | Should submit without any errors generated and return to main page promptly | Submits with no errors and returns to main page |

|  |
| --- |
| **Findings / Comments** |
| 75% decrease in loading times since optimisation was done. Page loading times on ADSL are less than a second generally. Basic functions like displaying data are only a couple of seconds . |

#### HIC 1.2 Dialup Internet Connection

|  |  |
| --- | --- |
| **Tester:** | Andrew Bullen |
| **OS:** | Windows 7 |
| **Hardware:** | Dell XPS 1530 Notebook |
| **Internet Connection:** | Dialup |
| **Testing Purpose:** | To test the operation of the AAGMI system running from an dialup or equivalent speed internet connection of typical speeds 56 – 64kbps |

**Login Page**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **Login Page Loads** |  |  |
| **Login function** |  |  |
| **Logos displayed** |  | N/A |
| **Layout correct** |  | N/A |
| **Logout function** |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that login works to allow access to the system | Enter correct username and password combination  Username: Test  Password: devteam | Login portal will redirect to main page of system |  |

**Google Map**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **Map displays correctly on page** |  |  |
| **Hand drag tool** |  |  |
| **Zoom in and out using Google Maps navigation** |  |  |
| **Map View** |  |  |
| **Satellite View** |  |  |
| **Hybrid View** |  |  |
| **Terrain View** |  |  |

**View Data - Search**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **View Data page loads** |  |  |
| **Search via Coordinates**  **217, 285** |  |  |
| **Search via Keyword/Address**  **“Alice Springs”** |  |  |

**View Data – Dataset Display**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **Drop down boxes function** |  | N/A |
| **Select sample data “Barley Yield” from *Filter By Data Type* dropdown. Select “Rudi Barley (20/04/10)” from *Show Data* drop down.** |  |  |
| **Select sample data “Thorium Levels” from *Filter By Data Type* dropdown. Select “Rudi Thorium (20/04/10)” from *Show Data* drop down. Heat Map** |  |  |

**Plot Data – Using GUI Tools**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that polygon tool works under internet speed and bandwidth conditions | Draw shape with more than 4 sides for using polygon tool. | Should display graphical overlay of polygon with minimal to no delay |  |
| **2** | Test that circle tool works under internet speeds and bandwidth conditions | Click point on map using circle tool.  Change Point Diameter value to 2.0 | Should expand circle overlay with minimal time. |  |

**My Details**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **Load page** |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Submitting organisational details, testing If system will submit | Enter in the following details and submit: Name: DexDev  Phone: 0899995555  Fax:  0855559999  Address:  29 Happy Lane Port Kennedy , WA, 6172  Leave Personal fields blank | Should submit with no errors generated and return to main page promptly |  |
| **2** | Submitting Personal details, testing if will submit | Enter the following details and submit: First Name: John  Last Name: Doe  Phone Number:  0457222666  Leave organisational information fields blank | Should submit without any errors generated and return to main page promptly |  |

|  |
| --- |
| **Findings / Comments** |
|  |

#### HIC 1.3 Wireless Internet Connection

|  |  |
| --- | --- |
| **Tester:** | Andrew Bullen |
| **OS:** | Windows 7 |
| **Hardware:** | Dell XPS 1530 Notebook, Sierra Wireless Telstra Turbo Elite modem |
| **Internet Connection:** | 3G Wireless Internet |
| **Testing Purpose:** | To test the operation of the AAGMI system running from an 3G Wireless connection of typical speeds 3Mbps – 12 Mbps. Guaranteed minimum speed of 1Mbps, and maximum burst speed of 21 Mbps |

**Login Page**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **Login Page Loads** | YES | 1.3 seconds |
| **Login function** | YES | 1.1 seconds |
| **Logos displayed** | YES | N/A |
| **Layout correct** | YES | N/A |
| **Logout function** | YES | 1 second |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that login works to allow access to the system | Enter correct username and password combination  Username: Test  Password: devteam | Login portal will redirect to main page of system | Login portal redirects to main web page. |

**Google Map**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **Map displays correctly on page** | YES | N/A |
| **Hand drag tool** | YES | N/A |
| **Zoom in and out using Google Maps navigation** | YES | N/A |
| **Map View** | YES | 0.6 seconds |
| **Satellite View** | YES | 0.9 seconds |
| **Hybrid View** | YES | 1.2 seconds |
| **Terrain View** | YES | 0.7 seconds |

**View Data - Search**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **View Data page loads** | YES | 0.3 seconds |
| **Search via Coordinates**  **217, 285** | YES | 1.8 seconds |
| **Search via Keyword/Address**  **“Alice Springs”** | YES | 2 seconds |

**View Data – Dataset Display**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **Drop down boxes function** | YES | N/A |
| **Select sample data “Barley Yield” from *Filter By Data Type* dropdown. Select “Rudi Barley (20/04/10)” from *Show Data* drop down.** | YES | 1.9 seconds |
| **Select sample data “Thorium Levels” from *Filter By Data Type* dropdown. Select “Rudi Thorium (20/04/10)” from *Show Data* drop down. Heat Map** | YES | 2.6 seconds |

**Plot Data – Using GUI Tools**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that polygon tool works under internet speed and bandwidth conditions | Draw shape with more than 4 sides for using polygon tool. | Should display graphical overlay of polygon with minimal to no delay | Polygon tool works for overlaying polygon over map |
| **2** | Test that circle tool works under internet speeds and bandwidth conditions | Click point on map using circle tool.  Change Point Diameter value to 2.0 | Should expand circle overlay with minimal time. | Circle displays correctly over map |

**My Details**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **Load page** | YES |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Submitting organisational details, testing If system will submit | Enter in the following details and submit: Name: DexDev  Phone: 0899995555  Fax:  0855559999  Address:  29 Happy Lane Port Kennedy , WA, 6172  Leave Personal fields blank | Should submit with no errors generated and return to main page promptly | Submits with no errors and returns to main page |
| **2** | Submitting Personal details, testing if will submit | Enter the following details and submit: First Name: John  Last Name: Doe  Phone Number:  0457222666  Leave organisational information fields blank | Should submit without any errors generated and return to main page promptly | Submits with no errors and returns to main page |

|  |
| --- |
| **Findings / Comments** |
| 75% decrease in loading times since optimisation was done. Page loading times on Wireless are less than a second generally. Basic functions like displaying data are only a couple of seconds . |

#### HIC 1.4 Inbuilt 3G wireless Internet with netbook

|  |  |
| --- | --- |
| **Tester:** | Andrew Bullen |
| **OS:** | Windows XP |
| **Hardware:** | Acer Aspire One netbook |
| **Internet Connection:** | 3G Wireless Internet - inbuilt |
| **Testing Purpose:** | To test the operation of the AAGMI system running from an inbuilt 3G Wireless connection of typical speeds 1Mbps – 3 Mbps. Guaranteed minimum speed of 1Mbps, and maximum burst speed of 7.2 Mbps |

**Login Page**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **Login Page Loads** | YES | 0.7 seconds |
| **Login function** | YES | 1.4 seconds |
| **Logos displayed** | YES | N/A |
| **Layout correct** | YES | N/A |
| **Logout function** | YES | 1.6 seconds |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that login works to allow access to the system | Enter correct username and password combination  Username: Test  Password: devteam | Login portal will redirect to main page of system | Login successful and user redirected to main page of system |

**Google Map**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **Map displays correctly on page** | YES | N/A |
| **Hand drag tool** | YES | N/A |
| **Zoom in and out using Google Maps navigation** | YES | N/A |
| **Map View** | YES | 0.7 seconds |
| **Satellite View** | YES | 2.3 seconds |
| **Hybrid View** | YES | 1.2 seconds |
| **Terrain View** | YES | 0.9 seconds |

**View Data - Search**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **View Data page loads** | YES | 0.5 seconds |
| **Search via Coordinates**  **217, 285** | YES | 2.4 seconds |
| **Search via Keyword/Address**  **“Alice Springs”** | YES | 1.6 seconds |

**View Data – Dataset Display**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **Drop down boxes function** | YES | N/A |
| **Select sample data “Barley Yield” from *Filter By Data Type* dropdown. Select “Rudi Barley (20/04/10)” from *Show Data* drop down.** | YES | 2.9 seconds |
| **Select sample data “Thorium Levels” from *Filter By Data Type* dropdown. Select “Rudi Thorium (20/04/10)” from *Show Data* drop down. Heat Map** | YES | 2.2 seconds |

**Plot Data – Using GUI Tools**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Test that polygon tool works under internet speed and bandwidth conditions | Draw shape with more than 4 sides for using polygon tool. | Should display graphical overlay of polygon with minimal to no delay | Polygon tool overlays drawn polygon over map, and quickly. |
| **2** | Test that circle tool works under internet speeds and bandwidth conditions | Click point on map using circle tool.  Change Point Diameter value to 2.0 | Should expand circle overlay with minimal time. | Circle tool displays circle over map quickly. |

**My Details**

|  |  |  |
| --- | --- | --- |
| **Basic Checks** | **YES / NO** | **Load Time** |
| **Load page** | YES | 0.4 seconds |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Submitting organisational details, testing If system will submit | Enter in the following details and submit: Name: DexDev  Phone: 0899995555  Fax:  0855559999  Address:  29 Happy Lane Port Kennedy , WA, 6172  Leave Personal fields blank | Should submit with no errors generated and return to main page promptly | submit with no errors generated and return to main page promptly |
| **2** | Submitting Personal details, testing if will submit | Enter the following details and submit: First Name: John  Last Name: Doe  Phone Number:  0457222666  Leave organisational information fields blank | Should submit without any errors generated and return to main page promptly | submit with no errors generated and return to main page promptly |

|  |
| --- |
| **Findings / Comments** |
| Analysing the difference between the loading speeds of ADSL and Wireless elite card on a high end laptop against the minimal specifications of a netbook showed no difference. This means that the system works efficiently on very minimal specifications for the computer, so long as the browser and internet speeds meet the minimum requirements. |

## Registering for a login

|  |  |
| --- | --- |
| **Tester:** | Nicolas Small |
| **Testing Purpose:** | To test the registration system for access to the AAGMI system and the validation that it performs |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Test Values** | **Expected Results** | **Actual Results** |
| 1 | Register button opens up the registration form | Click the Register button | The registration form appears | The registration form appears |
| 2 | Close Button closes the registration form. | Click the Close button | The registration form disappears | The registration form disappears |
| 3 | The registration form sends and email with the registration information when the submit button is clicked. | Enter information in all the fields:  First Name: Fred  Last Name: Testor  Email: [fred.testor@myemail.com](mailto:fred.testor@myemail.com)  Organisation Name: The Farm  User name: fred.testor | The message: Your registration request was sent to the admin, you will be given a password shortly. Is printed to the screen.  The Admin receives an email stating:  Please add fred.testor to the Website, with the following details:  First Name: Fred Last Name: Testor Email: [fred.testor@myemail.com](mailto:fred.testor@myemail.com) Organisation Name: The Farm | The message: Your registration request was sent to the admin, you will be given a password shortly. Is printed to the screen.  The Admin receives an email stating:  Please add fred.testor to the Website, with the following details:  First Name: Fred Last Name: Testor Email: [fred.testor@myemail.com](mailto:fred.testor@myemail.com) Organisation Name: The Farm |
| 4 | The registration form detects if a field is left blank. | Enter information in the fields:  Last Name: Testor  Email: [fred.testor@myemail.com](mailto:fred.testor@myemail.com)  Organisation Name: The Farm  User name: fred.testor | A pop up appears stating:  Please fill in all the fields | A pop up appears stating:  Please fill in all the fields |
| 5 | The registration form detects if a field is left blank. | Enter information in the fields:  First Name: Fred  Email: [fred.testor@myemail.com](mailto:fred.testor@myemail.com)  Organisation Name: The Farm  User name: fred.testor | A pop up appears stating:  Please fill in all the fields | A pop up appears stating:  Please fill in all the fields |
| 6 | The registration form detects if a field is left blank. | Enter information in the fields:  First Name: Fred  Last Name: Testor  Organisation Name: The Farm  User name: fred.testor | A pop up appears stating:  Please fill in all the fields | A pop up appears stating:  Please fill in all the fields |
| 7 | The registration form detects if a field is left blank. | Enter information in the fields:  First Name: Fred  Last Name: Testor  Email: [fred.testor@myemail.com](mailto:fred.testor@myemail.com)  User name: fred.testor | A pop up appears stating:  Please fill in all the fields | A pop up appears stating:  Please fill in all the fields |
| 8 | The registration form detects if a field is left blank. | Enter information in the fields:  First Name: Fred  Last Name: Testor  Email: [fred.testor@myemail.com](mailto:fred.testor@myemail.com)  Organisation Name: The Farm | A pop up appears stating:  Please fill in all the fields | A pop up appears stating:  Please fill in all the fields |

|  |
| --- |
| **Findings / Comments** |
|  |

## Password Changing

|  |  |
| --- | --- |
| **Tester:** | Nicolas Small |
| **Testing Purpose:** | To test the new password changing function operates correctly. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Test Values** | **Expected Results** | **Actual Results** |
| 1 | The password is updated when the user supplies correct information: | Current Password: devteam  New Password: test  Confirm New Password: test | The password is changed to “test”. | The password is changed to “test”. |
| 2 | The system checks if “New Password” and “Confirm New Password” are the same. | Current Password: devteam  New Password: test  Confirm New Password: test3 | A pop up appears stating: The new passwords don't match, please re-enter your desired new password.  The user's password is unchanged. | A pop up appears stating: The new passwords don't match, please re-enter your desired new password.  The user's password is unchanged. |
| 3 | The system checks if “Current Password” is set to the user's current password. | Current Password: wrongpassword  New Password: test  Confirm New Password: test | A pop up appears stating: The current password provided does not match with the password used for this account, please re-enter the password information in the My Details form  The user's password is unchanged. | A pop up appears stating: The current password provided does not match with the password used for this account, please re-enter the password information in the My Details form  The user's password is unchanged. |

|  |
| --- |
| **Findings / Comments** |
|  |

## Entering Personal / Organisational Information

The “My Details” section is for entering and storing the details of the party that inputs data into the system. It allows for individual users to enter in personal details, and organisations to register their full details. This section of the software is important to the records of the CCG, but not for the overall operation of the software system. The information that is inputted still needs validation to ensure that it is not incorrect by either human error or purposeful intent as much as is possible. Ie: making sure the phone number entered is valid.

|  |  |
| --- | --- |
| **Tester:** | Jie Shen Law |
| **Testing Purpose:** | To test the data input for personal and organisational details and check for any bugs that may inhibit this section of the system. Since the system has already been tested entering correct data several times over in the User Interface and Browser Compatibility testing, the focus will be on testing the validation of details and the constraints. |

### Entering Personal Details

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Testing the validation of the first name field to check for invalid input such as non-alphabetic characters | F/Name: B4RRY  L/Name: SMITH | Validation error message: Invalid input | Submitted F/Name field with non-alphabetic characters. |
| **2** | Testing the validation of the last name field to check for invalid input such as non-alphabetic characters | F/Name: BARRY  L/Name: SM1TH | Validation error message: Invalid input | Submitted L/Name field with non-alphabetic characters. |
| **3** | Testing the validation of the first name field to check for missing input | F/Name:  L/Name: SMITH | Validation error message: Missing data / invalid input | Submitted with F/Name blank text field. |
| **4** | Testing the validation of the last name field to check for missing input | F/Name: BARRY  L/Name: | Validation error message: Missing data / invalid input | Submitted with L/Name blank text field. |
| **5** | Testing the validation of the form to check for no input. | Enter no details and hit submit button | Validation error message: Missing data / invalid data | Submitted with blank text field. |

### Entering Organisation Details

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Input / Action** | **Expected Result** | **Result / Output** |
| **1** | Testing the validation of the form to check for no input. | Enter no details and hit submit button | Validation error message: Missing data / invalid data | Submitted with blank text field fields |
| **2** | Testing the validation of the name field to check for missing input | Name:  Address: 24 Happy Lane, Booragoon, WA 6154  Phone Number: 0899995555  Fax Number: 0855559999 | Validation error message: Missing data / invalid data | Submitted with blank text field fields |
| **3** | Testing the validation of the address field to check for missing input | Name: IQ Inc  Address:  Phone Number: 0899995555  Fax Number: 0855559999 | Validation error message: Missing data / invalid data | Submitted with blank text field fields |
| **4** | Testing the validation of the Phone Number field to check for missing input | Name: IQ Inc  Address: 24 Happy Lane, Booragoon, WA 6154  Phone Number:  Fax Number: 0855559999 | Validation error message: Missing data / invalid data | Submitted with blank text field fields |
| **5** | Testing the validation of the Fax Number field to check for missing input | Name: IQ Inc  Address: 24 Happy Lane, Booragoon, WA 6154  Phone Number: 0899995555  Fax Number: | Should still be valid input as organisations may not have a fax service | Submitted successfully. |
| **6** | Testing the validation of the name field to accept characters other than alphabetic (as organisations may include these) | Name: IQ Inc 2  Address: 24 Happy Lane, Booragoon, WA 6154  Phone Number: 0899995555  Fax Number:  0855559999 | Valid input, no error message. | Submitted successfully. |
| **7** | Testing the validation of the name field to accept characters other than alphabetic (as organisations may include these) | Name: IQ &Inc  Address: 24 Happy Lane, Booragoon, WA 6154  Phone Number: 0899995555  Fax Number:  0855559999 | Valid input, no error message. | Submitted successfully. |
| **8** | Testing the validation of the system to pick up non-numeric characters in the Phone Number field | Name: IQ Inc  Address: 24 Happy Lane, Booragoon, WA 6154  Phone Number: 08999955AA  Fax Number:  0855559999 | Error message for invalid input | Submitted phone number field with non-numeric characters. |
| **9** | Testing the validation of the system to pick up non-numeric characters in the Fax Number field | Name: IQ Inc  Address: 24 Happy Lane, Booragoon, WA 6154  Phone Number: 0899995555  Fax Number:  08555599BB | Error message for invalid input | Submitted phone number field with non-numeric characters. |
| **10** | Testing the validation of the system to detect a Phone Number that is too short (<10) by a small margin | Name: IQ Inc  Address: 24 Happy Lane, Booragoon, WA 6154  Phone Number: 089999555  Fax Number:  0855559999 | Error message for invalid input | Submitted phone number field with <10 digits. |
| **11** | Testing the validation of the system to detect a Phone Number that is too short (<10) by more than a small margin | Name: IQ Inc  Address: 24 Happy Lane, Booragoon, WA 6154  Phone Number: 089999  Fax Number:  0855559999 | Error message for invalid input | Submitted phone number field with <10 digits. |
| **12** | Testing the validation of the system to detect a Phone Number that is too large (>10) by a small margin | Name: IQ Inc  Address: 24 Happy Lane, Booragoon, WA 6154  Phone Number: 08999955556  Fax Number:  0855559999 | Error message for invalid input | Submitted phone number field with >10 digits. |
| **13** | Testing the validation of the system to detect a Phone Number that is too large (>10) by more than a small margin | Name: IQ Inc  Address: 24 Happy Lane, Booragoon, WA 6154  Phone Number: 08999955556666  Fax Number:  0855559999 | Error message for invalid input | Submitted phone number field with >10 digits. |
| **14** | Testing the validation of the system to detect a Fax Number that is too short (<10) by a small margin | Name: IQ Inc  Address: 24 Happy Lane, Booragoon, WA 6154  Phone Number: 0899995555  Fax Number:  085555999 | Error message for invalid input | Submitted fax number field with <10 digits. |
| **15** | Testing the validation of the system to detect a Fax Number that is too short (<10) by more than a small margin | Name: IQ Inc  Address: 24 Happy Lane, Booragoon, WA 6154  Phone Number: 0899995555  Fax Number:  085555 | Error message for invalid input | Submitted fax number field with <10 digits. |
| **16** | Testing the validation of the system to detect a Fax Number that is too large (>10) by a small margin | Name: IQ Inc  Address: 24 Happy Lane, Booragoon, WA 6154  Phone Number: 0899995555  Fax Number:  08555599991 | Error message for invalid input | Submitted fax number field with >10 digits. |
| **17** | Testing the validation of the system to detect a Fax Number that is too large (>10) by more than a small margin | Name: IQ Inc  Address: 24 Happy Lane, Booragoon, WA 6154  Phone Number: 0899995555  Fax Number:  08555599991111 | Error message for invalid input | Submitted fax number field with >10 digits. |

|  |
| --- |
| **Findings / Comments** |
| No validation for personal and organisational input fields. Could lead to errors. |

## Login System Testing

This test ensures that the authentication function for the website. This is ensuring that the user is able to login and log out securely and no sensitive data are available to the public. All possible values are entered to ensure that the right errors messages displays properly when a user has not entered the credentials. This test is also to ensure that the website is not easily accessed by unauthorized users.

|  |  |
| --- | --- |
| **Tester:** | Jie Shen Law |
| **Testing Purpose:** | To ensure that login system validates and accepts login details to allow access to the main systems and filters out invalid login details. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Description** | **Test Values** | **Expected Results** | **Actual Results** |
| Test User Login with valid login details | Username: test  Password: devteam | Login successful, directed to map page. | Login successful, directed to map page. |
| Test User Login with wrong username. | Username: test1  Password: devteam | Incorrect username/password | Incorrect username/password |
| Test User Login with wrong password. | Username: test  Password: devteame | Incorrect username/password | Incorrect username/password |
| Test Username, caps lock ON. | Username:TEST  Password: devteam | Login successful, directed to map page. | Login successful, directed to map page. |
| Test Password, caps lock ON. | Username: test  Password: DEVTEAM | Incorrect username/password | Incorrect username/password |
| Test Login with invalid username and password with non-numeric/ non-alphabet characters. | Username: Test#, Test$  Password: devteam#, devteam$ | Incorrect username/password | Incorrect username/password |
| Test login, username and password field left blank. | Username: BLANK  Password: BLANK | Please enter USERNAME and PASSWORD | Please enter USERNAME and PASSWORD |

|  |
| --- |
| **Findings / Comments** |
|  |

## Search Feature – Search By Coordinates

This is to test the “search location by coordinates function”, this testing ensures that when a user search for location via longitude and latitude, the right results will come up. The testing tests every possible value entered into the test field and reports the results below.

|  |  |
| --- | --- |
| **Tester:** | Jie Shen Law |
| **Testing Purpose:** | Test that search by coordinates works to search for and display a location on the map using latitude and longitude coordinates. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Description** | **Test Values** | **Expected Results** | **Actual Results** |
| Search location by entering longitude and latitude. Negative and Positive Values. | +31°57'S -115°52'E | Error message, “+31°57'S -115°52'E not found” | Wisconsin, United states. |
| Search location by entering longitude and latitude. Added number. | 361°57'S 115°52'E | Error message, “361°57'S 115°52’E not found” | Wisconsin, United states. |
| Search location by entering longitude and latitude. Added decimal value. | 3.1°57'S 115°52'E | Error message, “3.1°57'S 115°52'E not found” | New York, United States. |
| Search location by entering longitude and latitude. | Latitude: Perth and Longitude: Australia | Perth, Australia | Perth, Australia |
| Search location by entering longitude and latitude. Added non-numeric/non alpha characters. | 31°5$7'S11#5°52'E | Error Message, “31°5$7'S11#5°52'E not found” | Poland |
| Search location by entering longitude and latitude. Added non-numeric/non alpha characters. | 31°5$7'S115°52'E | New York, United States | New York, United States. |

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| **Findings / Comments** |
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## Search Feature – Search By Keyword / Name

This is to test the “Search location by Name” function on the website. This testing ensures that when a user searches for a location via entering name in the text field, the map displays what the user has searched for. The testing also tests every possible value a user could enter and reports the results below.

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| **Tester:** | Jie Shen Law |
| **Testing Purpose:** | Test to ensure that searching via keyword work s effectively to find and navigate to a location. |

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| --- | --- | --- | --- |
| **Test Description** | **Test Values** | **Expected Results** | **Actual Results** |
| Search location by entering a name of a city. | Perth | Perth, Australia | Perth, Australia |
| Search location by entering a name of a city, added extra letters. | Perthvsq, Perths | Error message, “ Perthvsq, Perths not found” | Error message, “r Perthvsq, Perths not found” |
| Search location by entering coordinates in a text field. | 31°57'S115°52'E | Error message, “31°57'S115°52'E not found” | Mexicali, Mexico |
| Search location by entering a negative value. | - Perth | Perth, Australia | Perth, Australia. |
| Search location by name. | efbllgtg | Error message, “ efbllgtg not found” | Error message, “ efbllgtg not found” |
| Entered numbers in the search name text field. | 122389 | Error message, “122389 not found” | Mexicali, Mexico |
| Search location name text field left blank. | Text filed left blank | Error message, “please enter address” | Error message, “please enter address” |

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| **Findings / Comments** |
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## Display Data on Map

This tests whether the data are displaying correctly on the map. This is ensuring that the heat map is reading the data provided by the farmers accurately and displaying the right colours. This also is ensure that each polygons are displaying the values correctly

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| --- | --- |
| **Tester:** | Jie Shen Law |
| **Testing Purpose:** | Test that data displays correctly over map |

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| --- | --- | --- | --- |
| **Test Description** | **Test Values** | **Expected Results** | **Actual Results** |
| Data displayed via heat maps. | Thorium levels data | Heat map displays.  White = Highest percentage of thorium levels.  Red = Lowest percentage of thorium levels. | Data displays correctly. |
| Data displayed via points on the map. | Thorium percentage and barley kilogram. | Each polygon displays thorium percentage precisely.  Each polygon displays barley weight precisely. | Data displays correctly. |

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| **Findings / Comments** |
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## Data Adding

The secondary requirement for the AAGMI is allowing users to add or upload more data so it can be viewed at a later date. The system will be used by farmers and others who wish to define their own data and data types so it is important to make sure these features work as expected.

Data can be entered via 3 methods, plotting a series of points to define a polygon shape and entering values for that area, setting a point with a diameter of area and entering values for it or by uploading a csv file in either a latitude, longitude format defining a polygon and entering values or a latitude, longitude, value and diameter format defining points. Each of these methods needs to be tested.

Data entry and saving is done on the Plot Data page of the website and data that is saved is viewed in the View Data page.

#### DA 1 Plot Data on Map using Polygon

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| **Tester:** | Nicolas Small |
| **Testing Purpose:** | To test the operation of the polygon plotting and data entry tool for the AAGMI system. |

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| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Test Values** | **Expected Results** | **Actual Results** |
| 1 | Polygon plotting tool selection. | Click polygon tool with mouse. | Cursor changes to crosshair when held over map | Cursor stays the same. |
| 2 | Polygon plotting tool deselecting. | Click scrolling tool with mouse. | Cursor changes to hand when held over map | Polygon tool stays the same. |
| 3 | Polygon points plotted on mouse click and end on clicking first point again. | With plotting tool selected click on map area several times to add points in a rectangle area and click on the first point again to close polygon. | Point added to map at point of each mouse click and when first point clicked again the polygon is enclosed, the cursor changes to a hand and the scrolling tool is selected. | Point added to map at point of each mouse click and when first point clicked again the polygon is enclosed, the cursor changes to a hand and the scrolling tool is selected. |
| 4 | Polygon outline below minimum required number of points. | Enter only 2 points then click on first point to end. | Third point automatically added to make an editable polygon. | No third point added. |
| 5 | Polygon incomplete. | Add 3 points for polygon without closing it off by clicking on first point again.  Click on any tool item on page. | A pop up saying to complete the polygon by clicking on the first point again. | No pop up. |
| 6 | Navigation away from page without saving plot data check. | Plot a complete polygon then navigate to View Data page, first choosing not to lose unsaved data, and then choosing to lose unsaved data. | A pop up saying the data has not been saved and navigation away will lose all unsaved data. Continue(Y/N)?  If the user chooses Y then page changes and all plot points not saved are removed and the tool reset to the scrolling tool. | No pop up, data is lost. |
| 7 | Navigation away from page without saving value data check. | Plot a complete polygon, select data type and unit type, enter value then navigate to View Data page, first choosing not to lose unsaved data, and then choosing to lose unsaved data. | A pop up saying the data has not been saved and navigation away will lose all unsaved data. Continue(Y/N)? If the user chooses Y then page changes and all plot points not saved are removed and the tool reset to the scrolling tool. | No pop up, polygon data is lost. |
| 8 | Value not empty. | Plot a complete polygon, select data type and unit type then click save data button. | A pop up saying the value field cannot be empty. | A pop up saying the value field cannot be empty. |
| 9 | Value is Invalid | Plot a complete polygon, select data type and unit type, enter a non integer value “e.g. “A”” then click save data button | A pop up saying the value field contains invalid information. | Database error appears. |
| 10 | Data type selected. | Plot a complete polygon, enter a value, select a unit type then click save data button. | A pop up saying a data type must be selected. | A pop up saying a data type must be selected. |
| 11 | Unit type selected. | Plot a complete polygon, enter a value, select a data type then click save data button. | A pop up saying a unit type must be selected. | A pop up saying a unit type must be selected. |
| 12 | Data and polygon saved. | Plot a complete 4 point polygon, select data type Barley Yield and unit type kg \* 10, enter value of 2 then click save data button. | A pop up saying data has been saved. When ok on pop up is clicked the map and data fields are cleared and scrolling button is selected. | No pop up, page returns to View Data. |
| 13 | View saved data | On View Data page select data type Barley Yield and dataset last uploaded. | The newly saved data for Barley Yield displayed with correct values on map. | The newly saved data for Barley Yield displayed with correct values on map. |

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| **Findings / Comments** |
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#### DA 2 Plot Data on Map using Point Tool

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| --- | --- |
| **Tester:** | Nicolas Small |
| **Testing Purpose:** | To test the operation of the point and diameter data entry tool for the AAGMI system. |

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| --- | --- | --- | --- | --- |
| **Test No#** | **Test Description** | **Test Values** | **Expected Results** | **Actual Results** |
| 1 | Point plotting tool adds area to map in centre of current view. | Clickpointtool button with mouse when desired area for plotting is in centre of map | A single point the size of the diameter is added to the map in the centre of the current map view area. | A single point the size of the diameter is added to the map in the centre of the current map view area. |
| 2 | Only single point plotted on multiple button clicks. | Click pointtool button 3 times, moving the map position between each click. | A single pointthesize of the diameter is added and each consecutive time the button is clicked the old point is removed and replotted at the centre of the map. | A single pointthesize of the diameter is added and each consecutive time the button is clicked the old point is removed and replotted at the centre of the map. |
| 3 | Point diameter size changes. | Click point tool button, and change point diameter to 1.0. | The diameter of the point changes from the default diameter to 1.0. | The diameter of the point changes from the default diameter to 1.0. |
| 4 | Navigation away from page without saving point data. | Clickpointtool button with mouse then navigate to View Data page, first choosing not to lose unsaved data, and then choosing to lose unsaved data. | A pop up saying the data has not been saved and navigation away will lose all unsaved data. Continue(Y/N)?  If the user chooses Y then page changes and the point not saved is removed and the tool reset to the scrolling button. | No pop up, data is lost. |
| 5 | Navigation away from page without saving value data. | Clickpointtool button with mouse, select data type and unit type, enter value then navigate to View Data page, first choosing not to lose unsaved data, and then choosing to lose unsaved data. | A pop up saying the data has not been saved and navigation away will lose all unsaved data. Continue(Y/N)?  If the user chooses Y then page changes and the point not saved is removed and the tool reset to the scrolling button. | No pop up, point data is lost. |
| 6 | Value not empty. | Clickpointtool button with mouse, select data type and unit type then click save data button | A pop up saying the value field cannot be empty. | A pop up saying the value field cannot be empty. |
|  | Value is Invalid | Clickpointtool button with mouse, select data type and unit type, enter a non integer value “e.g. “A”” then click save data button | A pop up saying the value field contains invalid information. | Database error appears. |
| 7 | Data type selected. | Clickpointtool button with mouse, enter a value, select a unit type then click save data button | A pop up saying a data type must be selected. | A pop up saying a data type must be selected. |
| 8 | Unit type selected. | Clickpointtool button with mouse, enter a value, select a data type then click save data button | A pop up saying a unit type must be selected. | A pop up saying a unit type must be selected. |
| 9 | Data and point saved. | Clickpointtool button with mouse, select data type Barley Yield and unit type kg \* 10, enter value of 2 then click save data button | A pop up saying data has been saved. When ok on pop up is clicked the map and data fields are cleared and scrolling button is selected. | No pop up, page returns to View Data. |
| 10 | View saved data | On View Data page select data type Barley Yield and unit type kg \* 10 | The newly saved data for Barley Yield displayed with correct values on map. | The newly saved data for Barley Yield displayed with correct values on map. |

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| **Findings / Comments** |
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### Upload Data with batch tool:

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| --- | --- | --- | --- |
| 1. **Test Description** | **Test Values** | **Expected Results** | **Actual Res** |
| The batch tool window opens when the batch tool button is clicked. | Click “Batch Tool” button | Batch tool window appears. | Batch tool window appears. |
| Polygon plotting tools appear when “Polygon” is selected as plotting type. | Click on the “Polygon” radio button in the batch tool window. | The tools required to upload data with polygon plotting appear on the page. | The tools required to upload data with polygon plotting appear on the page. |
| Points plotting tools appear when “Points” is selected as plotting type. | Click on the “Points” radio button in the batch tool window. | The tools required to upload data with points plotting appear on the page. | The tools required to upload data with points plotting appear on the page. |
| Data Type Selected (Polygon Plotting) | Select polygon plotting method, leave the data type list untouched, select a unit type, set a value, enter coordinates and click the “Process” button. | A pop up saying a data type must be selected. | Mysql Error: Error: insert into MAPPING\_DATA (mappingid,datatype,unittype,unitvalue) values (2573,0,27,0) Cannot add or update a child row: a foreign key constraint fails (`project/MAPPING\_DATA`, CONSTRAINT `MAPPING\_DATA\_ibfk\_2` FOREIGN KEY |
| Unit Type Selected (Polygon Plotting) | Select polygon plotting method, select a data type, leave the unit type list untouched, set a value, enter coordinates and click the “Process” button. | A pop up saying a unit type must be selected. | Error: insert into MAPPING\_DATA (mappingid,datatype,unittype,unitvalue) values (2574,31,0,5) Cannot add or update a child row: a foreign key constraint fails (`project/MAPPING\_DATA`, CONSTRAINT `MAPPING\_DATA\_ibfk\_3` FOREIGN KEY |
| Value Not Empty (Polygon Plotting) | Select polygon plotting method, select a data type, select a unit type, do not set a value, enter coordinates and click the “Process” button. | A pop up saying the value field cannot be empty. | Error: insert into MAPPING\_LATLONG (mappingid,vertexnum,latitude,longitude) values (2575,0,5,) You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near ')' at line 1 |
| Coordinates Not Empty (Polygon Plotting) | Select polygon plotting method, select a data type, select a unit type, set a value, do not enter coordinates and click the “Process” button. | A pop up saying the coordinates field cannot be empty. | The data is saved, but the site is unable to display it. |
| Coordinates Invalid (Polygon Plotting) | Select polygon plotting method, select a data type, select a unit type, set a value, enter invalid coordinates (e.g. 7Ydgfv47ygfsg, 137tref) and click the “Process” button. | A pop up saying the coordinates are invalid. | Error: insert into MAPPING\_LATLONG (mappingid,vertexnum,latitude,longitude) values (2577,0,7Ydgfv47ygfsg, 137tref) Unknown column '7Ydgfv47ygfsg' in 'field list' |
| Value Invalid (Polygon Plotting) | Select polygon plotting method, select a data type, select a unit type, set a non-integer value (e.g. “A”), enter valid coordinates and click the “Process” button. | A pop up saying the value is invalid. | Data is saved with a value of 0. |
| Data and Polygon Saved  (Polygon Plotting) | Select polygon plotting method, select data type “Barley yield”, select unit type “kg \*10”, set a value of 2, enter valid coordinates (  -32.06, 115.8  -32.07, 115.8  -32.06, 115.9  -32.06, 115.8  )  and click the “Process” button. | Data saved and accessible from the View Data tab. | Data saved and accessible from the View Data tab. |
| View saved data  (Polygon Plotting) | On View Data page select data type Barley Yield and the last entered data. | The newly saved data for Barley Yield displayed with correct values on map. | The newly saved data for Barley Yield displayed with correct values on map. |
| Coordinates Not Empty (Points Plotting) | Select points plotting method, select a unit type, do not enter csv data and click the “Process” button. | A pop up saying the coordinates field cannot be empty. | No pop up |
| Coordinates Invalid (Points Plotting) | Select points plotting method, select data type “Barley yield”, select unit type “kg \*10”, set csv data to invalid coordinates, various values and diameter of 10. and click the “Process” button. | A pop up saying the coordinates or data are invalid. | No pop up |
| Values Invalid (Points Plotting) | Select points plotting method, select data type “Barley yield”, select unit type “kg \*10”, set csv data to valid coordinates, non integer values (e.g. a, Ert) and diameter of 10. and click the “Process” button. | A pop up saying the coordinates or data are invalid. | No pop up |
| Diameter Invalid (Points Plotting) | Select points plotting method, select data type “Barley yield”, select unit type “kg \*10”, set csv data to valid coordinates, valid values and diameter of “A”. and click the “Process” button. | A pop up saying the coordinates or data are invalid. | No pop up |
| Data and Polygon Saved  (Points Plotting) | Select points plotting method, set csv data to valid coordinates, various values and diameter of 0.5 and click the “Process” button.  select data type “Barley yield”, select unit type “kg \*10” and click on save data. | Data saved and accessible from the View Data tab. | Data saved and accessible from the View Data tab. |
| View saved data  (Points Plotting) | On View Data page select data type Barley Yield and unit type kg \* 10 | The newly saved data for Barley Yield displayed with correct values on map. | The newly saved data for Barley Yield displayed with correct values on map. |
| File Upload | In the batch tool window, click on file upload, select a .csv file, and click on upload. | The contents of the file are now displayed in the coordinates text field. | The contents of the file are now displayed in the coordinates text field. |

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| **Findings / Comments** |
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## Adding New Data Types / Unit Types

This testing is to validate that the function to add new data type such as “carbon content”, or new unit type such as “Litres” does what it is required for the purposes of the AAGMI project. The small web form should allow users to specify new data types / unit types for their private data that is important to their purposes. Administrators can add additional data types / unit types

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| **Tester:** | Andrew Bullen |
| **Testing Purpose:** | This basically tests that the add new unit / data type function works to add new fields for each section and performs any required validation. |

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| --- | --- | --- | --- |
| **Test Description** | **Test Values** | **Expected Results** | **Actual Results** |
| Test if system accepts a valid input for new Unit Type | Unit Type: “Geiger” | Submit with no errors.  Data now displaying in Plot Data section under Unit Type.  Should return to Plot Data page. | Submits with no errors populated. New Unit Type “Geiger” shows up in Unit Type field on Plot Data page. No blank entry is generated for Data Type.  After submitting, returns to View Data page. Should return to Plot Data page so user can continue to plot out their data under the new Unit Type. |
| Test if system accepts a valid input for new data type | Data Type: “Soil Acidity” | Submit with no errors.  Data now displaying in Plot Data section under Data Type.  Should return to Plot Data page. | Submits with no errors populated. New Data Type “Soil Acidity” shows up in Data Type field. No blank entry is generated for Unit Type.  After submitting, returns to View Data page. Should return to Plot Data page so user can continue to plot out their data under the new Data Type. |
| Test if system handles blank fields | No entry in either field | Error message for blank input.  Should not create a blank field on Plot Data page in either Data Type or Unit Type fields. | No error message generated for blank input.  Did not create any blank fields in either Data Type or Unit Type. |
| Test if system can handle both fields being populated | Unit Type: ”% per gram”  Data Type: ”Soil Moisture” | Should submit with no errors generated.  Both new Unit Type and Data Type entries should now be displayed on Plot Data page.  Should return to Plot Data page. | Submits with no errors.  Both new Unit Type and Data Type appear in their respective categories after submission.  After submitting, returns to View Data page. Should return to Plot Data page |
| Test if system validates existing Data Types to ensure user does not double up | Data Type: “Barley Yield”  (Existing entry as test data) | Should display error message that Data Type already exists and block attempt to add another or request if it is the user’s intention to add another version of this entry, and suggest a different name be used. | No errors generated and newly entered Data Type “Barley Yield” was doubled up in Data Type list on Plot Data and View Data pages. |
| Test if system validates existing unit types to ensure user does not double up | Unit Type: “kg x 10”  (Existing entry as test data) | Should display error message that Unit Type already exists and block attempts to add new Unit Type. | No errors generated and newly entered Unit Type “kg x 10” was doubled up in Unit Type list on Plot Data and View Data pages. |
| Test that system accepts numbers and special characters in Data Type field | Data Type: “22s!” | Submit with no errors.  Data now displaying in Plot Data section under Data Type.  Should return to Plot Data page. | No errors generated and new entry showed up in Data Type field |
| Test that system accepts numbers and special characters in Unit Type field. | Unit Type: “$84” | Submit with no errors.  Data now displaying in Plot Data section under Unit Type.  Should return to Plot Data page. | No errors generated and new entry showed up in Unit Type field |

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| **Findings / Comments** |
| * System does not generate an error message for blank input. * Submitting new Data Type and Unit Type entries returns user to starting page View Data. Should return to Plot Data page so user can continue working. * Data Type and Unit Type fields do not check for duplicate entries already existing and either inform user and/or prevent this from occurring. |

## Sample End User Testing

The following tests are to assess the interaction between the software and users that have not had previous interactions with the project. It is difficult to get an idea of what is user friendly when designing software because the understanding the developer of the software has influences how user friendly they feel the software is. However, to a novice user, this “user friendly” system may be complex, ambiguous and unpleasant without that underlying understanding. Therefore the purpose of these tests is to get the user to perform the underlying tasks of the system and report on different characteristics. The overall assessments of the system from these sample end-users will allow us to make judgements on the system’s usability, and make any corrections that budget and time will allow.

### Task

Outlines the task to be performed by the sample user after being demonstrated once.

### User Task Performance

This is a rating of how well the sample user did at the task, to assess how efficiently they were able to perform that task after very little guidance. This is not an assessment of the sample user’s abilities, only the intuitiveness of the system

### User Rating of Task Ease

A rating out of 10 for how easy the task was to perform for the sample user.

### User Interface Rating

How the sample user rates the interface for that task out of 10.

## Sample User 1

|  |  |  |  |
| --- | --- | --- | --- |
| **Name:** | Lisa Clarke | **Date:** | 09/05/2010 |
| **Organisation:** | none | **Time:** | 6:30pm |
| **Tester**: Andrew Bullen | | | |
| **User Credentials and Information:**  User is a low end user of technology and computers, but uses a computer and the internet regularly. Advanced enough to use online banking, bpay, ebay, and various other internet applications without any instruction or help. I would put this user at the middle to higher range of the end users that will be operating this software.  Female, Age 40 | | | |

### SEUT 1.1 - Logging In / Out

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
| Log in to the system using sample username and password details | 10 | 10 | 10 |
| Logging out of the system with no demonstration. | 10 | 10 | 10 |

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| **User Comments** |
| Found this task very easy, good job. Could make the home page a bit more pleasant to look at. |

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| **Tester Comments** |
| User performed this task given just the login details and the task that they needed to do. Goes to show that the simple login interface is effective. |

### SEUT 1.2 - Search Function and Maps

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
| Change views on map between satellite, terrain and map views without demonstration / instruction | 10 | 10 | 10 |
| Scroll using hand grab tool without demonstration / instruction | 10 | 10 | 10 |
| Search for location using keyword / name without demonstration / instruction | 10 | 10 | 10 |
| Search for location using coordinates of longitude and latitude (don’t have to be real coordinates of a set location) without demonstration or instruction | 6 | 5 | 6 |

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| **User Comments** |
| Found it difficult to understand what was needed for using latitude and longitude search. Should explain to users what the negative and positive are in relation to the grid. Should also have an explanation of how to use the feature. |

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| **Tester Comments** |
| User found use of Google maps very easy and familiar even though they have no background in using maps. User had trouble locating the field to enter a search for a particular address or location. |

### SEUT 1.3 - Displaying Data

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
| Filter by data type and display set data with minimal instruction and a singular demonstration | 7 | 5 | 6 |
| Demonstrate finding figures for each point on the map under instruction | 2 | 2 | 4 |
| Switch between Points and Heatmap view without instruction or demonstration | 5 | 2 | 4 |

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| **User Comments** |
| Unintuitive to find Heat Map view. No instruction. Page is not laid out in a way that is intuitive and easy to use. Could not work out what was what on page to operate controls. |

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| **Tester Comments** |
| User could not operate and perform tasks without direct instructions. When given the same task again later, could not replicate the task.  Maybe separate out the different tools and give more instructions on how to use directly on the page and also as mouse-over popups.  User could not work out the mouse over to find out the unit type and measurement of a displayed data set. This feature and it’s use should be made more obvious. Once explained to them, they understood what I was talking about and how to use this feature. |

### SEUT 1.4 - Plotting Data

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
| Change to Plot Data view without demonstration / instruction | 8 | 7 | 8 |
| Use polygon tool to draw a shape for a sample data section without demonstration / instruction where possible | 6 | 7 | 5 |
| Use circle tool to plot a section of the map with no demonstration / instruction where possible | 5 | 3 | 3 |
| Expand range of circle tool using test fields. Some instruction given | 0 | 1 | 3 |
| Fill out fields for plotting data and submitting | 4 | 2 | 4 |
| Using batch tool with demonstration and instruction | 3 | 2 | 4 |

### SEUT 1.5 - Add Type

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
|  |  |  |  |
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| --- |
| **User Comments** |
| Frustrated that could not move the circle tool and no instruction on how to operate circle tool or polygon tool. |

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| **Tester Comments** |
| User cannot relocate the circle tool on the map at all. Has to move the map, click the circle tool icon again to move to the middle of the map. There is no instructions on how to do this and I would consider this too difficult for most users.  Only did a brief run through of use of Batch tool. Sample user did not understand what it was for or how to use it at all. Had to give very specific instructions. |

### SEUT 1.6 - Entering Personal and Organisational Details

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
| Enter personal details and submit with no demonstration / instruction | 5 | 7 | 6 |
| Enter organisation details with no demonstration / instruction | 8 | 7 | 6 |

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| **User Comments** |
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| **Tester Comments** |
| Did not find it intuitive to differentiate organisational details from personal details. Was under the impression that you ignore the “organisation name” field and enter a personal address under the organisational details section to record a personal address.  Suggest a radio button that displays the field when a user selects that they are an organisation or individual, rather than have both on the same page at the same time. |

### SEUT 1.7 – Final Sum Up

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| --- | --- | --- |
| **Overall User Performance** | **Overall System Ease of Use Rating** | **Overall System Interface Rating** |
| **6** | 5 | 3 |

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| **Final User Comments** |
| Found interface difficult to use and understand. More help needed for users to be able to use the system without having to constantly refer to a manual. Make things more obvious and separate things out logically. Give lots of explanations on the page on how to use features and make a help page available.  “Make it idiot proof!” |

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| **Final Tester Comments** |
| User found system very difficult to use. May need to revise how we have done the interface and re-arrange some things to make them easier for an end user to operate with minimal instruction or training.  This user represented the higher end of a proposed farmer’s technical knowledge and use of technology. From my experience with farmers as customers through my job role, it is not often that I find one that is able to use technology effectively and finds basic tasks like internet banking easy. Based on the results of this testing, some end users will find these tasks difficult unless under constant instruction, and the system may not be for everyone. |

## Sample User 2

|  |  |  |  |
| --- | --- | --- | --- |
| **Name:** | Jessica Landgren | **Date:** | 09/05/2010 |
| **Organisation:** | Gold Buyers Australia Pty Ltd | **Time:** | 9:00 pm |
| **Tester:** Andrew Bullen | | | |
| **User Credentials and Information:**  User has medium level technical use and knowledge. Uses computer for 3-4 hours daily, operates a smart phone, uses computers mostly for web browsing and web based functions. Good knowledge of operating computers and general technology but no experience in ICT.  Currently studying to be an English teacher.  Female, age 21 | | | |

### SEUT 2.1 - Logging In / Out

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
| Log in to the system using sample username and password details | 10 | 10 | 10 |
| Logging out of the system with no demonstration. | 10 | 10 | 10 |

|  |
| --- |
| **User Comments** |
| Register should be separate from the login box. It could be confused with the login button or clicked on by accident. Maybe separate under the login box. |

|  |
| --- |
| **Tester Comments** |
| User logged in easily. |

### SEUT 2.2 - Search Function and Maps

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
| Change views on map between satellite, terrain and map views without demonstration / instruction | 8 | 7 | 9 |
| Scroll using hand grab tool without demonstration / instruction | 10 | 10 | 10 |
| Search for location using keyword / name without demonstration / instruction | 10 | 9 | 6 |
| Search for location using coordinates of longitude and latitude (don’t have to be real coordinates of a set location) without demonstration or instruction | 8 | 6 | 6 |

|  |
| --- |
| **User Comments** |
| Should be a heading for each section that describes what the section is. Sections of the interface should be separated out more, too crammed together. Maybe even separate colour schemes for each function.  Would be better if tools for use were on the side of the interface, not at the bottom.  Confusing to understand what positive and negative values were in longitude and latitude figures. Should give an explanation and examples. |

|  |
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| **Tester Comments** |
| User found it difficult to find the search by coordinates and search by keyword functions on page. |

### SEUT 2.3 - Displaying Data

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
| Filter by data type and display set data with minimal instruction and a singular demonstration | 8 | 8 | 8 |
| Demonstrate finding figures for each point on the map under instruction | 5 | 5 | 5 |
| Switch between Points and Heatmap view without instruction or demonstration | 8 | 9 | 7 |

|  |
| --- |
| **User Comments** |
| Again, layout is poor. Not enough separation of the different functions on the page. When instructed to swap to Heat Map view of the data it was difficult to find. |

|  |
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| **Tester Comments** |
| User found it difficult to navigate through the tools without direct instructions. Found it difficult to work out how to do particular tasks. Found it difficult to find functions like how to change to view a heat map. |

### SEUT 2.4 - Plotting Data

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
| Change to Plot Data view without demonstration / instruction | 10 | 10 | 10 |
| Use polygon tool to draw a shape for a sample data section without demonstration / instruction where possible | 8 | 0 | 8 |
| Use circle tool to plot a section of the map with no demonstration / instruction where possible | 7 | 4 | 7 |
| Expand range of circle tool using test fields. Some instruction given | 6 | 4 | 4 |
| Fill out fields for plotting data and submitting | 7 | 5 | 5 |
| Using batch tool with demonstration and instruction | N/A | N/A | N/A |

### SEUT 2.5 - Add Type

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
|  |  |  |  |
|  |  |  |  |

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| --- |
| **User Comments** |
| Images for buttons was much better for an interface. Could probably do with a heading that describes what the tools for plotting data are for.  Circle tool was frustrating to try and move around. Could not figure out a way to move it around on the map.  Selecting the type of data to plot and the units in which to plot it was too difficult to understand. Maybe instead of “Select data type”, rename to “Type of data to plot”. Instead of “Select Unit Type”, maybe “Unit of measurement”. Maybe give an example below.  Point diameter should be above selecting the value for that plotting not below. Should be as close to circle tool as possible, if not right next to it. |

|  |
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| **Tester Comments** |
| Polygon tool caused browsers to crash when trying click on map and draw polygon. User was unable to complete this task because of this and gave a 0 for the system malfunctioning.  User could not work circle tool, and had difficulty working out how to expand circle tool on the map to encompass a larger or smaller area. |

### SEUT 2.6 - Entering Personal and Organisational Details

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
| Enter personal details and submit with no demonstration / instruction | 10 | 10 | 10 |
| Enter organisation details with no demonstration / instruction | 10 | 10 | 10 |

|  |
| --- |
| **User Comments** |
| Should rename the fields for organisation. The fields are set out like you are to enter personal details with name, address, phone, fax etc. Should maybe say something like “Organisation name” or “business name”  Page has too much white space, makes it look tacky.  The two different types of entry (organisation and personal) should probably be separated out into their own separate boxes that are coloured in to separate them out from eachother and the rest of the page.  Page heading “Update Your Details” is too close to the writing for the personal and organisational fields. |

|  |
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| **Tester Comments** |
| User operated this section with minimal instruction. |

### SEUT 2.7 – Final Sum Up

|  |  |  |
| --- | --- | --- |
| **Overall User Performance** | **Overall System Ease of Use Rating** | **Overall System Interface Rating** |
| **8** | 7 | 7 |

|  |
| --- |
| **Final User Comments** |
| Interface is difficult to use and understand. Should be more intuitive and better laid out overall. There should be more separation of different tools and functions, and there should be examples and instructions where possible.  Much of the site is not worded in a way that I feel properly describes what it should in the simplest way.  Would like to see the site made to look friendlier, and more aesthetically pleasing. |

|  |
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| **Final Tester Comments** |
| User navigated the system ok. Found a few tasks difficult without direct instructions.  Did not run through Batch tool with this user. |

## Sample User 3

|  |  |  |  |
| --- | --- | --- | --- |
| **Name:** | Matthew Clarke | **Date:** | 10/05/2010 |
| **Organisation:** | Telstra Ltd | **Time:** |  |
|  | | | |
| **User Credentials and Information:**  Works in a role that requires use of complex and unintuitive software to perform job role. Previous experience in ICT as helpdesk and web developer. A high level computer user with programming experience.  This user is to represent the outlier of users that will be technically minded and have an underlying knowledge of the technologies used for this software.  Male, Age 30. | | | |

### SEUT 3.1 - Logging In / Out

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
| Log in to the system using sample username and password details |  |  |  |
| Logging out of the system with no demonstration. |  |  |  |

|  |
| --- |
| **User Comments** |
|  |

|  |
| --- |
| **Tester Comments** |
|  |

### SEUT 3.2 - Search Function and Maps

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
| Change views on map between satellite, terrain and map views without demonstration / instruction |  |  |  |
| Scroll using hand grab tool without demonstration / instruction |  |  |  |
| Search for location using keyword / name without demonstration / instruction |  |  |  |
| Search for location using coordinates of longitude and latitude (don’t have to be real coordinates of a set location) without demonstration or instruction |  |  |  |

|  |
| --- |
| **User Comments** |
|  |

|  |
| --- |
| **Tester Comments** |
|  |

### SEUT 3.3 - Displaying Data

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
| Filter by data type and display set data with minimal instruction and a singular demonstration |  |  |  |
| Demonstrate finding figures for each point on the map under instruction |  |  |  |
| Switch between Points and Heatmap view without instruction or demonstration |  |  |  |

|  |
| --- |
| **User Comments** |
|  |

|  |
| --- |
| **Tester Comments** |
|  |

### SEUT 3.4 - Plotting Data

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
| Change to Plot Data view without demonstration / instruction |  |  |  |
| Use polygon tool to draw a shape for a sample data section without demonstration / instruction where possible |  |  |  |
| Use circle tool to plot a section of the map with no demonstration / instruction where possible |  |  |  |
| Expand range of circle tool using test fields. Some instruction given |  |  |  |
| Fill out fields for plotting data and submitting |  |  |  |
| Using batch tool with demonstration and instruction |  |  |  |

### SEUT 3.5 - Add Type

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
|  |  |  |  |
|  |  |  |  |

|  |
| --- |
| **User Comments** |
|  |

|  |
| --- |
| **Tester Comments** |
|  |

### SEUT 3.6 - Entering Personal and Organisational Details

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **User Task Performance** | **User Rating of Task Ease** | **User Interface Rating** |
| Enter personal details and submit with no demonstration / instruction |  |  |  |
| Enter organisation details with no demonstration / instruction |  |  |  |

|  |
| --- |
| **User Comments** |
|  |

|  |
| --- |
| **Tester Comments** |
|  |

### SEUT 3.7 – Final Sum Up

|  |  |  |
| --- | --- | --- |
| **Overall User Performance** | **Overall System Ease of Use Rating** | **Overall System Interface Rating** |
|  |  |  |

|  |
| --- |
| **Final User Comments** |
|  |

|  |
| --- |
| **Final Tester Comments** |
|  |

## **Appendix A - Task Breakdown Statement**

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| --- | --- |
| **Project Team Name** | **Team Number** |
| **Dexterous Developers** | **07** |

### Testing Plan

|  |  |  |  |
| --- | --- | --- | --- |
| **Team Member Names** | **Deliverable Percentage Completed** | **Date** | **Signature** |
| **Leanne Bartlett** |  |  |  |
| **Andrew Bullen** |  |  |  |
| **Kevin Healy** |  |  |  |
| **JieShen Law** |  |  |  |
| **Nicolas Small** |  |  |  |

### System Testing

|  |  |  |  |
| --- | --- | --- | --- |
| **Team Member Names** | **Deliverable Percentage Completed** | **Date** | **Signature** |
| **Leanne Bartlett** |  |  |  |
| **Andrew Bullen** |  |  |  |
| **Kevin Healy** |  |  |  |
| **JieShen Law** |  |  |  |
| **Nicolas Small** |  |  |  |

Appendix B – Glossary

Appendix C - Bibliography