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| Test Number | Description of Test | Expected output | Observed output | Comments |
| 1 | GlassFish 4 deploys web application | Web application is deployed onto glassfish and program runs | Error thrown  com.sun.jersey.spi.container.servlet.ServletContainer | The application doesn’t appear to deploy on Glassfish the servlet container is not being picked up by Glassfish. |
| 1(a) | Glassfish 4 deploys web application | Web application is deployed onto glassfish and program runs | Application deploys and the server shows that the application is published and ready to be used | It appears that Glassfish 4 requires an updated web.xml file in order to deploy an application.  The declaration of the servlet was required to be updated to org.glassfish.jersey.servlet.servletContainer |
| 2 | Database connection can be established with new deployment software | Attributes from the database are returned to the user and passed into the data browser | Authentication failure 401: unauthorised | It appears then when upgrading to GlassFish 4 the root user account has to be added in manually |
| 2(a) | Database connection can be established with the new deployment software | Attributed from the database are returned to the user and passed into the data browser | Authentication successful, progress bar appeared as expected and data was passed from the database to the data browser | Within Glassfish 4’s web configuration menu the specchio\_web\_pool required manual addition of the username and password for the root user being accessed by the database |
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| 3 | Spectral thumbnail appears in panel | When the tree browser is updated with a user’s click the GUI updates with the correct spectral thumbnail | The thumbnail is returned correctly and is drawn and repainted to the screen | The implementation of the passing of the spectral thumbnail panel was implemented correctly through the use of passing a panel between classes and updates correctly |
| 4 | Spectral thumbnail updates with the spinner | When the spinner is updated with more than one spectra the panel redraws correctly | The panel does not redraw correctly and in turn does now show a new spectra to the user | Need to figure out why the panel is not being updated to the user the input data is correct from the array list and spectra id but the frame is not updating so it must be a swing error |
| 4(a) | Spectral thumbnail updates with the spinner | When the spinner is updated with more than one spectra the panel redraws correctly | The panel now redraws correctly after the initial panel is removed as they were being stacked on top of each other | There was a swing issue where a new panel was being passed to the query builder but was not being updated removing and redrawing solved this error |
| Test Number | Description of Test | Expected Output | Observed Output | Comments |
| 5 | Spectral thumbnail spinner goes under or over the allowed limit | The spinner should not return any information when it goes above or below its limits | The spinner throws an index out of bounds exception as it is passed the array list entries and it causes them to go out of bounds | Need to limit the length of the spectral spinner as to stop an index out of bounds exception will probably need a spinner number model |
| 5(a) | Spectral thumbnail spinner goes under or over the allowed limit | The spinner should not return any information when it goes above or below its limits | The spinner is now limited to how many spectra are currently highlighted by the user and thus does not throw an index out of bounds exception | After adding in a spinner number model the spinner cannot go out of bounds as the model is locked to the amount of entries within the array list |
| 6 | Spinner is removed when only one spectra chosen | The spinner will be removed from the panel and only one spectral plot will be shown | The spinner was removed and the spectral graph is now centred | A quick check had to be carried out for when there is only one spectra inside the array list and it was just a case of removing the spinner from the swing component |
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| 7 | Show in maps button is not enabled when no spectra selected | The button for showing and outputting location data into mapping software is greyed out when no spectra are selected | The button is not enabled when there are no spectra selected | This was quite a simple problem to solve as the initial implementation of SPECCHIO already had this functionality set with their buttons it was just a case of adding my own to the list |
| 8 | Show maps button shows error when no location data exists | A dialog is shown when there is no location data for a given spectra | The Dialog opens warning the user that there is no location data available for the given spectra | Doing an array list check for an empty array list for the location data and then running it through an if statement that pops up a JDialog box |
| 9 | Show maps button leads to google maps if only one spectra selected | The output when clicking on the show in maps button with only one spectra is opening a new web browser for the user importing the spectra’s location data into google maps | The spectra opens within google maps but the output string has unknown brackets within the string | It appears that the array list is returned as follow : [-140.00009] The braces need to be removed from the string when being input into a URL |
| 9(a) | Show maps button leads to google maps if only one spectra selected | The output is now imported into google maps with the correct url | The output is now correct for the given single spectra | Running a substring method on the given toString() returned method removes the front and back of the string. |
| Test Number | Description of Test | Expected Output | Observed Output | Comments |
| 10 | Multiple selected spectra get passed to clipboard and then exported to mapping website | When the show maps button is clicked with multiple spectra selected the location data will be exported to the users clipboard and be ready to be pasted into the mapping website | As expected all of the spectra with location data have been passed to the clipboard along with the correct formatting and names and in turn can then be shown as a multi plot map | Using a JTextArea made the appending to the strings required to make this copy to the clipboard possible, multiple spectra can be exported and shown in maps. This is useful to the user when the spectrograph device is mounted to a moving vehicle. |
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| 11 | Additional swing components added to the campaign creator | A new separator added to the campaign creator and new JTextArea when a new campaign is created | The new swing components are not being drawn correctly to the campaign creator | The new campaign creator frame does not update with the new swing component |
| 11(a) | Additional swing components added to the campaign creator | A new separator added to the campaign creator and new JTextArea when a new campaign is created | The new components are now added to the campaign creator | The new campaign creator frame needed to be repacked when the new components were added as they were being added but the frame was not being extended |
| 12 | Addition of data being inserted into the JtextArea | As the data is being read into the database the file names are added to the campaign creator text box | The data is being added to the campaign creator | The file names are now added to the campaign creator text box and this gives a user more of an idea of what data is being inserted into the database |
| 13 | The hierarchy for the given spectra is added and printed to the JTextArea | As the spectral data is being inserted into the database it is given a hierarchy for use within the data browser this information should be relayed to the end user | The spectra is having the hierarchy added to it and the output into the JTextArea is being displayed to the user | As data is being inserted into the database it requires a hierarchy number as to be placed into the correct sub folder for each given spectra this is not relayed to the user currently and is added to the JTextArea for the users information |
| 14 | The JTextBox scrolls to the bottom as data is being relayed to the user | As information is being added to the JTextArea the user should see the bottom entry to see the current progress | The viewpoint of the JTextArea is set to the bottom as new information is added this can be scrolled through in order for the user to see all processes that have been carried out | This addition was created in order for the user to get a second by second update on how information is being added to both the application and the database |
| Test Number | Description of Test | Expected Output | Observed Output | Comments |
| 15 | The file name for the currently being read in piece of information is displayed within the JTextArea | As the files are being read into the SPECCHIO application the file name is updated and shown to the user so they can see what file is currently being read | The file name is added to the top of the currently being read piece of information this allows the user to see what is happening to each file as it is being read in | The output previous to this addition did not include the file names and thus was almost useless information to the user as it was just printing an id for the database read |
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| 16 | Python script connect to the database under the given credentials or an error is thrown if the details are not correct | When the script is run the database will be connected to or the an error will be shown to show the credentials are not correct | As expected nothing happens if the database connection is correct or an error is thrown if the credentials are not correct | The reason why nothing is displayed to the user if the connection is established is that there is going to be no console available to the user when this script is run. And the import sys closes any further operation |
| 17 | Files that have been read are automatically moved to a new folder within the initial folder chosen by the user | Tk file dialogue asks the user for the folder with the given spectra once they have been read the files automatically get placed into a new folder | The file browser works correctly but because a folder does not exist with the given name it does not automatically create a new one a thus places the files into a binary file which cannot be accessed | I will need to add in an automatic folder creation in order to deal with the moving of files |
| 17(a) | Files are now read into a new folder | The script will now create a new folder if there is not a folder of the name Target Folder within the given folder for spectra | Now when the user selects a folder where the spectral files are stored as they are read and moved the script will now create a new folder of the name Target Folder | This was implemented in order to stop repeat reads of the same file |
| 18 | All files selected are of the given file format | When the user selects a folder all XML files should be read and processed by the script | As expected the script runs through a for loop reading in each of the xml files and processing them accordingly using glob | Glob was imported within python as it automatically returns any files with the given input : input\_folder+\\*.xml |
| 19 | Files are read and inserted into the database | As files are processed by the xml reader they will be inserted into the database | The files are read and inserted but any additions are not committed | It appears that the inputs into the database are not being committed. |
| 19(a) | Files read into the database are now committed | The cursor that was being created for the read to the database required a commit function to be called | Now the database is being updated with the newly inserted spectra with the foreign key constraints | The database just required a commit function to be called in order for any changes to be processed |