

A.5 TEST LOGS

Test log identifier T.L.1

2.10 Search engine – (Environment Condition)

Execution description

The target simulation is 339. In this test case we are specifically searching for molecules that contain a 20.0F° temperature parameter. The search engine must at least find simulation 339 which contain the 20.0F° among others simulations which contain the temperature we are searching for.

Activity and event entry

1. The number 20 was entered in the temperature field in the environment condition region.
2. Clicked on the search button

Procedure results pass/fail

Passed

The search engine successfully found simulation number 339 and others with the desired temperature parameter.

Anomalies

None

Test log identifier T.L.2

2.10 Search engine – (Environment Condition)

Execution description

The target simulation is 339. In this test case we specified values for the Simulation time, Microbe density, Fungal density, pH value, Temperature, pKw, and Oxygen density. The search engine should find all simulation configurations containing such parameters values.

The search engine must find simulation 339 since that is the target among others simulations which contain the temperature we are searching for.

Activity and event entry

1. The following configuration parameters values were entered in the environment condition region.
Simulation time: 500.0
Microbe density: 1000000.0
Fungal density: 1.0E7
pH value: 6.0
Temperature: 20.0
pKw: 0.0
Oxygen density: 2.5E-4
2. Clicked on the search button

Procedure results pass/fail

Passed

All of the simulations found by the search engine contained the parameters indicated.

Anomalies

None

Test log identifier T.L.3

2.10 Search engine – (Molecules Condition Section – focus on Molecule ID field)

Execution description

We tested the *molecule id field* for appropriate search results. We selected the molecule id field and typed in the number 1 into the field.

Activity and event entry

1. Selected the molecule id field
2. Typed in the number 1
3. Clicked on the search button

Procedure results pass/fail

Passed

All of the molecules with the molecule id of number 1 id were found by the search engine.

Anomalies

Whenever you click on the reports section of the molecules found by the search engine, the windows where they are display are too small and the information is not fully visible.

Test log identifier T.L.4

2.10 Search engine – (Molecules Condition Section – focus on Molecule ID field)

Execution description

We tested the *molecule id field* for appropriate search results. We selected the molecule id field and typed in 1 AND 6 into the field.

Activity and event entry

1. Selected the molecule id field
2. Typed in the number 1 AND 6
3. Clicked on the search button

Procedure results pass/fail

Passed

All of the simulation configurations with the number 1 id were found by the search engine.

Anomalies

1. Whenever you click on the reports section of the molecules found by the search engine the windows where they are display in too small and the information is not fully visible.
 2. Validation needs to be done to the molecule id field otherwise if the user types in anything else besides AND they will get an error.
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Test log identifier T.L.5

2.10 Search engine – (Molecules Condition Section – focus on Molecule Name field)

Execution description

We tested the *molecule name* field for appropriate search results. We selected the molecule name field and typed in1 into the field.

Activity and event entry

1. Selected the molecule name field
2. Typed in the name test1
3. Clicked on the search button

Procedure results pass/fail

Passed

All of the simulation configurations that used the molecule name test1 1 were found by the search engine.

Anomalies

Whenever you click on the reports section of the molecules found by the search engine the windows where they are display in too small and the information is not fully visible.

Test log identifier T.L.6

2.10 Search engine – (Simulation Session ID)

Execution description

We tested the *sessionid* field for appropriate search results. We inputted a *sessionid* number in the field to do a search.

Activity and event entry

1. Inputted the number 339 in the sessionid field
2. Clicked on the search button

Procedure results pass/fail

Passed

The simulation with that sessionid was successfully found by the search engine.

Anomalies

Name confusion between *Session Id* in this section and *Simulation number*. Session Id and Simulation number is the same; the names should be consistent to avoid user's confusion.

Test log identifier T.L.7

2.1.1 NOML file uploader

Execution description

A file that defines a new simulation configuration will be uploaded. This file will also be tested with invalid data.

Activity and event entry

1. Download an example file
2. Open the file using notepad
3. Modified and change the numbers for the different tags
4. Saved as an .xml file
5. Upload it

Procedure results pass/fail

Passed

Anomalies

1. In order to modify the xml files that and upload them, you have to actually click on the link to the sample files select the view menu, then select source to view the file's source code, and copy and paste it onto notepad. The reason is that when an xml file is downloaded on a PC or MAC and you open the file through notepad the code is almost unreadable since notepad cannot put it a reasonable and easy to understand format.
 2. The message that comes out when there is something wrong with the xml file is misspelled "No file (will) be uploaded, please check the tag of your NOML file."
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Test log identifier T.L.8

2.1.2 Molecule editor (availability of molecule created)

Execution description

We will create a new molecule with the simulation editor, submit it, and then check if is available.

Activity and event entry

1. We created the new molecule first.
2. Then we checked if the molecule was made available in step 3 – molecule section while configuring a new simulation.

Procedure results pass/fail

Passed

The new molecule was successfully made available displaying the right properties.

Anomalies

None

Test log identifier T.L.9

2.1.2 Molecule editor (validation and constraints)

Execution description

We will input negative numbers on different fields to test the system's validation of negative numbers. We expect an error message.

Activity and event entry

1. We tried to create a molecule using negative numbers
2. We submitted the molecule
3. An error message came up letting us know about the type of numbers that can be used

Procedure results pass/fail

Passed

The system successfully recognized the negative number and it did not let us submit the molecule without making the appropriate changes.

Anomalies

None

Test log identifier T.L.10

Molecule validator

Execution description

This feature will be tested by just clicking on the validate button and validating the molecule. Two different accounts will be used to check if the validated molecule was made public on both accounts.

Activity and event entry

1. A molecule was validated
2. The option of making it available to the public was selected.

Procedure results pass/fail

Passed

We checked the two different accounts in step 3 when configuring a new simulation and the validated molecule was successfully available on both accounts.

Anomalies

None

Test log identifier T.L.11

2.1.4 Chat room

Execution description

This feature will be tested by just clicking on the validate button and validating the molecule. Two different accounts will be used to check if the validated molecule which is supposed to be public is present on both them

Activity and event entry

1. Two users logged onto the chat room
2. A simple conversation and random letters and numbers were inputted

Procedure results pass/fail

Passed

The conversation with the other user was visible in the threaded discussion board. Also any user who accesses any of both chat rooms can trace previous conversations.

Anomalies

The Java Applet based chat room when displaying on Netscape is not displayed, it requires the user to download a plug in.

Test log identifier T.L.12

2.1.5 File sharing and discussion board

Execution description

This feature will be tested by uploading two messages one with an .exe file attached and one with a .bat file attached. Because of the system's constrains, both files should not be able to be uploaded just the message.

Activity and event entry

1. A message with an .exe attached was created and uploaded
2. A message with a .bat attached was created and uploaded

Procedure results pass/fail

Passed

The files were not allowed to be uploaded by the system with the exception of the messages

Anomalies

There should some information provided about the restrictions on the file types and sized that can be uploaded. Also whenever a user is trying to upload a restricted file a message

should pop up letting the user know that their file was not uploaded because of the current constraints.

Test log identifier T.L.13

2.1.6 Sending Email Agent (focusing on email received when simulation is first invoked)

Execution description

We configured a new simulation and submitted, and then we checked on the users email account that invoked the simulation for the email letting the user know that the simulation it's executing

Activity and event entry

1. A new simulation was configured
2. The users e-mail's account was checked for the email

Procedure results pass/fail

Passed

The email was successfully received in the user's account

Anomalies

None

Test log identifier T.L.14

2.1.6 Sending Email Agent (focusing on email received when a new account is created)

Execution description

A new account was created and the user's account was checked to verify that the email confirming you new account was received.

Activity and event entry

1. A new account was created
2. The users e-mail's account was checked for the email

Procedure results pass/fail

Passed

The email was successfully received in the user's account

Anomalies

None

Test log identifier T.L.15

2.1.7 Running time prediction agent

Execution description

A short simulation was configured and invoked. A minute later we checked to see how long the agent predicted the simulation would take to be completed.

Activity and event entry

1. We configured a short simulation and submitted
2. After being submitted, from the time we first checked the prediction time we continuously checked the prediction time to see if there was any changes

Procedure results pass/fail

Passed

The agent successfully predicted the approximate time of the simulation completion.

Anomalies

None

Test log identifier T.L.16

2.1.8 Similar simulation finder

Execution description

A simulation with particular configuration parameters was created (simulation 339). Then after this simulation was completed we submitted another simulation with parameter values very similar to the ones we submitted earlier to test if this similar simulation finder recognizes the similar configuration parameters.

Activity and event entry

1. We configured a simulation (simulation 339) and waited until it was completed
2. After simulation 339 completion, we attempted to invoke a simulation with configuration parameters very similar to the ones of simulation 339.

Procedure results pass/fail

Passed

The similar simulation finder successfully found the top 5 similar simulations, and that the top of those was simulation # 399 which we used to test this feature.

Anomalies

None

Test log identifier T.L. 17

2.1.9 Automatic restarting agent

Execution description

A simulation was invoked and that simulation was found and killed manually. The simulation should also be resumed on the different application servers.

Activity and event entry

1. A new simulation was configured
2. The simulation was invoked
3. The simulation was searched for and found
4. Then we killed the simulation manually

Procedure results pass/fail

Passed

The simulation was successfully resumed on the four application servers and it finally completed on the application server number 5.

Anomalies

None

Test log identifier Test Log 18

2.14 Load Balancing

Execution description

Sixteen simulations were loaded in a specified order: four short simulations, four long simulations, four short simulations, one long simulation, two short simulations, and finally one short simulation. Long is defined as having a high molecule density and running the simulation for a longer period of time.

Activity and event entry

1. Submitted a new simulation with either the short or long parameters sixteen consecutive times.

Procedure results pass/fail

Passed

As more simulations started to run, the load averages across the 5 application servers were very comparable. The load balancing mechanism consistently added new simulations to servers with a lower load average. This resulted in load averages ranging from 0.42 to 0.57 when all the simulations had been loaded, which is very good.

Anomalies

Occasional *Internal Server Errors* on the Simulation Manager page. It would be nice if the Simulation Manager page refreshed automatically. It would also be better if there were some sort of identifier in the blank space on the predict pop-up window that let the user know that the predict function is not yet available.