Chemistry

**Software Quality Assurance**

**SQA Testing Checklist**

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| **Revision Number** | **Revision Date** | **Author** | **Summary of Changes** |
| 1 | 3-13-2013 | John Gibbons | Initial creation of document and first draft. |
| 2 | 3-14-2013 | John Gibbons | Second draft and additional items added. |
|  |  |  |  |

SQA Testing Checklist

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** |  | **Y, N, NA** | **F, O** | **Comments** |
|  | Requirements Testing |  |  |  |
| 1 | Have all requirements from the SRS requirements document been satisfied? |  |  |  |
| 2 | Does all the requirements in the SRS document fully meet the customers' requirements? |  |  |  |
| 3 | Does the code properly and fully implement those requirements? |  |  |  |
| 4 | Can the requirements' code be tested? |  |  |  |
| 5 | Are the requirements clear and concise? |  |  |  |
| 6 | Has the customer signed off on all requirements for verification? |  |  |  |
| 7 | Does the program execute each step of the naming process and animation process according to the customers' models? |  |  |  |
| 8 | Does the software meet security requirements? |  |  |  |
| 9 | Does the software meet privacy requirements? |  |  |  |
| 10 | Does the documentation have a description of higher architecture? |  |  |  |
|  | Functional Design | **Y, N, NA** | **F, O** | **Comments** |
| 1 | Does the design allow the user to perform any and all tasks promised? |  |  |  |
| 2 | Does the design incorporate future software updates and expansions? |  |  |  |
| 3 | Does the software allow for the user to create their own pentadecane molecule? |  |  |  |
| 4 | Does the software allow for the user to enter in what they believe to be the name for the pentadecane molecule? |  |  |  |
| 5 | Does the software allow for some actions to be performed multiple times? |  |  |  |
| 6 | Does the design handle well under stress load? |  |  |  |
| 7 | Does the software inform the user when a mistake has been made and how to resolve it? |  |  |  |
| 8 | Does the design give the user a simple interface to work with? |  |  |  |
| 9 | Does the design allow the user to backtrack to previous forms? |  |  |  |
| 10 | Does the design allow testers to add comments? |  |  |  |
| 11 | Does the design allow the users to add comments? |  |  |  |
| 12 | Does the design address techniques and tools that shall be used to assure software quality assurance? |  |  |  |
| 13 | Does the design catch all exceptions correctly? |  |  |  |
|  | Testing Techniques | **Y, N, NA** | **F, O** | **Comments** |
| 1 | Does the software pass Black box testing? |  |  |  |
| 2 | Does the software pass White box testing? |  |  |  |
| 3 | Does the software pass Unit testing? |  |  |  |
| 4 | Does the software pass Integration testing? |  |  |  |
| 5 | Does the software pass System testing? |  |  |  |
| 6 | Does the software pass Alpha testing? |  |  |  |
| 7 | Does the software pass Beta testing? |  |  |  |
| 8 | Does the software pass Acceptance testing? |  |  |  |
|  | Environmental Testing | **Y, N, NA** | **F, O** | **Comments** |
| 1 | Does the program run correctly on all operating systems specified in the SRS document? |  |  |  |
| 2 | Does the program work correctly with all drivers? |  |  |  |
| 3 | Does the program work smoothly in these environments? (not choppy) |  |  |  |
| 4 | Does any aspect of the program crash or freeze during any step in these different environments? |  |  |  |
| 5 | Is any functionality hindered by running in any of the operating systems specified in the SRS document? |  |  |  |
|  | Acceptance Testing | **Y, N, NA** | **F, O** | **Comments** |
| 1 | Are all previous issues and bugs fixed? |  |  |  |
| 2 | Is the client satisfied with the finished project? |  |  |  |
| 3 | Is the finished project ready for release? |  |  |  |