

Defect Log - Wesley R. Howell

Date	Phase	Fix Time	Description
Jan 22, 2013	Design	60	Found out that networking is not feasible from within ACL2. To make it natively supported, writing and extending several Common Lisp features would need to be done. We cannot do this in the scope of this project. So we found that using the Operating System's native filesystem and networking support would be much more friendly to deal with once we get to this stage in the project.
Jan 29, 2013	Design	147	Found out that GUI's and File IO cannot coexist in ACL2. We can have one or the other, but not both. So we had to scrap the GUI portions of the project and replace them with a new idea. The new idea is the current design of the email server and client system. This project is strictly data processing and file IO. This project will be file and text based rather than Visual and Interactive.
Feb 5, 2013	Design	124	We discovered that generating ALC2 executables and invoking these files from an outside source is a troublesome experience and that the generated files are hundreds of megabytes in size. Since we will have several modules for this project, we saw this as a negative side effect of executable files. To solve this problem, we moved all our project to the UNIX platform. This has allowed us to use the UNIX shell environment to generate shell scripts that invoke the ACL2 environment while passing in ACL2 source code files. This reduces the size of the files to kilobytes and streamlines the execution process and eliminating the size of outside programming needed for the original idea to work. Thus we will be executing our ACL2 code through a UNIX shell script and the shell scripts

			will in turn be executed from the outside programming environment.
Feb 12, 2013	Design	75	When we looked at the design review. We saw several errors in the XML format that would not pass if it were to be sent through a web browser. We had to work on setting the XML to a correct format and modify the document type definitions to comply with proper XML syntax.
Feb 22, 2013	Coding	12	After finishing coding the ACL2 functions, the functions would not admit under normal ACL2 invocation. However, it did work under Dr Racket. The issue was traced to the IO and List utilities files as they were un-certified files within the regular ACL2 environment. Adding the suppression to the certification requirement, the files worked as usual.
Feb 23, 2013	Coding	52	After fixing the certification issue. Certain functions were still not admitting to ACL2. This was due to illegal arguments as the ACL2 output stated. To fix these arguments, the state variable had to be set and implemented differently than I had intended. I added some safe guards to the variables and added constraints to the functions that depended on them.
March 5, 2013	Coding	21	After finishing the IO entry point function on the server email module, We noticed that the XML files were being generated with a comma instead of the @ symbol between names and domains in the email address. Also, the output file for the email was a statically named file. This file needed to be dynamically named with a timestamp.
March 11, 2013	Coding	24	Email parsing had a one off error that did not have the correct lines returned for the XML file which rendered the outputted file useless.
			Shell script was not correctly splitting the XML files based on the regular expression. Started using awk to parse

March 14, 2013	Coding	32	the file. However, the file did not have a unique file name and was getting overwritten every time the script was executed.
March 24, 2013	Testing	16	The theorem that tested the email data structure was not passing. This was traced to an error in the proof and not in the code. The error was trying to access an item that was not in the structure, hence the failure of the proof.
April 1, 2013	Coding	23	Working on integrating the ALC2 with Java. Having trouble getting Java to see the files that ACL2 has generated. Right now, the current solution is to make the Java sleep for a couple of seconds while ACL2 finishes its processing then resume. Then it sees the files that ALC2 generates
April 2, 2013	Testing	15	The script that Matthew had written to open all files in a directory was not working. It was needed that the function open only the xml files, since there are hidden files in a directory, I had to modify the function to account for these changes.