SCOMP

Sprint B

US 2001 As Product Owner, I want the system to, continuously, process the files produced by the Applications Email Bot, so that they can be imported into the system by initiative of the Operator
– Priority: 1
– References: See NFR12(SCOMP).

NFR12

The “Applications File Bot” must be developed in C and utilize processes, signals, pipes, and exec function primitives.

A child process should be created to periodically monitor an input directory for new files related to the 'Application' phase of the recruitment process. If new files are detected, a signal should be sent to the parent process.

Please refer to Section 2.2.3 of the “System Specification” document for a description of the input directory, input files, output directory, and their expected subdirectories.

Upon receiving a signal, the parent process should distribute the new files among a fixed number of worker child processes. Each child process will be responsible for copying all files related to a specific candidate to its designated subdirectory in the output directory.

Once a child has finished copying all files for a candidate, it should inform its parent that it is ready to perform additional work. Child workers do not terminate unless they are specifically terminated by the parent process.

Once all files for all candidates have been copied, the parent process should generate a report file in the output directory. This report should list, for each candidate, the name of the output subdirectory and the names of all files that were copied.

To terminate the application, the parent process must handle the SIGINT signal. Upon reception, it should terminate all children and wait for their termination.

The names of the input and output directories, the number of worker children, the time interval for periodic checking of new files, etc., should be configurable. This configuration can be achieved either through input parameters provided when running the application or by reading from a configuration file.

Unit and integration tests are highly valued.