**Smoke Test Checklist**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | **Configuration and start (Windows/Linux)** |  |  |  |  |  |  |
| **2** | **File processsing** |  |  |  |  |  |  |
|  |  |  | Input Files Formats | | | | |
|  |  |  | mp3 | flac | wav | ogg | wma |
|  | Output files formats | HTML | + | + | + | + | + |
|  | CSV | + | + | + | + | + |
|  | HTML DuplicateOnly mode duplicates Background color | white | + | + | + | + | + |
|  | + | + | + | + | + |
|  | HTML Normal mode duplicates Background color | red | + | + | + | + | + |
|  | + | + | + | + | + |
|  |  |  |  |  |  |  |  |
| **3** | **Application console output log** |  |  |  |  |  |  |
| **4** | **All directories and files names are normalized** | |  |  |  |  |  |
| **5** | **Application stop** |  |  |  |  |  |  |

Spreadsheet 1 – input/output file types and sizes for ST

**Smoke Test Cases**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Requirements No.** | **Module** | **Sub-Module/Screen** | **Test Case Description** | **Expected Results** | **Comments** |
| **ST.1.1** | UR-1, UR-1.1  (DS-2\*)  (DS-3\*)  UR-2 | App loader | App start | **Starting the App and configuration with correct mandatory parameters:  Preparations:**   * Create four empty directories in a root folder of any logical drive for StartingDirectory parameter**s.** * Put a correct audio file of any supported type in StartingDirectory1. * Create two HTML and two Csv file in a root folder.   **Steps:**   * Start the app with correct parameters from preparations. * Stop the app. | 1. App starts without any errors, processes files and stops. 2. After closing the app, it successfully shutdown. | After proceeding with this test you can pass to ST.1.2 without deleting all the preparations from this test. |
| **ST.1.2** | UR-1, UR-1.1  (DS-2\*)  (DS-3\*)  UR-2 | App loader | App start | **Starting the App and configuration without starting directories parameters:**   1. Start the app without StartingDirectories parameters. | 1. The app starts, writes standard usage message (DS-2.2) in the console and shutdown. | This test uses  preparations from ST.1.1 |
| **ST.1.3** | UR-1, UR-1.1  (DS-2\*)  (DS-3\*)  UR-2 | App loader | App start | **Starting the App and configuration with non-existent and inaccessible optional starting directories:**   * Make Starting Directory 3 inaccessible (no read permission).  1. Start the app with correct output files and two StartingDirectories: StartingDirectory1 and the other is non-existent. 2. Start the app with with correct output files and two StartingDirectories: StartingDirectory1 and StartingDirectory3 which is inaccessible. | 1. The app starts, writes standard usage message (DS-2.2), writes error message “The following directory is not found or is inaccessible: {full path}” in the console and shutdown. 2. The app starts, writes standard usage message (DS-2.2), writes error message “The following directory is not found or is inaccessible: {full path}” in the console and shutdown. | This test uses  preparations from ST.1.1 **+ its own.** |
| **ST.1.4** | UR-1, UR-1.1  (DS-2\*)  (DS-3\*)  UR-2 | App loader | App start | **Starting the App and configuration with output files read-only:**   * Make one HTML and one Csv files READ-ONLY.  1. Start the app with with both incorrect output files and two correct StartingDirectories: StartingDirectory1 and StartingDirectory2. | 1. The app starts, writes standard usage message (DS-2.2), writes error message ““The following file is not writable: {full path}” in the console and shutdown. | This test uses  preparations from ST.1.1 **+ its own.** |
| **ST.1.5** | UR-1, UR-1.1  (DS-2\*)  (DS-3\*)  UR-2 | App loader | App start | **Starting the App and configuration with empty optional starting directories:**   1. Start the app with with correct output files and two StartingDirectories: StartingDirectory1 and StartingDirectory4 which is empty. | 1. The app starts, writes standard usage message (DS-2.2), writes error message “No audio header or audio tag data in: {full path}” in the console and shutdown. | This test uses  preparations from ST.1.1 |
| **ST.2.1** | BR-1, BR-2 | File processor | File input | **Processing Files from one StartingDirectory:**   * Create a directory in a root folder of any logical drive. * Put correct files of supported formats one or more of each type into a created directory. * Create one empty HTML and one empty Csv file in a root folder.  1. Start the app, use created directory as a StartingDirectory1, HTML and Csv files for output. 2. Stop the app. | 1. The app starts without any usage or error messages. Processes all files from created directory with output to console log. 2. The app successfully writes both HTML and Csv output files with correct output data: names of files from preparations and successfully shutdown. |  |
| **ST.2.2** | BR-1, BR-2 | File processor | File input | **Processing Files from more than one StartingDirectory:**   * Create two directories in a root folder of any logical drive. * Put correct files of supported formats one or more of each type into created directories. * Create one empty HTML and one empty Csv file in a root folder.  1. Start the app, use created directories as StartingDirectory1 and StartingDirectory2, HTML and Csv files for output. 2. Stop the app. | 1. The app starts without any usage or error messages. Processes all files from created directory with output to console log. 2. The app successfully writes both HTML and Csv output files with correct output data: names of files from preparations from both directories and successfully shutdown. |  |
| **ST.3** | UR-1, UR-1.2 | App stopper | App stop | **Stopping the application by correct means:**   * Create a directory in a root folder of any logical drive. * Put correct files of supported formats one or more of each type into a created directory. * Create one empty HTML and one empty Csv file in a root folder.  1. Start the app with with correct output files and correct StartingDirectory: StartingDirectory1. 2. Stop the app by applying Ctrl+C to the console window, which holds the app. 3. Start the app with with correct output files and correct StartingDirectory: StartingDirectory1. 4. Stop the app by closing the console window, which holds the app. | 1. The app starts, processes files with output to console log, after closing the console the app successfully shutdown.   4. The app starts, processes files with output to console log, after pressing the Ctrl+C the app and successfully shutdown. |  |

**Critical Path Test Checklist**

1. **Configuration and start**
   1. With correct parameters:
      1. All mandatoryparameters: HtmlOutputFileName, CsvOutputFileName, StartingDirectory1; optional parameters: [DuplicateOnly], […StartingDirectoryN] are entered in correct order, with spaces between and correct files and directories paths.

All the audio files in directories are readable (no access limitations).

Html and Csv output files are accessible (not read-only).

* 1. With no parameters.
  2. With insufficient number of mandatory parameters.
  3. With incorrect parameters:
     1. Incorrect Html output file name;
     2. Incorrect Csv output file name;
     3. Incorrect StartingDirectory1 path/non-existing/no access;
     4. Incorrect optional StartingDirectories paths/non-existing/no access;
     5. With read-only output files;

1. **File processing**
   1. Different input file types, sizes:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Input Files Formats | | | | |
|  |  | mp3 | flac | wav | ogg | wma |
| Output files formats | HTML/CSV | 10kb | 5mb | 10mb | 10kb | 8mb |
| 10mb | 100mb | 500mb | 10mb | 300mb |
| 100mb | 1gb | 2gb | 100mb | 2gb |
| Both | 0 b | | | | |
| Both | Insufficient file type | | | | |
| Both | Broken file | | | | |

Spreadsheet 2 – input/output file types and sizes for CPT

* 1. Inaccessible input files:
     1. No read access;
     2. File is read-only;
     3. File is opened and blocked.

1. **Starting Directories analyzing**
   1. Independent directories (separate paths, no duplications)
   2. Nested directories: one directory located inside another, example.: /root/StartingDirectory1/StartingDirectory2/…
   3. Duplicated directories: same context but with different names, example: StartingDirectory1, StartingDirectory1-Copy.

**Critical Path Test Cases**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Requirements No.** | **Module** | **Sub-Module/Screen** | **Test Case Description** | **Expected Results** | **Comments** |
| **CPT.1.1.1** | QA-1, QA-1.1. | App loader | App start | **Starting the App and configuration with correct mandatory parameters:  Preparations:**   * Create a directory in a root folder of any logical drive for StartingDirectory1 parameter**.** * Put a correct audio file of any supported type in StartingDirectory1. * Create an HTML and a Csv file in a root folder.   **Steps:**   1. Start the app with parameters from preparations, correct order and spaces. 2. Stop the app. | 1. App starts without any errors, processes files and stops. 2. After closing the app, it successfully shutdown. | After proceeding with this test you can pass to CPT.1.2 without deleting all the preparations from this test. |
| **CPT.1.1.2** | QA-1, QA-1.1. | App loader | App start | **Starting the App and configuration with some mandatory parameters omitted:**   1. Start the app with no parameters. 2. Start the app with parameters from preparations except StartingDirectory1 not included. 3. Start the app with parameters from preparations except HtmlOutputFileName not included. 4. Start the app with parameters from preparations except CsvOutputFileName not included. | 1. App starts with a standard usage message (DS-2.2) and shutdown. 2. App starts with a standard usage message (DS-2.2) and shutdown. 3. App starts with a standard usage message (DS-2.2) and shutdown. 4. App starts with a standard usage message (DS-2.2) and shutdown. | This test uses  preparations from CPT.1.1 |
| **CPT.1.2.1** | QA-1, QA-1.1. | App loader | App start | **Starting the App and configuration with incorrect output file names:**   * Create a directory in a root folder of any logical drive for StartingDirectory2 parameter**.**  1. Start the app with parameters from preparations except HtmlOutputFile name is incorrect. 2. Start the app with parameters from preparations except CsvOutputFile name is incorrect. | 1. App starts with a standard usage message (DS-2.4) and error message “The following file is not writable: {full path}” (DS-3.2) in the console and shutdown. 2. App starts with a standard usage message (DS-2.4) and error message “The following file is not writable: {full path}” (DS-3.2) in the console and shutdown. | This test uses  preparations from CPT.1.1 **+ its own** |
| **CPT.1.2.2** | QA-1, QA-1.1. | App loader | App start | **Starting the App and configuration with incorrect output file paths:**   1. Start the app with parameters from preparations except StartingDirectory1 path is incorrect. 2. Start the app with parameters from preparations except StartingDirectory1 is inaccessible (no read permission). | 1. App starts with a standard usage message (DS-2.4) and error message “The following directory is not found or is inaccessible: {full path}” (DS-3.2) in the console and shutdown. 2. App starts with a standard usage message (DS-2.4) and error message “The following directory is not found or is inaccessible: {full path}” (DS-3.2) in the console and shutdown. | This test uses  preparations from CPT.1.1 |
| **CPT.1.2.3** | QA-1, QA-1.1. | App loader | App start | **Starting the App and configuration with incorrect starting directories paths:**   1. Start the app with parameters from preparations except StartingDirectory2 path is incorrect. 2. Start the app with parameters from preparations except StartingDirectory2 is inaccessible (no read permission). | 1. App starts with a standard usage message (DS-2.4) and error message “The following directory is not found or is inaccessible: {full path}” (DS-3.2). 2. App starts with a standard usage message (DS-2.4) and error message “The following directory is not found or is inaccessible: {full path}”; (DS-3.2) in the console and shutdown.. | This test uses  preparations from CPT.1.1 **+ CPT.1.2.1** |
| **CPT.1.2.4** | QA-1, QA-1.1. | App loader | App start | **Starting the App and configuration with output files read-only:**   * If you don’t have correct HtmlOutpuFile and CsvOutputFile, create each. * Make both Output files from previous step read-only.  1. Start the app with parameters from preparations, correct order and spaces. | 1. App starts with a standard usage message (DS-2.4) and error message “The following file is not writable: {full path}“ (DS-3.2) in the console and shutdown. | This test uses  preparations from CPT.1.1 |
| **CPT.2.1** | QA-1, QA-1.2., QA-1.3. | File processor | File input | **Reading correct input files of supported formats:**   * Create a directory in a root folder of any logical drive for starting directories parameters. * Create correct HtmlOutpuFile and CsvOutputFile. * Put correct audio files of each type and size according to the Spreadsheet 2 from the CPT checklist to StartingDirectory1.  1. Start the app with parameters from preparations. 2. Stop the app. | 1. The app starts without any usage or error messages. Processes all files from created directory with output to console log. 2. The app successfully writes both HTML and Csv output files with correct output data: names of files from preparations from both directories and successfully shutdown. | After proceeding with this test you can pass to CPT.2.2 without deleting all the preparations from this test. |
| **CPT.2.2** | QA-1, QA-1.2., QA-1.3. | File processor | File input | **Reading input files with an empty file emplaced:**   * Put empty audio files of each type to StartingDirectory1.  1. Start the app with parameters from preparations. | 1. The app starts without any usage or error messages. Processes all files from created directory with output to console log. 2. The app writes standard usage message (DS-2.2), writes error message “No audio header or audio tag data in: {full path}” in the console and shutdown. | This test uses  preparations from CPT.2.1 |
| **CPT.2.3** | QA-1, QA-1.2., QA-1.3. | File processor | File input | **Reading input files with an audio file of unsupported type:**   * Put correct audio files of each type and one file of unsupported type to StartingDirectory1.  1. Start the app with parameters from preparations. | 1. The app starts without any usage or error messages. Processes all files from created directory with output to console log. 2. The app writes standard usage message (DS-2.2), writes error message “No audio header or audio tag data in: {full path}” in the console and shutdown. | This test uses  preparations from CPT.2.1 |
| **CPT.2.4** | QA-1, QA-1.2., QA-1.3. | File processor | File input | **Reading input files with a broken audio file:**   * Put correct audio files of each type and one broken file of any supported type to StartingDirectory1.  1. Start the app with parameters from preparations. | 1. The app starts without any usage or error messages. Processes all files from created directory with output to console log. 2. The app writes standard usage message (DS-2.2), writes error message “No audio header or audio tag data in: {full path}” in the console and shutdown. | This test uses  preparations from CPT.2.1 |

**Test suites**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Id** | **Priority** | **Requirement** | **Module** | **Submodule** | **Title** |
| **ST.1.1** | A | UR-1, UR-1.1  DS-2.1, DS-3.1 | App loader | App start | Starting the App and configuration with correct mandatory parameters |
| **ST.1.2** | A | UR-1, UR-1.1  DS-2.1, DS-3.2 | App loader | App start | Starting the App and configuration without starting directories parameters |
| **ST.1.3** | B | UR-1, UR-1.1  DS-2.1, DS-3.2 | App loader | App start | Starting the App and configuration with non-existent and inaccessible optional starting directories |
| **ST.1.4** | B | UR-1, UR-1.1  DS-2.1, DS-3.2 | App loader | App start | Starting the App and configuration with output files read-only |
| **ST.1.5** | B | UR-1, UR-1.1  DS-2.1, DS-3.2 | App loader | App start | Starting the App and configuration with empty optional starting directories |
| **ST.2.1** | A | BR-1, BR-2  DS-2.1, DS-3.2 | File processor | File input | Processing Files from one StartingDirectory |
| **ST.2.2** | B | BR-1, BR-2DS-2.1, DS-3.2 | File processor | File input | Processing Files from more than one StartingDirectory |
| **ST.3** | A | UR-1, UR-1.2  DS-2.1, DS-3.2 | App stopper | App stop | Stopping the application by correct means |
| **CPT.1.1.1** | B | QA-1, QA-1.1. | App loader | App start | Starting the App and configuration with correct mandatory parameters |
| **CPT.1.1.2** | B | QA-1, QA-1.1. | App loader | App start | Starting the App and configuration with some mandatory parameters omitted |
| **CPT.1.2.1** | B | QA-1, QA-1.1. | App loader | App start | Starting the App and configuration with incorrect output file names |
| **CPT.1.2.2** | B | QA-1, QA-1.1. | App loader | App start | Starting the App and configuration with incorrect output file paths |
| **CPT.1.2.3** | B | QA-1, QA-1.1. | App loader | App start | Starting the App and configuration with incorrect starting directories paths |
| **CPT.1.2.4** | B | QA-1, QA-1.1. | App loader | App start | Starting the App and configuration with output files read-only |
| **CPT.2.1** | C | QA-1, QA-1.2., QA-1.3. | File processor | File input | Reading correct input files of supported formats |
| **CPT.2.2** | C | QA-1, QA-1.2., QA-1.3. | File processor | File input | Reading input files with an empty file emplaced |
| **CPT.2.3** | C | QA-1, QA-1.2., QA-1.3. | File processor | File input | Reading input files with an audio file of unsupported type |
| **CPT.2.4** | C | QA-1, QA-1.2., QA-1.3. | File processor | File input | Reading input files with a broken audio file |

Now we can compose the following (or any other) sets:

* **Smoke test:** ST.1.1 - ST.1.5, ST.2.1, ST.2.2, ST.3;
* **Critical Path test:** CPT.1.1.1, CPT.1.1.2, CPT.1.2.1 – CPT.1.2.4, CPT.2.1 – CPT.2.4;
* **A-priority tests:** ST.1.1, ST.1.2, ST.2.1, ST.3;
* **B-priority tests:** ST.1.3, ST.1.4, ST.1.5, ST.2.2, CPT.1.1.1, CPT.1.1.2, CPT.1.2.1, CPT.1.2.2, CPT.1.2.3, CPT.1.2.4;
* **C-priority tests:** CPT.2.1, CPT.2.2, CPT.2.3, CPT.2.4;
* **App-loader tests:** ST.1.1 – ST.1.5, CPT.1.1.1 – CPT.1.2.4;
* **App-stopper tests:** ST.3;
* **File-processor tests:** ST.2.1, ST.2.2, CPT.2.1 – CPT.2.4;
* **Business rules tests:** ST.2.1, ST.2.2;
* **Quality attributes tests:** CPT.1.1.1, CPT.1.1.2, CPT.1.2.1 – CPT.1.2.4, CPT.2.1 – CPT.2.4;