«File Search» Project

Checklists: Smoke test, Critical path, Extended test.

Test-cases for this checklist

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This is **NOT** a part of project documentation! This is just student project. Rules for this checklists I took in
EHU_Software_Testing_requirements_hard.docx
And
Test Plan (paragraph number 2)

Smoke Testing checklist:

1) Launch
    a) App launch and runs on Win XP and Win 7
2) Search options
    a) Depth of nesting and file display
        i) app automatically scans directories to an unlimited depth of nesting
            (1) 0
            (2) Limited
            (3) Unlimited
        ii) app has a graphical interface and displays all found files in the right pane
    b) File support and character set
        i) Audio files (mp3, ogg, wav, mid)
        ii) Video files (avi, mpg, mpeg)
        iii) Office files (doc, docx, xls, xlsx)
        iv) English character set
        v) Non-English character set
    c) Search location
        i) Local drives
        ii) Net drives
3) Language support
    a) English is built into the app
    b) Russian is built into the app
4) File system support
    a) Supports all Windows and UNIX file systems
    b) App crashes when it encounters an unsupported file system

Critical Path checklist:

1) Search result
    a) Display found files
        i) Filename display
        ii) Full path display
        iii) File size display
        iv) Displaying the date-time of file creation
        v) Displaying a screenshot with the first frame
    b) App support hard links and symbolic for folders and files
2) Performance
    a) Screenshot generation
        i) App checks that the disk where the screenshot will be saved has enough space to save the file
        ii) Measure the time it takes to take a screenshot, save it to the file system, and close the file descriptor
        iii) Compare search time for the same file with and without screenshot
    b) File search speed, subject to disk read speed and write speed > 50 MB per second (must be at least 500 files per second)
        i) Disk read speed > 50 MB per second
        ii) Disk read speed < or = 50 MB per second
        iii) Disk write speed > 50 MB per second
        iv) Disk write speed < or = 50 MB per second
    c) App does not start if the total running time exceeds 1 hour
        i) Total running time > 1 hour
        ii) Total running time < or = 1 hour
3) Language support
    a) Ability to add new languages

4) Logging
    a) Log is kept
    b) Logging stops if the log size exceeds 1 MB
        i) Log size > 1 MB
        ii) Log size < or = 1 MB
    c) Logging starts from the moment the file search system starts and end at the moment it ends
    d) The log should contain information about any errors that occur during the search for files
    e) The log should contain information about each file found by the file search system

Extended testing checklist:

1) Logging
    a) The currently parsed directory should be displayed in the "Now Checking" panel at the bottom of the screen

Test-cases

Id	Priority	Requirement	Module	Submodule	Steps	Expected Results
TC-001	A	ST-1.a	Launch	-	**Work on different operating systems** Run all test cases on the following systems: 1. Windows XP 2. Windows 7	1. App starts successfully 2. All test cases have been successfully completed
TC-002	A	ST-2.a	Search options	Depth of nesting and file display	**App automatically scans directories to an unlimited depth of nesting** Run searching at this depth: 1. 0 nesting 2. limited nesting (choose nesting depth randomly) 3. unlimited nesting	1. App successfully found all files on all depth of nesting
TC-003	A	ST-2.b	Search options	File support and character set	**App work with all this file types and characters set** Run searching files with ALL this types and characters sets: 1. mp3, ogg, wav, mid 2. avi, mpg, mpeg 3. doc, docx, xls, xlsx 4. English cs 5. Non-English cs	1. App successfully found all files with different types 2. App successfully work with different characters sets

TC-004	A	ST-2.c	Search options	Search location	**App work in local and have access to net** Run all test cases on: 1. Local drives 2. Net drives	1. All test cases have been successfully completed
TC-005	A	ST-3.a	Language support	Built-in languages	**Built-in app languages** Launch app with: 1. English language 2. Russian language	1. App successfully work with these languages
TC-006	B	CT-3.a	Language support	Ability to add new languages	**Install different languages** Install different languages with different alphabets	1. App successfully add and work with new languages
TC-007	A	ST-4.a	File system support	Supports systems	**Supports systems** Run app with any: 1. Windows fs 2. UNIX fs	1. App successfully work with these fs
TC-008	A	ST-4.b	File system support	Emergency shutdown	**App crashes** Run app with any unsupported file system	1. App crashes and shows an error window
TC-009	B	CT-1.a	Search result	Display	**App display found files** Run all test cases and check on display: 1. Filename display 2. Full path display 3. File size display 4. Displaying the date-time of file creation 5. Displaying a screenshot with the first frame	1. App successfully displayed all info
TC-010	B	CT-1.b	Search result	Symbolic support	**App support hard links and symbolic for folders and files** Create files and folders hard links and symbolic, and try find them with FS	1. App successfully found files and folders

TC-011	B	CT-2.a.i	Performance	Screenshot generation	**Where the screenshot will be saved** Artificially limit the space for the screenshot and look at the behavior of the program	1. App should display an error window that there is not enough space
TC-012	B	CT-2.a.ii	Performance	Screenshot generation	**Measurement** Measure the time: 1. It takes to take a screenshot 2. Save it to the file system 3. Close the file descriptor	1. The result should help in further optimization
TC-013	B	CT-2.a.iii	Performance	Screenshot generation	**Compare search** Compare search time for the same file with and without screenshot	1. The result should help in further optimization
TC-014	B	CT-2.b	Performance	File search speed	**File search speed** Check how many files per second at: 1. Disk read speed > 50 MB per second 2. Disk read speed < or = 50 MB per second 3. Disk write speed > 50 MB per second 4. Disk write speed < or = 50 MB per second	1. File search speed, subject to disk read speed and write speed > 50 MB per second will be > 500 files per second 2. Other results should help in further optimization
TC-015	B	CT-2.c	Performance	Time of searching	**App does not start if the total running time exceeds 1 hour** Check how the program behaves if: 1. Total running time > 1 hour 2. Total running time < or = 1 hour	1. If total running time exceeds 1 hour app does not start 2. If the total running time is less than 1 hour, the application starts

TC-016	B	CT-4.a	Logging	-	**Log is kept** Check log availability in all test cases	1. Log is kept
TC-017	B	CT-4.b	Logging	-	**Logging stops** Check what will happen when: 1. Log size > 1 MB 2. Log size < or = 1 MB	1. If log size > 1MB, logging stops 2. If log size < or = 1MB, logging works
TC-018	B	CT-4.c	Logging	-	**Logging starts and end** Check how the log behaves at the start and at the moment it ends	1. Logging starts from the moment the file search system starts and end at the moment it ends
TC-019	B	CT-4.d	Logging	-	**Error content** Artificially create an error and look at the log	1. The log should contain information about any errors that occur during the search for files
TC-020	B	CT-4.e	Logging	-	**Log content** Check the log in all test cases	1. The log should contain information about each file found by the file search system
TC-021	C	ET-1.a	Logging	-	**"Now Checking" panel** Check what will be displayed during directory analysis	1. The currently parsed directory should be displayed in the "Now Checking" panel at the bottom of the screen