

Usage Scenario 1

Title: Getting System Up and Running

User owns vacant family farm that he/she visits only once every week or two. The farm has a great amount of expensive equipment that he/she does not want tampered with. User knows of software he/she can use to keep surveillance on farm to make himself/herself feel more secure his/her property are being protected. He/she drives out to the farm with a old PC computer (good enough to run Windows Vista) preinstalled with Windows Vista, a USB webcam, ethernet cord, power cord, monitor, mouse and keyboard.

After hooking up the PC to face the direction he/she wants motion tracked, user goes to software website where he/she receives the installation setup file. User opens the downloaded setup file, waits a short amount of time, and is then is told software installed successfully.

User now opens software, enter email address to receive alerts, gives software a certain sensitivity amount, then tells system to begin tracking. User then disconnects monitor, keyboard and mouse and packs them up in his/her car. User finally drives home and waits on receiving alerts from software about trespassers.

Requirements:

1. Create website for software where user can download software setup files for software.
2. User should be able to simply open setup file and then be told that software installed successfully. No other interaction involved.
3. Software needs a GUI interface to simplify interaction with software.
4. User needs to be able to enter email address(es) in the GUI interface where email alerts will be sent to. (accessible from “Email Settings” menu when they click “Email Settings” on GUI)
5. User may be able to change the software detection sensitivity at any time from the GUI interface. (accessible from “Video Settings” menu when they click “Video Settings” on GUI)
6. User needs to be able to see a GUI list containing a list of all previous times that software detected motion.
7. The GUI list needs to provide information including date, time, flag level, length of recording, and URL to uploaded file.
8. Dropbox should be web hosting service of choice as it is written in Python so it will be compatible, has a very complete API, big development base, fast and reliable service we can count on.
9. Software needs to use a webcam (preferably USB for simplicity) to do all motion detection (decide when a trespasser is present), capturing (picture of motion detected), and recording (front start of motion detection to end).
10. Webcam plugged into PC needs to be compatible with Windows Vista
11. Webcam plugged into PC running Windows Vista needs to have a compatible driver available for Windows Vista and it needs to be installed to become functional.
12. When recorded video has been captured, footage needs to be uploaded to Dropbox hosting service so it is accessible from any computer with an active internet connection.
13. When software uploads footage to Dropbox, system needs to receive a URL link to the video

footage to send to the user so they may be able to view it.

14. Once footage has been uploaded to Dropbox, photo has been captured, and motion details (all described above) needs to be emailed to all users listed in the system.
15. Software needs to have 5 main buttons on the GUI interface to separate the different settings menus for the software to make it organized.
16. When user wants to manually reposition the webcam into a different position, they need to have a button to click that allows them to do that and not have to worry about the system recording video of them just moving the camera around. So basically, it pauses the system monitoring.
17. User needs to have a button on software they can click to receive help for software. A menu will come up asking showing user the software documentation along with links to the online website.

Usage Scenario 2

Title: Email Alert Interaction

User owns vacant family farm that he/she visits only once every week or two. The farm has a great amount of expensive equipment that he/she does not want tampered with. User knows of software he/she can use to keep surveillance on farm to make himself/herself feel more secure his/her property are being protected.

In a previous scenario, user drove out to family farm and setup the surveillance software from start to finish to make it fully functional. User now has to wait until software sends him/her alerts about surveillance that software has captured.

User receives an alert from software saying that motion has been witnessed. User reads the alert details including: length motion was detected, where software saw the most motion detected in it's view, the date and time motion was first detected, along with a flag (red, orange, yellow) of how serious the software felt the motion was. User also watches footage software captured of the motion, a snapshot taken from the camera, and decides if the trespassing is serious enough to alarm the authorities about.

