Southern New Hampshire University

ISE 640 Lab Three Guidelines and Rubric
Creating a Baseline Using the Windows Forensic Toolchest

Overview: You will be completing several labs throughout this course. The purpose of these labs is twofold:

- The experience will provide you with valuable opportunities to "walk a mile" in the shoes of a forensic practitioner performing basic forensic tasks. Gaining this type of experience is necessary in managing and relating to the individuals and teams with whom you will interact with in the field.
- Practice the communication and writing skills you will need to employ in both pieces of your final project.

It is important to note that these activities are important to your final project but do not share the same scenario as your final project. They are practice opportunities that focus on a specific but smaller set of topics and skills. You will complete a lab "briefing" paper and submit it to your instructor for grading. A template of this brief is provided for you.

Scenario: Please be aware that the instructions given inside of Lab Three refer to a separate scenario, not the one that we will be addressing in class. Use our classroom scenario to focus your learning in the lab.

In the previous lab, Lab Two, you were given the following scenario: While working for ACME Construction Company, you have been tasked with an investigation of a Windows 8 hard drive. You have been told that your company suspects a high-level employee of a policy violation. It is believed that Drew Patrick wrongfully copied sensitive corporate documents containing valuable intellectual property (IP) to his personal computer. Further, there is reason to believe that he may have then provided the documents to a competitor. Due to the value of the IP, the investigation has moved from a simple incident response to a forensic investigation.

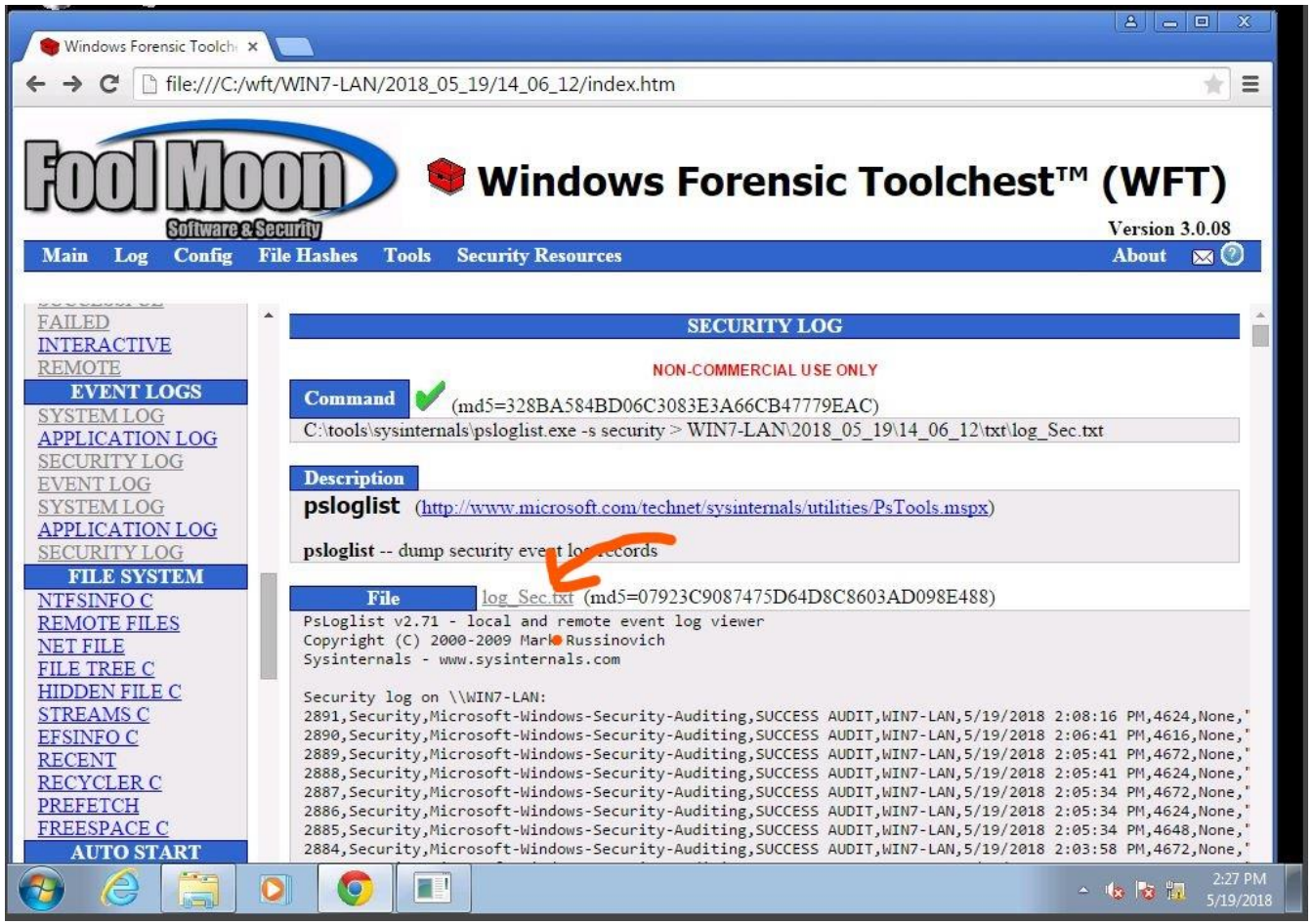
In Lab Two, you finished creating and verifying an image for use in the forensic lab. Lab Three will have you tasked with a different part of the investigation. Wily miscreants will often attempt to cover their tracks. One supposedly clever way of doing this is to create a separate login account and use that account to perform all their evil deeds. Any decent investigator will analyze all the accounts, their creation dates, privileges, and activities in an effort to rule out the idea of evidence being planted by another or any attempt to cover one's tracks.

Windows Forensic Toolchest (WFT) is often used on Windows computers to quickly and easily gather many details concerning the operating system and related functions. An investigator can use WFT to run a scripted set of commands that will allow them to easily identify many properties such as logins (successful or failed), network shares, groups and accounts, and many others. Proper documentation of these settings and characteristics will help to weaken the "it was not me" argument.

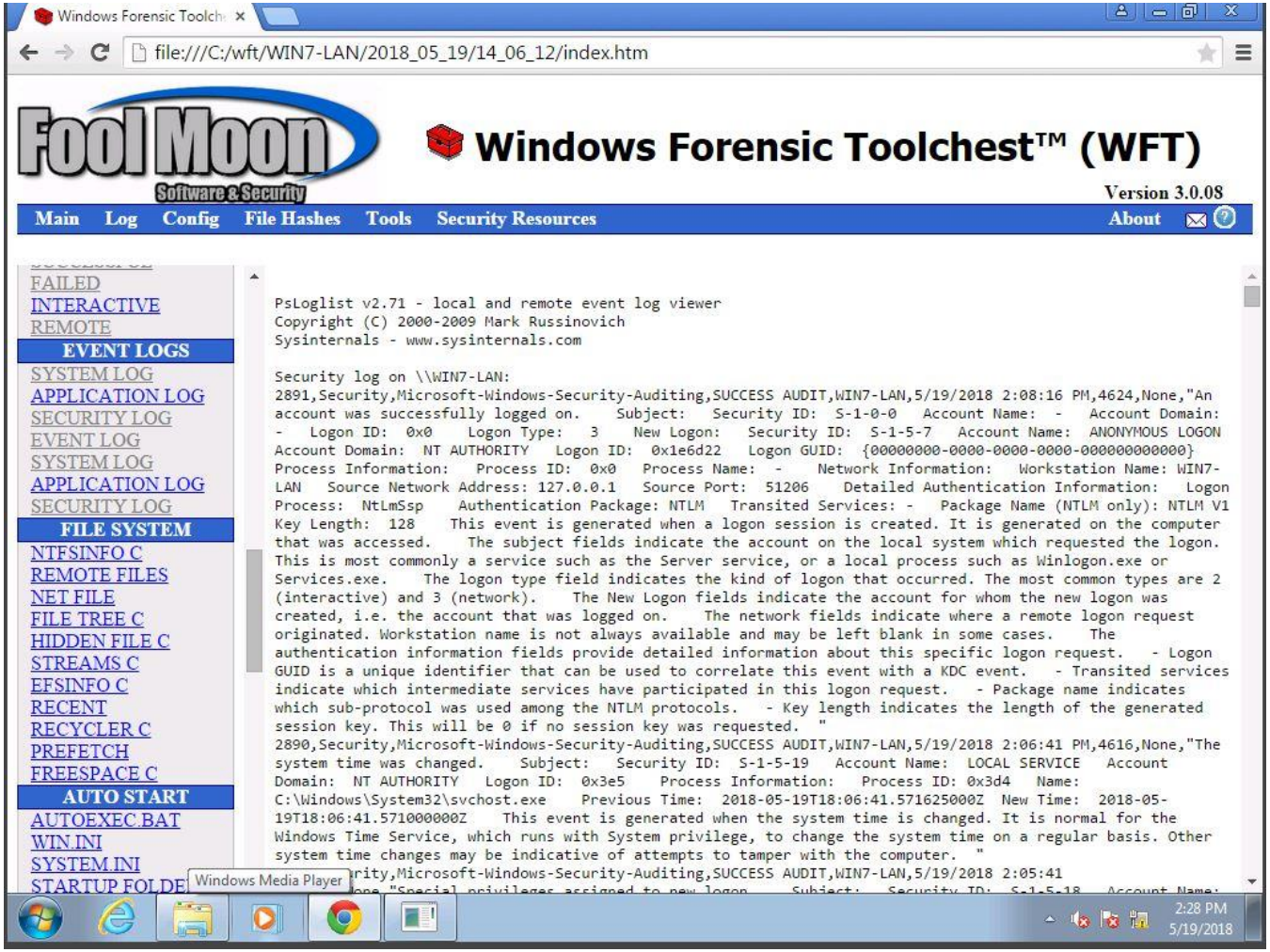
In your lab, be sure to document the following for your final project:

1. Internet protocol (IP) address of the computer at the time of the examination (IPCONFIG)
2. List of user accounts on the suspect machine (NET USER)

3. List of users who have logged on locally (LOGINS – ALL)
4. The shared directories on the network, which may aid in passing data outside of the company-controlled environment (NET SHARE)
5. The security logs and their details will be used in the log analysis lab. You can take a quick look at them here so you know what to expect during the following lab. (EVENT LOGS – SECURITY LOG)



Opening the log_Sec.txt file should look something like this:



It is not critical that you understand the content of this log at this time. This will be used in another lab.

6. You may also want to document the drive hash values created by WFT.
7. For those who want to look a little deeper, the Processes – PS displays a list of all the running processes at the time WFT was run, and NETWORKING NETSTAT – AN displays active network connections that may be of interest in an investigation.

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Prompt: In your report, be sure to address the following critical elements:

1. Provide a brief **summary** of the lab. What did you do in the lab? How did it work? What did you look for/find?
2. Briefly describe the **specific practices or resources** that were most important in supporting the investigation and maintaining evidentiary integrity in this lab. For example:
    a) Chain of custody practices
    b) Digital forensic tools
    c) Incident response tactics
3. Briefly describe best practices or resources necessary in terms of **next steps** in this lab scenario.
4. Include **screenshots** that support items 2 and 3 in your briefing.
5. Ensure your entire briefing is appropriate to your **internal audience,** employing brevity and consumable language (in this lab, your audience will be your teammates/company attorneys/executive team).

Rubric

Critical Elements	Proficient (100%)	Needs Improvement (75%)	Not Evident (0%)	Value
Lab Summary	Provides brief summary of the lab	Provides brief summary of the lab, but summary is cursory or contains inaccuracies	Does not provide lab name and brief summary of the lab	19
Specific Practices or Resources	Briefly describes specific practices or resources that were most important in supporting the investigation and maintaining evidentiary integrity in this lab	Describes specific practices or resources that were most important in supporting the investigation and maintaining evidentiary integrity in this lab, but rationale is illogical, inaccurate, or lacks necessary details	Does not describe specific practices or resources	19
Next Steps	Briefly describes best practices or resources necessary in terms of next steps in this scenario	Briefly describes best practices or resources necessary in terms of next steps in this scenario, but rationale is illogical, inaccurate, or lacks necessary details	Does not describe best practices or resources	19
Screenshots	Includes screenshots that directly support practices and necessary resources	Includes screenshots, but does not include all necessary screenshots required or those provided do not directly support practices and necessary resources	Does not include screenshots	19
Internal Audience	Appropriate to internal audience, employing brevity and consumable language	Submission is appropriate to internal audience but does not employ brevity or consumable language	Submission is not appropriate to internal audience	19

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Critical Elements	Proficient (100%)	Needs Improvement (75%)	Not Evident (0%)	Value
Articulation of Response	Submission has no major errors related to citations, grammar, spelling, or organization	Submission has some errors related to citations, grammar, spelling, or organization that negatively impact readability and articulation of main ideas	Submission has critical errors related to citations, grammar, spelling, or organization that prevent understanding of ideas	5
			Total	**100%**