Engineering Journal

Introduction:
You have been nagged many times in throughout this course about the importance of documentation. In User Support we have looked at documentation in relation to fault logging systems.

One form of documentation we don't hear much about is the Engineering Journal.

The engineering journal is a personal documentation that is used to help you keep track of knowledge gained, resources found, solutions developed and tricks learned. On a personal level this form of documentation has been invaluable when working on live systems.

Sometimes when working on live systems under time pressure, we try something that we think will solve the problem. When we find it hasn't solved it we try a second solution, then a third and so on, until we have fixed the system. The dilemma is that sometimes our third or fourth fix is the correct solution, but our first or second fix has prevented the solution from working. Thus we move onto the fifth, sixth, seventh, etc fix finding that none of them work and we waste a lot of time.

The trick is to try and isolate the problem. If our first fix does not work, we 'undo' the problem by setting the system back to its original state, then we attempt the second problem and so on.

This is where the journal is so important. Not only does it keep a record of what you have attempted, you also keep a record of the commands used, settings set, etc. So that when you 'undo' the previous unsuccessful fix you have the exact command entered. All of you have been in labs where a student has forgotten the administrators password on a server installation. They discover at the end of the installation that they have not written it down, cannot remember what was entered and cannot get into the server to change it. If the password met complexity requirements, the students have had to start the installation again. If it had been recorded in an engineering journal, they would not have wasted so much time. Imagine having to explain to the boss that the project is now over an hour behind because you forgot the password!

Some jobs in network admin occur regularly, but not frequently eg Server installation, hard disk recovery, database corruption. They occur so infrequently that it is impossible to remember exactly how you handled it last time it happened. If you have not kept an engineering journal, you have to go back to the books and teach yourself all over again. When time is critical, you don't look professional.

In summary an engineering journal should contain the following:
- Resources used
- Errors reported
- Reasons for selecting a potential solution
- Utilities/commands used with specific switches and settings used
- Test used to verify solution
- Suggestions for improving diagnosis and solution next time.

Activity
Select one of the following areas of research:
1. WiFi
2. Bluetooth
3. PDAs
- Download the relevant drivers and software to configure a PC to communicate with a device from the area selected.
- Once you have succeeded in getting the devices communicating, focus on becoming proficient with the device.
- Keep a record of your resources, ideas, decisions, utilities, commands used, etc in your engineering journal.