This study focused on the development of a window-based laboratory equipment inventory and monitoring system (LEIMS) of the Supply and Inventory Office of Northwestern University.

The study utilized research-based development (R&D) method which encompasses the following steps: preliminary investigation, problem analysis, requirement analysis, decision analysis, development analysis, validation and evaluating tryout results and final modification.

In the problem Identification a questionnaire was utilized as the main data-gathering instrument. Mean was used to determine the status of the present DOS-based system in terms of speed, accuracy and reliability and the effectiveness of the present system in terms of service and efficiency.

Correlation was used in determining the factors that influenced the service and efficiency of the existing system as inputs to the development of the new system.

The salient findings of the study are:

Present DOS-based System:

On the evaluation of the present DOS-based system, it reveals that the system does not respond to the user in a reasonable amount of time, does not help do the task easier and more conveniently, does not produce updated information, processing is not fast and it does not produce the information needed on time. Consequently, the system does not produce accurate inventory results, it does not do all the time what the user wants, and it does not produce all the time accurate data, thus, inaccurate printed hardcopy results.

Assessment shows that the present system is not user friendly, not reliable and efficient to the user.
Service and efficiency of the present system are significantly and strongly related to the speed, accuracy, and reliability of the present system.

**Developed Window-based System**

In terms of speed, accuracy and reliability, the developed window-based system is very effective. The system is similarly acceptable in terms of service and efficiency. The developed system produce reliable results, it is easy to learn, is simple and comfortable to use, is flexible to new exceptional situations, is flexible to change, it is compatible with other systems, and is coordinated with other system, it is not redundantly processed, produce accurate data and information and respond to the needs of the users on time.