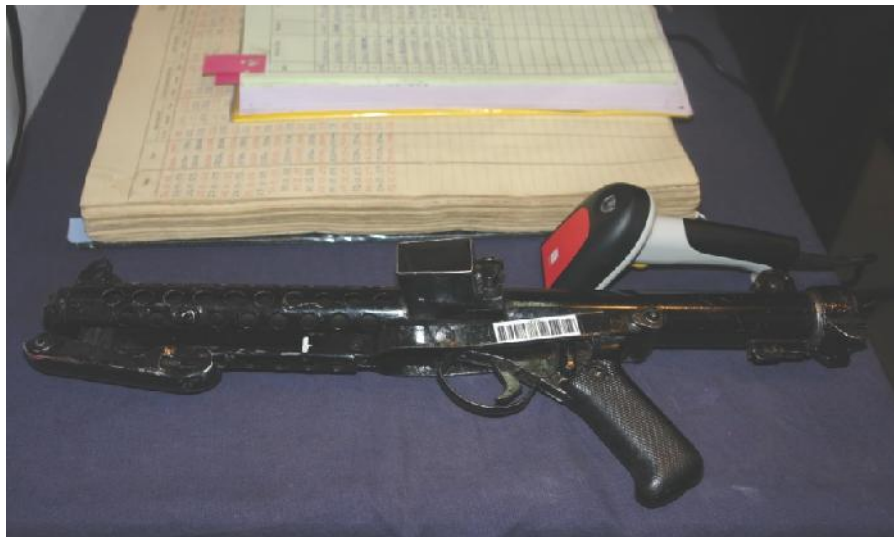


KOTE INVENTORY MGT SYS

1. **Intro.** Issue and receipt of weapons in a subunit's Kote, is an extremely time consuming process, due to it encompassing entries of accurate figures, and simultaneously ensuring issue to the right person. This process, on an average takes approximately 3-4 min per indl; in turn a bty indl would take around 3 hrs for the complete issue procedure. While this time consuming process is quite acceptable in peace time, ramifications of the same for a speedy mob of a unit are not acceptable.
2. **Need For An Automated Kote Inventory Mgt Sys.** The requirement was thus felt for the following:-
 - (a) Reduction in time in issue of arms more so during mob, firing, and BPET.
 - (b) Issue of arms only to person to whom it belongs to, to cut down on losses.
 - (c) Speedy generation of reports to monitor the issue and receipt, by the unit Cdr.
3. **The Innovation.** *Shaurya Technosoft Pvt Ltd* had devised an automated software based sys, which allows for automated process of indl and gp issue/receipt of SAs from a bty kote The sys is described as under:-
 - (a) **Bar Coding.** Each wpn (Rifle 5.56mm/CMG/LMG) and its mag has been bar coded. The bar code with its unique indl code, is printed on each wpn and mag.

AD-7255

The Bar Code



Wpn With The Bar Code

(b) **Bar Code Reader** The barcode reader reads the barcode in a split second and displays all info with respect to the particular indl, his photograph and his wpn; as a result the kote NCO instead of entering various figures in ledgers/registers/docu, just scans the barcode to enter the reqd data fields for issue/receipt.



Indl Issue

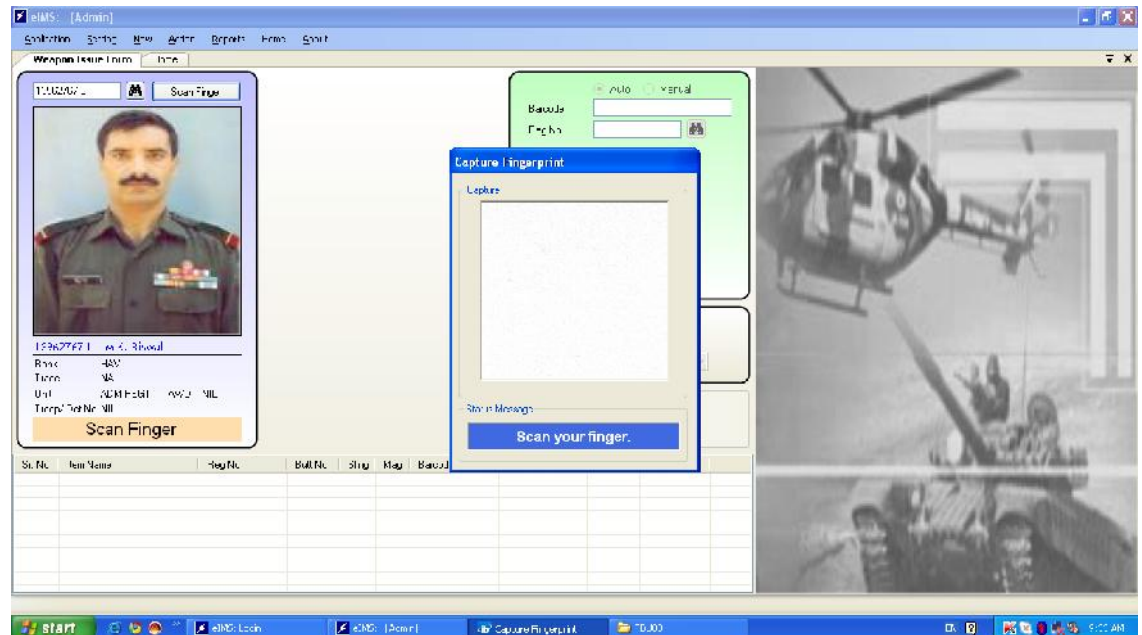


Bar Code Scanner

(c) **Finger Print Scanner:** The finger print scanner ensures that the indl digitally signs his issue/ receipt action which again is a very prompt process and hence obviates any wastage of time. It simultaneously renders **authenticity, accuracy** and **swiftness** to the operation and also **ensures that the wpn is issued only to the indl** that it has been allocated to.



Finger Print Scanner



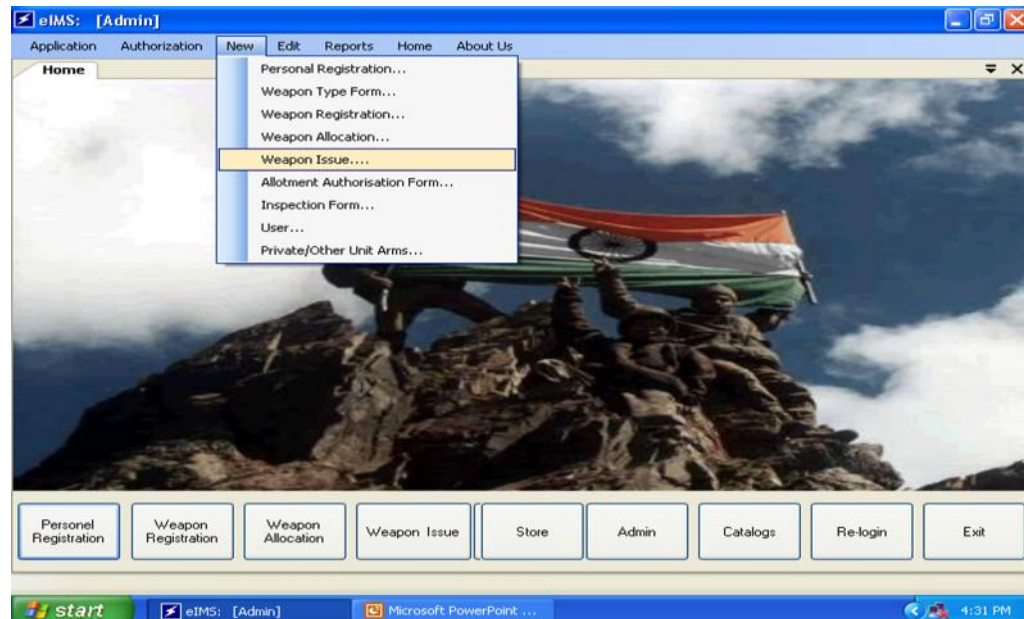
Finger Print Scanning Software

(d) **Software.** The software for KIMS has been developed with the help of 46 AD Regt and 996 AD Wksp Regt by careful study of the qualitative reqmts of the software. Interaction with the users to erase all possible glitches has been undertaken extensively. Extensive alpha level (devp level) and beta level (user level) testing was carried out, prior to fielding the software in the kotes of the Regt.



KIMS software

(e) **Data Base** The data base of the software includes personnel details of the whole unit along with photographs and finger prints of the indls, and complete details of rif 5.56 mm/CMG/LMG allocated in their names. The entire database can be used for generating various reports and returns reqd on a daily basis, which can also be viewed and utilized over the Unit/fm LAN.



The Bty Data Base



Indl Data Base

4. Qualitative Requirements For The Kote Inventory Mgt Sys

- (a) Limited accessibility in the user profile. Only administrator profile would be able to edit or make any changes.
- (b) Complete data of the indl (incl photo) and the inventory to be displayed on recognition by the scanner.
- (c) Time in-Time out; date in- date out to be in sync with system date and time.
- (d) Drop down menus for ease of entry at required fields, for example rank etc.
- (e) Field based search to make efficient searches, for example name, regd number, wpn make etc.
- (f) Ability to generate various type of query based reports.
- (g) Ability to generate time and occurrence based report incl required field that can be sent automatically to select IPs as per settings that should be governed by the administrator.
- (h) Ability to see page wise any searches that are made for reqd field parameters given.
- (j) Warning system to display message if particular inventory identified by the scanner but issue or deposited action not being taken, also fail proof check against an already issued item being issued again.

- (k) Data backup facility at desired locations and automatic backup at each exit, files to be named by the date and time.
- (l) Requirement of a digital signature system like a finger print scanner for authenticity.

5. **Advantages.** The use of bar coding and bar code scanners can transform operational efficiencies of a material mgt sys in a phenomenal manner. Some of the advantages are as enumerated below:-

(a) **Speed and Accuracy.** This operation will take less than a second with the bar code reader. The speed difference and the time it will save is evident, the use of the Bar code is unmatched in its ability to plough through large volumes of these operations effortlessly.

(i) Normal issue: 1-2 min per indl.

(ii) KIMS issue : less than 30 secs per indl.

(b) **Ease of Implementation.** The learning curve of a barcode system is extremely steep and short so that even a user with minimum qualification reqmt for the army can use it comfortably.

(c) **Man Power Efficient.** Due to shortage of offrs, it becomes imperative that some means of overcoming this obstacle is developed. There are innumerable tasks that need to be checked and regular updates taken on the state of the same, this software can be programmed, in the subsequently envisaged versions, to generate reports that can be sent to all concerned charge holders simultaneously, on the occurrence of any transactions.

(d) **Paper less Concept.** This system will go a long way in ensuring a paperless environment having high level of security in mgt of control stores. The contingency backups can also be taken in the event of a system crash, ensuring safety of the data.

6. **Conclusion.** The automated process of issue and receipt of wpns through KIMS, has resulted in decr of issue/receipt timings by 50 percent. It's adoption in kotes of all btys and the affiliated wksp of 46 AD Regt, has made avl more time to personnel for other tasks involved in mob. It becomes easier for officers to get statistical data of any kind at any time, which made decision making more efficient.