Kot (Armoury) System

RFID-based weapon / equipment issue & return workflow

Soldier RFID tag | Equipment RFID tag | One combined transaction | Full issue → return record

1 Purpose

Every weapon or piece of equipment that leaves the Kot is linked to **one particular soldier** using RFID tags. The system records who took what, and when — and the same record is closed when the item comes back after the competition / exercise.

2 What the system is made of

Component	What it does
Soldier RFID Tag	One tag per soldier. Registered on the server during registration.
Equipment RFID Tag	One tag per weapon / equipment item, fixed on the item.
RFID Reader	Placed at the Kot counter, connected to the computer. Reads both tag types.
Control PC (Kot software)	Used by the Kot operator for login, issue and return.
Server	Stores all registered tags and every issue / return record.

3 One-time setup

1. **Operator logs in**
   The login window appears first. Main screen opens only after a successful login.
2. **Register soldier tags**
   Each soldier's tag is registered on the server.
3. **Register equipment tags**
   Each weapon / equipment tag is registered on the server.

Result: every tag is known to the server, so the system can recognise a soldier or an item the moment it is scanned.

4 Issue workflow — taking equipment out

Done at the Kot counter, each time a soldier takes a weapon / equipment.

1. **Operator opens the Issue screen**
   The software is already logged in.
2. **Operator picks the weapon and scans its tag**
   Reader reads the equipment tag. The system shows which item it is.
3. **System asks for the soldier's ID**
   “Please scan soldier tag.”
4. **Soldier shows his RFID tag to the reader**
   The system identifies the soldier.
5. **Both tags are combined into one transaction**
   Equipment + soldier = a single record. The item is now issued to that particular person.
6. **Record saved on the server**
   Soldier, equipment, date and time are stored.

5 Return workflow — bringing equipment back

After the competition / exercise, the soldier goes outside with the equipment and then returns. The same process runs in the reverse direction.

1. **Soldier comes back to the Kot with the equipment**
2. **Operator scans the equipment tag, then the soldier tag**
   System finds the open issue record for this item.
3. **System checks the pair matches**
   Equipment must be returning from the same soldier it was issued to.
4. **Return recorded — the transaction is closed**
   Return date and time saved against the original issue record.

6 Screens at a glance

Kot System — Issue Equipment

STEP 2 OF 2 — SCAN SOLDIER TAG

Equipment tag	**E-0417**
Equipment	Rifle (example)
Soldier tag	Waiting…

Confirm Issue | Cancel

Illustration of the Issue screen (layout idea, not a final screenshot)

Kot System — Records

Soldier	Equipment	Issued	Returned
S-1021	E-0417	09:10	16:40
S-1033	E-0422	09:12	*Not returned*

Illustration of the records list (example data)

7 Quick reference

- **Issue:** scan equipment tag → scan soldier tag → one transaction saved.
- **Return:** scan equipment tag and soldier tag → transaction closed.
- Equipment never leaves the Kot without being linked to a soldier.
- Anything still showing “Not returned” in Records is still with that soldier.