

CelerSMS AT Emulator Assignment - Task 9: Automation

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Task 9: Automation of AT Commands Using Auto-Hotkey

This section demonstrates the automation of AT command execution in the CelerSMS AT Emulator using **AutoHotkey (AHK)**, a lightweight automation scripting tool for Windows.

Objective

Automate the following AT commands using keyboard macros:

- AT
- ATI
- AT+CSQ
- AT+CPIN?

1. Tool Used

- AutoHotkey v1.1.36
- Windows 10
- CelerSMS AT Emulator (<https://www.celersms.com/at-emulator.htm>)

2. AHK Script File (test_macro.ahk)

Listing 1: AHK script to simulate AT command sequence

```
^j:: ; Ctrl + J triggers the command sequence
Send AT{Enter}
Sleep 1000
Send ATI{Enter}
```

```
Sleep 1000
Send AT+CSQ{Enter}
Sleep 1000
Send AT+CPIN?{Enter}
return
```

3. Execution Steps

1. Open the CelerSMS AT Emulator in a browser.
2. Run the script by double-clicking `test_macro.ahk`.
3. Focus the emulator input area.
4. Press `Ctrl + J`.
5. The commands are automatically sent with delays in between.

4. Screenshots

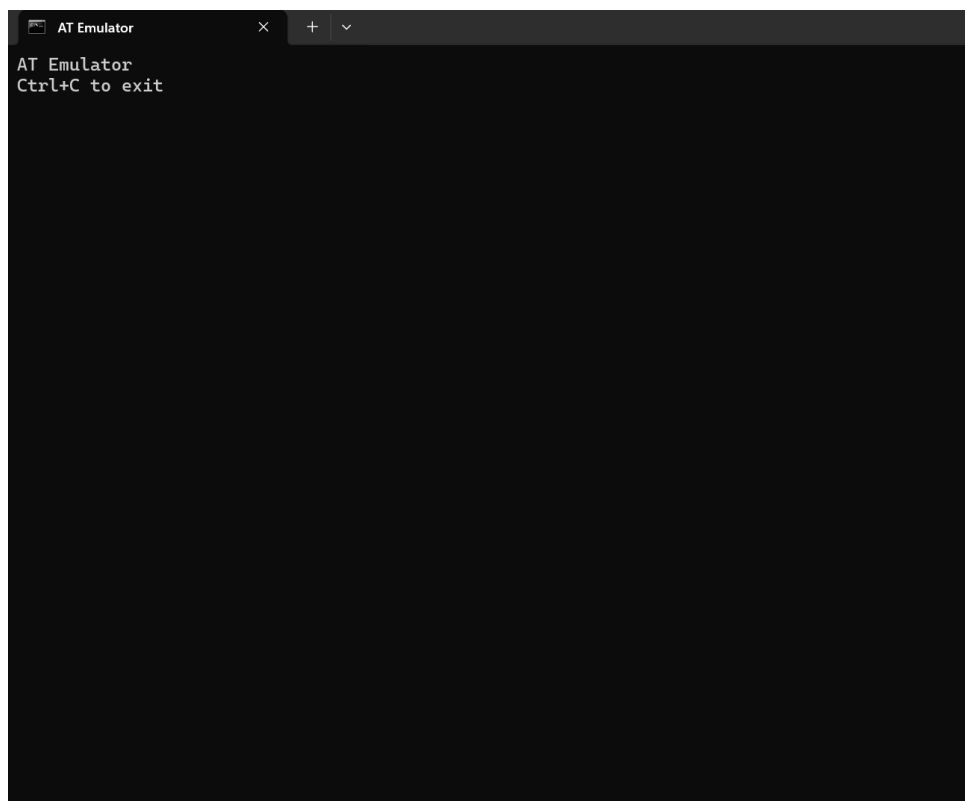
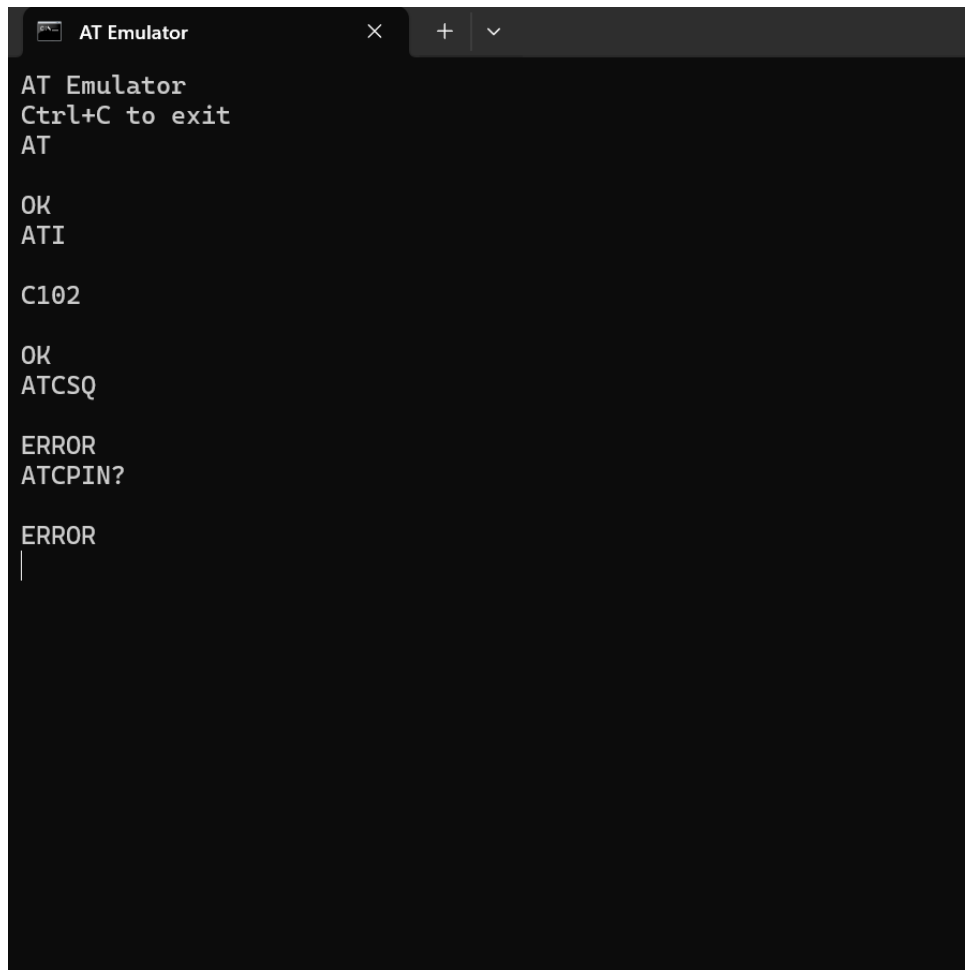


Figure 1: Emulator ready before automation begins

A screenshot of a Windows application window titled "AT Emulator". The window has a dark background with white text. The text inside the window shows a sequence of commands and responses: "AT Emulator", "Ctrl+C to exit", "AT", a blank line, "OK", "ATI", a blank line, "C102", a blank line, "OK", "ATCSQ", a blank line, "ERROR", "ATCPIN?", a blank line, "ERROR", and a cursor at the end of the line.

```
AT Emulator
Ctrl+C to exit
AT

OK
ATI

C102

OK
ATCSQ

ERROR
ATCPIN?

ERROR
|
```

Figure 2: Command sequence successfully executed using AHK

5. Notes

- The emulator must be the active window for AHK to work correctly.
- Delay intervals may be adjusted based on system speed or emulator latency.
- This approach is useful for demo/testing where API-level scripting is unavailable.

6. Conclusion

While the CelerSMS AT Emulator lacks a built-in scripting interface, automation is achievable using external tools like AutoHotkey. This method simulates a real-world AT testing script and is useful for repetitive test workflows or training.