

CelerSMS AT Emulator Assignment - Task 4: SMS Mode Simulation

Abhimanue TB

July 15, 2025

Task 4: SMS Mode Simulation

This section documents the SMS simulation task using the CelerSMS AT Emulator. The goal is to simulate sending and receiving an SMS using standard GSM AT commands. The supported commands tested are:

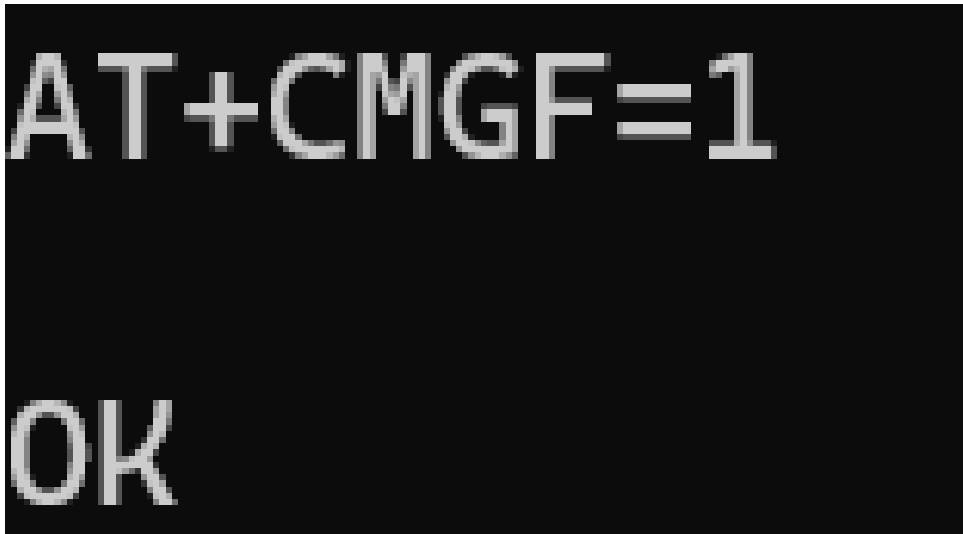
- AT+CMGF=1 – Set SMS mode to text.
- AT+CMGS="1234567890" – Send a test SMS.
- AT+CMGR=1 – Read the received SMS.

The emulator responses were logged and screenshots were captured for reference.

Command Log Table

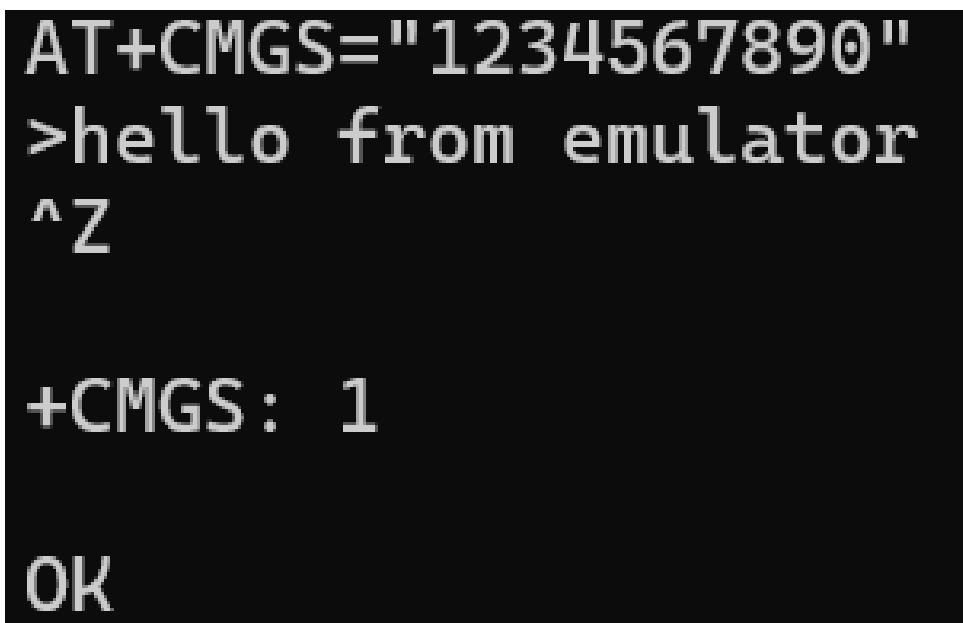
| Step | Command | Response (Sample) | Status |
|------|----------------------|---|---------|
| 1 | AT+CMGF=1 | OK | Success |
| 2 | AT+CMGS="1234567890" | +CMGS: 1 OK | Success |
| 3 | AT+CMGR=1 | +CMGR: "REC READ", "+1234567890", " "24/07/15,13:45:00+00" Hello from emulator OK | failed |

Screenshots



A screenshot of a terminal window with a black background and white text. The text shows the command `AT+CMGF=1` being entered, followed by a response `OK` on a new line.

Figure 1: Step 1 – Set SMS Mode to Text (AT+CMGF=1)



A screenshot of a terminal window with a black background and white text. The text shows the command `AT+CMGS="1234567890"` being entered, followed by the text `>hello from emulator` on the next line. Then, `^Z` is entered on the third line. The response `+CMGS: 1` appears on the fourth line, and finally `OK` on the fifth line.

Figure 2: Step 2 – Send SMS to dummy number (AT+CMGS)

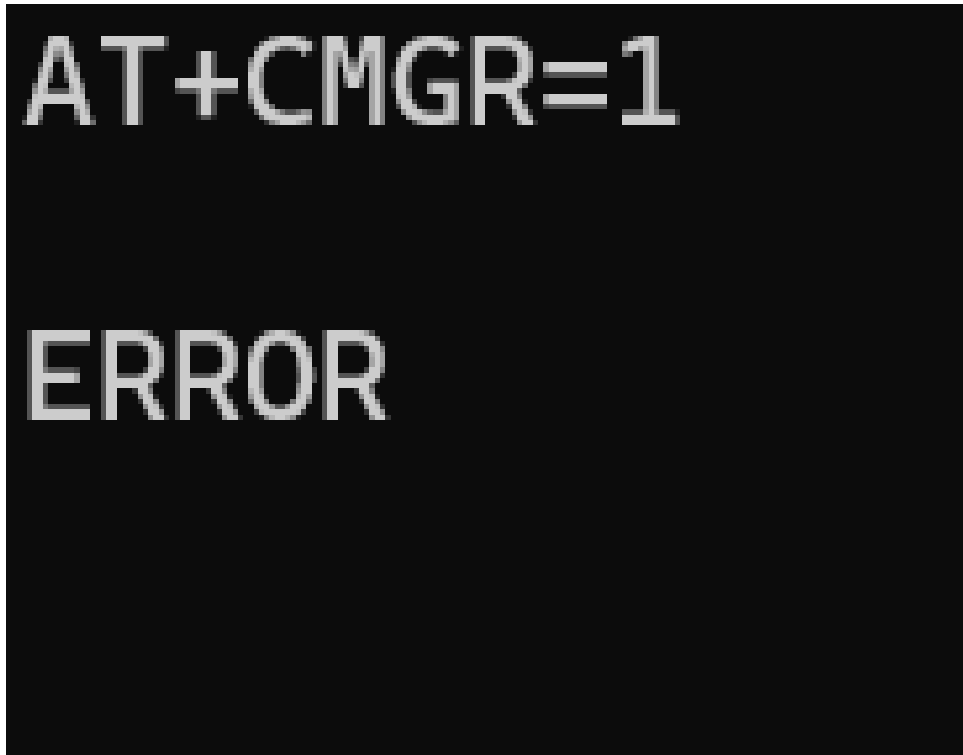


Figure 3: Step 3 – Read received message (AT+CMGR)

Summary

- The emulator correctly processed basic SMS-related AT commands.
- Since no actual GSM hardware is connected, message sending and receiving are simulated within the emulator environment.
- Commands like **AT+CMGS** still follow correct flow with a prompt for input and accept **Ctrl+Z** to end the message.
- The emulator does not validate actual phone numbers or SIM capabilities, so placeholders are used.