

SPS200 configuration guide

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Revision history

Revision	Date	Author	Description
1.0	30/04/2024	Jasper Mariën	First release

1.Prerequisites

We use the app: “NFC TagWriter” from NXP in this guide, and recommend using the same app.

2.List of commands

We make a distinction between commands you can send without knowing the pin code, and those where you do need a pin code:

- List of commands you can send without needing a PIN code:
 - "on" : power on the device
 - "reset" : power cycle the device
 - "test": used as a ping to the device.
You can see the response "testrsp" by reading the NFC tag again afterwards.
 - "status": request the status of the device.
You can see the response by reading the NFC tag afterwards.
Possible responses:
 - generic SIM error
 - SIM PIN required
 - no SIM PIN retries left
 - no network found
 - NTP error
 - MQTT error
 - "glreg" : get the configured LoRa region. If you read the tag after sending this command, there will now be a line that says "rsp=glregX" where X is:
 - X = 5 → EU868
 - X = 8 → US915
- List of commands for which you need the PIN code:
 - "off": set the device in inactive state
 - "newpinxxxxxxx": change the pin code to xxxxxxxx (Note, it is very important that you do not forget this pin code)
 - "clrp": resets the pin to the default pin code (12345678)
 - "slregX: set the lora region, where X is:
 - X=5 -> EU868,
 - X=8-> US915

For the commands where you need a PIN, you need to send the command as following:

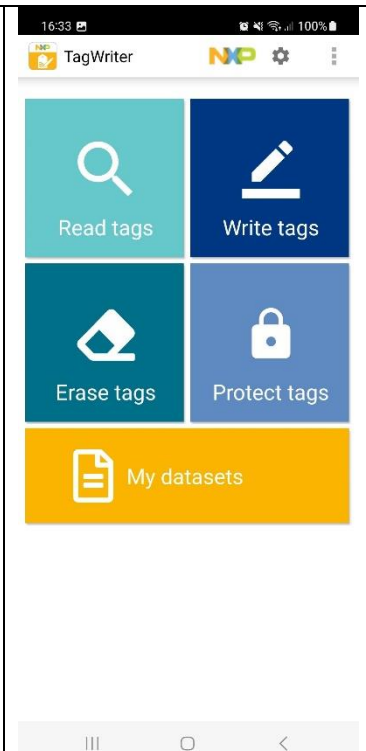
cmd=pinXXXXXXXX,[cmd]

For example, to set the region to EU868 you would send:

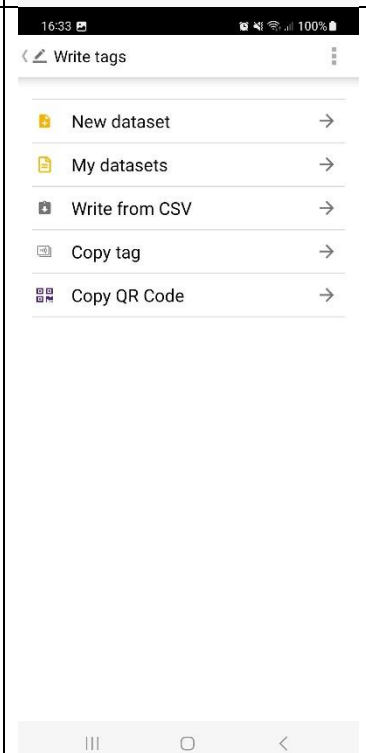
"cmd=pin12345678,slreg5"

3.How to write the NFC tag

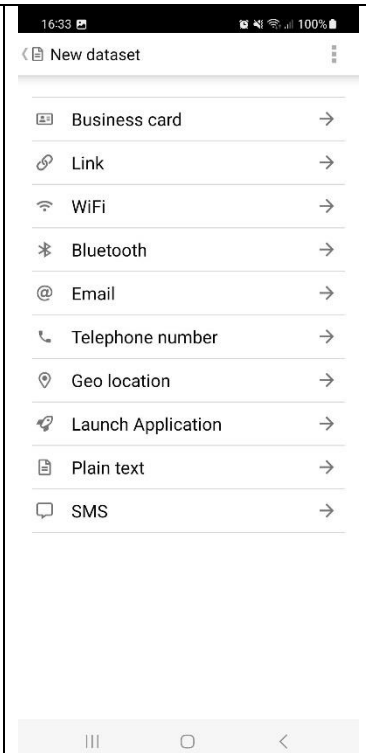
1. When you open the app you will see the following screen:
2. Press "Write tags" to write the tag and send a command.



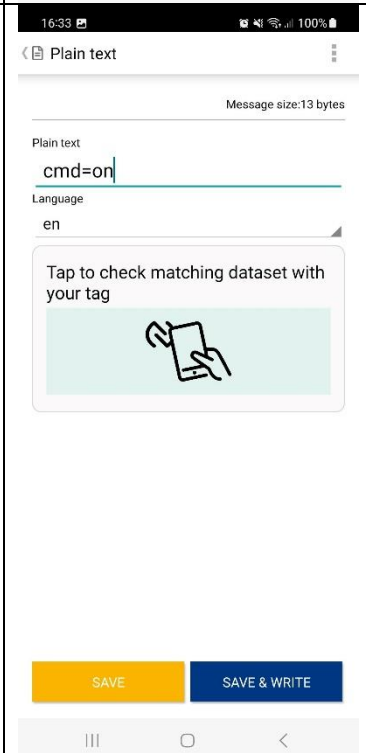
3. Press "New dataset".



4. Press "Plain text".

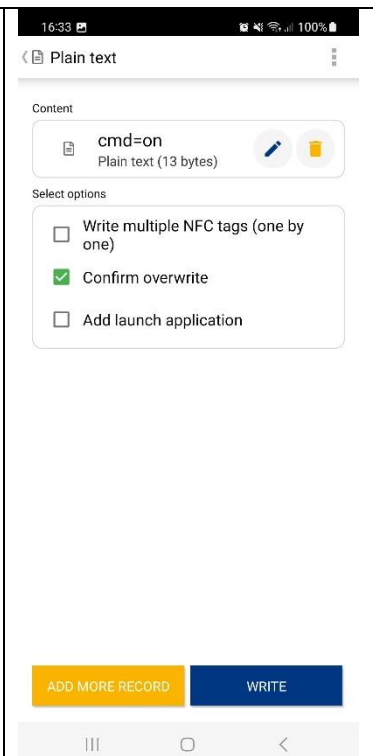


5. You can now type the command you wish to send in the text field, using the format as described above.
6. Press "Save & write" at the bottom of your screen.

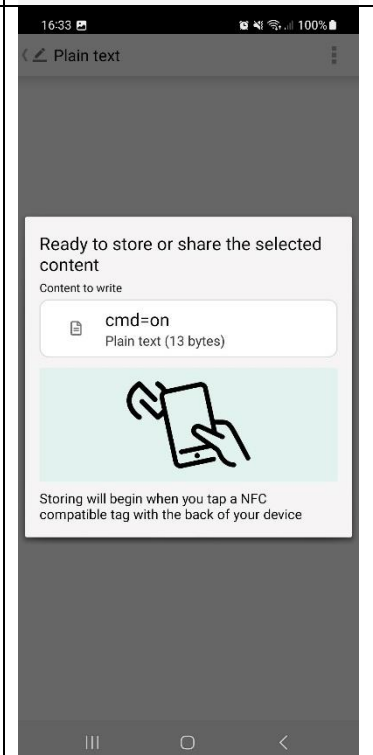


OPTION

7. (optional: enable "confirm overwrite" if you want easy feedback on whether or not the write has been successful)
8. Press "Write".

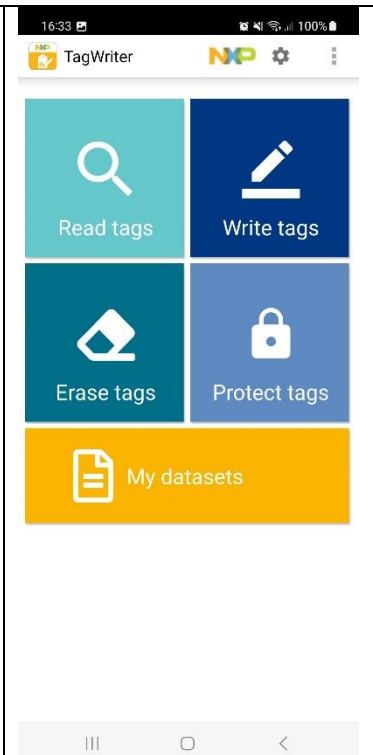


9. Tap the parking sensor with the back of your device. A screen will pop up when it is done. You can now tap again to see if the write was successful if you enabled this option.

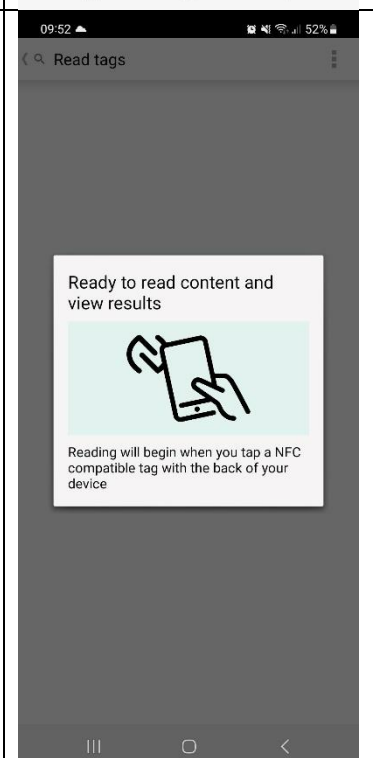


4.How to read the NFC tag

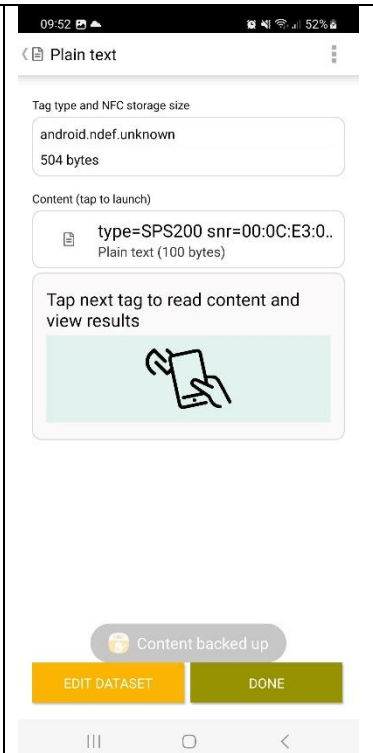
1. When you open the app you will see the following screen:
2. Press "Read tags" to read out the tag.



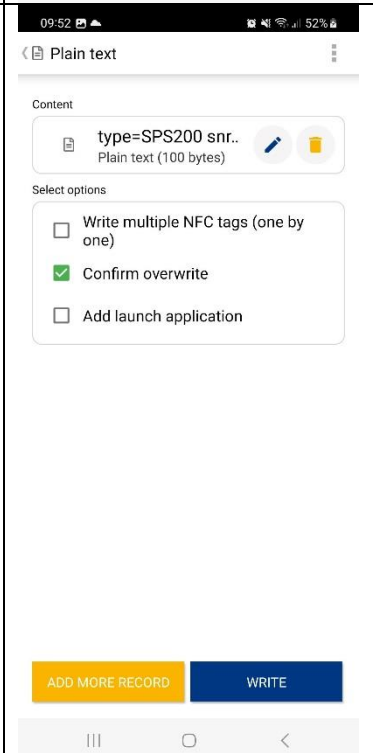
3. Tap the parking sensor with the back of your device.



4. Press "Edit dataset". We're not going to edit anything, but this is the only way we can see the contents of this field fully.



5. Press the pencil in the plain text content field.



6. You can now see the full content of this field:

09:53

52%

Plain text

Message size: 100 bytes


Plain text

type=SPS200
snr=00:0C:E3:00:00:54:B0:5A
fwv=0.0.10
btv=2.0
hwv=2
state=on
rsp=didon
cmd=none

Language

en

Tap to check matching dataset with your tag



SAVE

SAVE & WRITE

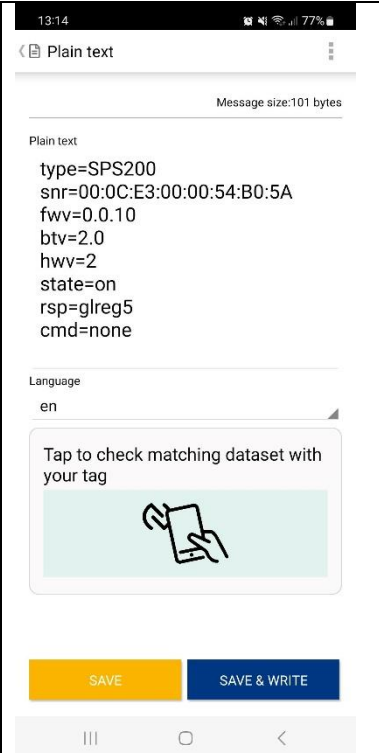
|||

<

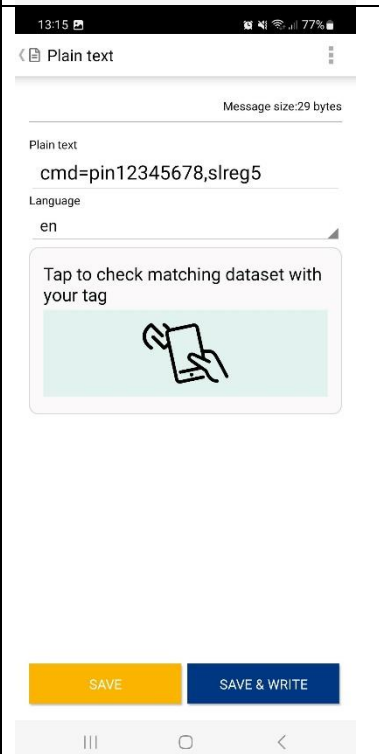
5.How to configure the device

Bellow you can find a step by step guide on what you should do to configure and turn on the device using the commands from section 2.

1. Check the LoRa region by sending the command "cmd=glreg". After sending this command, you can read the tag and look for the line "rsp=glregX" to see which region is currently configured:

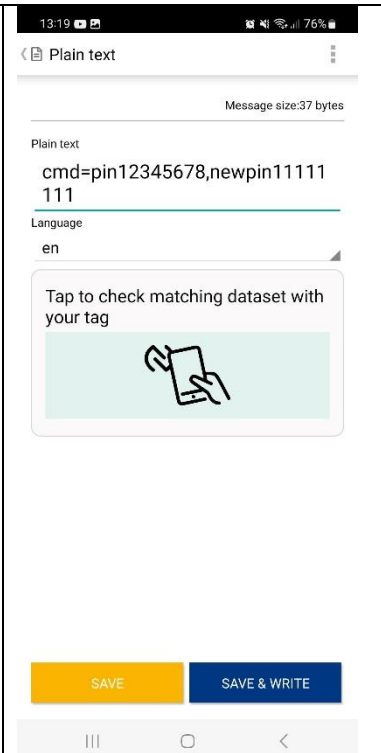


2. If the device is configured for the wrong region, change it by using the slreg command:



OPTION

3. [OPTIONAL BUT RECOMMENDED] Change the pin using the newpin command. Make sure that you remember this pin as there is no convenient way of recovering/resetting this pin.



4. Turn on the device by using the command "cmd=on"

