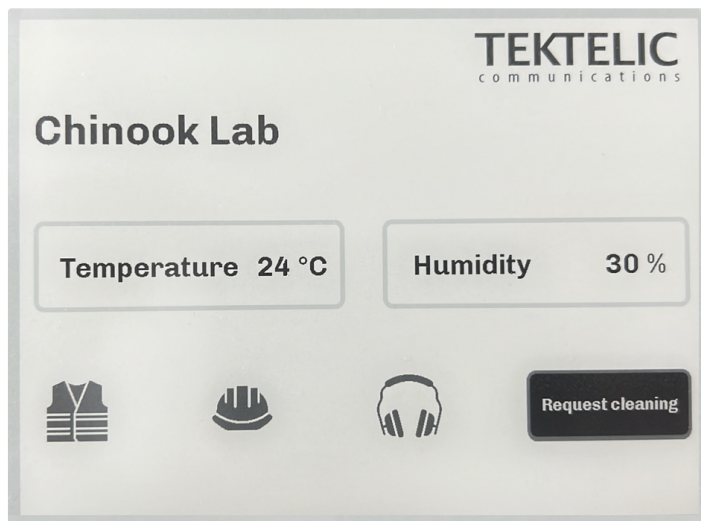


MEMO demo kit

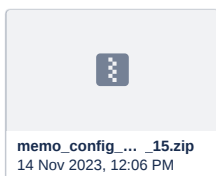
Objective:

- Demonstrate ability to compose custom UI from different graphical elements: images (icons, logo), panels, buttons and text
- Demonstrate ability to update Temperature and Humidity values using Downlinks from NS
- Demonstrate ability to hide / show displayed icons

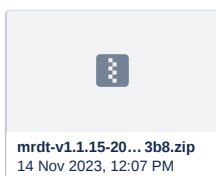


Prerequisites:

- Tablet and Gateway
- NS Account with provisioned Tablet and Gateway
- Tablet configuration Files
Contain configuration of UI, Uplinks and Downlinks to create Tablet interface displayed above.



- Tablet Firmware
Required to enable configuration functionality for the Tablet.



Load Tablet Firmware and Configuration Files

1. Ensure that Tablet is provisioned to NS
2. Upgrade the Tablet to 1.1.15 version
For more details please refer to the Section 6 (page 40) of guide:



3. Add configuration files:
 - a. Unarchive memo_config.zip
 - b. Use USB to connect to the Tablet file system
 - c. Replace to_tablet folder on the Tablet with folder from unarchived memo_config.zip
4. Unplug USB cable from the Tablet
5. Reboot Tablet (use reboot button)

Update Values on Tablet screen using Downlinks

1. Wait till the Tablet join to LoRa network
2. Switch from Startup Screen screen to Custom Screen
Send DL 0x50 to port 110
3. **Update Temperature label with value 23**
Send next DL "0xC7 01 01 3A 02 32 33" (or xwEBOglyMw== in Base64) to port 102

Explanation:

0xC7 to port 102 will update element or elements (0xC7 to ACK message that will be command).

byte 0 - number of screen elements that need to be updated (1 element here)

byte 1 - 0x01 - update text

byte 2 - element number (0x3A for temperature label or 0x3B for humidity value)

byte 3 - string length without EOS (for example for value string "23" it should be 0x02)

byte 4 to byte n - text string in Unicode (for example for value string "23" it should be 0x32 0x33)

4. **Update Humidity label with value 47**
Send next DL "0xC7 01 01 3B 02 34 37" (xwEBOwI0Nw== in Base64) to port 102

5. **Make Headphones icon invisible**
Send on port 102 DL "0xC7 01 02 51 00" (xwECUQA= in Base64)

Explanation:

0xC7 to port 102 will update element or elements (0xC7 to ACK message that will be command)

byte 0 - number of screen elements that need to be updated (1 element here)

byte 1 - 0x02 - update visibility

byte 2 - element number (0x4F for jacket, 0x50 for helmet and 0x51 for headphones)

byte 3 - 0x00 to make element invisible and 0x01 to make it visible

6. Make Headphones icon visible again

Send on port 102 DL "0xC7 01 02 51 01" (xwECUQE= in Base64)

How to send Downlinks

You can use build-in functionality of the Network Server.

1. Go to DEVICES / <your tablet> / Downlink Queue
2. Encode Downlink to Base64
3. Press "Add Downlink to the Queue"

MOVE TO APPLICATION DELETE

DEVICE DETAILS ADVANCED NETWORK SETTINGS API LIMITS ACTIVATION REAL-TIME PACKETS **DOWNLINK QUEUE**

Clear all pending downlink messages

CLEAR DOWNLINK QUEUE

Post a new downlink (Base-64 format) to the device queue

ADD DOWNLINK TO QUEUE

Message ID

Port*

Confirmed

Data*

Detailed Customisation Guide

To get more details about full customisation functionality please refer to:

[MEMO Customization Guide](#)