

# xPULSE

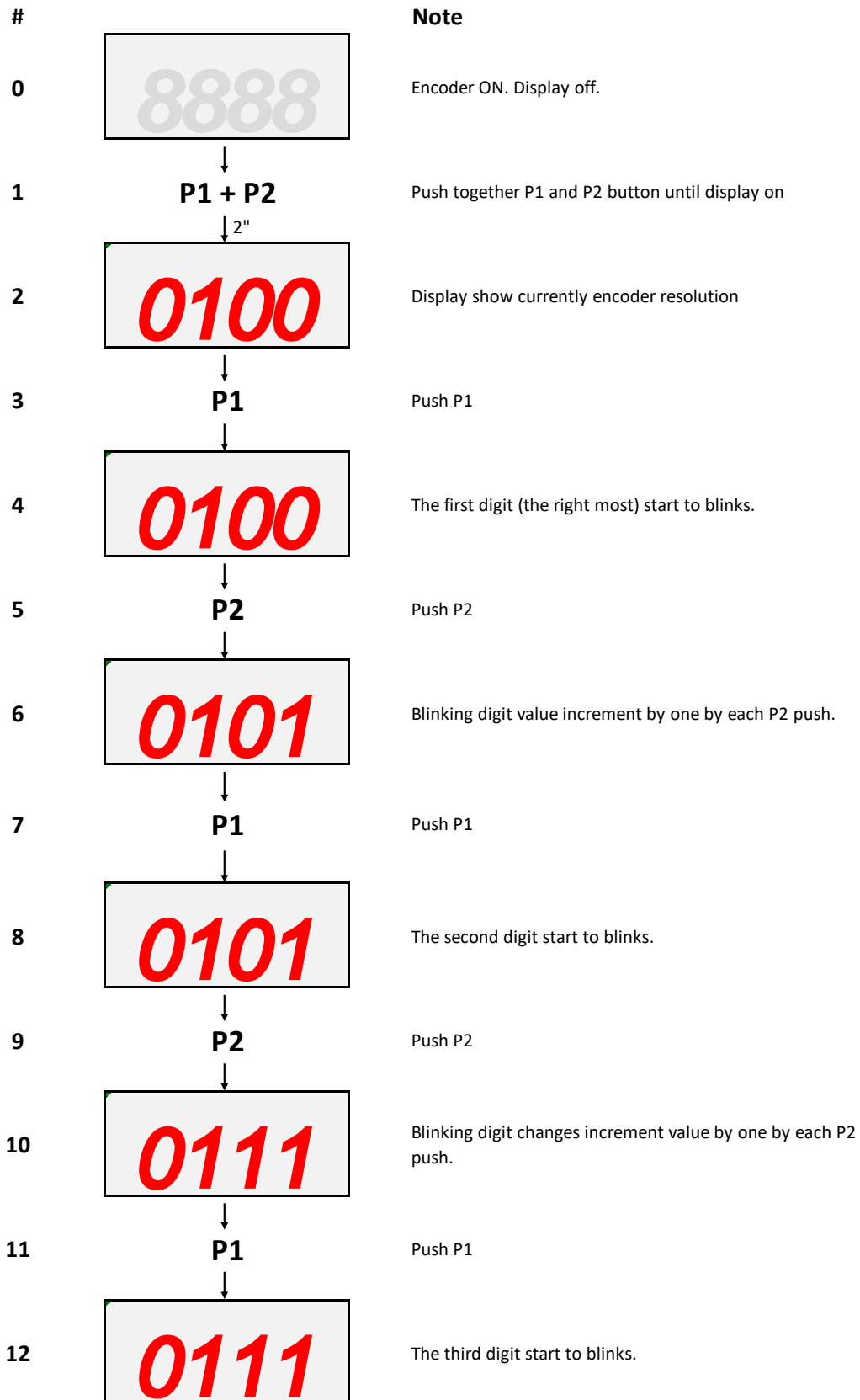
## Incremental programmable Encoder



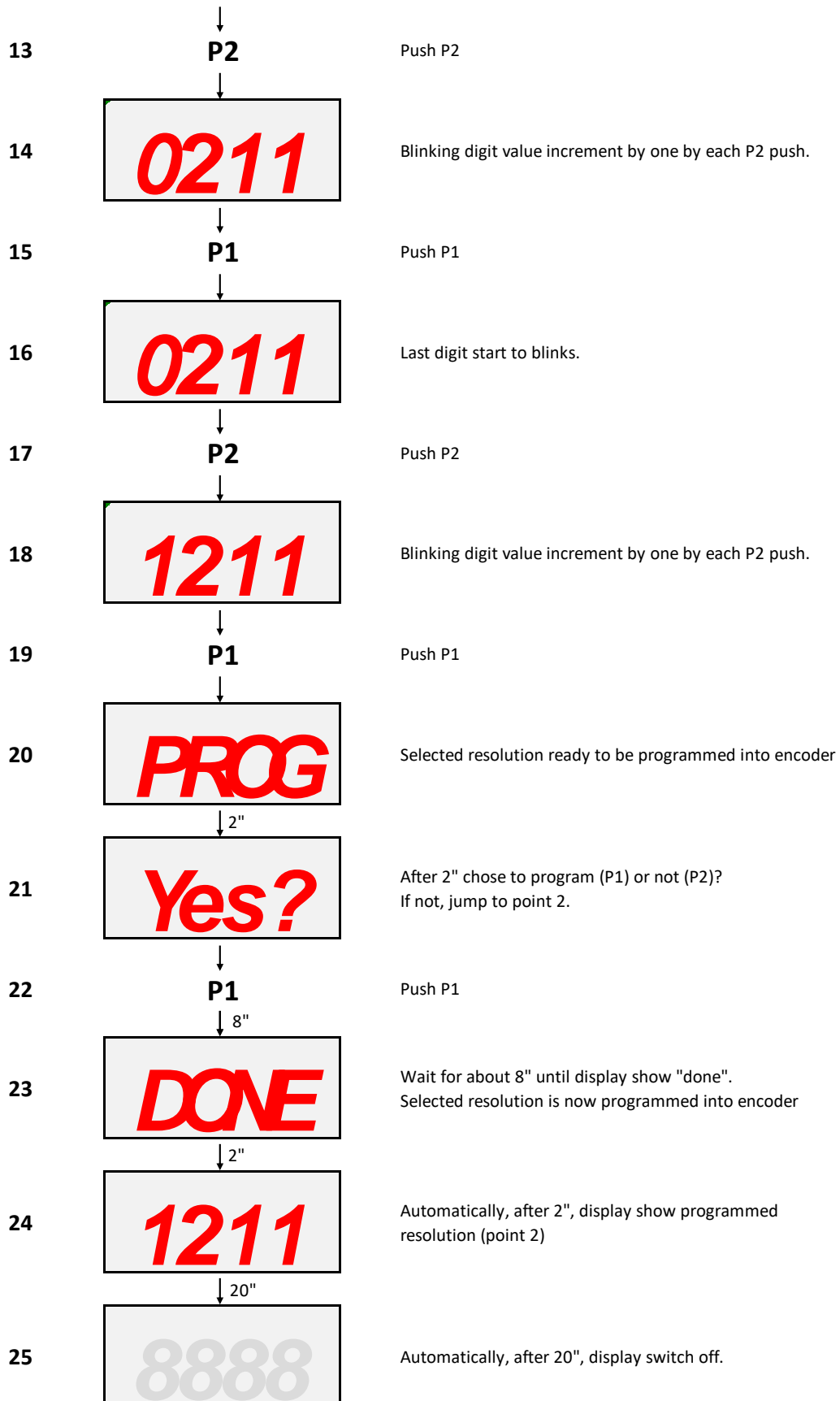
- **Universal encoder interface**
- **Encoder outputs A, B, Z and /A, /B, /Z**
- **Power supply 5-30 volts DC**

# Operating Instructions

## RESOLUTION PROGRAMMING – Buttons procedure (start after Power Up)



## RESOLUTION PROGRAMMING - Buttons procedure



## RESOLUTION PROGRAMMING – Bluetooth procedure

### 1. Install xPULSE - Android App:



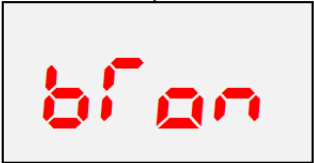
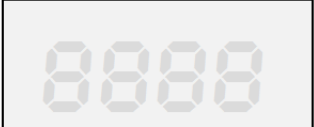
- Save apk file on smartphone memory.
- Go to phone Settings → Security and enable “App installation from unknown source”. (menu depend by phone model and brand).
- Go back to apk file on smartphone memory and open it.
- Ignore all warning about using unknown source app and install.

### 2. Pairing xPULSE Encoder:

- Power Up Encoder.
- Go to Phone Bluetooth Settings.
- Search for new Bluetooth devices.
- Pair with founded xPULSE Encoder, standard PIN code “1234”

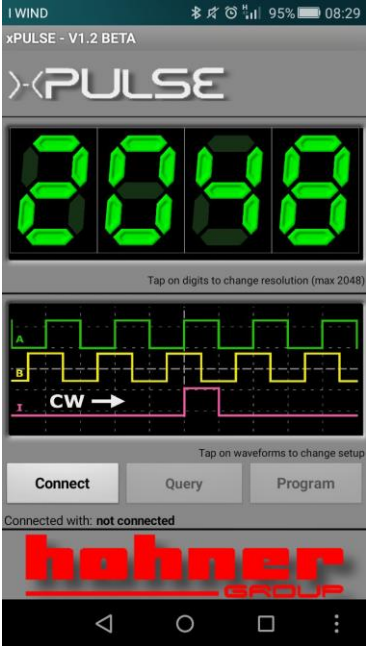
### 3. Enable xPULSE Encoder to connect to Android App:

- Power Up Encoder.

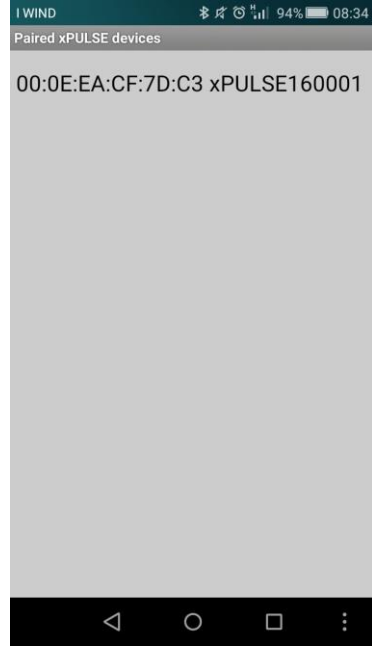
#		Note
0		Encoder ON. Display off.
1	↓ <b>P1 + P2</b> ↓ 2"	Push together P1 and P2 button until display on
2		Display show currently encoder resolution
3	↓ <b>P2</b> ↓	Push P2
4		Encoder Bluetooth is on. Use xPulse App to connect to encoder. Flashing led mean encoder Bluetooth ready but not connected to App. Fixed on led mean encoder connected.
5	↓ 60" 	Automatically, after 60", display and BT switch off.

## RESOLUTION PROGRAMMING – Bluetooth procedure

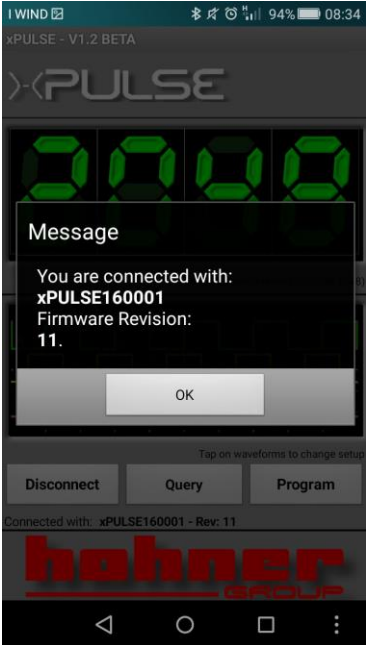
### 4. Open xPULSE Android App



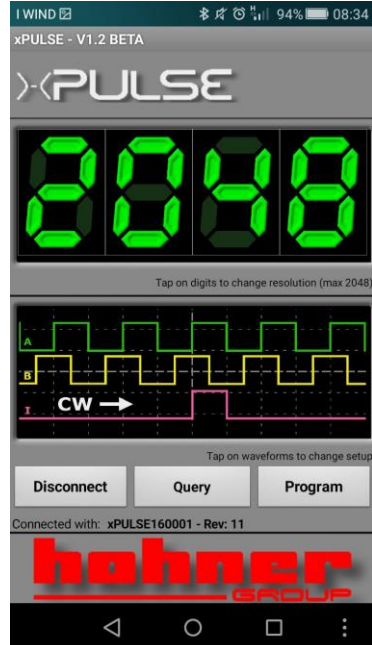
Touch on “Connect” to connect to xPULSE Encoder



Touch on requested xPULSE Encoder

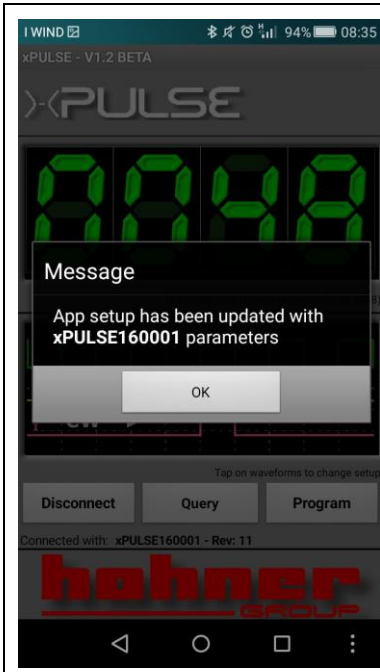


Nest message show Encoder ID and Firmware revision.  
“OK” to close message.



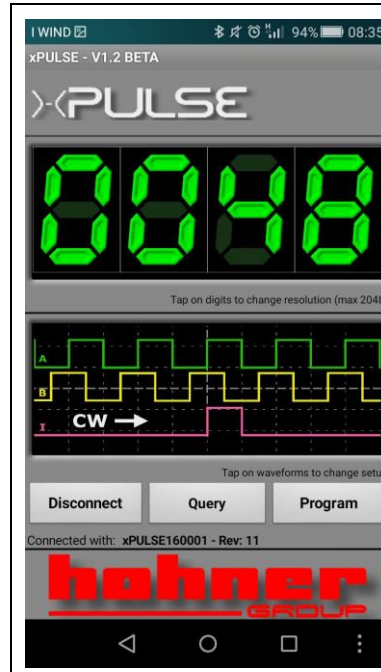
Touch “Query” to query current programmed xPULSE Encoder parameters

## RESOLUTION PROGRAMMING – Bluetooth procedure



Nest message inform that Encoder Parameters have been updated.

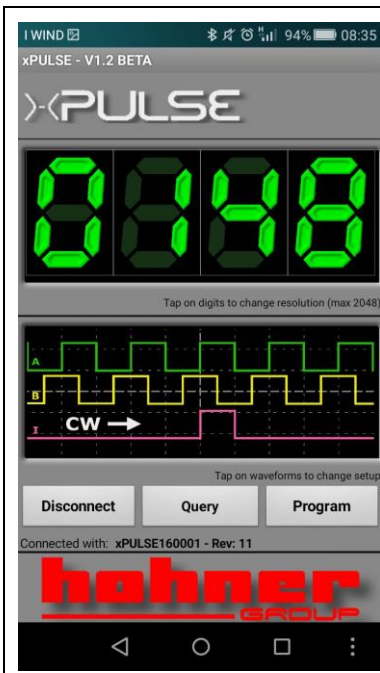
“OK” to close message.



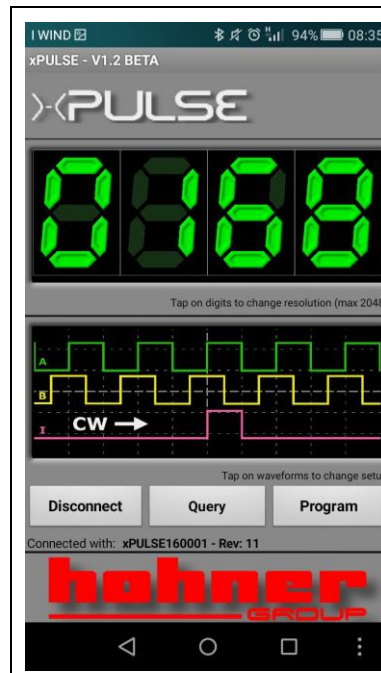
Now App is updated with Encoder parameters.

Touch resolution digits to change resolution.

Example: touch third digit to switch from 0048 to 0148

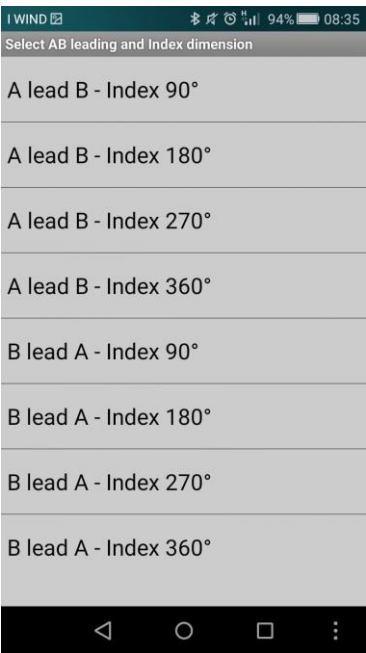


Example: Twice touch on second digit to switch from 0148 to 0168



Touch on Waveforms picture to change channels leading and Index width

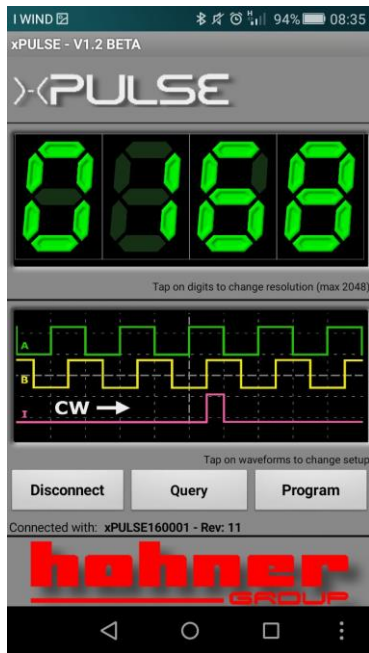
## RESOLUTION PROGRAMMING – Bluetooth procedure



Select AB leading and Index dimension

- A lead B - Index 90°
- A lead B - Index 180°
- A lead B - Index 270°
- A lead B - Index 360°
- B lead A - Index 90°
- B lead A - Index 180°
- B lead A - Index 270°
- B lead A - Index 360°

Touch on desired leading/Index arrangement



xPULSE - V1.2 BETA

Tap on digits to change resolution (max 2048)

Tap on waveforms to change setup

Disconnect Query Program

Connected with: xPULSE160001 - Rev: 11

Waveforms picture is updated respect new leading and Index.

Touch “Program” to start xPULSE Encoder programming



xPULSE - V1.2 BETA

xPULSE Programming

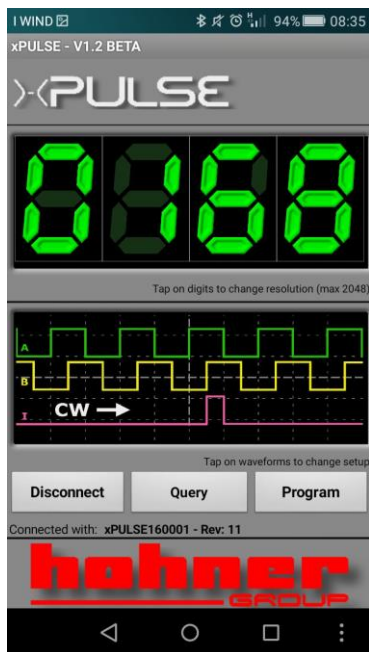
wait.....

Tap on waveforms to change setup

Disconnect Query Program

Connected with: xPULSE160001 - Rev: 11

Wait until programming message disappear.



xPULSE - V1.2 BETA

Tap on digits to change resolution (max 2048)






Tap on waveforms to change setup

Disconnect Query Program

Connected with: xPULSE160001 - Rev: 11

xPULSE Encoder is now programmed with selected resolution, leading and Index

**EXTRA FEATURES – Angle shaft display procedure** (start after Power Up)

#		Note
0		Encoder ON. Display off.
1	<p style="text-align: center;">↓ <b>P1 + P2</b> ↓ 2"</p>	Push together P1 and P2 button until display on
2		Display show currently encoder resolution
3	<p style="text-align: center;">↓ <b>P2</b> ↓</p>	Push P2
4		Encoder Bluetooth is on. Use xPulse App to connect to encoder. Flashing Green led mean encoder Bluetooth ready but not connected to App.
5	<p style="text-align: center;">↓ <b>P2</b> ↓</p>	Push P2
6		Display show shaft angle. Resolution 0,1°
7	<p style="text-align: center;">↓ 60"</p> 	Automatically, after 60", display and BT switch off.



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## **Revision History**

<b>Release</b>	<b>Release Date</b>	<b>Chapter</b>	<b>Modification</b>	<b>Page</b>
A2	12-09-2019	-	Minor changes	-
A1	08-02-2018	-	Emission	-

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