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ISSI LC-1S API

API based on UDP Protocol, port 1337/UDP.

1. Commands

**Action:** Get controller f/w version
**Command:** “ver” (hex: 766572)
**Returns:** “ISSI LC-1S=1.x.y (s/n:19xxx)”

**Action:** Change controller IP address to 192.168.1.2
**Command:** “ChangeIP=192.168.1.2” (hex: 4368616e676549503d3139322e3136382e312e32)
**Returns:** “IPchanged”

**Action:** Get current motors values
**Command:** “Current” (hex: 43757272656e74)
**Returns:** “Current=XXX,YYY,ZZZ” Where XXX – zoom position value, YYY - focus position value, ZZZ – iris position value.

**Action:** Move Zoom Narrow during X ms
**Command:** “ZoomN=X”
**Returns:** “Zoom=Y”, where Y – current value of Zoom motor
**Action:** Move Zoom Wide during X ms  
**Command:** “ZoomW=X”  
**Returns:** “Zoom=Y”, where Y – current value of Zoom motor

**Action:** Move Focus Far during X ms  
**Command:** “FocusF=X”  
**Returns:** “Focus=Y”, where Y – current value of Focus motor

**Action:** Move Focus Near during X ms  
**Command:** “FocusN=X”  
**Returns:** “Focus=Y”, where Y – current value of Focus motor

**Action:** Move Iris Open during X ms  
**Command:** “IrisO=X”  
**Returns:** “Iris=Y”, where Y – current value of Iris motor

**Action:** Move Iris Close during X ms  
**Command:** “IrisC=X”  
**Returns:** “Iris=Y”, where Y – current value of Iris motor

**Action:** Set zoom motor value to X  
**Command:** “setZoom=X”  
**Returns:** “zoomDone”, it may take a while to position the motors.

**Action:** Set focus motor value to X  
**Command:** “setFocus=X”  
**Returns:** “focusDone”, it may take a while to position the motors.

**Action:** Set iris motor value to X
**Command:** “setIris=X”  
**Returns:** “irisDone”, it may take a while to position the motors.

**Action:** Stop all motors (during setFocus, setIris or setZoom)  
**Command:** “setStop”  
**Returns:** same as for ‘Current” command

**Action:** Motors limits detection (for all three motors)  
**Command:** “FindLimits”  
**Returns:** in separate packets: “zoomMax=XXX”, “irisMax=XXX”, “focusMax=XXX”

**Action:** Set Iris mode - Motorized Iris(X=2), DC Iris(X=1) iris or Video Iris(X=0).  
**Command:** “setIrisMode=X”  
**Returns:** “mode=X”

**Action:** Move DC Iris to close  
**Command:** “DlrisC=X”  
**Returns:** “DlrisC=OK”, DC Iris lenses have no potentiometer, there is no feedback with actual position.

**Action:** Move DC Iris to open  
**Command:** “DlrisO=X”  
**Returns:** “DlrisO=OK”, DC Iris lenses have no potentiometer, there is no feedback with actual position.

**Action:** Move DC Iris to close faster  
**Command:** “DlrisCX2=X”
**Returns:** “DIrisCX2=OK”, DC Iris lenses have no potentiometer, there is no feedback with actual position.

**Action:** Move DC Iris to open faster  
**Command:** “DIrisOX2=X”  
**Returns:** “DIrisOX2=OK”, DC Iris lenses have no potentiometer, there is no feedback with actual position.

**Action:** Move Video Iris to close  
**Command:** “VIrisC=X”  
**Returns:** “VIrisC=OK”, DC Iris lenses have no potentiometer, there is no feedback with actual position.

**Action:** Move Video Iris to open  
**Command:** “VIrisO=X”  
**Returns:** “VIrisO=OK”, DC Iris lenses have no potentiometer, there is no feedback with actual position.

**Action:** Move Video Iris to close faster  
**Command:** “VIrisCX2=X”  
**Returns:** “VIrisCX2=OK”, DC Iris lenses have no potentiometer, there is no feedback with actual position.

**Action:** Move Video Iris to open faster  
**Command:** “VIrisCX2=X”  
**Returns:** “VIrisOX2=OK”, DC Iris lenses have no potentiometer, there is no feedback with actual position.

**Action:** Set nickname for LC (stored in LC memory)
**Command:** “setNAME=XXXXXXXX” where XXXXXXX is 7-symbols name  
**Returns:** no answer

**Action:** Get nickname for LC (stored in LC memory)  
**Command:** “getNAME”  
**Answer:** “NAME=XXXXXX”

## 2. Examples

**Python**

```python
import socket
import time

# LC2 IP address
UDP_IP = "192.168.2.251"
UDP_PORT = 1337

print ("ISSI :: LC-1S Python Script Example\n")

# Command list
MESSAGES = ["ver", "IrisMode=2", "Current"]

# UDP socket
sock = socket.socket(socket.AF_INET, socket.SOCK_DGRAM) # UDP
sock.setblocking(0)
sock.settimeout(0.05)

for i in range(len(MESSAGES)): # LC2 command loop
    sock.sendto("{}\n".format(MESSAGES[i]), (UDP_IP, UDP_PORT))
```

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print ("#",i+1,"Sent:", MESSAGES[i])
start = time.time()
sock.sendto(MESSAGES[i].encode(), (UDP_IP, UDP_PORT))
try:
    while True:
        data, addr = sock.recvfrom(1024)
        if not data: break
        print ("Received:", data)
        end = time.time()
        print(end - start, " seconds")
except socket.error:
    print(""
    time.sleep(0.15)

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