Appendix

ISSI LC-1S :: API v.3.0.1

Based on UDP protocol, 1337/UDP port is used for communication.

**Action:** Get controller f/w version
**Command:** “ver” (hex: 766572)
**Answer:** “ISSI LC-1s=3.0.1 (s/n:19001)”

**Action:** Change controller IP address to 192.168.1.2
**Command:** “ChangelP=192.168.1.2”
(hex: 4368616e676549503d3139322e3136382e32e312e32)
**Answer:** no answer, controller will set IP and restart

**Action:** Get current motors values
**Command:** “Current” (hex: 437572726574)
**Answer:** “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”
**Answer:** “Zoom=Y”, where Y – current value of Zoom motor

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

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

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

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

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

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

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

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

**Action:** Motors limits detection (for all tree motors)  
**Command:** “FindLimits”  
**Answer:** 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”  
**Answer:** “mode=X”

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

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

**Action:** Move DC Iris to close faster
Command: “DLirisCX2=X”  
Answer: “DLirisCX2=OK”, DC Iris lenses has no potentiometer, there is no feedback with actual position.

Action: Move DC Iris to open faster  
Command: “DLirisOX2=X”  
Answer: “DLirisOX2=OK”, DC Iris lenses has no potentiometer, there is no feedback with actual position.

Action: Move Video Iris to close  
Command: “VirisC=X”  
Answer: “VirisC=OK”, DC Iris lenses has no potentiometer, there is no feedback with actual position.

Action: Move Video Iris to open  
Command: “VirisO=X”  
Answer: “VirisO=OK”, DC Iris lenses has no potentiometer, there is no feedback with actual position.

Action: Move Video Iris to close faster  
Command: “VirisCX2=X”  
Answer: “VirisCX2=OK”, DC Iris lenses has no potentiometer, there is no feedback with actual position.

Action: Move Video Iris to open faster  
Command: “VirisCX2=X”  
Answer: “VirisOX2=OK”, DC Iris lenses has no potentiometer, there is no feedback with actual position.

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

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

Action: Change controller IP address to 192.168.1.2  
Command: “ChangeIP=192.168.1.2”  
Answer: “IPchanged” need restart to apply changes
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)
counter = 0;

# Loop on command list
for i in range(len(MESSAGES)): # LC2 command loop
    print("#", i+1,"Sent: ", MESSAGES[i])
    start = time.time()
s 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)