PLμsNet Upload/Download Program

Description

PLμSNet is a text based menu driven program whose purpose is to backup and restore settings for the Electro Cam 5000, 5144, and 6144 series controllers. It is compatible with Windows 10, 8, 7, and XP. When the serial port of the PC is connected to a PLμS Programmable Limit Switch, PLμSNet can transfer programming values between the computer and the controller in either direction. PLμSNet enables selection of baud rate, PLμS controller address, and the computer's COM port. No other communication software is needed.

Applications

Hard Copy Reference—Using PLμSNet, a PLμS controller's programming can be saved as a text file and printed out for reference. The printout can be used to study line operation or to program other PLμS controllers in the plant.

Archival Storage—The text file containing a PLμS controller's programming can be saved for later use. In the event of accidental alteration or erasure of the controller's programming, PLμSNet can be used to download the saved settings to the controller to restore normal operation.

Programming Multiple Units—If several PLμS controllers will have the same values, one controller can be programmed correctly and its setpoints uploaded to a PC using PLμSNet. The programming can then be downloaded to the other PLμS controllers, eliminating the need to manually re-enter setpoints and settings for each controller.

Modify Programming—Once a program has been saved as a text file, it can be studied and edited to create other versions of the program.

Cable

To use PLμSNet, a serial communications cable is required to connect the PLμS controller to your computer. This cable can be purchased from Electro Cam Corp., or it can be built by the customer using the wiring information shown in the PLμS Programming and Installation Manual. A USB to serial adapter may be connected to the computer end of the cable if your computer does not have a serial port.

Installation

Simply copy the PlusNet.EXE file to the desired directory on the computer.

Operation

Connect the computer and the PLμS controller with a communications cable and turn both units ON.

Start PlusNet.EXE. Using the Communication Parameters selection, verify the baud rate and controller address are set to the same value in both PLμSNet and the controller. Additionally make sure the controller is set to RS-232 operation. Some controllers may be set to RS-485 by default.

Note: Users of 6244 series controllers, controllers with the –MSX option, or controllers with the –CC option should use Electro Cam Cloner software instead of this program. Users of 6344 series controllers will need to use PlusNet v2.34 or earlier. This version is not compatible with these controls.

PLµsNet Program (cont'd)

Sample program copied from PS-6144 using PlusNet

```
;                           Electro Cam Corp.
;                 PLuSNet II Communications Software v2.79
;                   Upload Date: Wed Jan 15 10:02:31 2020
;
; Comments may be added to any line as long as they start with a ";" and do
; not contain a carriage return.  However, these comments will not be
; retained when the file is uploaded from a controller.
; Be careful to save and name files accordingly to archive information.
; NOTE: Plusnet will not report invalid data errors.
; ALSO: Plusnet does not use decimal points in decimal numbers.
;       Example: rate multiplier of 1000 is actually 1.000
;
;Data                  Line# Comments
;-------------------------------------------------------------------------
;                            SYSTEM INFORMATION
;-------------------------------------------------------------------------
2: 6144               ;   1; Model
3: 314                ;   2; Firmware revision
4: 17                 ;   3; Output quantity
5: 6,1                ;   4; Option: -L; Leading/trailing speed comp
;-------------------------------------------------------------------------
;                            DEFAULT PROGRAM
;-------------------------------------------------------------------------
6: 1                  ;   5; Default Program
;-------------------------------------------------------------------------
;                            SPEED COMP SETTINGS
;-------------------------------------------------------------------------
7: 6,6,60             ;   6; Speed comp (.1mS): chn, leading, trailing
7: 7,7,70             ;   7; Speed comp (.1mS): chn, leading, trailing
7: 8,8,80             ;   8; Speed comp (.1mS): chn, leading, trailing
;-------------------------------------------------------------------------
;                            TIMED OUTPUT SETTINGS
;-------------------------------------------------------------------------
8: 1,10               ;   9; Timed outputs (mS): chn, delay
8: 4,40               ;  10; Timed outputs (mS): chn, delay
;-------------------------------------------------------------------------
;                            SETUP CONFIGURATION
;-------------------------------------------------------------------------
9: 1,0                ;  11; Offset: group#, offset
9: 2,0                ;  12; Offset: group#, offset
10: 1,0,2000          ;  13; Analog output: Analog chn#, offset, high RPM
11: 1,10,3000         ;  14; Motion detection: level#, low rpm, high rpm
11: 2,10,3000         ;  15; Motion detection: level#, low rpm, high rpm
16: 1                 ;  16; Keyboard quantity
17: 1                 ;  17; Direction of increasing rotation: 0=CCW, 1=CW
18: 360               ;  18; Scale factor
19: 0                 ;  19; Absolute offset
20: 1                 ;  20; Analog quantity
21: 0                 ;  21; Resolver type: 0=ECC, 1=Other
22: 1                 ;  22; Program select mode: 0=bin, 1=BCD, 2=Gray
25: 1,1               ;  23; Termination resistors: grp1 on/off, grp2 on/off
27: 1,1,0,0           ;  24; Rate setup: mpx, div, dec pt, units: 0=RPM, 1=BPM, 2=CPM, 3=IPM
28: 0                 ;  25; Toggle rpm
29: 0                 ;  26; Rpm update rate: 0=1/Sec, 1=2/Sec, 2=10/Sec
```

```
30: 1                 ;  27; Speed comp mode: 0=Single, 1=L/T
31: 0                 ;  28; Group pos display mode: 0=Each, 1=One
;-------------------------------------------------------------------------
;                           USER ENABLE CODES
;-------------------------------------------------------------------------
32: 2                 ;  29; Operator ID number (P2)
33: 1                 ;  30; Setup ID number (P1)
34: 3                 ;  31; Master ID number
;-------------------------------------------------------------------------
;                           OPERATOR ENABLE ACCESS
;-------------------------------------------------------------------------
35: 1;1,1,1,1,1,1,1,1 ;  32; Per chn enable: chns 1-8; chn on/off
35: 2;1,1,1,1,1,1,1,1 ;  33; Per chn enable: chns 9-16; chn on/off
35: 3;0,0,0,0,0,0,0,0 ;  34; Per chn enable: chns 17-24; chn on/off
36: 1                 ;  35; Operator enable: Setpoints
37: 1                 ;  36; Operator enable: Default program
38: 1                 ;  37; Operator enable: Speed comp
39: 1                 ;  38; Operator enable: Timed outputs
40: 1                 ;  39; Operator enable: Offsets
41: 1                 ;  40; Operator enable: Motion detection
;-------------------------------------------------------------------------
;                           MOTION ANDING
;-------------------------------------------------------------------------
43: 1;0,0,0,0,0,0,0,0 ;  41; Motion ANDing: chns 1-8; chn levels (0=none)
43: 2;0,0,0,0,0,0,0,0 ;  42; Motion ANDing: chns 9-16; chn levels (0=none)
43: 3;0,0,0,0,0,0,0,0 ;  43; Motion ANDing: chns 17-24; chn levels (0=none)
;-------------------------------------------------------------------------
;                           OUTPUT ENABLE ANDING
;-------------------------------------------------------------------------
44: 1;0,0,0,0,0,0,0,0 ;  44; Output enable ANDing: chns 1-8; chn on/off
44: 2;0,0,0,0,0,0,0,0 ;  45; Output enable ANDing: chns 9-16; chn on/off
44: 3;0,0,0,0,0,0,0,0 ;  46; Output enable ANDing: chns 17-24; chn on/off
;-------------------------------------------------------------------------
;                           GROUP & MODE SETUP
;-------------------------------------------------------------------------
45: 2                 ;  47; Output group quantity
46: 1,10,0            ;  48; Output group config: group, #chns, mode
46: 2,6,4             ;  49; Output group config: group, #chns, mode
47: 2                 ;  50; Enable input quantity
;-------------------------------------------------------------------------
;                           SETPOINTS
; Format: pgm, chn, on, off
;-------------------------------------------------------------------------
49: 1,1,0,90          ;  51;
49: 1,1,90,180        ;  52;
49: 1,2,0,180         ;  53;
49: 1,3,45,270        ;  54;
```