Epson
EB-1430Wi_1430WT
Device Driver
NetLinx API

1. XDD Information

Device Details

Device Type: Video Projector

Manufacturer: Epson

Model(s):
EB-1430Wi_1430WT

Device Revision: 1.0.0

Support Communication Types: IP, Serial
Serial Connection Parameters:
  Physical Layer: RS-232
  Baud Rate: 9600
  Data bits: 8
  Stop bits: 1
  Parity: None
  Flow control: None
IP Connection Parameters:
  Default IP Address: 0.0.0.0
  Default IP Port: 3629

File Name: Epson_Video_Projector_EB-1430Wi_1430WT_1.0.0.xdd

Author's Email: projector.development@exc.epson.co.jp

Default Device Warming Time: 30 seconds
Default Device Cooling Time: 3 seconds

The following are comments provided by the author of the XDD.

SUPPORTED MODEL(S)
BrightLink Pro 1430Wi/EB-1430Wi/EB-1430WT/CB-1430Wi

2. Channel Information

The following are NetLinx Channels supported by this Device Driver. " * " denotes channels provided by Duet2 base and not protocol provided in this Device Driver.

Channel	Port	Description
9*	1	Function: Power State Momentary Function: Cycle power when channel is activated NetLinx Constant: POWER
24	1	Function: Volume Description: Ramping Function: Volume is ramped up while channel is active NetLinx Constant: VOL_UP ON: Increment Volume by 1. OFF:
25	1	Function: Volume Description: Ramping Function: Volume is ramped down while channel is active NetLinx Constant: VOL_DN ON: Decrement Volume by 1. OFF:
26*	1	Function: Mute Momentary Function: Cycle volume mute when channel is activated NetLinx Constant: VOL_MUTE
27	1	Function: Power State Description: Momentary Function: Power is turned on when channel is activated NetLinx Constant: PWR_ON
28	1	Function: Power State Description: Momentary Function: Power is turned off when channel is activated NetLinx Constant: PWR_OFF
142*	1	Function: Aspect Ratio Momentary Function: Cycle aspect ratios when channel is activated Cycle Order: AUTO, NORMAL, 16:9, FULL, ZOOM, NATIVE NetLinx Constant: ASPECT_RATIO
148	1	Function: Brightness Description: Momentary Function: Brightness is incremented when channel is activated NetLinx Constant: BRIGHT_UP
149	1	Function: Brightness Description: Momentary Function: Brightness is decremented when channel is activated NetLinx Constant: BRIGHT_DN
150	1	Function: Color Description: Momentary Function: Color is incremented when channel is activated NetLinx Constant: COLOR_UP
151	1	Function: Color Description: Momentary Function: Color is decremented when channel is activated NetLinx Constant: COLOR_DN
152	1	Function: Contrast Description: Momentary Function: Contrast is incremented when channel is activated NetLinx Constant: CONTRAST_UP
153	1	Function: Contrast Description: Momentary Function: Contrast is decremented when channel is activated NetLinx Constant: CONTRAST_DN
154	1	Function: Sharpness Description: Momentary Function: Sharpness is incremented when channel is activated NetLinx Constant: SHARP_UP

155	1	Function: Sharpness Description: Momentary Function: Sharpness is decremented when channel is activated NetLinx Constant: SHARP_DN
156	1	Function: Tint Description: Momentary Function: Tint is incremented when channel is activated NetLinx Constant: TINT_UP
157	1	Function: Tint Description: Momentary Function: Tint is decremented when channel is activated NetLinx Constant: TINT_DN
196*	1	Function: Input Source Momentary Function: Cycle input source when channel is activated Cycle Order: WHITEBOARD, COMPUTER, VIDEO, HDMI1, HDMI2, USB_DISPLAY, USB1, USB2, LAN NetLinx Constant: SOURCE_CYCLE
199	1	Function: Mute Description: Discrete Function: Volume mute is on while channel is active NetLinx Constant: VOL_MUTE_ON ON: ON OFF: OFF
210*	1	Function: Picture Mute Momentary Function: Cycle picture mute when channel is activated NetLinx Constant: PIC_MUTE
211	1	Function: Picture Mute Description: Discrete Function: Picture Mute is on while channel is active NetLinx Constant: PIC_MUTE_ON ON: ON OFF: OFF
213*	1	Function: Freeze Momentary Function: Cycle freeze when channel is activated NetLinx Constant: PIC_FREEZE
214	1	Function: Freeze Description: Discrete Function: Freeze is on while channel is active NetLinx Constant: PIC_FREEZE_ON ON: ON OFF: OFF
251*	1	Function: Power State Description: Communication is established with device while channel is on NetLinx Constant: MODULE_DEVICEONLINE ON: Communication online. OFF: Communication offline.
252*	1	Function: Power State Description: Module data is synchronized with device while channel is on NetLinx Constant: MODULE_DATA_INITIALIZED ON: Data initialized. OFF: Data not initialized.
253*	1	Function: Power State Description: Feedback: Indicates Power is starting up and cannot accept commands NetLinx Constant: POWER_STARTUP_FB ON: Device warming. OFF: Device done warming.
254*	1	Function: Power State Description: Feedback: Indicates Power is shutting down and cannot accept commands NetLinx Constant: POWER_SHUTDOWN_FB ON: Device cooling. OFF: Device done cooling.

255*	1	Function: Power State Description: Discrete Function: Power is on while channel is active NetLinx Constant: POWER_ON ON: Device ON. OFF: Device OFF.

3. Level Information

The following are NetLinx Levels supported by this Device Driver. All levels support the NetLinx range [0-255].

Level	Port	Description
1	1	Function: Volume Description: Set volume level NetLinx Constant: VOL_LVL Minimum: 0 Maximum: 255
10	1	Function: Brightness Description: Set brightness level NetLinx Constant: BRIGHT_LVL Minimum: 0 Maximum: 255
11	1	Function: Color Description: Set color level NetLinx Constant: COLOR_LVL Minimum: 0 Maximum: 255
12	1	Function: Contrast Description: Set contrast level NetLinx Constant: CONTRAST_LVL Minimum: 0 Maximum: 255
13	1	Function: Sharpness Description: Set sharpness level NetLinx Constant: SHARP_LVL Minimum: 0 Maximum: 255
14	1	Function: Tint Description: Set tint level NetLinx Constant: TINT_LVL Minimum: 0 Maximum: 255

4. Command Information

The following are NetLinx Commands supported by this Device Driver.

Functional Group	Port	SNAPI2 Command
Aspect Ratio	1	?ASPECT Description: ?ASPECT - Query aspect ratio. Responds with: ASPECT-<aspectratio>
Aspect Ratio	1	?ASPECTRATIOCOUNT Description: ?ASPECTRATIOCOUNT - Query aspect ratio count. Responds with: ASPECTRATIOCOUNT-<count>
Aspect Ratio	1	?ASPECTRATIOPROPERTIES Description: ?ASPECTRATIOPROPERTIES Query properties for all aspect ratios, one ASPECTRATIOPROPERTY response for each aspect ratio. ASPECTRATIOPROPERTY-<index>,<displayName>,<value>
Aspect Ratio	1	?ASPECTRATIOPROPERTY Description: ?ASPECTRATIOPROPERTY-<index> - Query properties for single aspect ratio. Responds with: ASPECTRATIOPROPERTY-<index>,<displayName>,<value>
Aspect Ratio	1	ASPECT-NORMAL ASPECT-16:9 ASPECT-AUTO ASPECT-FULL ASPECT-ZOOM ASPECT-NATIVE Description: ASPECT-<aspectRatio> Set aspect ratio.
Lamp History	1	?LAMPTIME Description: ?LAMPTIME - Query for lamp time. Responds with: LAMPTIME-<time> Where: <time> is in hours
Power State	1	?COOLDOWN Description: ?COOLDOWN - Query for shut down time. Responds with: COOLDOWN-<time> Where: <time> is in seconds

Power State	1	?WARMUP Description: ?WARMUP - Query for start up time. Responds with: WARMUP-<time> Where: <time> is in seconds
Power State	1	COOLDOWN Description: COOLDOWN-<seconds> - Set shut down time. Where: <time> is in seconds
Power State	1	COOLING Description: COOLING-<time> - Cooling down counter time. Where: <time> is seconds remaining
Power State	1	COUNTERNOTIFY Description: COUNTERNOTIFY-<state> - Turn power counter notification on or off. Where: <state> is 1 or 0
Power State	1	WARMING Description: WARMING-<time> Warming up counter time, <time> is seconds remaining
Power State	1	WARMUP Description: WARMUP-<seconds> - Set warm up time. Where: <time> is in seconds
Input Source	1	?INPUT Description: ?INPUT - Query for the current input. Responds with: INPUT-<device label> Where: <device label> is one of the values returned in the query ?INPUTLIST.
Input Source	1	?INPUTCOUNT Description: ?INPUTCOUNT Query for the number of inputs
Input Source	1	?INPUTLISTCOUNT Description: ?INPUTLISTCOUNT - Query for the number of input groups. Responds with: INPUTLISTCOUNT-<input count>

Input Source	1	?INPUTPROPERTIES Description: ?INPUTPROPERTIES - Query input properties. Responds with one INPUTPROPERTY response for each input: INPUTPROPERTY- <index>,<inputGroup>,<signalType>,<deviceLabel>,<displayName>, Where: <index> is a virtual input number between 1 and <count>. <inputGroup> is the integer value of the virtual input port on the device (mutually exclusive group) <signalType> <deviceLabel> is the label on the device <displayName> is the text shown on the device display.
Input Source	1	?INPUTPROPERTY Description: ?INPUTPROPERTY-<index> - Query input properties for single input. Where: <index> is a virtual input number between 1 and <count> Responds with: INPUTPROPERTY-<index>,<inputGroup>,<signalType>,<deviceLabel>,<displayName> <index> is a virtual input number between 1 and <count> <inputGroup> is the integer value of the virtual input port on the device (mutually exclusive group). <signalType> <deviceLabel> is the label on the device. <displayName> is the text shown on the device display.
Input Source	1	INPUT-VIDEO INPUT-HDMI1 INPUT-USB1 INPUT-USB_DISPLAY INPUT-LAN INPUT-COMPUTER INPUT-HDMI2 INPUT-USB2 INPUT-WHITEBOARD Description: INPUT-<displayName> Set the current input.
Device	1	LISTSET-<list name> Description: LISTSET-<name>,<key>,<value>[;<key>,<value>...] - Command to create a PropertyList. Where: <name> is the PropertyList name. <key> is the property key. <value> is the property value. LIST APIs are to be used for user defined property list, these APIs are not intended to be used for well known SNAPI properties.
Device	1	LISTSELECT-<list name> Description: LISTSELECT-<name>,<index> - Command to a PropertyList to select the element at index. Where: <name> is the PropertyList name. <index> is the one-based decimal ordinal value of a property in the list, or key name. LIST APIs are to be used for user defined property list, these APIs are not intended to be used for well known SNAPI properties.

Device	1	LISTNEXT-<list name> Description: LISTNEXT-<name> - Command to iterate in a forward* direction to the PropertyList's next selected element. *Forward means increasing ordinal value. Where: <name> is the PropertyList name. LIST APIs are to be used for user defined property list, these APIs are not intended to be used for well known SNAPI properties.
Device	1	LISTPREV-<list name> Description: LISTPREV-<name> - Command to iterate in a backward* direction to the PropertyList's next selected element. *Backward means decreasing ordinal value. Where: <name> is the PropertyList name. LIST APIs are to be used for user defined property list, these APIs are not intended to be used for well known SNAPI properties.
Device	1	?LISTSELECT-<list name> Description: ?LISTSELECT-<name> - Query to discover a PropertyList's selected element. Where: <name> is the PropertyList name. If <name> is not recognized, no response. If no selected element, Responds with: LISTSELECT-<name>,0 Where: <name> is the PropertyList name. Otherwise: Responds with: LISTSELECT-<name>,<index>,<key>,<value> Where, <name> is the PropertyList name. <index> is the one-based decimal ordinal value of this property in the list. <key> is the property key. <value> is the property value. LIST APIs are to be used for user defined property list, these APIs are not intended to be used for well known SNAPI properties.
Device	1	?LISTSIZE-<list name> Description: ?LISTSIZE-<name> - Query to discover a PropertyList size. Where: <name> is the PropertyList name. If <name> is not recognized, no response; otherwise, Responds with: LISTSIZE-<name>,<size> Where: <name> is the PropertyList name. <size> is a decimal integer representing the size of the list. LIST APIs are to be used for user defined property list, these APIs are not intended to be used for well known SNAPI properties.
Device	1	?LIST-<list name> Description: ?LIST-<name> - Query to discover a PropertyList contents. Where: <name> is the PropertyList name. If <name> is not recognized, no response; otherwise, a series of NetLinx strings, one for each element in the PropertyList. Responds with: LIST-<name>,<index>,<key>,<value> Where: <name> is the PropertyList name, <index> is the one-based decimal ordinal value of this property in the list. <key> is the property key. <value> is the property value. LIST APIs are to be used for user defined property list, these APIs are not intended to be used for well known SNAPI properties.

Device	1	?FWVERSION Description: ?FWVERSION - Query for the device firmware version, Responds with: FWVERSION-<version>
Device	1	?VERSION Description: ?VERSION - Query for the module version, Responds with: VERSION-<version>
Device	1	?DRIVERVERSION Description: ?VERSION - Query for the device driver version, Responds with: DRIVERVERSION-<version> (Only valid for Driver Design Modules)
Device	1	DEBUG-<state> Description: DEBUG-<state> - Set the debug state. Where: <state> is 1-4 for ERROR, WARNING, DEBUG, INFO
Device	1	?DEBUG Description: ?DEBUG - Query the debug level, Responds with: DEBUG-<state> Where: <state> is 1-4 for ERROR, WARNING, DEBUG, INFO
Device	1	REINIT Description: REINIT - Reinitialize communication with the device
Device	1	Diagnostic_Mode-<mode> Description: NOT FOUND
Device	1	?PROPERTY-IP_Address Description: ?PROPERTY-IP_Address Query the current value of IP address.
Device	1	PROPERTY-IP_Address,<xxx.xxx.xxx.xxx or hostname> Description: PROPERTY-IP_Address,<xxx.xxx.xxx.xxx> - or PROPERTY-IP_Address,<hostname> - Set the value of IP address. Where: <xxx.xxx.xxx.xxx> is an IP address. <hostname> is a host name. REINIT required to take affect.

Device	1	PROPERTY-Port,<port number> Description: PROPERTY-Port,<port number> - Set the value of the port number associated with the IP address. Where: <port number> is a port number. REINIT required to take affect.
Device	1	?PROPERTY-Port Description: ?PROPERTY-Port - Query the current value of the port number. Associated with PROPERTY-IP_Address.
Device	1	PROPERTY-Baud_Rate,<baud rate> Description: PROPERTY-Baud_Rate,<baud rate> - Where: <baud rate> is a serial port baud rate. Set the value of the baud rate associated with the Serial port. REINIT required to take affect.
Device	1	?PROPERTY-Baud_Rate Description: ?PROPERTY-Baud_Rate - Query the current value of the baud rate. Associated with the Serial port.
Device	1	?PROPERTY-Device_ID Description: ?PROPERTY-Device_ID - Query the current value of the device id. If supported by the device this is the id of the end device.
Device	1	PROPERTY-Device_ID,<device id> Description: PROPERTY-Device_ID,<device id> - Set the current value of the <device id>. Where: <device id> is a new device ID. If supported by the device this is the id of the end device. REINIT required to take affect.
Device	1	PROPERTY-Poll_Time,<time> Description: PROPERTY-Poll_Time,<time> - Set the current value of the poll timer interval. Where: <time> is expressed in milliseconds. Warning setting the interval lower than 10,000ms (10 seconds) is not recommended. REINIT is not required to take affect.
Device	1	?PROPERTY-Poll_Time Description: ?PROPERTY-Poll_Time - Query the current value of the poll time interval.
Device	1	PROPERTY-Online_Timeout,<time> Description: PROPERTY-Online_Timeout,<time> - Set the current value of the online timeout interval. Where: <time> is expressed in seconds. This interval is the maximum time the device will remain in the online state given that no communication has been received from the device. REINIT required to take affect.

Device	1	?PROPERTY-Online_Timeout Description: ?PROPERTY-Online_Timeout - Query the current value of the online timeout interval.
Device	1	?PROPERTY-Minimum_Command_Interval Description: ?PROPERTY-Minimum_Command_Interval - Query the current value of the Minimum Time Interval Between Command Messages (in milliseconds). This property is read-only.
Device	1	PASSTHRU-<buffer> Description: PASSTHRU-<buffer> - SendSend a message directly to the device. Where: <buffer> is the data to send
Device	1	PASSBACK-<state> Description: NOT FOUND
Device	1	PROPERTY-<property name,value> Description: PROPERTY-<name>,<value> - Set the property to a value. Where: <name> is the property name. <value> is the property value.
Device	1	?PROPERTY-<property name> Description: ?PROPERTY-<name> Query for the value of property. Responds with: PROPERTY-<name>,<value>

5. Custom Command Information

No Custom NetLinx Commands supported by this Device Driver.

6. HAS Properties Information

The following NetLinx HAS Properties are supported by this Device Driver.

Port	Satisfied	HAS Property Query
1	?PROPERTY-Command-Holdoff	FALSE
1	?PROPERTY-Has-Aspect-Ratio	TRUE
1	?PROPERTY-Has-Aspect-Ratio-Cycle	TRUE
1	?PROPERTY-Has-Auto-Focus	FALSE
1	?PROPERTY-Has-Auto-Focus-Cycle	FALSE
1	?PROPERTY-Has-Auto-Iris	FALSE
1	?PROPERTY-Has-Auto-Iris-Cycle	FALSE
1	?PROPERTY-Has-Brightness	TRUE
1	?PROPERTY-Has-Color	TRUE
1	?PROPERTY-Has-Contrast	TRUE
1	?PROPERTY-Has-Filter	FALSE
1	?PROPERTY-Has-Focus	FALSE
1	?PROPERTY-Has-Focus-Ramp	FALSE
1	?PROPERTY-Has-Focus-Speed	FALSE
1	?PROPERTY-Has-Freeze	TRUE
1	?PROPERTY-Has-Freeze-Cycle	TRUE
1	?PROPERTY-Has-Input-Select	TRUE
1	?PROPERTY-Has-Input-Select-Cycle	TRUE
1	?PROPERTY-Has-Iris	FALSE
1	?PROPERTY-Has-Iris-Ramp	FALSE
1	?PROPERTY-Has-Iris-Speed	FALSE
1	?PROPERTY-Has-Lamp	TRUE
1	?PROPERTY-Has-Menu	FALSE
1	?PROPERTY-Has-Menu-10Key	FALSE
1	?PROPERTY-Has-Menu-Navigate	FALSE
1	?PROPERTY-Has-PIP	FALSE
1	?PROPERTY-Has-PIP-Cycle	FALSE
1	?PROPERTY-Has-PIP-Position-Cycle	FALSE
1	?PROPERTY-Has-Picture-Mute	TRUE
1	?PROPERTY-Has-Picture-Mute-Cycle	TRUE
1	?PROPERTY-Has-Power	TRUE
1	?PROPERTY-Has-Power-Cycle	TRUE
1	?PROPERTY-Has-Sharpness	TRUE
1	?PROPERTY-Has-Tint	TRUE
1	?PROPERTY-Has-Volume	TRUE
1	?PROPERTY-Has-Volume-Mute-Cycle	TRUE
1	?PROPERTY-Has-Volume-Ramp	TRUE
1	?PROPERTY-Has-Zoom	FALSE
1	?PROPERTY-Has-Zoom-Ramp	FALSE
1	?PROPERTY-Has-Zoom-Speed	FALSE

7. Properties Information

The following NetLinx Properties are supported by this Device Driver.

Port	Property Query	Value
1	?PROPERTY-Lamp-Count	1
1	?PROPERTY-Menu-List	None Provided.
1	?PROPERTY-Menu-Navigate-List	None Provided.
1	?PROPERTY-PRESETCOUNT	0

8. Sample NetLinx Code

The following is sample NetLinx code.

```
PROGRAM_NAME='Main'
(***********************************************************)
(***********************************************************)
(* System Type : NetLinx                                   *)
(***********************************************************)
(***********************************************************)
(*          DEVICE NUMBER DEFINITIONS GO BELOW             *)
(***********************************************************)
DEFINE_DEVICE
 dvSerialPort = 5001:1:0
 dvIpPort = 0:4:0
 vdvMyDevice = 41001:1:0
(***********************************************************)
(*               CONSTANT DEFINITIONS GO BELOW             *)
(***********************************************************)
DEFINE_CONSTANT
(***********************************************************)
(*              DATA TYPE DEFINITIONS GO BELOW             *)
(***********************************************************)
DEFINE_TYPE
(***********************************************************)
(*               VARIABLE DEFINITIONS GO BELOW             *)
(***********************************************************)
DEFINE_VARIABLE
 CHAR MyXDDFile[] = 'Epson_Video_Projector_EB-1430Wi_1430WT_1.0.0.xdd'
(***********************************************************)
(*               LATCHING DEFINITIONS GO BELOW             *)
(***********************************************************)
DEFINE_LATCHING
(***********************************************************)
(*       MUTUALLY EXCLUSIVE DEFINITIONS GO BELOW           *)
(***********************************************************)
DEFINE_MUTUALLY_EXCLUSIVE
(***********************************************************)
(*        SUBROUTINE/FUNCTION DEFINITIONS GO BELOW         *)
(***********************************************************)
(* EXAMPLE: DEFINE_FUNCTION <RETURN_TYPE> <NAME> (<PARAMETERS>) *)
(* EXAMPLE: DEFINE_CALL '<NAME>' (<PARAMETERS>) *)
(***********************************************************)
(*                STARTUP CODE GOES BELOW                  *)
(***********************************************************)
DEFINE_START
 DEFINE_MODULE 'DeviceDriverEngine' MyDevice(vdvMyDevice, dvSerialPort, MyXDDFile)
(***********************************************************)
(*                THE EVENTS GO BELOW                      *)
(***********************************************************)
DEFINE_EVENT
(***********************************************************)
(*            THE ACTUAL PROGRAM GOES BELOW                *)
(***********************************************************)
DEFINE_PROGRAM
(***********************************************************)
(*                     END OF PROGRAM                      *)
(*        DO NOT PUT ANY CODE BELOW THIS COMMENT           *)
(***********************************************************)
```

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