

**Partner: Loewe**  
**Model: LoeweIP**  
**Device Type: Display**



**GENERAL INFORMATION:**

<b>SIMPLWINDOWS NAME:</b>	"Loewe LoeweIP v1.0.usp"
<b>CATEGORY:</b>	Display
<b>VERSION:</b>	V1.0
<b>SUMMARY:</b>	Control a Loewe TV using the TCP/IP interface
<b>GENERAL NOTES:</b>	<p>Control a Loewe TV using the TCP/IP interface.</p> <p>From Loewe:  A single LOEWE TV is only one device within a larger home network. To enable interaction with other devices beyond the limits of standard protocols, the TV offers access to several specific functions via standard network.</p> <p>This API specification is not restricted to the LOEWE slxxx series of TVs. It applies as well to TVs after this generation.</p> <p><b>Implementation Note</b>  It is important to note that a TV set is a very slow device. Mobile phones or other mobile devices are equipped with platforms that are magnitudes more powerful. When writing applications, try to cache wherever possible. Expect long latency times from the TV.</p>
<b>CRESTRON HARDWARE REQUIRED:</b>	3-Series processor.
<b>SETUP OF CRESTRON HARDWARE:</b>	Has to be connected to the local network.
<b>VENDOR FIRMWARE:</b>	<p>This API specification is not restricted to the LOEWE slxxx series of TVs. It applies as well to TVs after this generation.</p> <p>V4.2.4.0 or later (earlier versions also provides the API, those might work but are untested)</p>
<b>VENDOR SETUP:</b>	Has to be connected to the local network. A DNS resolvable hostname, static or fixed IP address is required.
<b>CABLE DIAGRAM:</b>	Standard LAN.

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**CONTROL:**

<b>GetDeviceData</b>	D	Pulse to get the device data. Will update the associated outputs.
<b>GetVolume</b>	D	Pulse to get the current volume. Will update the associated output.
<b>GetMute</b>	D	Pulse to get the current mute state. Will update the associated outputs.
<b>SetMute</b>	D	Pulse to mute the TV. Will update the Muted output as soon as the TV acknowledges the request. This is more reliable as using the RCKeys.
<b>SetUnmute</b>	D	Pulse to unmute the TV. Will update the Muted output as soon as the TV acknowledges the request. This is more reliable as using the RCKeys.
<b>GetDeviceData</b>	D	Pulse to get the Device Data. Will update the associated outputs. Those values typically don't change during operation. <i>Note: Depending on the type of device some values may or may not be provided.</i>
<b>GetCurrentEvent</b>	D	Pulse to get the current event (info on what is being displayed). Will update the associated outputs. <i>Note: Depending on the current state of the device some values may or may not be provided. Expect some delay since this actually is a heavy operation for the device.</i>
<b>SetVolume</b>	A	Sets the current volume to the specified value. Will update the volume output as soon as the TV acknowledges the request. This is more reliable as using the RCKey Vol+ and Vol-.
<b>InjectRcKey_*</b>	A	Simulates an RCKeyEvent (Remote Control) according the specific alphabet. <i>Note: In the demo program a list of values has been defined for both alphabets. The alphabets might have been extended, or additional alphabets may have been added. Other values can be send as analog value, other alphabets can be supported by adding another input in the S+ module.</i> <i>Note: For reason of performance multiple RCKeyEvents are collected and send as a single request. However, they are interpreted by the TV one by one. Expect some delay. The delay of 1s in the demo program to update the mute/volume is arbitrary and might not be sufficient. Also, RCKeyEvents cannot be acknowledged by the TV they might or might not be executed.</i>
<b>ZapToBrowser</b>	S	Zap to the application "browser" with the provided value as URI. <i>Note: At time of writing "browser" is the only application supported by the TV. Additional ZapToApplication methods can be added in the S+ module, provided they are currently supported by the TV.</i>

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**FEEDBACK:**

<b>AccessStatus_*</b>	D	High to indicate the current AccessState. This is for information only. Access will be requested by the driver at appropriate times.
<b>Mute_*</b>	D	Indicates Mute / Unmute state of the TV. Both are low as long the actual state is unknown. <i>Note: There is no active feedback. The state only updates after a get/set mute operation.</i>
<b>VolumeFb</b>	A	Indicates the current volume of the TV. <i>Note: There is no active feedback. The state only updates after a get/set volume operation.</i>
<b>DeviceData_*</b>	S	Configuration information of your TV. For information purpose only.
<b>Event_*</b>	S	Current Event information. For information purpose only.

**PARAMETERS:**

<b>TVHostName</b>	S	The IP address or DNS resolvable host name of your TV.
<b>DeviceName</b>	S	A unique name for registering this device to the TV. For internal use only.
<b>ApplicationNr</b>	S	A unique number (at this device) for registering the application to the TV. For internal use only. Make sure " <b>DeviceName:ApplicationNr</b> " is unique across all applications controlling the TV.

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**TESTING:**

<b>OPS USED FOR TESTING:</b>	V. 1.500.0013
<b>SIMPL WINDOWS USED FOR TESTING:</b>	V. 4.03.24
<b>CRESTRON DB USED FOR TESTING:</b>	V. 57.00.003.00
<b>DEVICE DB USED FOR TESTING:</b>	V. 75.07.002.00
<b>SAMPLE PROGRAM:</b>	"Loewe LoeweIP v1.0 - Demo.smw"
<b>REVISION HISTORY:</b>	V. 1.0 Initial release