
RenderingControl:1 Service

Annex A – Control Point Requirements

For UPnP Version 1.0

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Annex A. Control Point Requirements (Normative)

This Annex lists the actions that a Control Point implementation that seeks certification as a UPnP Certified RenderingControl:1 Control Point must be capable of invoking.

The following table amends Table 3 Actions to add Control Point requirements, and hence supersedes Table 3 Actions.

Table A-1: Actions for RenderingControl:1 Service

Name	R/O ¹	Control Point R/O ²
<u>ListPresets()</u>	<u>R</u>	<u>Q</u>
<u>SelectPreset()</u>	<u>R</u>	<u>Q</u>
<u>GetBrightness()</u>	<u>Q</u>	<u>Q</u>
<u>SetBrightness()</u>	<u>Q</u>	<u>Q</u>
<u>GetContrast()</u>	<u>Q</u>	<u>Q</u>
<u>SetContrast()</u>	<u>Q</u>	<u>Q</u>
<u>GetSharpness()</u>	<u>Q</u>	<u>Q</u>
<u>SetSharpness()</u>	<u>Q</u>	<u>Q</u>
<u>GetRedVideoGain()</u>	<u>Q</u>	<u>Q</u>
<u>SetRedVideoGain()</u>	<u>Q</u>	<u>Q</u>
<u>GetGreenVideoGain()</u>	<u>Q</u>	<u>Q</u>
<u>SetGreenVideoGain()</u>	<u>Q</u>	<u>Q</u>
<u>GetBlueVideoGain()</u>	<u>Q</u>	<u>Q</u>
<u>SetBlueVideoGain()</u>	<u>Q</u>	<u>Q</u>
<u>GetRedVideoBlackLevel()</u>	<u>Q</u>	<u>Q</u>
<u>SetRedVideoBlackLevel()</u>	<u>Q</u>	<u>Q</u>
<u>GetGreenVideoBlackLevel()</u>	<u>Q</u>	<u>Q</u>
<u>SetGreenVideoBlackLevel()</u>	<u>Q</u>	<u>Q</u>
<u>GetBlueVideoBlackLevel()</u>	<u>Q</u>	<u>Q</u>
<u>SetBlueVideoBlackLevel()</u>	<u>Q</u>	<u>Q</u>
<u>GetColorTemperature()</u>	<u>Q</u>	<u>Q</u>
<u>SetColorTemperature()</u>	<u>Q</u>	<u>Q</u>
<u>GetHorizontalKeystone()</u>	<u>Q</u>	<u>Q</u>
<u>SetHorizontalKeystone()</u>	<u>Q</u>	<u>Q</u>
<u>GetVerticalKeystone()</u>	<u>Q</u>	<u>Q</u>
<u>SetVerticalKeystone()</u>	<u>Q</u>	<u>Q</u>

Name	R/O ¹	Control Point R/O ²
<u>GetMute()</u>	<u>O</u>	<u>O</u>
<u>SetMute()</u>	<u>O</u>	<u>O</u>
<u>GetVolume()</u>	<u>O</u>	<u>O</u>
<u>SetVolume()</u>	<u>O</u>	<u>O</u>
<u>GetVolumeDB()</u>	<u>O</u>	<u>O</u>
<u>SetVolumeDB()</u>	<u>O</u>	<u>O</u>
<u>GetVolumeDBRange()</u>	<u>O</u>	<u>O</u>
<u>GetLoudness()</u>	<u>O</u>	<u>O</u>
<u>SetLoudness()</u>	<u>O</u>	<u>O</u>
<i>Non-standard actions implemented by a UPnP vendor go here</i>	<u>X</u>	<u>X</u>

¹ For a device this column indicates whether the action MUST be implemented or not, where R = REQUIRED, O = OPTIONAL, CR = CONDITIONALLY REQUIRED, CO = CONDITIONALLY OPTIONAL, X = Non-standard, add -D when deprecated (e.g., R-D, O-D).

² For a control pont this column indicates whether a control point MUST be capable of invoking this action, where R = REQUIRED, O = OPTIONAL, CR = CONDITIONALLY REQUIRED, CO = CONDITIONALLY OPTIONAL, X = Non-standard, add -D when deprecated (e.g., R-D, O-D).