

DAWPROJECT XML Reference

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Root Elements

<Project>

The main root element of the DAWPROJECT format. This is stored in the file project.xml file inside the container.

Attribute name	Description	Type	Required
version	Version of DAWPROJECT format this file was saved as.	String	yes
Element name	Description	Element Type	Required
<Application>	Metadata (name/version) about the application that saved this file.	<Application>	yes
<Transport>	Transport element containing playback parameters such as Tempo and Time-signature.	<Transport>	no
from Type (multiple)	Track/Channel structure of this file.	<Channel> <Track>	yes
<Arrangement>	The main Arrangement timeline of this file.	<Arrangement>	no
<Scenes> (multiple)	Clip Launcher scenes of this file.	<Scene>	no

<MetaData>

Metadata root element of the DAWPROJECT format. This is stored in the file metadata.xml file inside the container.

Element name	Description	Element Type	Required
<Title>	Title of the song/project.	text	no

<Artist>	Recording Artist.	text	no
<Album>	Album.	text	no
<OriginalArtist>	Original Artist.	text	no
<Composer>	Composer.	text	no
<Songwriter>	Songwriter.	text	no
<Producer>	Producer.	text	no
<Arranger>	Arranger.	text	no
<Year>	Year this project/song was recorded.	text	no
<Genre>	Genre/style	text	no
<Copyright>	Copyright notice.	text	no
<Website>	URL to website related to this project.	text	no
<Comment>	General comment or description.	text	no

Other Elements

<Application>

Metadata about the application which saved the DAWPROJECT file.

Attribute name	Description	Type	Required
name	Name of the application.	String	yes
version	Version number of the application.	String	yes

<FileReference>

References a file either within a DAWproject container or on disk.

Attribute name	Description	Type	Required
path	File path. either <ul style="list-style-type: none">path within the containerrelative to .dawproject file (when external = "true")absolute path (when external = "true" and path starts with a slash or windows drive letter)	String	yes
external	When true, the path is relative to the .dawproject file. Default value is false.	Boolean	no

<Transport>

Transport element containing playback parameters such as Tempo and Time-signature.

Element name	Description	Element Type	Required
<Tempo>	Tempo parameter for setting and/or automating the tempo.	<RealParameter>	no
<TimeSignature>	Time-signature parameter.	<TimeSignatureParameter>	no

Mixer Elements

<Track>

Represents a sequencer track.

Inherits from <Lane> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
contentType	Role of this track in timelines & arranger. Can be multiple (comma-separated). Possible values: audio, automation, notes, video, markers, tracks	Enum,...	no
loaded	If this track is loaded/active of not.	Boolean	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<Channel>	Mixer channel used for the output of this track.	<Channel>	no
<Track> (multiple)	Child tracks, typically used to represent group/folder tracks with contentType="tracks".	<Track>	no

<Channel>

Represents a mixer channel. It provides the ability to route signals to other channels and can contain Device/Plug-in for processing.

Inherits from [<Lane>](#) [<Referenceable>](#) [<Nameable>](#)

Attribute name	Description	Type	Required
role	Role of this channel in the mixer. Possible values: regular, master, effect, submix, vca	Enum	no
audioChannels	Number of audio-channels of this mixer channel. (1=mono, 2=stereo...)	Integer	no
solo	Channel solo	Boolean	no
destination	Output channel routing	ID	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<Volume>	Channel volume	<RealParameter>	no
<Pan>	Channel pan/balance	<RealParameter>	no
<Mute>	Channel mute	<BoolParameter>	no
<Sends> (multiple)	Send levels & destination	<Send>	no
from Type (multiple)	Devices & plug-ins of this channel	<AuPlugin> <BuiltinDevice> <ClapPlugin> <Compressor> <Equalizer> <Limiter> <NoiseGate> <Plugin> <Vst2Plugin> <Vst3Plugin>	yes

<Send>

A single send of a mixer channel.

Inherits from [<Referenceable>](#) [<Nameable>](#)

Attribute name	Description	Type	Required
type	Send type. Possible values: pre, post	Enum	no
destination	Send destination.	ID	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<Volume>	Send level.	<RealParameter>	yes
<Pan>	Send pan/balance.	<RealParameter>	no
<Enable>	Send enable.	<BoolParameter>	no

Timeline Elements

<Arrangement>

Represents the main Arrangement timeline of a DAW.

Inherits from <Referenceable> <Nameable>

Attribute name	Description	Type	Required
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
	Automation data for time-signature inside this Arrangement.		
<TimeSignatureAutomation>	<pre><Arrangement> <TimeSignatureAutomation target="id-of-TimeSignatureParameter" ... > <TimeSignaturePoint time="0" numerator="7", denominator="8"/> <TimeSignaturePoint time="21" numerator="4", denominator="4"/> ... </TimeSignatureAutomation> </Arrangement></pre>	<Points>	no
<TempoAutomation>	Automation data for tempo inside this Arrangement, which will define the conversion between seconds and beats at the root level.	<Points>	no
<Markers>	Cue markers inside this arrangement	<Markers>	no
<Lanes>	The lanes of this arrangement. Generally this would contain another Lanes timeline for (and scoped to) each track which would then contain all Note, Audio, and Automation timelines.	<Lanes>	no

<Scene>

Represents a clip launcher Scene of a DAW.

Inherits from <Referenceable> <Nameable>

Attribute name	Description	Type	Required
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	nc ↑

<i>color</i>	<i>Color of this object in HTML-style format. (#rrggbb)</i>	<i>String</i>	<i>no</i>
<i>comment</i>	<i>Comment/description of this object.</i>	<i>String</i>	<i>no</i>
Element name	Description	Element Type	Required
from Type	<div>Content timeline of this scene, will typically be structured like this: <pre><Scene> <Lanes> <ClipSlot track="..."> <Clip> ... </Clip> </ClipSlot> ... </Lanes> </Scene></pre></div>	<div><Audio> <ClipSlot> <Clips> <Lanes> <Markers> <MediaFile> <Notes> <Points> <Video> <Warps></div>	yes

<ClipSlot>

Represent a clip launcher slot within a Scene which can contain a Clip. It is generally set to a specific track.

Inherits from <Timeline> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
hasStop	Whether launching this slot should stop the track playback when this slot is empty.	Boolean	no
track	When present, the timeline is local to this track.	ID	no
timeUnit	<div>The TimeUnit used by this and nested timelines. If no TimeUnit is provided by this or the parent scope then 'beats' will be used. Possible values: beats, seconds</div>	Enum	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<Clip>	Contained clip.	<Clip>	no

<Timeline>

Abstract base class for all timeline structures.

Inherits from <Referenceable> <Nameable>

Implementations <Audio> <ClipSlot> <Clips> <Lanes> <Markers> <MediaFile> <Notes> <Points> <Video> <Warps>

This element is abstract in the DOM and cannot be used as an XML element directly.

Attribute name	Description	Type	Required
track	When present, the timeline is local to this track.	ID	no
timeUnit	<div>The TimeUnit used by this and nested timelines. If no TimeUnit is provided by this or the parent scope then 'beats' will be used. Possible values: beats, seconds</div>	Enum	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no ↑

<Lanes>

The Lanes element provides the ability to contain multiple parallel timelines inside it, and is the main layering element of the format. It is also a natural fit for defining the scope of contained timelines to a specific track.

Inherits from <Timeline> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
track	When present, the timeline is local to this track.	ID	no
timeUnit	The TimeUnit used by this and nested timelines. If no TimeUnit is provided by this or the parent scope then 'beats' will be used. Possible values: beats, seconds	Enum	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
from Type (multiple)	Lanes representing nested content.	<Audio> <ClipSlot> <Clips> <Lanes> <Markers> <MediaFile> <Notes> <Points> <Video> <Warps>	yes

<Clips>

Represents a timeline of clips. Each contained Clip have its time and duration that defines its location on this timeline (defined by timeUnit of the Clips element).

Inherits from <Timeline> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
track	When present, the timeline is local to this track.	ID	no
timeUnit	The TimeUnit used by this and nested timelines. If no TimeUnit is provided by this or the parent scope then 'beats' will be used. Possible values: beats, seconds	Enum	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<Clip> (multiple)	Clips of this timeline.	<Clip>	no

<Clip>

A Clip provides a clipped view on to a Timeline, and is used either on a Clips timeline (typically for arrangements) or inside a ClipSlot element (for clip launcher Scenes). A Clip must either have a child-element inheriting from Timeline or provide a ID reference to a timeline somewhere else (for linked/alias clips).

Inherits from <Nameable>

Attribute name	Description	Type	Required
time	Time on the parent timeline where this clips starts playing.	double	yes
duration	Duration on the parent timeline of this clip. If duration is omitted, it should be inferred from the playStop - playStart instead. This is particularly useful when timeUnit and contentTimeUnit are different, like when placing an audio clip with content length defined in seconds onto an arrangement defined in beats.	Double	no
contentTimeUnit	The TimeUnit used by the scope inside this timeline. This affects the content/reference, playStart, playStop, loopStart, loopEnd but not time and duration which are using the TimeUnit of the parent scope. Possible values: beats, seconds	Enum	no
playStart	Time inside the content timeline (or reference) where the clip starts playing.	Double	no
playStop	Time inside the content timeline (or reference) where the clip stops playing.	Double	no
loopStart	Time inside the content timeline (or reference) where the clip loop starts.	Double	no
loopEnd	Time inside the content timeline (or reference) where the clip loop ends.	Double	no
fadeTimeUnit	The TimeUnit used by the fadeInTime and fadeOutTime. Possible values: beats, seconds	Enum	no
fadeInTime	Duration of fade-in. To create cross-fade, use a negative value which will make this Clip start at $t = time - abs(fadeInTime)$	Double	no
fadeOutTime	Duration of fade-out.	Double	no
enable	Whether this clip should be played back. Default value is true.	Boolean	no
reference	Reference to a Content Timeline this clip is playing, in case of linked/alias clips. You can use either content or reference for one clip, but not both.	ID	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
from Type	Content Timeline this clip is playing.	<Audio> <ClipSlot> <Clips> <Lanes> <Markers> <MediaFile> <Notes> <Points> <Video> <Warps>	no

<Notes>

Timeline containing Notes (MIDI-style)

Inherits from <Timeline> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
track	When present, the timeline is local to this track.	ID	no
timeUnit	The TimeUnit used by this and nested timelines. If no TimeUnit is provided by this or the parent scope then 'beats' will be used. Possible values: beats, seconds	Enum	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no ↑

Element name	Description	Element Type	Required
<Note> (multiple)	Contained notes.	<Note>	no

<Note>

A single Note (MIDI-style). It can additionally contain child timelines to hold per-note expression.

Attribute name	Description	Type	Required
time	Time on the parent timeline where this note starts playing.	Double	yes
duration	Duration on the parent timeline of this note.	Double	yes
channel	MIDI channel of this note.	int	no
key	MIDI key of this note.	int	yes
vel	Note On Velocity of this note. (normalized)	Double	no
rel	Note Off Velocity of this note. (normalized)	Double	no
Element name	Description	Element Type	Required
from Type	Per-note expressions can be stored within the note object as timelines.	<Audio> <ClipSlot> <Clips> <Lanes> <Markers> <MediaFile> <Notes> <Points> <Video> <Warps>	no

<Audio>

Representation of an audio file as a timeline. Duration should be the entire length of the file, any clipping should be done by placing the Audio element within a Clip element. The timeUnit attribute should always be set to seconds.

Inherits from **<MediaFile>** **<Timeline>** **<Referenceable>** **<Nameable>**

Attribute name	Description	Type	Required
sampleRate	Sample-rate of audio-file.	int	yes
channels	Number of channels of audio-file (1=mono, 2=stereo...).	int	yes
algorithm	Playback algorithm used to warp audio (vendor-specific).	String	no
duration	Duration in seconds of the media file (as stored).	double	yes
track	When present, the timeline is local to this track.	ID	no
timeUnit	The TimeUnit used by this and nested timelines. If no TimeUnit is provided by this or the parent scope then 'beats' will be used. Possible values: beats, seconds	Enum	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<File>	The media file.	<FileReference>	yes

<Video>

Representation of a video file as a timeline. Duration should be the entire length of the file, any clipping should be done by placing the Audio element within a Clip element. The timeUnit attribute should always be set to seconds.

Inherits from <MediaFile> <Timeline> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
sampleRate	Sample-rate of audio (if present).	int	no
channels	Number of channels of audio (1=mono..., if present).	int	no
algorithm	Playback algorithm used to warp audio (vendor-specific, if present).	String	no
duration	Duration in seconds of the media file (as stored).	double	yes
track	When present, the timeline is local to this track.	ID	no
timeUnit	The TimeUnit used by this and nested timelines. If no TimeUnit is provided by this or the parent scope then 'beats' will be used. Possible values: beats, seconds	Enum	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<File>	The media file.	<FileReference>	yes

<Warps>

Warps the time of nested content as defined by a list of Warp points.

A typical use case would be to warp an audio-file (contentTimeUnit = seconds) onto a timeline defined in beats (timeUnit = beats) as defined by a set of Warp events.

At least two Warp events need to present in order to define a usable beats/seconds conversion. For a plain fixed-speed mapping, provide two event: One at (0,0) and a second event with the desired beat-time length along with the length of the contained Audio file in seconds.

```
<!-- example of a simple audio clip with beats-to-seconds warping -->
<Clip time="0" duration="8">
  <Warps contentTimeUnit="seconds" timeUnit="beats">
    <Audio channels="1" duration="4.657" sampleRate="44100">
      <File path="samples/dummy.wav"/>
    </Audio>
    <Warp time="0" contentTime="0"/>
    <Warp time="8" contentTime="4.657"/>
  </Warps>
</Clip>
```

Inherits from <Timeline> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
contentTimeUnit	The TimeUnit used by the content (nested) timeline and the contentTime attribute of the Warp events. Possible values: beats, seconds	Enum	yes
track	When present, the timeline is local to this track.	ID	no
timeUnit	The TimeUnit used by this and nested timelines. If no TimeUnit is provided by this or the parent scope then 'beats' will be used. Possible values: beats, seconds	Enum	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
↑			

<i>comment</i>	<i>Comment/description of this object.</i>	<i>String</i>	<i>no</i>
Element name	Description	Element Type	Required
<Warp> (multiple)	Warp events defining the transformation (minimum 2).	<Warp>	yes
from Type	Content timeline to be warped.	<Audio> <ClipSlot> <Clips> <Lanes> <Markers> <MediaFile> <Notes> <Points> <Video> <Warps>	yes

<Warp>

A single warp event, which defines the time both on the outer scope (time) and the inner scope (contentTime). The time range between the Warp events are assumed to be linearly interpolated.

Attribute name	Description	Type	Required
time	The time this point represent to the 'outside' of the Warps element. The TimeUnit is defined by the parent Warps element timeUnit attribute or inherited from the parent element of the Warps container	double	yes
contentTime	The time this point represent to the 'inside' of the Warps element. The TimeUnit is defined by the parent Warps element contentTimeUnit attribute	double	yes

<Markers>

Represents a timeline of cue-markers.

Inherits from <Timeline> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
track	When present, the timeline is local to this track.	ID	no
timeUnit	The TimeUnit used by this and nested timelines. If no TimeUnit is provided by this or the parent scope then 'beats' will be used. Possible values: beats, seconds	Enum	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<Marker> (multiple)	Markers of this timeline.	<Marker>	yes

<Marker>

A single cue-marker.

Inherits from <Nameable>

Attribute name	Description	Type	Required
time	Time on the parent timeline of this marker.	double	yes
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no ↑

*comment**Comment/description of this object.**String**no*

Parameters Elements

<Parameter>

Represents a parameter which can provide a value and be used as an automation target.

Inherits from [<Referenceable>](#) [<Nameable>](#)

Implementations [<BoolParameter>](#) [<EnumParameter>](#) [<IntegerParameter>](#) [<RealParameter>](#) [<TimeSignatureParameter>](#)

This element is abstract in the DOM and cannot be used as an XML element directly.

Attribute name	Description	Type	Required
parameterID	Parameter ID as used by VST2 (index), VST3(ParamID).	Integer	no
<i>id</i>	<i>Unique string identifier of this element. This is used for referencing this instance from other elements.</i>	<i>String</i>	<i>no</i>
<i>name</i>	<i>Name/label of this object.</i>	<i>String</i>	<i>no</i>
<i>color</i>	<i>Color of this object in HTML-style format. (#rrggbb)</i>	<i>String</i>	<i>no</i>
<i>comment</i>	<i>Comment/description of this object.</i>	<i>String</i>	<i>no</i>

<BoolParameter>

Represents a parameter which can provide a boolean (true/false) value and be used as an automation target.

Inherits from [<Parameter>](#) [<Referenceable>](#) [<Nameable>](#)

Attribute name	Description	Type	Required
value	Boolean value for this parameter.	Boolean	no
<i>parameterID</i>	<i>Parameter ID as used by VST2 (index), VST3(ParamID).</i>	<i>Integer</i>	<i>no</i>
<i>id</i>	<i>Unique string identifier of this element. This is used for referencing this instance from other elements.</i>	<i>String</i>	<i>no</i>
<i>name</i>	<i>Name/label of this object.</i>	<i>String</i>	<i>no</i>
<i>color</i>	<i>Color of this object in HTML-style format. (#rrggbb)</i>	<i>String</i>	<i>no</i>
<i>comment</i>	<i>Comment/description of this object.</i>	<i>String</i>	<i>no</i>

<EnumParameter>

Represents an enumerated parameter which can provide a value and be used as an automation target.

Inherits from [<Parameter>](#) [<Referenceable>](#) [<Nameable>](#)

Attribute name	Description	Type	Required
value	Index of the enumeration value.	Integer	no
count	Number of entries in enumeration value. value will be in the range [0 .. count-1].	Integer	yes
labels	Labels of the individual enumeration values.	String[]	no
<i>parameterID</i>	<i>Parameter ID as used by VST2 (index), VST3(ParamID).</i>	<i>Integer</i>	<i>no</i>
<i>id</i>	<i>Unique string identifier of this element. This is used for referencing this instance from other elements.</i>	<i>String</i>	<i>no</i>
<i>name</i>	<i>Name/label of this object.</i>	<i>String</i>	<i>no</i>
<i>color</i>	<i>Color of this object in HTML-style format. (#rrggbb)</i>	<i>String</i>	<i>no</i>
<i>comment</i>	<i>Comment/description of this object.</i>	<i>String</i>	<i>no</i>

<IntegerParameter>

Represents an enumerated parameter which can provide a value and be used as an automation target.

Inherits from <Parameter> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
value	Integer value for this parameter.	Integer	no
min	Minimum value this parameter can have (inclusive).	Integer	no
max	Maximum value this parameter can have (inclusive).	Integer	no
parameterID	Parameter ID as used by VST2 (index), VST3(ParamID).	Integer	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no

<RealParameter>

Represents a real valued (double) parameter which can provide a value and be used as an automation target.

Inherits from <Parameter> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
value	Real (double) value for this parameter. When serializing value to text for XML, infinite values are allowed and should be represented as inf and -inf.	Double	no
unit	Unit in which value, minimum and maximum are defined. Using this rather than normalized value ranges allows transfer of parameter values and automation data. Possible values: linear, normalized, percent, decibel, hertz, semitones, seconds, beats, bpm	Enum	yes
min	Minimum value this parameter can have (inclusive).	Double	no
max	Maximum value this parameter can have (inclusive).	Double	no
parameterID	Parameter ID as used by VST2 (index), VST3(ParamID).	Integer	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no

<TimeSignatureParameter>

Represents a (the) time-signature parameter which can provide a value and be used as an automation target.

Inherits from <Parameter> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
numerator	Numerator of the time-signature (3/4 → 3, 4/4 → 4).	Integer	yes
denominator	Denominator of the time-signature (3/4 → 4, 7/8 → 8).	Integer	yes
parameterID	Parameter ID as used by VST2 (index), VST3(ParamID).	Integer	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	nc ↑

comment	Comment/description of this object.	String	no
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Automation Elements

<Points>

A timeline of points for automation or expression.

All the points should be of the same element-type and match the target.

Inherits from <Timeline> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
unit	A unit should be provided for when used with RealPoint elements. Possible values: linear, normalized, percent, decibel, hertz, semitones, seconds, beats, bpm	Enum	no
track	When present, the timeline is local to this track.	ID	no
timeUnit	The TimeUnit used by this and nested timelines. If no TimeUnit is provided by this or the parent scope then 'beats' will be used. Possible values: beats, seconds	Enum	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<Target>	The parameter or expression this timeline should target.	<AutomationTarget>	yes
from Type (multiple)	The contained points. They should all be of the same type and match the target parameter.	<BoolPoint> <EnumPoint> <IntegerPoint> <RealPoint> <TimeSignaturePoint>	yes

<AutomationTarget>

Defines the target of automation or expression, usually used within a Points element.

Either it points directly ot a parameter or an expression, and in the expression case it can either be monophonic (such as MIDI CCs) or per-note/polyphonic (such as poly pressure)

Attribute name	Description	Type	Required
parameter	Parameter to automate.	ID	no
expression	Expression type to control. Possible values: gain, pan, transpose, timbre, formant, pressure, channelController, channelPressure, polyPressure, pitchBend, programChange	Enum	no
channel	MIDI channel	Integer	no
key	MIDI key. Used when expression="polyPressure".	Integer	no
controller	MIDI Channel Controller Number (0 based index). Used when expression="channelController".	Integer	no

<Point>

A single automation point (abstract class).

Implementations [<BoolPoint>](#) [<EnumPoint>](#) [<IntegerPoint>](#) [<RealPoint>](#) [<TimeSignaturePoint>](#)

This element is abstract in the DOM and cannot be used as an XML element directly.

Attribute name	Description	Type	Required
time	Time (within enclosing Points timeline) of this event	Double	yes

<RealPoint>

A point with a double resolution and additional interpolation information.

Inherits from [<Point>](#)

Attribute name	Description	Type	Required
value	The value of the point.	Double	yes
interpolation	Interpolation mode used for the segment starting at this point. Default to 'hold' when unspecified. Possible values: hold, linear	Enum	no
time	Time (within enclosing Points timeline) of this event	Double	yes

<BoolPoint>

A single automation point for a boolean value.

Inherits from [<Point>](#)

Attribute name	Description	Type	Required
value	Boolean value of this point (true/false).	Boolean	yes
time	Time (within enclosing Points timeline) of this event	Double	yes

<EnumPoint>

A single automation point for an enumerated value.

Inherits from [<Point>](#)

Attribute name	Description	Type	Required
value	Integer value of the Enum index for this point.	Integer	yes
time	Time (within enclosing Points timeline) of this event	Double	yes

<IntegerPoint>

A single automation point for an integer value.

Inherits from [<Point>](#)

Attribute name	Description	Type	Required
value	Integer value of this point.	Integer	yes
time	Time (within enclosing Points timeline) of this event	Double	yes

<TimeSignaturePoint>

A single automation point for a time-signature value.

Inherits from [<Point>](#)

Attribute name	Description	Type	Required
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numerator	Numerator of the time-signature. (3/4 → 3, 4/4 → 4)	Integer	yes
denominator	Denominator of the time-signature. (3/4 → 4, 7/8 → 8)	Integer	yes
time	Time (within enclosing Points timeline) of this event	Double	yes

Device Elements

<Device>

Either a Plug-in or native Device with in a DAW.

Inherits from <Referenceable> <Nameable>

Implementations <AuPlugin> <BuiltinDevice> <ClapPlugin> <Compressor> <Equalizer> <Limiter> <NoiseGate> <Plugin> <Vst2Plugin> <Vst3Plugin>

Attribute name	Description	Type	Required
deviceRole	Role of this device/plugin. Possible values: instrument, noteFX, audioFX, analyzer	Enum	yes
loaded	If this device/plugin is loaded/active of not.	Boolean	no
deviceName	Name of the device/plugin	String	yes
deviceId	Unique identifier of device/plugin. Standards which use UUID as an identifier use the canonical textual representation of the UUID (8-4-4-4-12 with no braces) (VST3) Standards which use an integer as an identifier use the value in decimal form. (base-10 unsigned) (VST2) Text-based identifiers are used as-is. (CLAP)	String	no
deviceVendor	Vendor name of the device/plugin	String	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<Enabled>	This device is enabled (as in not bypassed).	<BoolParameter>	no
<State>	Path to a file representing the device / plug-in state in its native format. This file must be embedded inside the container ZIP and have the FileReference configured with (external=false).	<FileReference>	no
from Type (multiple)	Parameters for this device, which is required for automated parameters in order to provide an ID. Note: If the automated parameter is already present like the BuiltinDevice parameters, it should not be included here as well.	<BoolParameter> <EnumParameter> <IntegerParameter> <RealParameter> <TimeSignatureParameter>	yes

<AuPlugin>

The Apple AU plug-in format.

Inherits from <Plugin> <Device> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
pluginVersion	Version of the plug-in	String	no
deviceRole	Role of this device/plugin. Possible values: instrument, noteFX, audioFX, analyzer	Enum	yes ↑

loaded	If this device/plugin is loaded/active of not.	Boolean	no
deviceName	Name of the device/plugin	String	yes
deviceId	Unique identifier of device/plugin. Standards which use UUID as an identifier use the canonical textual representation of the UUID (8-4-4-4-12 with no braces) (VST3) Standards which use an integer as an identifier use the value in decimal form. (base-10 unsigned) (VST2) Text-based identifiers are used as-is. (CLAP)	String	no
deviceVendor	Vendor name of the device/plugin	String	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<Enabled>	This device is enabled (as in not bypassed).	<BoolParameter>	no
<State>	Path to a file representing the device / plugin state in its native format. This file must be embedded inside the container ZIP and have the FileReference configured with (external=false).	<FileReference>	no
from Type (multiple)	Parameters for this device, which is required for automated parameters in order to provide an ID. Note: If the automated parameter is already present like the BuiltinDevice parameters, it should not be included here as well.	<BoolParameter> <EnumParameter> <IntegerParameter> <RealParameter> <TimeSignatureParameter>	yes

<ClapPlugin>

A CLAP Plug-in instance.

The CLAP plug-in state should be stored in .clap-preset format.

Inherits from <Plugin> <Device> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
pluginVersion	Version of the plug-in	String	no
deviceRole	Role of this device/plugin. Possible values: instrument, noteFX, audioFX, analyzer	Enum	yes
loaded	If this device/plugin is loaded/active of not.	Boolean	no
deviceName	Name of the device/plugin	String	yes
deviceId	Unique identifier of device/plugin. Standards which use UUID as an identifier use the canonical textual representation of the UUID (8-4-4-4-12 with no braces) (VST3) Standards which use an integer as an identifier use the value in decimal form. (base-10 unsigned) (VST2) Text-based identifiers are used as-is. (CLAP)	String	no
deviceVendor	Vendor name of the device/plugin	String	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<Enabled>	This device is enabled (as in not bypassed).	<BoolParameter>	no ↑

<State>	Path to a file representing the device / plug-in state in its native format. This file must be embedded inside the container ZIP and have the FileReference configured with (external=false).	<FileReference>	no
from Type (multiple)	Parameters for this device, which is required for automated parameters in order to provide an ID. Note: If the automated parameter is already present like the BuiltinDevice parameters, it should not be included here as well.	<BoolParameter> <EnumParameter> <IntegerParameter> <RealParameter> <TimeSignatureParameter>	yes

<Plugin>

Abstract base class for all plug-in formats.

Inherits from <Device> <Referenceable> <Nameable>

Implementations <AuPlugin> <ClapPlugin> <Vst2Plugin> <Vst3Plugin>

This element is abstract in the DOM and cannot be used as an XML element directly.

Attribute name	Description	Type	Required
pluginVersion	Version of the plug-in	String	no
deviceRole	Role of this device/plug-in. Possible values: instrument, noteFX, audioFX, analyzer	Enum	yes
loaded	If this device/plug-in is loaded/active or not.	Boolean	no
deviceName	Name of the device/plugin	String	yes
deviceId	Unique identifier of device/plug-in. Standards which use UUID as an identifier use the canonical textual representation of the UUID (8-4-4-4-12 with no braces) (VST3) Standards which use an integer as an identifier use the value in decimal form. (base-10 unsigned) (VST2) Text-based identifiers are used as-is. (CLAP)	String	no
deviceVendor	Vendor name of the device/plugin	String	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<Enabled>	This device is enabled (as in not bypassed).	<BoolParameter>	no
<State>	Path to a file representing the device / plug-in state in its native format. This file must be embedded inside the container ZIP and have the FileReference configured with (external=false).	<FileReference>	no
from Type (multiple)	Parameters for this device, which is required for automated parameters in order to provide an ID. Note: If the automated parameter is already present like the BuiltinDevice parameters, it should not be included here as well.	<BoolParameter> <EnumParameter> <IntegerParameter> <RealParameter> <TimeSignatureParameter>	yes

<Vst2Plugin>

A VST2 Plug-in instance.

The VST2 plug-in state should be stored in FXB or FXP format.

Inherits from <Plugin> <Device> <Referenceable> <Nameable>

Attribute name	Description	Type	Requ ↑
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pluginVersion	Version of the plug-in	String	no
deviceRole	Role of this device/plug-in. Possible values: instrument, noteFX, audioFX, analyzer	Enum	yes
loaded	If this device/plug-in is loaded/active of not.	Boolean	no
deviceName	Name of the device/plugin	String	yes
deviceId	Unique identifier of device/plug-in. Standards which use UUID as an identifier use the canonical textual representation of the UUID (8-4-4-4-12 with no braces) (VST3) Standards which use an integer as an identifier use the value in decimal form. (base-10 unsigned) (VST2) Text-based identifiers are used as-is. (CLAP)	String	no
deviceVendor	Vendor name of the device/plugin	String	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<Enabled>	This device is enabled (as in not bypassed).	<BoolParameter>	no
<State>	Path to a file representing the device / plug-in state in its native format. This file must be embedded inside the container ZIP and have the FileReference configured with (external=false).	<FileReference>	no
from Type (multiple)	Parameters for this device, which is required for automated parameters in order to provide an ID. Note: If the automated parameter is already present like the BuiltinDevice parameters, it should not be included here as well.	<BoolParameter> <EnumParameter> <IntegerParameter> <RealParameter> <TimeSignatureParameter>	yes

<Vst3Plugin>

A VST3 Plug-in instance.

The VST3 plug-in state should be stored in .vstpreset format.

Inherits from <Plugin> <Device> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
pluginVersion	Version of the plug-in	String	no
deviceRole	Role of this device/plug-in. Possible values: instrument, noteFX, audioFX, analyzer	Enum	yes
loaded	If this device/plug-in is loaded/active of not.	Boolean	no
deviceName	Name of the device/plugin	String	yes
deviceId	Unique identifier of device/plug-in. Standards which use UUID as an identifier use the canonical textual representation of the UUID (8-4-4-4-12 with no braces) (VST3) Standards which use an integer as an identifier use the value in decimal form. (base-10 unsigned) (VST2) Text-based identifiers are used as-is. (CLAP)	String	no
deviceVendor	Vendor name of the device/plugin	String	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no ↑

<i>comment</i>	<i>Comment/description of this object.</i>	<i>String</i>	<i>no</i>
Element name	Description	Element Type	Required
<Enabled>	<i>This device is enabled (as in not bypassed).</i>	<BoolParameter>	no
<State>	<i>Path to a file representing the device / plug-in state in its native format.</i>	<FileReference>	no
	<i>This file must be embedded inside the container ZIP and have the FileReference configured with (external=false).</i>		
<i>from Type (multiple)</i>	<i>Parameters for this device, which is required for automated parameters in order to provide an ID. Note: If the automated parameter is already present like the BuiltinDevice parameters, it should not be included here as well.</i>	<BoolParameter> <EnumParameter> <IntegerParameter> <RealParameter> <TimeSignatureParameter>	yes

<BuiltinDevice>

The built-in plug-in format.

Inherits from <Device> <Referenceable> <Nameable>

Implementations <Compressor> <Equalizer> <Limiter> <NoiseGate>

Attribute name	Description	Type	Required
<i>deviceRole</i>	<i>Role of this device/plug-in. Possible values: instrument, noteFX, audioFX, analyzer</i>	<i>Enum</i>	<i>yes</i>
<i>loaded</i>	<i>If this device/plug-in is loaded/active of not.</i>	<i>Boolean</i>	<i>no</i>
<i>deviceName</i>	<i>Name of the device/plugin</i>	<i>String</i>	<i>yes</i>
<i>deviceID</i>	<i>Unique identifier of device/plug-in. Standards which use UUID as an identifier use the canonical textual representation of the UUID (8-4-4-4-12 with no braces) (VST3) Standards which use an integer as an identifier use the value in decimal form. (base-10 unsigned) (VST2) Text-based identifiers are used as-is. (CLAP)</i>	<i>String</i>	<i>no</i>
<i>deviceVendor</i>	<i>Vendor name of the device/plugin</i>	<i>String</i>	<i>no</i>
<i>id</i>	<i>Unique string identifier of this element. This is used for referencing this instance from other elements.</i>	<i>String</i>	<i>no</i>
<i>name</i>	<i>Name/label of this object.</i>	<i>String</i>	<i>no</i>
<i>color</i>	<i>Color of this object in HTML-style format. (#rrggbb)</i>	<i>String</i>	<i>no</i>
<i>comment</i>	<i>Comment/description of this object.</i>	<i>String</i>	<i>no</i>
Element name	Description	Element Type	Required
<Enabled>	<i>This device is enabled (as in not bypassed).</i>	<BoolParameter>	no
<State>	<i>Path to a file representing the device / plug-in state in its native format.</i>	<FileReference>	no
	<i>This file must be embedded inside the container ZIP and have the FileReference configured with (external=false).</i>		
<i>from Type (multiple)</i>	<i>Parameters for this device, which is required for automated parameters in order to provide an ID. Note: If the automated parameter is already present like the BuiltinDevice parameters, it should not be included here as well.</i>	<BoolParameter> <EnumParameter> <IntegerParameter> <RealParameter> <TimeSignatureParameter>	yes

<Compressor>

A generic 'built-in' compressor.

Inherits from <BuiltinDevice> <Device> <Referenceable> <Nameable>

Attribute name	Description	Type	Requ ↑

deviceRole	Role of this device/plugin. Possible values: instrument, noteFX, audioFX, analyzer	Enum	yes
loaded	If this device/plugin is loaded/active of not.	Boolean	no
deviceName	Name of the device/plugin	String	yes
deviceId	Unique identifier of device/plugin. Standards which use UUID as an identifier use the canonical textual representation of the UUID (8-4-4-4-12 with no braces) (VST3) Standards which use an integer as an identifier use the value in decimal form. (base-10 unsigned) (VST2) Text-based identifiers are used as-is. (CLAP)	String	no
deviceVendor	Vendor name of the device/plugin	String	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<Threshold>	The threshold setting of the compressor in dB.	<RealParameter>	no
<Ratio>	The ratio setting of the compressor in percent (0-100).	<RealParameter>	no
<Attack>	The attack setting of the compressor in seconds.	<RealParameter>	no
<Release>	The release setting of the compressor in seconds.	<RealParameter>	no
<InputGain>	Pre-compression gain stage. (input/gain/drive) in dB.	<RealParameter>	no
<OutputGain>	Post-compression gain stage. (output/makeup gain) in dB.	<RealParameter>	no
<AutoMakeup>	Should auto makeup be applied?	<BoolParameter>	no
<Enabled>	This device is enabled (as in not bypassed).	<BoolParameter>	no
<State>	Path to a file representing the device / plug-in state in its native format. This file must be embedded inside the container ZIP and have the FileReference configured with (external=false).	<FileReference>	no
from Type (multiple)	Parameters for this device, which is required for automated parameters in order to provide an ID. Note: If the automated parameter is already present like the BuiltinDevice parameters, it should not be included here as well.	<BoolParameter> <EnumParameter> <IntegerParameter> <RealParameter> <TimeSignatureParameter>	yes

<Equalizer>

A generic 'built-in' equalizer.

Inherits from <BuiltinDevice> <Device> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
deviceRole	Role of this device/plugin. Possible values: instrument, noteFX, audioFX, analyzer	Enum	yes
loaded	If this device/plugin is loaded/active of not.	Boolean	no
deviceName	Name of the device/plugin	String	yes
deviceId	Unique identifier of device/plugin. Standards which use UUID as an identifier use the canonical textual representation of the UUID (8-4-4-4-12 with no braces) (VST3) Standards which use an integer as an identifier use the value in decimal form. (base-10 unsigned) (VST2) Text-based identifiers are used as-is. (CLAP)	String	no
deviceVendor	Vendor name of the device/plugin	String	no

<i>id</i>	<i>Unique string identifier of this element. This is used for referencing this instance from other elements.</i>	<i>String</i>	<i>no</i>
<i>name</i>	<i>Name/label of this object.</i>	<i>String</i>	<i>no</i>
<i>color</i>	<i>Color of this object in HTML-style format. (#rrggb)</i>	<i>String</i>	<i>no</i>
<i>comment</i>	<i>Comment/description of this object.</i>	<i>String</i>	<i>no</i>
Element name	Description	Element Type	Required
<Band> (multiple)	The bands of the equalizer.	<EqBand>	no
<InputGain>	The input gain of the equalizer in dB.	<RealParameter>	no
<OutputGain>	The output gain of the equalizer in dB.	<RealParameter>	no
<Enabled>	This device is enabled (as in not bypassed).	<BoolParameter>	no
<State>	Path to a file representing the device / plug-in state in its native format. This file must be embedded inside the container ZIP and have the FileReference configured with (external=false).	<FileReference>	no
from Type (multiple)	Parameters for this device, which is required for automated parameters in order to provide an ID. Note: If the automated parameter is already present like the BuiltinDevice parameters, it should not be included here as well.	<BoolParameter> <EnumParameter> <IntegerParameter> <RealParameter> <TimeSignatureParameter>	yes

<EqBand>

The parameters of a band of a generic 'built-in' equalizer.

Attribute name	Description	Type	Required
type	The filter type of the band. Possible values: highPass, lowPass, bandPass, highShelf, lowShelf, bell, notch	Enum	yes
order	The index of the band.	Integer	no
Element name	Description	Element Type	Required
<Freq>	The frequency setting of the band.	<RealParameter>	yes
<Gain>	The gain setting of the band.	<RealParameter>	no
<Q>	The Q setting of the band.	<RealParameter>	no
<Enabled>	The enabled state of the band.	<BoolParameter>	no

<Limiter>

A generic 'built-in' limiter.

Inherits from <BuiltinDevice> <Device> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
deviceRole	Role of this device/plug-in. Possible values: instrument, noteFX, audioFX, analyzer	Enum	yes
loaded	If this device/plug-in is loaded/active or not.	Boolean	no
deviceName	Name of the device/plugin	String	yes
deviceID	Unique identifier of device/plug-in. Standards which use UUID as an identifier use the canonical textual representation of the UUID (8-4-4-4-12 with no braces) (VST3) Standards which use an integer as an identifier use the value in decimal form. (base-10 unsigned) (VST2) Text-based identifiers are used as-is. (CLAP)	String	no

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deviceVendor	Vendor name of the device/plugin	String	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<Threshold>	The threshold setting of the limiter in dB.	<RealParameter>	no
<InputGain>	The input gain of the limiter in dB.	<RealParameter>	no
<OutputGain>	The output gain of the limiter in dB.	<RealParameter>	no
<Attack>	The attack setting of the limiter in seconds.	<RealParameter>	no
<Release>	The release setting of the limiter in seconds.	<RealParameter>	no
<Enabled>	This device is enabled (as in not bypassed).	<BoolParameter>	no
<State>	Path to a file representing the device / plug-in state in its native format. This file must be embedded inside the container ZIP and have the FileReference configured with (external=false).	<FileReference>	no
from Type (multiple)	Parameters for this device, which is required for automated parameters in order to provide an ID. Note: If the automated parameter is already present like the BuiltinDevice parameters, it should not be included here as well.	<BoolParameter> <EnumParameter> <IntegerParameter> <RealParameter> <TimeSignatureParameter>	yes

<NoiseGate>

A generic 'built-in' noise gate.

Inherits from <BuiltinDevice> <Device> <Referenceable> <Nameable>

Attribute name	Description	Type	Required
deviceRole	Role of this device/plugin. Possible values: instrument, noteFX, audioFX, analyzer	Enum	yes
loaded	If this device/plugin is loaded/active or not.	Boolean	no
deviceName	Name of the device/plugin	String	yes
deviceID	Unique identifier of device/plugin. Standards which use UUID as an identifier use the canonical textual representation of the UUID (8-4-4-4-12 with no braces) (VST3) Standards which use an integer as an identifier use the value in decimal form. (base-10 unsigned) (VST2) Text-based identifiers are used as-is. (CLAP)	String	no
deviceVendor	Vendor name of the device/plugin	String	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<Threshold>	The threshold of the noise gate in dB.	<RealParameter>	no
<Ratio>	The ratio of the noise gate in percent (0-100).	<RealParameter>	no
<Attack>	The attack of the noise gate in seconds.	<RealParameter>	no
<Release>	The release of the noise gate in seconds.	<RealParameter>	no

<Range>	Range or amount of maximum gain reduction. Possible range [-inf to 0]	<RealParameter>	no
<Enabled>	<i>This device is enabled (as in not bypassed).</i>	<BoolParameter>	no
<State>	<i>Path to a file representing the device / plug-in state in its native format.</i> <i>This file must be embedded inside the container ZIP and have the FileReference configured with (external=false).</i>	<FileReference>	no
from Type (multiple)	<i>Parameters for this device, which is required for automated parameters in order to provide an ID.</i> <i>Note: If the automated parameter is already present like the BuiltinDevice parameters, it should not be included here as well.</i>	<BoolParameter> <EnumParameter> <IntegerParameter> <RealParameter> <TimeSignatureParameter>	yes

Abstract Elements

<Nameable>

Base class for everything with a name.

Implementations <Arrangement> <BoolParameter> <Channel> <EnumParameter> <IntegerParameter> <Lane> <Parameter> <RealParameter> <Referenceable> <Scene> <Send> <TimeSignatureParameter> <Track> <AuPlugin> <BuiltinDevice> <ClapPlugin> <Compressor> <Device> <Equalizer> <Limiter> <NoiseGate> <Plugin> <Vst2Plugin> <Vst3Plugin> <Audio> <Clip> <ClipSlot> <Clips> <Lanes> <Marker> <Markers> <MediaFile> <Notes> <Points> <Timeline> <Video> <Warps>

This element is abstract in the DOM and cannot be used as an XML element directly.

Attribute name	Description	Type	Required
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no

<Referenceable>

Base class for everything which can be referenced.

Inherits from <Nameable>

Implementations <Arrangement> <BoolParameter> <Channel> <EnumParameter> <IntegerParameter> <Lane> <Parameter> <RealParameter> <Scene> <Send> <TimeSignatureParameter> <Track> <AuPlugin> <BuiltinDevice> <ClapPlugin> <Compressor> <Device> <Equalizer> <Limiter> <NoiseGate> <Plugin> <Vst2Plugin> <Vst3Plugin> <Audio> <ClipSlot> <Clips> <Lanes> <Markers> <MediaFile> <Notes> <Points> <Timeline> <Video> <Warps>

This element is abstract in the DOM and cannot be used as an XML element directly.

Attribute name	Description	Type	Required
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	<i>Name/label of this object.</i>	String	no
color	<i>Color of this object in HTML-style format. (#rrggbb)</i>	String	no
comment	<i>Comment/description of this object.</i>	String	no

<MediaFile>

A media file. (audio or video).

The duration attribute is intended to be provide the file length (and not be interpreted as a playback parameter, use a Clip or Warps element for that).

Inherits from <Timeline> <Referenceable> <Nameable>

Implementations <Audio> <Video>

Attribute name	Description	Type	Required
			↑

duration	Duration in seconds of the media file (as stored).	double	yes
track	When present, the timeline is local to this track.	ID	no
timeUnit	<i>The TimeUnit used by this and nested timelines. If no TimeUnit is provided by this or the parent scope then 'beats' will be used.</i> <i>Possible values: beats, seconds</i>	Enum	no
id	Unique string identifier of this element. This is used for referencing this instance from other elements.	String	no
name	Name/label of this object.	String	no
color	Color of this object in HTML-style format. (#rrggbb)	String	no
comment	Comment/description of this object.	String	no
Element name	Description	Element Type	Required
<File>	The media file.	<FileReference>	yes