

Currently to do

This is just a scratchpad of what to do next in this wiki - feel free to register and contribute.

Missing articles

#	ID	Links
1	tag:playback	25 : Show backlinks
2	tag:release	13 : Show backlinks
3	tag:time	13 : Show backlinks
4	tag:cuelist	12 : Show backlinks
5	tag:group	11 : Show backlinks
6	tag:handle	11 : Show backlinks
7	tag:page	11 : Show backlinks
8	tag:toggle	11 : Show backlinks
9	tag:chase	10 : Show backlinks
10	tag:master	10 : Show backlinks
11	tag:palette	10 : Show backlinks
12	tag:cue	9 : Show backlinks
13	tag:set	9 : Show backlinks
14	tag:fire	8 : Show backlinks
15	tag:legend	8 : Show backlinks
16	tag:timecode	8 : Show backlinks
17	tag:blind	7 : Show backlinks
18	tag:change	7 : Show backlinks
19	tag:bpm	6 : Show backlinks
20	tag:flash	6 : Show backlinks
21	tag:speed	6 : Show backlinks
22	tag:artnet	5 : Show backlinks
23	tag:capture	5 : Show backlinks
24	tag:fade-in	5 : Show backlinks
25	tag:macro	5 : Show backlinks
26	tag:midi	5 : Show backlinks
27	tag:selected	5 : Show backlinks
28	tag:settings	5 : Show backlinks
29	tag:shape	5 : Show backlinks
30	macros:control_structures:menulink	4 : Show backlinks
31	tag:active	4 : Show backlinks
32	tag:attribute	4 : Show backlinks
33	tag:clear	4 : Show backlinks
34	tag:colour	4 : Show backlinks
35	tag:create	4 : Show backlinks
36	tag:delete	4 : Show backlinks
37	tag:direction	4 : Show backlinks

38	tag:fan	4 : Show backlinks
39	tag:fixtures	4 : Show backlinks
40	tag:go	4 : Show backlinks
41	tag:priority	4 : Show backlinks
42	tag:programmer	4 : Show backlinks
43	tag:select	4 : Show backlinks
44	tag:track	4 : Show backlinks
45	tag:trigger	4 : Show backlinks
46	personality:attribute_id	3 : Show backlinks
47	tag:3d	3 : Show backlinks
48	tag:add	3 : Show backlinks
49	tag:binding	3 : Show backlinks
50	tag:busking	3 : Show backlinks
51	tag:connect	3 : Show backlinks
52	tag:converter	3 : Show backlinks
53	tag:copy	3 : Show backlinks
54	tag:disable	3 : Show backlinks
55	tag:enable	3 : Show backlinks
56	tag:fixture	3 : Show backlinks
57	tag:freeze	3 : Show backlinks
58	tag:moving	3 : Show backlinks
59	tag:output	3 : Show backlinks
60	tag:overlap	3 : Show backlinks
61	tag:park	3 : Show backlinks
62	tag:record	3 : Show backlinks
63	tag:search	3 : Show backlinks
64	tag:setlist	3 : Show backlinks
65	tag:showlibrary	3 : Show backlinks
66	tag:start	3 : Show backlinks
67	tag:store	3 : Show backlinks
68	tag:tap	3 : Show backlinks
69	tag:timeline	3 : Show backlinks
70	tag>window	3 : Show backlinks
71	tag:workspace	3 : Show backlinks
72	external:midi_feedback	2 : Show backlinks
73	external:midi_notes_and_cc	2 : Show backlinks
74	macros:function:programmer.editor.fixtures.incrementdimmer	2 : Show backlinks
75	macros:identifier:macroid	2 : Show backlinks
76	macros:property:palette.numeric.inputvalue	2 : Show backlinks
77	macros:syntax:referringmacros	2 : Show backlinks
78	macros:type:acwframerate	2 : Show backlinks
79	personality:compatibility_attributes	2 : Show backlinks
80	tag:atmosphere	2 : Show backlinks
81	tag:autoload	2 : Show backlinks
82	tag:combine	2 : Show backlinks
83	tag:condition	2 : Show backlinks

84	tag:curve	2 : Show backlinks
85	tag:custom	2 : Show backlinks
86	tag:dimmer	2 : Show backlinks
87	tag:double	2 : Show backlinks
88	tag:dummy	2 : Show backlinks
89	tag:halo	2 : Show backlinks
90	tag:icon	2 : Show backlinks
91	tag:import	2 : Show backlinks
92	tag:inhibit	2 : Show backlinks
93	tag:invert	2 : Show backlinks
94	tag:javascript	2 : Show backlinks
95	tag:level	2 : Show backlinks
96	tag:live	2 : Show backlinks
97	tag:location	2 : Show backlinks
98	tag:lock	2 : Show backlinks
99	tag:mask	2 : Show backlinks
100	tag:matrix	2 : Show backlinks
101	tag:mobile	2 : Show backlinks
102	tag:next	2 : Show backlinks
103	tag:off	2 : Show backlinks
104	tag:on	2 : Show backlinks
105	tag:patch	2 : Show backlinks
106	tag:playbacks	2 : Show backlinks
107	tag:profile	2 : Show backlinks
108	tag:prompt	2 : Show backlinks
109	tag:quick	2 : Show backlinks
110	tag:replace	2 : Show backlinks
111	tag:reset	2 : Show backlinks
112	tag:reverse	2 : Show backlinks
113	tag:sculpture	2 : Show backlinks
114	tag:shapes	2 : Show backlinks
115	tag:source	2 : Show backlinks
116	tag:stagepatch	2 : Show backlinks
117	tag:stop	2 : Show backlinks
118	tag:text	2 : Show backlinks
119	tag:user	2 : Show backlinks
120	tag:usernumber	2 : Show backlinks
121	tag:visualise	2 : Show backlinks
122	tag:wing	2 : Show backlinks
123	ai:modules:display:aioutputrenderer	1 : Show backlinks
124	ai:modules:display:video_out	1 : Show backlinks
125	external:midi_show_control	1 : Show backlinks
126	luminex:ma3-net	1 : Show backlinks
127	luminex:sacn	1 : Show backlinks
128	macros:control_structures:start_end	1 : Show backlinks
129	macros:control_structures:start_end	1 : Show backlinks

130	macros:converter:math.enumasstringequalityconverter	1 : Show backlinks
131	macros:example:level_notation	1 : Show backlinks
132	macros:function:chases.play	1 : Show backlinks
133	macros:function:colour.applycolourfilterbyindex	1 : Show backlinks
134	macros:function:editor.timelines.setcontexttimeline	1 : Show backlinks
135	macros:function:fixtures.patch.freezefixtures	1 : Show backlinks
136	macros:function:lockmode.lockconsole	1 : Show backlinks
137	macros:function:menu.exitrootorlatched	1 : Show backlinks
138	macros:function:playbacks.clearflashtimedplayback	1 : Show backlinks
139	macros:function:playbacks.editor.autoload.add	1 : Show backlinks
140	macros:function:playbacks.editor.autoload.remove	1 : Show backlinks
141	macros:function:playbacks.editor.autoload.setplaybackautoload	1 : Show backlinks
142	macros:function:playbacks.editor.cueselection.clear	1 : Show backlinks
143	macros:function:playbacks.editor.selectcuefromviewing	1 : Show backlinks
144	macros:function:playbacks.flashtimedplayback	1 : Show backlinks
145	macros:function:programmer.editor.fixtures.setcontrolvaluebyname	1 : Show backlinks
146	macros:function:programmer.editor.fixtures.setselectedcontrolsfrozen	1 : Show backlinks
147	macros:function:timecode.asobservable	1 : Show backlinks
148	macros:namespace:fixtures	1 : Show backlinks
149	macros:namespace:timelines	1 : Show backlinks
150	macros:property:custom	1 : Show backlinks
151	macros:property:handleoptions.playbacks.priority	1 : Show backlinks
152	macros:property:handles.colours.changepage	1 : Show backlinks
153	macros:property:handles.colours.page.index	1 : Show backlinks
154	macros:property:handles.macros.page.index	1 : Show backlinks
155	macros:property:handles.playbacks.page.displayindex	1 : Show backlinks
156	macros:property:handles.playbacks.page.displayname	1 : Show backlinks
157	macros:property:handles.playbackwindow.changepage	1 : Show backlinks
158	macros:property:playbacks.editor.times.cuefadeouttime	1 : Show backlinks
159	macros:property:playbacks.editor.times.cuespeedmultiplier	1 : Show backlinks
160	macros:property:timecode.timecodeone.livetime	1 : Show backlinks
161	macros:syntax:codeblocks	1 : Show backlinks
162	macros:syntax:customvariables	1 : Show backlinks
163	macros:syntax:start_end	1 : Show backlinks
164	macros:type:menuitem	1 : Show backlinks
165	macros:type:object:selection	1 : Show backlinks
166	macros:variables	1 : Show backlinks
167	personality:attribute_function	1 : Show backlinks
168	personality:attribute_group	1 : Show backlinks
169	tag:alert	1 : Show backlinks
170	tag:align	1 : Show backlinks
171	tag:all	1 : Show backlinks
172	tag:ambient	1 : Show backlinks
173	tag:application	1 : Show backlinks
174	tag:audio	1 : Show backlinks
175	tag:blocks	1 : Show backlinks

176	tag:bloom	1 : Show backlinks
177	tag:camera	1 : Show backlinks
178	tag:cast	1 : Show backlinks
179	tag:circle	1 : Show backlinks
180	tag:colours	1 : Show backlinks
181	tag:command	1 : Show backlinks
182	tag:context	1 : Show backlinks
183	tag:controlname	1 : Show backlinks
184	tag:craft	1 : Show backlinks
185	tag:csv	1 : Show backlinks
186	tag:current	1 : Show backlinks
187	tag:debug	1 : Show backlinks
188	tag:diagnostic	1 : Show backlinks
189	tag:display	1 : Show backlinks
190	tag:dj	1 : Show backlinks
191	tag:dmx	1 : Show backlinks
192	tag:editor	1 : Show backlinks
193	tag:error	1 : Show backlinks
194	tag:ethernet	1 : Show backlinks
195	tag:example	1 : Show backlinks
196	tag:export	1 : Show backlinks
197	tag:exposure	1 : Show backlinks
198	tag:external	1 : Show backlinks
199	tag:fade	1 : Show backlinks
200	tag:fade-out	1 : Show backlinks
201	tag:fademode	1 : Show backlinks
202	tag:fadetime	1 : Show backlinks
203	tag:first	1 : Show backlinks
204	tag:fx	1 : Show backlinks
205	tag:generated	1 : Show backlinks
206	tag:get	1 : Show backlinks
207	tag:go_back	1 : Show backlinks
208	tag:goontarget	1 : Show backlinks
209	tag:grandmaster	1 : Show backlinks
210	tag:groupmaster	1 : Show backlinks
211	tag:groups	1 : Show backlinks
212	tag:half	1 : Show backlinks
213	tag:halve	1 : Show backlinks
214	tag:handles	1 : Show backlinks
215	tag:haze	1 : Show backlinks
216	tag:highlight	1 : Show backlinks
217	tag:id	1 : Show backlinks
218	tag:ienumerable	1 : Show backlinks
219	tag:include	1 : Show backlinks
220	tag:insert	1 : Show backlinks
221	tag:json	1 : Show backlinks

222	tag:keyframe	1 : Show backlinks
223	tag:layer	1 : Show backlinks
224	tag:lee	1 : Show backlinks
225	tag:lighting	1 : Show backlinks
226	tag:macroid	1 : Show backlinks
227	tag:map	1 : Show backlinks
228	tag:mapping	1 : Show backlinks
229	tag:marker	1 : Show backlinks
230	tag:message	1 : Show backlinks
231	tag:mmc	1 : Show backlinks
232	tag:model	1 : Show backlinks
233	tag:modular	1 : Show backlinks
234	tag:move	1 : Show backlinks
235	tag:msc	1 : Show backlinks
236	tag:multiple	1 : Show backlinks
237	tag:multiplier	1 : Show backlinks
238	tag:name	1 : Show backlinks
239	tag:nested	1 : Show backlinks
240	tag:never_hold	1 : Show backlinks
241	tag:new	1 : Show backlinks
242	tag:nonexistent	1 : Show backlinks
243	tag:note	1 : Show backlinks
244	tag:nudge	1 : Show backlinks
245	tag:obj	1 : Show backlinks
246	tag:offset	1 : Show backlinks
247	tag:open	1 : Show backlinks
248	tag:option	1 : Show backlinks
249	tag:pagename	1 : Show backlinks
250	tag:part	1 : Show backlinks
251	tag:parts	1 : Show backlinks
252	tag:pause	1 : Show backlinks
253	tag:php	1 : Show backlinks
254	tag:pioneer	1 : Show backlinks
255	tag:play	1 : Show backlinks
256	tag:playbackgroup	1 : Show backlinks
257	tag:position	1 : Show backlinks
258	tag:preset	1 : Show backlinks
259	tag:quaternion	1 : Show backlinks
260	tag:quickcreate	1 : Show backlinks
261	tag:quicksketch	1 : Show backlinks
262	tag:random	1 : Show backlinks
263	tag:range	1 : Show backlinks
264	tag:rate	1 : Show backlinks
265	tag:recall	1 : Show backlinks
266	tag:recorded	1 : Show backlinks
267	tag:region	1 : Show backlinks

268	tag:remote	1 : Show backlinks
269	tag:remove	1 : Show backlinks
270	tag:render	1 : Show backlinks
271	tag:rendering	1 : Show backlinks
272	tag:repatch	1 : Show backlinks
273	tag:restart	1 : Show backlinks
274	tag:restore	1 : Show backlinks
275	tag:rgb	1 : Show backlinks
276	tag:sacn	1 : Show backlinks
277	tag:screen	1 : Show backlinks
278	tag:segment	1 : Show backlinks
279	tag:selection	1 : Show backlinks
280	tag:send	1 : Show backlinks
281	tag:setting	1 : Show backlinks
282	tag:setup	1 : Show backlinks
283	tag:show	1 : Show backlinks
284	tag:shutdown	1 : Show backlinks
285	tag:simple	1 : Show backlinks
286	tag:simulate	1 : Show backlinks
287	tag:size	1 : Show backlinks
288	tag:skip	1 : Show backlinks
289	tag:spill	1 : Show backlinks
290	tag:spread	1 : Show backlinks
291	tag:state	1 : Show backlinks
292	tag:step	1 : Show backlinks
293	tag:stopwatch	1 : Show backlinks
294	tag:subpatch	1 : Show backlinks
295	tag:swop	1 : Show backlinks
296	tag:syntax	1 : Show backlinks
297	tag:tempo	1 : Show backlinks
298	tag:temporarily	1 : Show backlinks
299	tag:texture	1 : Show backlinks
300	tag:timed	1 : Show backlinks
301	tag:trick	1 : Show backlinks
302	tag:triggers	1 : Show backlinks
303	tag:tweet	1 : Show backlinks
304	tag:unfreeze	1 : Show backlinks
305	tag:uninvert	1 : Show backlinks
306	tag:user_setting	1 : Show backlinks
307	tag:usermacro	1 : Show backlinks
308	tag:uv-map	1 : Show backlinks
309	tag:variable	1 : Show backlinks
310	tag:visualiser	1 : Show backlinks
311	tag:webapi	1 : Show backlinks
312	tag:wheel	1 : Show backlinks
313	tag:wheelmode	1 : Show backlinks

314	tag:wheels	1 : Show backlinks
315	tag:winamp	1 : Show backlinks
316	tag:winch	1 : Show backlinks
317	tag:windows	1 : Show backlinks
318	tag:wordwrap	1 : Show backlinks
319	tag:x-fade	1 : Show backlinks
320	tag:xfade	1 : Show backlinks
321	webapi:boolean	1 : Show backlinks
322	webapi:requests:actionscrip_t_setproperty_string	1 : Show backlinks
323	webapi:requests:handles_playbacks	1 : Show backlinks
324	webapi:requests:handles_setlegend	1 : Show backlinks
325	webapi:requests:handles_setsourcehandlefromhandle	1 : Show backlinks
326	webapi:requests:macros:run	1 : Show backlinks
327	webapi:requests:palette:numeric:inputvalue	1 : Show backlinks
328	webapi:requests:playback	1 : Show backlinks
329	webapi:requests:playback_x	1 : Show backlinks
330	webapi:requests:playback_x_cue_y	1 : Show backlinks
331	webapi:requests:playbacks_replaceplaybackcue	1 : Show backlinks
332	webapi:requests:playbacks_storecue	1 : Show backlinks
333	webapi:requests:programmer_editor_fixtures_setcontrolvaluebyname	1 : Show backlinks
334	webapi:requests:selection_context_programmer_selectfixture	1 : Show backlinks
335	webapi:requests:timecode.timecodeone.setstarttime	1 : Show backlinks

To Do

- elaborate on wishlist
- Write a little howto on the namespace structure in Ai
- Ai templates
- handle notation: chaseHandleUN, paletteHandleUN, cueHandleUN, playbackHandleUN, masterHandleID, trackHandleID, groupHandleUN, see also <http://forum.avolites.com/viewtopic.php?f=20&t=6196&p=22250#p22250>
- list more FixtureControlIDs ([FixtureControlId](#)), e.g. Shutter or Prism. They are in the show only if such a fixture is patched

complete articles

see above

Identifiers

See below for the planned structure of types, object types, identifiers

Identifiers

- Elaborate on identifiers.
- Examples

- Groups

MaskIds

see <http://forum.avolites.com/viewtopic.php?f=20&t=5936#p21411>

Menuitem

see [Off/On Attribute \(snippets\)](#)

not yet possible

- access Capture cameras, see <http://forum.avolites.com/viewtopic.php?f=20&t=5940>

all the tbd's

- [altering_macros_when_used_in_a_show](#)

questions

- how to display multiline messages in [Show a message prompt](#)
- what happens in [Playback - Fire/Release Playbacks from Usernumber](#) with multiple sequential steps, with release time - do they release simultaneously, or consecutively?

debugging macros

- empty if hive, see [Control Structures](#)

sACN triggers

- trigger a master (e.g. speed) in order to fade it over time
- trigger macros on single cues
- invert something (but why...)
- virtual Capture multipatch
- size master?

WebAPI

- Structure/sections
- example reset:

reset.zip

- release playbacks groups and masters for a range of consoles

external control

- external control, example of rtpMidi:
<https://www.facebook.com/groups/Avolites/permalink/1784457491686477/>

examples

- check IDs and filenames of current examples
- handle range, emails 30.08./03.09., also link to
<http://forum.avolites.com/viewtopic.php?f=20&t=5848&p=21193>
- fire macros by triggers (sACN console to itself), see
<http://forum.avolites.com/viewtopic.php?f=20&t=5573#p21114>
- write some words regarding saving patches (in the ai:specifics section)
- Sammlung, siehe FB Florian Engelmohr 29.01.2019:
 checkgroupexists.xml
- FB Florian Engelmohr, store palette:
 1test2.xml
- check if handle is already in use, with casting:
<http://forum.avolites.com/viewtopic.php?f=20&t=5997#p21633>
- Macros Robin Lotze, email 07.03.19
- converters, see <http://forum.avolites.com/viewtopic.php?f=20&t=5962> (Math.EqualityConverter, Math.EnumAsStringEqualityConverter)
- CreateShape, see slack/Flo, 08.07.19

Forum done until 01.03.19

Timecode.TimecodeOne.SetStartTime and TimecodeTime object, see
<http://forum.avolites.com/viewtopic.php?f=20&t=6298>

(Gregory, 27.08.2018)

Unfortunately no I don't think there is any way to tell for sure. However generally older parts of the software such as Handles and Palettes will require function calls whereas newer or rewritten code such as Edit Times, Playback Options, Timecode and Capture settings will normally respond directly to the property changes. This is mainly because the latter was not always possible and we don't generally rewrite working code unless there is a need to as this runs the risk of introducing bugs.

is there a way to tell whether setting a property is enough (like in ActionScript.SetProperty("Playbacks.Editor.Times.PlaybackReleaseTime", time:0)) or both must be done (property set AND function applied, like with lockState)?

Gregory, Email 11.12.19 re. new variables: <start>, <end>, automatic definition of variables

Toggle Trigger Mappings in v12, see
<https://www.facebook.com/groups/Avolites/permalink/1766567636808796/> and
<http://forum.avolites.com/viewtopic.php?f=3&t=6337>

Example for version checking, syntax of nested quotes etc.

```
<macro name="Set PB 903 legend" id="Macros.SetPB903Legend">
```

```

<description></description>
<sequence>
  <step>Handles.SetSourceHandleFromHandle("playbackHandleUN=903")</step>
  <step condition="Math.String.StartsWith(System.SoftwareVersion,
'13')">{
    ActionScript.SetProperty("Handles.PendingLegend", "This is v13");
    Handles.SetLegend();
    Handles.ClearSelection();
  }</step>
</sequence>
</macro>

```

Example for reversing, offsetting and restarting shapes (Matias Muccillo), see <https://www.facebook.com/groups/Avolites/permalink/1799612296837663/>

mm-symmetrical-shape.xml

Elaborate on trigger software usage on [Software List](#), e.g. Show Cockpit from https://www.facebook.com/groups/Avolites/?post_id=1830168723782020&comment_id=1830316103767282

Titan Tricks

- convert chase to list by syntax, see <https://www.facebook.com/groups/AvolitesTitanOne/permalink/1593613030774823/>
- use macro on single cue (with sACN triggers)
- create a group master on old software (with negative shape)
- create a size master on v9 (clock shape triggered with sACN and inverted curve)
- fade fx size/rate over time (in cue list, with a master being triggered by a virtual dimmer channel)
- make a pixel effect track (cuelist cue fires macro which toggles an external playback on/off)
- special cuelist (fader fires cue 1, go toggles between 2 and 3), see <https://www.facebook.com/groups/260735644292354/permalink/732708060428441>
- use clock as timer/stop watch, see <https://www.avolites.de/wiki/macros:example:timecodestartstop> and <https://www.facebook.com/groups/Avolites/permalink/1444431649022398/>
- Titan Ports, see

titan_ports.xlsx

- set Fixture Library date to avoid Health Check:

```
Windows Registry Editor Version 5.00
```

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Avolites\Titan\Libraries]
"VersionDateTime"="2028-08-14 05:49:32"
```

MIDI

- MSC,

https://www.facebook.com/groups/Avolites/permalink/1713549732110587/?comment_id=1714066365392257

- MSC specification:
<http://www.richmondsounddesign.com/docs/midi-show-control-specification.pdf>
- MMC, siehe Macros Olie (Email 03./05.12.19)
- MTC über Netzwerk?
- MIDI Output, Loopback:
<https://www.facebook.com/groups/1811437589141428/permalink/2503806193237894/>

AI knowledge base

- d4mance/BC 2014
- d4mance/BC 2016
- patches from forum
- pictures on welcome pages/section headers
- how to make use of a patch on the performance page, and how to set its thumbnail
- Pip and Multi Screen projects
- Multiviewer (TH):
 - AI OUTPUTS
 - RenderToTexture
 - Sample Texture Region
 - Clear
 - Render Merge
 - output/Window (off/on by Artnet)
- clock/countdown (SB/Arran)

Ai tricks and pitfalls

- renumbering fixtures
- no audio files on the performance page!
- how to enable tap tempo (tap widget, system settings, Beat settings per tile)
- antialiasing (double resolution, see movingscreens/email)
- what is saved where
- how to save and use clip collections
- how to create a project thumbnail
- wrong codec may even disturb playmodes
- MPEG Streamclip for transcoding
- MIDI trigger on the performance page requires MIDI notes - ControlChange doesn't work here

Is there a wiki plugin to show a number of random pages from the namespace, e.g. in Ai/Examples?

Types/Identifiers Hierarchy

identifiers (essentially this is the most common ways to identify particular items)

Clear mask: Intensity=1, Positions=2, Colours=4, Gobos=8, Beam=16,
Effect = 32, Special = 64, FX = 128, Time = 256 also see
AcwRecordMask?!?

See <http://api.avolites.com/11.0/Avolites.Acw.Titan.AcwRecordMask.html>

Discussion threads

Macro - Export Macro	2025/04/28 07:16	2 Comments
Set All Shapes Direction	2024/10/23 23:12 Sebastian Beutel	1 Comment
Inhibit selected fixtures dimmer	2023/02/28 12:25 Sebastian Beutel	1 Comment
Set a Handle's Halo	2021/05/29 18:08 Sebastian Beutel	2 Comments
Delete Workspace X	2018/06/12 13:05 Sebastian Beutel	1 Comment
Timecode - Toggle On/Off for particular playback	2017/11/20 16:39 Sebastian Beutel	1 Comment
Playback - Set Paging to Never Hold	2017/11/20 15:52 Sebastian Beutel	1 Comment
MIDI Note On/Off	2017/10/15 09:19	1 Comment

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<https://www.avosupport.de/wiki/todo?rev=1585601363>

Last update: **2020/03/30 20:49**

