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Conformance Test Specification for Marlin Dynamic Media Zones Implementations

Version 1.0.1

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Source	Marlin Developer Community
Date	April 27, 2007

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Contact Information

Feedback on this specification should be addressed to: editor@marlin-community.com

Contact information for the Marlin Trust Management Organization can be found at: http://www.marlin-trust.com/

Contents

91 Introduction

92 Document Organization

93 This document describes a Conformance Test Specification for media player
94 implementations of Marlin Dynamic Media Zones. It is organized as follows:
95   • Introduction, overview, and conformance conventions
96   • Sections for each of Conformance Test Items. These are:
97   o Conformance Test Items for Data Verification
98   o Conformance Test Items for Callbacks
99   o Conformance Test Items for Metering
100   • Scenarios for Conformance Test Items
101   • References

102 Overview

103 This document describes Conformance Test Specifications for media player
104 implementations of Dynamic Media Zones based on Marlin Dynamic Media Zones
105 Ver1.0 [DMZ].

106 Conformance Conventions

107 The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT",
108 "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this
109 specification are to be interpreted as described in IETF RFC 2119 [RFC2119].
110

Conformance Test Items for Data Verification

Digest

The following SHALL be tested:

- ✓ When the media player plays a zone that has a `digestAlgorithm` different from `NONE (0)`, it MUST compute the zone digest as it is being played. When the zone has been completely played, it MUST compare the value of the computed digest with the value of the `mediaDigestValue` field for that zone, and stop any further playback of the presentation if the values are not equal.

The Conformance Test SHALL confirm the specifications above for the media player.

Signature

The following SHALL be tested:

- ✓ The signature carried in the zone map MUST be verified.

The Conformance Test SHALL confirm the specification above for the media player.

125 Conformance Test Items for Callbacks

126 Zone Callbacks

127 The following SHALL be tested:

128 ✓ When an OnZoneCompleted callback notice is returned by the 'Check' and/or
129   'Perform' methods of a playback-related action, the Host application MUST
130   callback when the specified zone has been completely played.

131 The Conformance Test SHALL confirm the specification above for the media player.

132   # Conformance Test Items for Metering

133   ## *Obligation for Metering*

134   The following SHALL be tested:
135   - ✓ If a zone has completely been played and the METERING flag is set for that
136   zone in the MediaZones obligation, the player application MUST log that
137   event.
138   - ✓ When reporting that event in metering data to the metering service, the entry
139   corresponding to that event SHALL be an Event record as defined in section
140   6.3.2 of [MarlinBB]. The record SHOULD only include the "stop" time, omitting
141   the "start" time.
142   The Conformance Test SHALL confirm the specifications above for the media player.

143   ## *Obligation types*

144   The following SHALL be tested:
145   - ✓ If a zone has a type equals to NOSKIP, The player application MUST NOT
146   automatically skip this zone: the zone MUST be played as an integral part of
147   the presentation.
148   - ✓ If a zone has a type equals to MAGNETIC, This zone is magnetic: if the
149   player application attempts to seeks inside the zone from a playback position
150   outside the zone, then the playback MUST begin at the 'fromPoint' point of
151   the zone
152   - ✓ If a zone has a type equals to STICKY, This zone is sticky: if the player enters
153   this zone, it MUST disable the ability to fast-forward or to skip this zone until
154   the playback position is outside the zone.
155   The Conformance Test SHALL confirm the specifications above for the media player.
156

157 Scenario for Dynamic Media Zones (Informative)

158 This section introduces several scenarios.
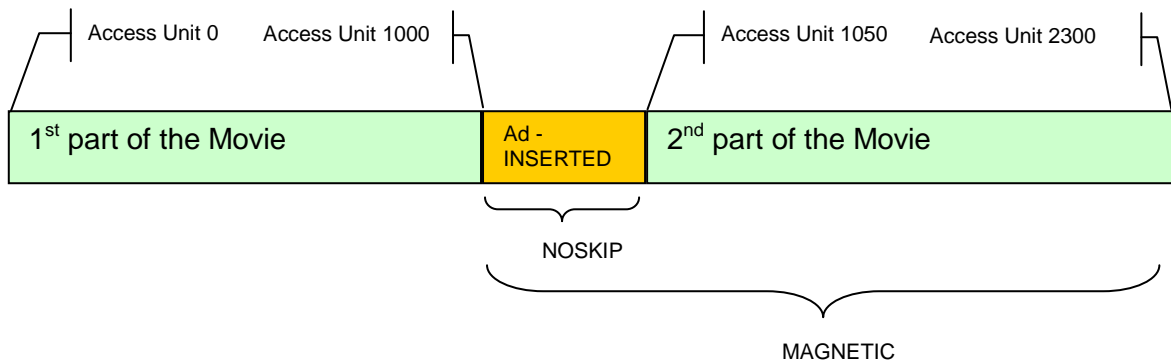
159 *Scenario 1 – FBI Warning example*

160 This scenario is based on the example in section 5.1 FBI Warning of [DMZ].
1. The user tries to seek to the middle of the presentation; the player MUST go
   to the beginning of the FBI warning screen.
2. This warning cannot be skipped and the user cannot fast forward.
3. At the end of this warning zone, the callback ZoneCallback MUST be called.
4. The user can now seek inside the presentation.
5. User presses stop.
6. User presses play again, he can now skip the FBI Warning or fast forward it.

168

169 *Scenario 2 – Ads*

170 Description

171
172 There are 3 zones in the presentation:
- AU 0 → 1000: beginning of the movie, that zone doesn't contain any
  obligation;
- AU 1000 → 1050: an ad, this zone is marked as INSERTED, if there are no
  zone obligation returned by the Perform of the Play action, it is ok to skip this
  ad.   If the user buys the content, then no obligation is returned for that zone,
  otherwise, an obligation (with zone type NOSKIP) is returned.
- AU 1000 → 2300: this is a MAGNETIC zone, if the user seeks inside that
  zone (from outside that zone), then the playback must begin at AU 1000.   If
  the user has bought the content, no obligation is returned for that zone.

182 Free (with Ad)

183 The user didn't buy that piece of content; he will have to watch the ads.
1. The user starts to play back that content.   He can seek freely inside the 1st
   part of the movie.
2. User tries to seek to the 2nd part of the movie from the 1st part of the movie:
   the playback must begin at the beginning of the ad.
3. User can seek anywhere in the movie.

189 Purchased (without Ad)

190 The user bought the content; he won't have to watch the ads.

191   1. The user starts to play back the content.   He can seek freely inside the
192   whole movie.
193   2. At the end of the 1st part of the movie, the player should skip the Ad and play
194   back the 2nd part of the movie.

195 # References

[RFC2119]	S. Bradner, *Key words for use in RFCs to Indicate Requirement Levels*, IETF RFC 2119, March 1997. http://www.ietf.org/rfc/rfc2119.txt.
[DMZ]	Marlin Dynamic Media Zones, Version 1.0.
[MarlinBB]	Marlin Broadband System Specification, Version 1.2

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