Ad-ID Format

April 1, 2016

Version 1.0

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1 Introduction

This document describes various ways to represent Ad-IDs, and provides example use cases for some of those representations. It assumes a basic knowledge of the Ad-ID system.

1.1 Document Version Information

If new standard representations of an Ad-ID are developed, they will be included in future versions of this document.

Version 1.0:

- Initial Draft

2 Canonical Form

2.1 Standards References

2.1.1 SMPTE

The Society of Motion Picture and Television Engineers (SMPTE) has defined text and binary representations for "Advertising Digital Identifier (Ad-ID™) Representations ", issued as SMPTE Recommended Practice 2092-1 (SMPTE RP 2092-1).

SMPTE RP 2092-1 is the standards body document that defines the canonical form of an Ad-ID. It also defines the compact binary representation. All of these are compatible with the equivalent definitions in this document.

2.2 Representation

This is the only representation that can properly be called an Ad-ID. [1] An Ad-ID consists of an eleven or twelve character string. The canonical form of an Ad-ID can be any of the following:

Type	Format
Ad-ID – Standard Definition	ABCD1234000
Ad-ID – High Definition	ABCD1234000H
Ad-ID – Three-Dimensional (3D)	ABCD1234000D

Note: High definition and three-dimensional are for video only and does not apply to other media formats. [2]

Standard nomenclature is:

- The first four characters is the company prefix. This is a unique alphanumeric string, not starting with a "0".
- Following the prefix is a unique 7 character alphanumeric unique code for a company's advertising content.
- The 12th character is an optional one-character Video Format Identifier. [2]

Character Set:

- The Ad-ID is restricted to the following set:
  - ASCII alphabetic characters A-Z and a-z (0x41 – 0x5a)
  - ASCII digits 0-9 (0x30 – 0x39)

[1] Ad-ID Structure Details, http://www.ad-id.org/how-it-works/ad-id-structure

[2] The 12th character is a one-character Video Format Identifier only used for HD and 3D

3 Alternate Representations

It is sometimes necessary or convenient to present the Ad-ID in a more compact representation. There are the requirements for alternate forms:

- They do not lose any information.
- All the systems that exchange a particular non-canonical form of an Ad-ID agree on and recognize the format.
- All systems convert the non-canonical form of the ID to the canonical form when communicating with systems that are not "in the know" (such as third party and ADS applications).
- They are used as references to the "Full Ad-ID Code" and are not considered the registered Ad-ID.

The remainder of this section covers some standard alternate representations of an Ad-ID. Other formats requiring Ad-ID within other standards will be added as they emerge.

3.1 Binary

3.1.1 Compact Identifier

A compact identifier applies to all Ad-IDs, and is the primary key for the database record which can be used as a compact alias. This form always takes 32 bits:

- 32-bit unsigned integer compact identifier:

  For Example:
  Ad-ID: A4ID0036000
  Compact Identifier: 10014663

3.1.2 Hashed Compact Identifier

The hashed value of the compact identifier applies to all Ad-IDs and can be used as a reference when space is at a premium.[3] This form always takes 32 bit hexadecimal value:

- 32-bit compact identifier: A permutation of the compact identifier is obtained using a pseudo-random number generator (PRNG). The result is converted to an arbitrary constant (hashed) and returned as a hex value.

  For Example:
  Ad-ID: A4ID0036000
  Compact Identifier: 10014663
  Hashed Value: 3f0502f1

[3] The hashed value is typically used as a reference to Ad-ID for systems that require a small payload in order to save on space. The hashed value is used to request data via Ad-ID's Complete External Access (CEA) API as an alternative to requesting by the Ad-ID.

3.2 Use in Filenames

It may be necessary or useful to embed an Ad-ID in a filename. Some systems use filenames that convey information to human readers, and some systems use filenames that are just strings of characters.

3.3 Use in XMP

It may be necessary or useful to embed an Ad-ID into a digital media file. [4] Adobe's Extensible Metadata Platform (XMP) is a labeling technology that allows users to embed data about a file, known as metadata, into the file itself. [5]

[4] See http://www.ad-id.org/advertising-interoperability for Ad-ID Digital Ad Slate for XMP Version 1.0.

[5] See http://www.iso.org/iso/catalogue_detail?csnumber=57421 for more details on XMP.

4 Size summary

Ad-ID ID Format	Size
Canonical, standard	11 bytes
Canonical, HD format	12 bytes
Canonical, 3D format	12 bytes
Compact Identifier	8 bytes (32 bits)
Hashed Compact Identifier	8 bytes (32 bits)