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ACAP Bookmarks Dataset Class

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A version of this draft document is intended for submission to the RFC editor as a Proposed Standard for the Internet Community. Discussion and suggestions for improvement are requested.

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[1.](#) Abstract

Storing URLs [[URL](#)] for later access has become common in Internet applications (for example, web browsers, FTP clients); these saved URLs have become known as bookmarks. It would be desirable to access one's bookmarks from multiple clients and multiple machines.

The Application Configuration Access Protocol [[ACAP](#)] provides an ideal mechanism for storage of bookmarks, providing for ease of coordination and synchronization of bookmarks between diverse applications and systems, as well as for hierarchy, inheritance, and sharing between users.

This specification defines a standard ACAP dataset class for bookmarks.

[2.](#) Conventions Used in this Document

The key words "MUST", "MUST NOT", "SHOULD", "SHOULD NOT", and "MAY" in this document are to be interpreted as defined in "Key words for use in RFCs to Indicate Requirement Levels" [[KEYWORDS](#)].

[3.](#) Comments

Public comments can be sent to the IETF ACAP mailing list, <ietf-acap+@andrew.cmu.edu>. To subscribe, send a message to

<ietf-acap-request+@andrew.cmu.edu> with the word SUBSCRIBE as the body. Private comments should be sent to the author.

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4. ACAP Bookmarks Dataset Class

The ACAP Bookmarks dataset class defines a set of attributes for each bookmark, and provides for bookmark inheritance and hierarchy.

4.1. ACAP Bookmarks Dataset Class Prefix

Datasets whose names begin with "/bookmarks" are assumed to contain bookmark entries as defined in this specification.

4.2. ACAP Bookmarks Dataset Hierarchy

Each user may have a hierarchical set of bookmarks. Nested or hierarchical bookmarks (that is, bookmark folders) SHOULD be represented using the ACAP Hierarchy. Any entry in a bookmarks dataset can be a hierarchy node by setting the "subdataset" attribute.

Inheritance is likely to be useful both for inheriting sets of site or group default bookmarks as well as for inheriting user-specific bookmarks when using different machines.

5. Recommended ACAP Bookmarks Dataset Attributes

A Bookmarks dataset entry MUST have an "entry" attribute. All other attributes are OPTIONAL.

Attributes are specified using Augmented Backus-Naur Form [[ABNF](#)], including the Core Rules. All attributes are single-valued and textual (do not contain binary data) unless otherwise stated.

The ABNF defines the content of the attribute values prior to their encoding as an ACAP string. Clients MUST conform to the syntax when generating these attributes, but MUST NOT assume that the attribute values will conform to this syntax on access. Servers MUST NOT enforce the syntax.

5.1. Basic Attributes

These attributes are defined in ACAP [[ACAP](#)] and have meaning in all dataset classes. The section describes how they are used in a bookmarks dataset.

entry

The "entry" attribute is used to uniquely identify the bookmark. The name MUST be unique, but is not expected to be descriptive, and generally is not suitable for display to users. It is client-defined.

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The "entry" attribute is also used for ordering. When selecting the "entry" attribute for a new bookmark, in addition to uniqueness, the client selects a string which causes the new entry to appear in the desired order, when sorted using the "i;ascii-casemap" comparator [[ACAP](#)]. For example, to insert an entry between "a1" and "a2", "a1a" could be used.

subdataset

The "subdataset" attribute indicates that there is a subdataset of this entry. The value of this attribute specifies the actual location of the subdataset, per [[ACAP](#)] [section 3.1.1](#). For the bookmarks dataset, a value of "." is most commonly used for a user's own entries, indicating that the subdataset exists directly beneath this one. However, especially when inheriting bookmarks from group or site collections, the value of this attribute may point to a dataset on the same or a different ACAP server.

[5.2.](#) Specific Attributes

These attributes are specific to the Bookmarks dataset class.

bookmarks.Date.Added

This contains the date and time of the original creation of this entry. The value is expressed in UTC with a timezone offset, indicating the user's local time.

book-date = datetime ;specified in Common ABNF

bookmarks.Description

This contains the user-assigned description of the entry, as a series of CRLF-separated lines.

book-description = *line ;specified in Common ABNF

bookmarks.Last.Modified

This contains the date and time of the most recent modification

of the entry. Modification includes any user-initiated action (such as editing the description) but not automatic actions (such as updating the "Last.Visited" attribute). The value is expressed in UTC, with a timezone offset indicating the user's local time.

book-modtime = datetime ;specified in Common ABNF

bookmarks.Last.Visited

This contains the date and time of the most recent access of the location represented by the entry's URL. The value is expressed in UTC, with a timezone offset indicating the user's local time.

book-visit = datetime ;specified in Common ABNF

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bookmarks.Name

This specifies a descriptive name for the entry. It does not need to be unique.

book-name = 1*(VCHAR / SP)

bookmarks.Type

This contains a token describing the type of the entry. The Separator type indicates the entry is separator for display purposes. The Folder type is used for a container or folder (used with ACAP subdatasets). The Alias type is used for an alias entry, in which case the URL is an ACAP URL to an entry in an ACAP Bookmarks dataset. The Link type is used to refer to any type of object, for example, a web page or a file.

book-type = "separator" / "link" / "alias" / "folder"

bookmarks.URL

This contains the URL of the object referred to by this entry. For Link type entries, this can be any type of URL. For Alias type entries, this is an ACAP URL. ACAP URLs are specified in [\[ACAP\]](#).

book-url = url ;defined in [\[URL\]](#)

6. Common ABNF

The following [\[ABNF\]](#) rules are used above.

datetime = year month day hour minute second timezone
;UTC and offset to local time

day	=	2DIGIT
hour	=	2DIGIT
line	=	*(VCHAR / SP) CRLF
minute	=	2DIGIT
month	=	2DIGIT
second	=	2DIGIT
timezone	=	("+" / "-") 4DIGIT
year	=	4DIGIT

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7. Examples

/~/bookmarks/

entry	a23gzk
bookmarks.Date.Added	198401010000001+0800
bookmarks.Description	Where I get my worms
bookmarks.Last.Modified	19971114071202+0800
bookmarks.Last.Visited	19980311173545+0800
bookmarks.Name	Fred's Bait and Tackle
bookmarks.Type	link
bookmarks.URL	http://www.freds bait and tackle.fog/
entry	b1799
bookmarks.type	separator
entry	xyzzz
bookmarks.Date.Added	197706121400004+0500
bookmarks.Description	This really cool site I stumbled on when looking for something else. It has detailed and easy to follow instructions on how to crush beer cans
bookmarks.Last.Modified	19971231235902+0800
bookmarks.Last.Visited	19980311173510+0800
bookmarks.Name	Yip Yap's Helpful HowTo Page
bookmarks.Type	link
bookmarks.URL	http://stud.cheesy.edu/~jru/

entry	zz99
subdataset	.
bookmarks.Name	Contemporaneous Contemplations
bookmarks.Type	folder

/~/bookmarks/zz99/

entry	a1a1
bookmarks.Date.Added	19990401000002+0800
bookmarks.Description	I laughed so hard beer came out my nose and my then my roommate saw and started laughing and choking
bookmarks.Last.Modified	19990401000002+0800
bookmarks.Last.Visited	19990401000001+0800
bookmarks.Name	Why Beer is Better than ...
bookmarks.Type	link
bookmarks.URL	http://trash.example.org/~b1ff/beer.html

entry	b2b2
bookmarks.Date.Added	19990401010003+0800
bookmarks.Description	Commencement address delivered by Clinton and Vonnegut to Vassar

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bookmarks.Last.Modified	19990401010003+0800
bookmarks.Last.Visited	19990401010000+0800
bookmarks.Name	Clinton and Vonnegut at Vassar
bookmarks.Type	link
bookmarks.URL	http://april.fools.oaf/vassar-mit

8. References

[ABNF] Crocker, Overell, "Augmented BNF for Syntax Specifications: ABNF", [RFC 2234](#), Internet Mail Consortium, Demon Internet Ltd., November 1997. <<ftp://ftp.isi.edu/in-notes/rfc2234.txt>>

[ACAP] Newman, Myers, "ACAP -- Application Configuration Access Protocol", [RFC 2244](#), Innosoft, Netscape, November 1997. <<ftp://ftp.isi.edu/in-notes/rfc2244.txt>>

[KEYWORDS] Bradner, "Key words for use in RFCs to Indicate Requirement Levels", [RFC 2119](#), Harvard University, March 1997. <<ftp://ftp.isi.edu/in-notes/rfc2119.txt>>

[URL] Berners-Lee, Masinter, McCahill, "Uniform Resource Locators (URL)", [RFC 1738](#), CERN, Xerox Corporation, University of Minnesota,

December 1994. <<ftp://ftp.isi.edu/in-notes/rfc1738.txt>>

[UTF8] Yergeau, F. "UTF-8, a transformation format of ISO 10646",
[RFC 2279](ftp://ftp.isi.edu/in-notes/rfc2279.txt), Alis Technologies, January 1998.
<<ftp://ftp.isi.edu/in-notes/rfc2279.txt>>

9. Security Considerations

As with ACAP datasets in general, it is important that access controls are set correctly on Bookmarks datasets. Attributes may contain personal information which should not be disclosed except by explicit owner request.

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