

HAR Specification document					
HAR Specifcation Term	JSON Type	Property of	Req / Opt	Definition	Class / Property
Har file			Req	The actual HAR file that contains the har log.	class
					property
					relation
Log	object		Req	This object represents the root of the exported data. This object MUST be present and its name MUST be "log".	class
					property
Creator	object	log	Req	This object contains information about the log creator application	class

Browser	object	log	Opt	This object contains information about the browser that created the log. An object of type browser that contains the name and version information of the user agent.	class
Entries	array	log	Req	An array of objects of type entry, each representing one exported (tracked) HTTP request. An entry stores additional information on each HTTPrequest. There is one <entry> object for every HTTP request.	class
Pages	array	log	Opt	This object represents list of exported pages. There is one <page> object for every exported web page.	class
version	string	log	Req	Version number of the format	object
comment	string	log	Opt	A comment provided by the user or the application.	literal
name	string	creator	Req	The name of the application that created the log.	object
version	string	creator	Req	The version number of the application that created the log.	object
comment	string	creator	Opt	A comment provided by the user or the application.	literal
name	string	browser	Req	The name of the browser that created the log.	object
version	string	browser	Req	The version number of the browser that created the log.	object
comment	string	browser	Opt	A comment provided by the user or the application.	literal
startedDateTime	string	pages		Date and time stamp for the beginning of the page load (ISO 8601 - YYYY-MM-DDThh:mm:ss.sTZD, e.g. 2009-07-24T19:20:30.45+01:00	object

id	string	pages		Unique identifier of a page within the log. Entries use it to refer the parent page.	object
title	string	pages		Page title	object
pageTimings	object	pages		Detailed timing info about page load.	object
comment	string	pages	Opt	A comment provided by the user or the application.	literal
onContentLoad	number	pageTimings	Opt	Content of the page loaded. Number of milliseconds since page load started (page.startedDateTime). Use -1 if the timing does not apply to the current request.	
onLoad	number	pageTimings	Opt	Page is loaded (onLoad event fired). Number of milliseconds since page load started (page.startedDateTime). Use -1 if the timing does not apply to the current request.	
comment	string	pageTimings	Opt	A comment provided by the user or the application.	literal
pageref	string	Entries	Opt	Reference to the parent page. Leave out this field if the application does not support grouping by pages.	object
startedDateTime	string	Entries		<u>startedDateTime [string] - Date and time stamp of the request start (ISO 8601 - YYYY-MM-DDThh:mm:ss.sTZD).</u>	object
time	number	Entries		time [number] - Total elapsed time of the request in milliseconds. This is the sum of all timings available in the timings object (i.e. not including -1 values) .	literal
request	object	Entries		request [object] - Detailed info about the request.	class
response	object	Entries		Detailed info about the response.	class
cache	object	Entries		Info about cache usage.	
timings	object	Entries		Detailed timing info about request/response round trip.	literal
serverIPAddress	string	Entries	Opt	IP address of the server that was connected (result of DNS resolution).	class

connection	string	Entries	Opt	Unique ID of the parent TCP/IP connection, can be the client port number. Note that a port number doesn't have to be unique identifier in cases where the port is shared for more connections. If the port isn't available for the application, any other unique connection ID can be used instead (e.g. connection index). Leave out this field if the application doesn't support this info.	class
comment		Entries		comment [string, optional] (new in 1.2) - A comment provided by the user or the application.	literal
method	string	Request		Request method (GET, POST, ...)	
url	string	Request		Absolute URL of the request (fragments are not included)	
httpVersion	string	Request			
Cookies	array	Request		List of cookie objects	
Headers	array	Request		List of header objects	???
queryString	array	Request		List of query parameter objects. list of all parameters & values parsed from a query string if any (embedded in Request object)	object
postData	object	Request	opt	Posted data info.	object
headersSize	number	Request		Total number of bytes from the start of the HTTP request message until (and including) the double CRLF before the body. Set to -1 if the info is not available.	relation
bodySize	number	Request		Size of the request body (POST data payload) in bytes. Set to -1 if the info is not available.	relation
comment	string	Request	Opt	A comment provided by the user or the application.	literal
status	number	Response		Response status.	
statusText	string	Response		Response status description.	
httpVersion	string	Response		Response HTTP Version.	
cookies	array	Response		List of cookie objects.	
headers	array	Response		List of header objects.	???
content	object	Response		Details about the response body.	object
redirectURL	string	Response		Redirection target URL from the Location response header.	???

headersSize	number	Response		Total number of bytes from the start of the HTTP response message until (and including) the double CRLF before the body. Set to -1 if the info is not available.	literal
bodySize	number	Response		Size of the received response body in bytes. Set to zero in case of responses coming from the cache (304). Set to -1 if the info is not available.	literal
comment	string	Response	Opt		literal
name	string	Cookie		The name of the cookie.	relation
value	string	Cookie		The cookie value.	relation
path	string	Cookie	Opt	The path pertaining to the cookie.	relation
domain	string	Cookie	Opt	The host of the cookie.	relation
expires	string	Cookie	Opt	Cookie expiration time. (ISO 8601 - YYYY-MM-DDThh:mm:ss.sTZD, e.g. 2009-07-24T19:20:30.123+02:00).	relation
httpOnly	boolean	Cookie	Opt	Set to true if the cookie is HTTP only, false otherwise.	relation
secure	boolean	Cookie	Opt	True if the cookie was transmitted over ssl, false otherwise.	relation
comment	string	Cookie	Opt	A comment provided by the user or the application.	literal
name	string	headers			property
value	string	headers			property
comment	string	headers			literal
name	string	queryString			property
value	string	queryString			property
comment	string	queryString			literal
contentType	string	postData		Mime type of posted data.	
params	array	postData		List of posted parameters (in case of URL encoded parameters).	property
text	string	postData		Plain text posted data	
comment	string	postData		A comment provided by the user or the application.	literal
name	string	params		name of a posted parameter	property

value	string	params		value of a posted parameter or content of a posted file.	property
fileName		params		name of a posted file	
contentType		params		content type of a posted file	
comment	string	params		A comment provided by the user or the application.	literal
size	number	content		Length of the returned content in bytes. Should be equal to response.bodySize if there is no compression and bigger when the content has been compressed.	
compression	number	content	Opt	Number of bytes saved. Leave out this field if the information is not available.	
mimeType		content		MIME type of the response text (value of the Content-Type response header). The charset attribute of the MIME type is included (if available).	
text		content	Opt	Response body sent from the server or loaded from the browser cache. This field is populated with textual content only. The text field is either HTTP decoded text or a encoded (e.g. "base64") representation of the response body. Leave out this field if the information is not available.	
encoding	string	content	Opt	Encoding used for response text field e.g "base64". Leave out this field if the text field is HTTP decoded (decompressed & unchunked), than trans-coded from its original character set into UTF-8.	
comment	string	content	Opt	A comment provided by the user or the application.	literal
beforeRequest	object	cache	Opt	State of a cache entry before the request. Leave out this field if the information is not available.	
afterRequest	object	cache	Opt	State of a cache entry after the request. Leave out this field if the information is not available.	
comment	string	content	Opt	A comment provided by the user or the application.	literal
expires	string	beforeRequest/afterRequest	Opt	Expiration time of the cache entry.	
lastAccess	string	beforeRequest/afterRequest		The last time the cache entry was opened.	
eTag	string	beforeRequest/afterRequest		Etag	

HAR Vocabulary specification

Ontology	URI	Definition
NFO	http://oscaf.sourceforge.net/nfo.html	<p>(Nepomuk File Ontology (NFO) is one of the fundamental parts of NIE. It deals with files and other desktop resources. Files are understood as sequences of bytes stored in a Filesystem or on a Network.)</p> <p>A resource containing a finite sequence of bytes with arbitrary information, that is available to a computer program and is usually based on some kind of durable storage. A file is durable in the sense that it remains available for programs to use after the current program has finished.</p>
NFO	http://oscaf.sourceforge.net/nfo.html#nfo:fileName	Name of the file, together with the extension
HAR	har:hasLog	contains a resource of type Log
HAR	har:Log	Identifies a trace log of a HTTP client/server conversation. The log is in the HAR-format.
DCTERMS	dcterms:creator	An entity primarily responsible for making the resource.
DCTERMS	dcterms:Agent	An entity primarily responsible for making the resource. Examples of a Creator include a person, an organization, or a service.
Getty	http://vocab.getty.edu/ontology#aat2212_produced_by	<p>things - [are] produced by - things/[equipment].</p> <p>Example: stereoscopic photographs are produced by stereoscopic cameras; punchwork is produced by punches (marking tools)</p>

HAR	har:Browser	Software application used to navigate content that is formatted as for the World Wide Web and using the communication protocols of the internet.
HAR	har:Entry	Collection of metadata regarding the traced HTTP conversation.
HAR	har:Page	
HAR	har:hasVersion	
HAR	har:hasComment	A link to a text string that embodies a commentary note
DC	http://purl.org/dc/terms/title AND hasName	
HAR	har:hasVersion	
HAR	har:hasComment	A link to a text string that embodies a commentary note
DC	http://purl.org/dc/terms/title AND hasName	
HAR	har:hasVersion	
HAR	har:hasComment	A link to a text string that embodies a commentary note
HAR	har:DateAndTimeStamp	

HAR	har:UniquePageIdentifier	
DC	http://purl.org/dc/terms/title AND hasName	
HAR	har:PageTimings	
HAR	har:hasComment	A link to a text string that embodies a commentary note
HAR	har:PageLoadTime AND har:hasIntermediateTiming	
HAR	har:PageLoadTime AND har:hasLoadTime	
HAR	har:hasComment	A link to a text string that embodies a commentary note
HAR	ParentPage	
XSD	xsd:dateTimeStamp	The type xsd:dateTimeStamp represents a specific date and time in the format CCYY-MM-DDThh:mm:ss.sss, which is a concatenation of the date and time forms, separated by a literal letter "T".
HAR	har:hasElapsedtime	Relation property to a number indicating elapsed time in milliseconds.
HTTP	http:Request	An HTTP request
HTTP	http:Response	An HTTP response
HAR	har:cacheUse	
HAR	har:haselapsedtime	Relation property to a number indicating elapsed time in milliseconds.
PROTON	IPAddress	An Internet Protocol address (IP address) is a numerical label assigned to each device (e.g., computer, printer) participating in a computer network that uses the Internet Protocol for communication. Wikipedia

HTTP	Connection	A connection used for HTTP transfer
HAR	har:hasComment	A link to a text string that embodies a commentary note
HTTP	http:mthd	The HTTP method used for the HTTP request
HTTP	http:absoluteURI	
HTTP	http:httpVersion	
HAR	har:cookie	A HTTP header serving as cookie. SubClass of http:EntityHeader ???
HTTP	http:#RequestHeader	A header in an HTTP request message.
HTTP	http:HeaderElement	A part of a deconstructed header value.
HTTP	http:Parameter	
HAR	har:HasRequestHeaderSize	id
HAR	har:HasRequestBodySize	id
HAR	har:hasComment	A link to a text string that embodies a commentary note
HTTP	http:statusCodeNumber	Status code indicated with a number
HTTP	http:statusCodeValue	The status code value of an HTTP response
HTTP	http:httpVersion	
HAR	har:cookie	
HTTP	http:#ResponseHeader	
HTTP	http:#body	The entity body of an HTTP message.
	http://schema.org/url	

HAR	har:hasResponseHeaderSize	
HAR	har:hasResponseBodySize	
HAR	har:hasComment	A link to a text string that embodies a commentary note
HAR	har:hasCookieName	
HAR	har:hasCookieValue	
HAR	har:hasCookiePath	
HAR	har:hasCookieDomain	
HAR	har:hasCookieExpirationTime	
HAR	har:hasCookieHTTPOnly	
HAR	har:hasCookieSSL	
HAR	har:hasComment	A link to a text string that embodies a commentary note
HTTP	http:hdrName	The name of an HTTP header
HTTP	http:fieldValue	The value of an HTTP header field
HAR	har:hasComment	A link to a text string that embodies a commentary note
HTTP	http:paramName	The name of a parameter in a part of a deconstructed HTTP header value.
HTTP	http:params	The parameters in a part of a deconstructed HTTP header value.
HAR	har:hasComment	A link to a text string that embodies a commentary note
HTTP	http:params	The parameters in a part of a deconstructed HTTP header value.
HAR	har:hasComment	A link to a text string that embodies a commentary note
HTTP	http:paramName	The name of a parameter in a part of a deconstructed HTTP header value.

HTTP	http:paramValue	The value of a parameter in a part of a deconstructed HTTP header value.
HAR	har:hasComment	A link to a text string that embodies a commentary note
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HAR	har:hasComment	A link to a text string that embodies a commentary note

Discussion	
Considered Alternative	Considered Alternative
<p>http://www.w3.org/ns/dcat#Dataset A collection of data, published or curated by a single agent, and available for access or download in one or more formats.</p>	
<p>foaf:Agent:An agent (eg. person, group, software or physical artifact). dctype:Software(dctype) EVA:Too general</p>	<p>'HasCreator" relation between Log towards the Class "Browser". EVA:However then properties are orphan-like</p>

<p>https://www.w3.org/TR/EARL10-Schema/ http://www.w3.org/ns/earl#Software DEF:A Software is any piece of software such as an authoring tool, browser, or evaluation tool. It can be used to describe an Assertor, such as a validation or other quality assurance tool, and it can be used to describe a Test Subject (for example to test compliance of an authoring tool to Authoring Tool Accessibility Guidelines [ATAG] or of a browser to User Agent Accessibility Guidelines [UAAG]). EVA:Too generic</p>	<p>earl:Software is a subclass of doap:Project to denote the narrower meaning of executable "Software", that is an outcome of a "Project". AND: http://purl.org/dc/dcmitype/Software http://dublincore.org/documents/2012/06/14/dcmi-terms/ An entity primarily responsible for making the resource.Examples of a Creator include a person, an organization, or a service. EVA:Too generic</p>
<p>http://www.w3.org/2011/http#request The HTTP requests made via a connection. EVA:The request itself is part of the JSON encoded log; it is not as a HTTP request present.</p>	<p>'HasEntry' relation from Log to Class "HTTP Request". EVA:The entry has specific properties</p>
<p>http://schema.org/Comment. EVA:Is intended to refer to a comment on a RDF definition.</p>	<p>http://dbpedia.org/ontology/comment</p>
<p>http://semanticweb.cs.vu.nl/2009/11/sem/asBeginTimeStamp</p>	

