

vCard

vCard, also known as **VCF** (Virtual Contact File), is a file format standard for electronic business cards. vCards can be attached to e-mail messages, sent via Multimedia Messaging Service (MMS), on the World Wide Web, instant messaging, NFC or through QR code. They can contain name and address information, phone numbers, e-mail addresses, URLs, logos, photographs, and audio clips.

vCard is used as a data interchange format in smartphone contacts, personal digital assistants (PDAs), personal information managers (PIMs) and customer relationship management systems (CRMs). To accomplish these data interchange applications, other "vCard variants" have been used and proposed as "variant standards", each for its specific niche: XML representation, JSON representation, or web pages.

An unofficial vCard Plus format makes use of a URL to a customized landing page with all the basic information along with a profile photo, geographic location, and other fields. This can also be saved as a contact file on smartphones.

Overview

The standard Internet media type (MIME type) for a vCard has varied with each version of the specification.^[1]

vCard information is common in web pages: the "free text" content is human-readable but not machine-readable. As technologies evolve, the "free text" (HTML) was adapting to be also machine-readable.

RDFa with the vCard Ontology can be used in HTML and various XML-family languages, e.g. SVG, MathML.

Related formats

jCard, "The JSON Format for vCard" is a standard proposal of 2014 in RFC 7095 (<https://datatracker.ietf.org/doc/html/rfc7095>). This proposal has not yet become a widely used standard. The RFC 7095 does not use real JSON objects, but rather uses arrays of sequence-dependent tag-value pairs (like an XML file).

hCard is a microformat that allows a vCard to be embedded inside an HTML page. It makes use of CSS class names to identify each vCard property. Normal HTML markup and CSS styling can be used alongside the hCard class names without affecting the webpage's ability to be parsed by a hCard parser. h-card is the microformats2 update to hCard.

MeCard is a variation of vCard made by NTT DoCoMo for smartphones using QR Codes. It uses a very similar syntax, but in a more consolidated way as the storage space on QR Codes is limited. It's also limited in the amount of data that can be stored, not just by the standard but the size of QR Codes.

Example

An example of a simple vCard (from RFC 6350, abbreviated):

```
BEGIN:VCARD
VERSION:4.0
FN:Simon Perreault
N:Perreault;Simon;;;ing. jr,M.Sc.
BDAY:--0203
GENDER:M
EMAIL;TYPE=work:simon.perreault@viagenie.ca
END:VCARD
```

This is the vCard for "Simon Perreault" (the author of RFC 6350), with their birthday (omitting the year), email address and gender.

Properties

vCard defines the following property types.

All vCards begin with **BEGIN:VCARD** and end with **END:VCARD**. All vCards must contain the **VERSION** property, which specifies the vCard version. **VERSION** must come immediately after **BEGIN**, except in the vCard 2.1 standard, which allows it to be anywhere in the vCard. Otherwise, properties can be defined in any order.

vCard	
Filename extension	.vcf, .vcard
Internet media type	text/vcard
Type code	vCrd
Uniform Type Identifier (UTI)	public.vcard
Developed by	Created by Versit Consortium, all rights transferred in 1996 to Internet Mail Consortium, all rights transferred in 2004 to CalConnect
Type of format	Electronic business card
Container for	Contact information
Standard	RFC 6350 (https://datatracker.ietf.org/doc/html/rfc6350)

Name	Property presence			Description	Example
	v. 2.1	v. 3.0	v. 4.0		
ADR	Optional	Optional	Optional	A structured representation of the physical delivery address for the vCard object.	ADR;TYPE=home;;;123 Main St.;Springfield;IL;12345;USA
AGENT	Optional	Optional	Undefined	Information about another person who will act on behalf of the vCard object. Typically this would be an area administrator, assistant, or secretary for the individual. Can be either a URL or an embedded vCard.	AGENT:http://mi6.gov.uk/007
ANNIVERSARY	Undefined	Undefined	Optional	Defines the person's anniversary.	ANNIVERSARY:19901021
BDAY	Optional	Optional	Optional	Date of birth of the individual associated with the vCard.	BDAY:19700310
BEGIN	Required	Required	Required	All vCards must start with this property.	BEGIN:VCARD
CALADRURI	Undefined	Undefined	Optional	A URL to use for sending a scheduling request to the person's calendar.	CALADRURI:http://example.com/calendar/jdoe
CALURI	Undefined	Undefined	Optional	A URL to the person's calendar.	CALURI:http://example.com/calendar/jdoe
CATEGORIES	Optional	Optional	Optional	A list of "tags" that can be used to describe the object represented by this vCard.	CATEGORIES:swimmer,biker
CLASS	Undefined	Optional	Undefined	Describes the sensitivity of the information in the vCard.	CLASS:public
CLIENTPIDMAP	Undefined	Undefined	Optional	Used for synchronizing different revisions of the same vCard.	CLIENTPIDMAP:1;urn:uuid:3df403f4-5924-4bb7-b077-3c711d9eb34b
EMAIL	Optional	Optional	Optional	The address for electronic mail communication with the vCard object.	EMAIL:johndoe@hotmail.com
END	Required	Required	Required	All vCards must end with this property.	END:VCARD
FBURL	Undefined	Undefined	Optional	Defines a URL that shows when the person is "free" or "busy" on their calendar.	FBURL:http://example.com/fb/jdoe
FN	Optional	Required	Required	The formatted name string associated with the vCard object.	FN:Dr. John Doe
GENDER	Undefined	Undefined	Optional	Defines the person's gender.	GENDER:F
GEO	Optional	Optional	Optional	Specifies a latitude and longitude.	2.1, 3.0: GEO:39.95; -75.1667 4.0: GEO:geo:39.95, -75.1667 (geo:39.95, -75.1667)
IMPP	Undefined	Maybe	Optional	Defines an instant messenger handle. This property was introduced in a separate RFC when the latest vCard version was 3.0. Therefore, 3.0 vCards might use this property without otherwise declaring it.	IMPP:aim:johndoe@aol.com
KEY	Optional	Optional	Optional	The public encryption key associated with the vCard object. It may point to an external URL, may be plain text, or may be embedded in the vCard as a Base64 encoded block of text.	2.1: KEY;PGP:http://example.com/key.pgp 2.1: KEY;PGP;ENCODING=BASE64:[base64-data] 3.0: KEY;TYPE=PGP:http://example.com/key.pgp 3.0: KEY;TYPE=PGP;ENCODING=b:[base64-data] 4.0: KEY;MEDIATYPE=application/pgp-keys:http://example.com/key.pgp 4.0: KEY:data:application/pgp-keys;base64,[base64-data]
KIND	Undefined	Undefined	Optional	Defines the type of entity that this vCard represents: 'application', 'individual', 'group', 'location' or 'organization'; 'x-*' values may be used for experimental purposes. ^{[2][3]}	KIND:individual
LABEL	Optional	Optional	Incorporated without	Represents the actual text that should be put on the mailing label when delivering a physical package to the person/object associated with the vCard (related to the ADR property). Not supported in version 4.0. Instead, this information is stored in the LABEL parameter of the ADR property. Example: ADR;TYPE=home;LABEL="123 Main St\nNew York, NY 12345";;123 Main St;New York;NY;12345;USA	LABEL;TYPE=HOME:123 Main St.\nSpringfield, IL 12345\nUSA
LANG	Undefined	Undefined	Optional	Defines a language that the person speaks.	LANG:fr-CA

LOGO	Optional	Optional	Optional	An image or graphic of the logo of the organization that is associated with the individual to which the vCard belongs. It may point to an external URL or may be embedded in the vCard as a <u>Base64</u> encoded block of text.	2.1: LOGO;PNG:http://example.com/logo.png 2.1: LOGO;PNG;ENCODING=BASE64:[base64-data] 3.0: LOGO;TYPE=PNG:http://example.com/logo.png 3.0: LOGO;TYPE=PNG;ENCODING=b:[base64-data] 4.0: LOGO;MEDIATYPE=image/png:http://example.com/logo.png 4.0: LOGO;ENCODING=BASE64;TYPE=PNG:[base64-data]
MAILER	Optional	Optional	Undefined	Type of email program used.	MAILER:Thunderbird
MEMBER	Undefined	Undefined	Optional	Defines a member that is part of the group that this vCard represents. Acceptable values include: <ul style="list-style-type: none"> a "mailto:" URL containing an email address a UID which references the member's own vCard The KIND property must be set to "group" in order to use this property.	MEMBER:urn:uuid:03a0e51f-d1aa-4385-8a53-e29025acd8af
N	Required	Required	Optional	A structured representation of the name of the person, place or thing associated with the vCard object. Structure recognizes, in order separated by semicolons: Family Name, Given Name, Additional/Middle Names, Honorific Prefixes, and Honorific Suffixes ^[4]	N:Doe;John;;Dr;
NAME	Undefined	Optional	Undefined	Provides a textual representation of the SOURCE property.	
NICKNAME	Undefined	Optional	Optional	One or more descriptive/familiar names for the object represented by this vCard.	NICKNAME:Jon, Johnny
NOTE	Optional	Optional	Optional	Specifies supplemental information or a comment that is associated with the vCard.	NOTE:I am proficient in Tiger-Crane Style,\nand I am more than proficient in the exquisite art of the Samurai sword.
ORG	Optional	Optional	Optional	The name and optionally the unit(s) of the organization associated with the vCard object. This property is based on the X.520 Organization Name attribute and the X.520 Organization Unit attribute.	ORG:Google;GMail Team;Spam Detection Squad
PHOTO	Optional	Optional	Optional	An image or photograph of the individual associated with the vCard. It may point to an external URL or may be embedded in the vCard as a <u>Base64</u> encoded block of text.	2.1: PHOTO;JPEG:http://example.com/photo.jpg 2.1: PHOTO;JPEG;ENCODING=BASE64:[base64-data] 3.0: PHOTO;TYPE=JPEG;VALUE=URI:http://example.com/photo.jpg 3.0: PHOTO;TYPE=JPEG;ENCODING=b:[base64-data] 4.0: PHOTO;MEDIATYPE=image/jpeg:http://example.com/photo.jpg 4.0: PHOTO;ENCODING=BASE64;TYPE=JPEG:[base64-data]
PRODID	Undefined	Optional	Optional	The identifier for the product that created the vCard object.	PRODID:-//ONLINE DIRECTORY//NONSGML Version 1//EN
PROFILE	Optional	Optional	Undefined	States that the vCard is a vCard.	PROFILE:VCARD
RELATED	Undefined	Undefined	Optional	Another entity that the person is related to. Acceptable values include: <ul style="list-style-type: none"> a "mailto:" URL containing an email address a UID which references the person's own vCard 	RELATED;TYPE=friend:urn:uuid:03a0e51f-d1aa-4385-8a53-e29025acd8af
REV	Optional	Optional	Optional	A timestamp for the last time the vCard was updated.	REV:20121201T134211Z
ROLE	Optional	Optional	Optional	The role, occupation, or business category of the vCard object within an organization.	ROLE:Executive
SORT-STRING	Undefined	Optional	Incorporated without	Defines a string that should be used when an application sorts this vCard in some way. Not supported in version 4.0. Instead, this information is stored in the SORT-AS parameter of the N and/or ORG properties.	SORT-STRING:Doe
SOUND	Optional	Optional	Optional	By default, if this property is not grouped with other properties it specifies the pronunciation of the FN property of the vCard object. It may point to an external URL or may be embedded in the vCard as a <u>Base64</u> encoded block of text.	2.1: SOUND;OGG:http://example.com/sound.ogg 2.1: SOUND;OGG;ENCODING=BASE64:[base64-data] 3.0: SOUND;TYPE=OGG:http://example.com/sound.ogg 3.0: SOUND;TYPE=OGG;ENCODING=b:[base64-data] 4.0: SOUND;MEDIATYPE=audio/ogg:http://example.com/sound.ogg 4.0: SOUND:data:audio/ogg;base64,[base64-data]
SOURCE	Optional	Optional	Optional	A URL that can be used to get the latest version of this vCard.	SOURCE:http://johndoe.com/vcard.vcf
TEL	Optional	Optional	Optional	The canonical number string for a telephone number for telephony communication with the vCard object.	TEL;TYPE=cell:(123) 555-5832
TITLE	Optional	Optional	Optional	Specifies the job title, functional position or function of the individual associated	TITLE:V.P. Research and Development

				with the vCard object within an organization.	
TZ	Optional	Optional	Optional	The time zone of the vCard object.	2.1, 3.0: TZ: -0500 4.0: TZ:America/New_York
UID	Optional	Optional	Optional	Specifies a value that represents a persistent, globally unique identifier associated with the object.	UID:urn:uuid:da418720-3754-4631-a169-db89a02b831b
URL	Optional	Optional	Optional	A URL pointing to a website that represents the person in some way.	URL:http://www.johndoe.com
VERSION	Required	Required	Required	The version of the vCard specification. In version 4.0, this must come right after the BEGIN property.	VERSION:3.0
XML	Undefined	Undefined	Optional	Any XML data that is attached to the vCard. This is used if the vCard was encoded in XML (xCard standard) and the XML document contained elements which are not part of the xCard standard.	XML:Not an xCard XML element

See also

- CardDAV
- FOAF (ontology)
- Geo URI scheme
- MeCard

References

- RFC 6350, section 10.1 "Media Type Registration"
- "vCard Format Specification: 6.1.4. KIND" (<https://tools.ietf.org/html/rfc6350#section-6.1.4>). IETF. August 2011.
- "vCard KIND:application" (<https://tools.ietf.org/html/rfc6473>). IETF. December 2011.
- "RFC 2426: vCard MIME Directory, section 3.1.2" (<https://www.rfc-editor.org/rfc/rfc2426#section-3.1.2>).

External links

- vCard 4.0 (<https://devguide.calconnect.org/vCard/vcard-4/>) at its developer CalConnect
- RFC 6350 (<https://datatracker.ietf.org/doc/html/rfc6350>) describing the vCard format version 4
- vCard and vCalendar (<https://web.archive.org/web/20150906130553/http://www.imc.org/pdi/>) (old versions) from the Internet Mail Consortium in the Internet Archive

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