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fm4CardDAV

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1. Abstract

fm4CardDAV is a Filemaker Plug-In to manage your Contacts in FM4CardDAV and synchronize this with your CardDAV Server.

2. Requirements

You will need:

- A copy of FileMaker Pro Advanced. fm4CardDAV has been tested with version 11 or higher. (Technically, the base version of FileMaker Pro - without the "Advanced")
- Windows, or Mac OS X version 10.6 or higher (Intel).
- A copy of fm4CardDAV plugin and license information
- CardDAV server. fm4CardDAV has been tested with Kerio and Apple CardDAV servers.

3. Installation

Drag the plugin into your FileMaker extensions, and restart FileMaker.

Windows:

`C:\Users\user_name\AppData\Local\FileMaker\Extensions\`

Mac:

`/Users/user_name /Library/Application\ Support/FileMaker/Extensions/`

4. Function Summary

	Server url configuration
Description	Sets server url.
Function	CardDav_SetServer(url, verbose, force_valid_certificate)
Example	CardDav_SetServer(\$url; \$False; \$False)
Returns	True False
Possible error codes	MemoryError, Unknown

	Server ssl
Description	Configure ssl version. Supported certificates: <code>tls1</code> , <code>ssl2</code> , <code>ssl3</code>
Function	<code>CardDav_SetSsl(type, force_valid_certificate)</code>
Example	<code>CardDav_SetSsl ("ssl3";False)</code>
Returns	<code>True</code> <code>False</code>
Possible error codes	<code>MemoryError</code> , <code>Unknown</code>

	Server authentication
Description	Configure server authentication method. Set user and password. Supported authentications: <code>digest</code> , <code>basic</code> , <code>ntlm</code>
Function	<code>CardDav_SetAuth (type, user, password)</code>
Example	<code>CardDav_SetAuth ("digest"; \$username; \$userpassword)</code>
Returns	<code>True</code> <code>False</code>
Possible error codes	<code>MemoryError</code> , <code>Unknown</code>

	Server request timeout
Description	Configures timeout
Function	<code>CardDav_SetTimeout (tm) tm - timeout in seconds</code>
Example	<code>CardDav_Connect(60) - 1 minute timeout</code>
Returns	<code>True</code> <code>False</code>
Possible error codes	<code>MemoryError</code> , <code>Unknown</code> , <code>NotConnected</code>

	Server connect
Description	Connects to server using configured url and authentication
Function	CardDav_Connect()
Example	CardDav_Connect
Returns	True False
Possible error codes	MemoryError, Unknown, NotConnected

	Configure vCard data mapping
Description	Users can load custom vcard mappings from a csv file (Example csv file in Appendix). If file is not found or cannot be processed the default mapping will be used.
Function	CardDav_SetMapping(filepath)
Example	CardDav_SetMapping("C:\Temp\map.csv")
Returns	True False
Possible error codes	MemoryError, Unknown, MappingFileNotFound, DefaultMapping

	Retrieve vCard data mapping
Description	Returns comma separated values of the mapping properties
Function	CardDav_GetMapping()
Example	CardDav_GetMapping
Returns	Comma separated value list ERROR
Possible error codes	MemoryError, Unknown

	Get users address books
Description	Returns the list of address book urls.
Function	CardDav_GetAddressBooks ()
Example	CardDav_GetAddressBooks
Returns	Address book url list ERROR
Possible error codes	MemoryError, Unknown , RequestNotFound, RequestForbidden, RequestServerError, RequestError, RequestSslError

	Select address book
Description	Selects default address book to work with. Builds address book structure with groups and vcards
Function	CardDav_SelectAddressBook(addressbook_url)
Example	CardDav_SelectAddressBook (\$url)
Returns	True False
Possible error codes	MemoryError, Unknown , RequestNotFound, RequestForbidden, RequestServerError, RequestError, RequestSslError

	Retrieve groups in address book
Description	Returns the list of name of groups available in the currently selected address book in the moment of address book selection.
Function	CardDav_GetAddressbookGroups()
Example	CardDav_GetAddressbookGroups
Returns	List of group names ERROR
Possible error codes	MemoryError, Unknown , RequestNotFound, RequestForbidden, RequestServerError, RequestError, RequestSslError

	Retrieve all vcard uids from current address book
Description	Returns the list of uids available in the currently selected address book in the moment of address book selection.
Function	CardDav_GetAddressbookvCards ()
Example	CardDav_GetAddressbookvCards
Returns	List of uids ERROR
Possible error codes	MemoryError, Unknown , RequestNotFound, RequestForbidden, RequestServerError, RequestError, RequestSslError

	Select vcard by uid
Description	Downloads and parses vcard with the specified uid from the current address book.
Function	CardDav_GetvCard(uid)
Example	CardDav_GetvCard(\$uid)
Returns	True False
Possible error codes	MemoryError, Unknown , RequestNotFound, RequestForbidden, RequestServerError, RequestError, RequestSslError

	Retrieve vCard property
Description	Retrieves vCard property using names specified in mapping csv, or default naming convention
Function	CardDav_GetvCardItem(itemname)
Example	CardDav_GetvCardItem("celltel")
Returns	Value
Possible error codes	MemoryError, Unknown , RequestNotFound, RequestForbidden, RequestServerError, RequestError, RequestSslError

	Set vCard property
Description	Sets vCard property with the value sent.
Function	CardDav_SetvCardItem(itemname , value)
Example	CardDav_SetvCardItem("celltel"; "00000000")
Returns	True False
Possible error codes	MemoryError, Unknown , RequestNotFound, RequestForbidden, RequestServerError, RequestError, RequestSslError

	Create new vCard
Description	Creates a new vCard with minimal preloaded data on server and sets it as active vcard . If address book url not specified uses currently selected address book
Function	CardDav_NewvCard(addressbookurl)
Example	CardDav_NewvCard
Returns	Empty string ("") Error message
Possible error codes	MemoryError, Unknown , RequestNotFound, RequestForbidden, RequestServerError, RequestError, RequestSslError

	Save vCard to server
Description	Saves currently selected vcard to currently selected address book. If etag is not empty, the server will check if vcard was changed in the meantime. If etag is empty, changes will be overwritten with data set in plugin.
Function	CardDav_SaveCard(\$etag)
Example	CardDav_SaveCard
Returns	Saved Error messages
Possible error codes	MemoryError, Unknown , RequestNotFound, RequestForbidden, RequestServerError, RequestError, RequestSslError

	Delete vCard
Description	Deletes vCard with uid
Function	CardDav_DeleteCard(uid)
Example	CardDav_DeleteCard(\$uid)
Returns	True False
Possible error codes	MemoryError, Unknown , RequestNotFound, RequestForbidden, RequestServerError, RequestError, RequestSslError

	Delete all vCards from addressbook
Description	Deletes all vCards from address book. If address book url not specified, function will delete all vCards from currently selected address book.
Function	CardDav_DeleteAllCards (addressbookurl)
Example	CardDav_DeleteAllCards
Returns	True False
Possible error codes	MemoryError, Unknown , RequestNotFound, RequestForbidden, RequestServerError, RequestError, RequestSslError

	Retrieve list of groups for vCard
Description	Retrieves all group names which contain vCard. If update from server parameter is set, Plugin will update groups from server before returning list.
Function	CardDav_GetvCardGroups(uid, updatefromserver)
Example	CardDav_GetvCardGroups(\$uid; False)
Returns	True False
Possible error codes	MemoryError, Unknown , RequestNotFound, RequestForbidden, RequestServerError, RequestError, RequestSslError

	Set list of groups for vCard
Description	Updates group which contain vCard. Function accepts comma separated group names
Function	CardDav_SetvCardGroups (uid, csvGroups)
Example	CardDav_SetvCardGroups (\$uid; "group1,group2,group3")
Returns	Empty string ("") Error message
Possible error codes	MemoryError, Unknown , RequestNotFound, RequestForbidden, RequestServerError, RequestError, RequestSslError

	Checks if server data changed
Description	Checks using etag if vcard data on server has been changed after last update.
Function	CardDav_CheckvCardIfChanged(uid, etag)
Example	CardDav_CheckvCardIfChanged(\$uid; \$etag)
Returns	Changed! Not changed! Deleted! Error message
Possible error codes	MemoryError, Unknown , RequestNotFound, RequestForbidden, RequestServerError, RequestError, RequestSslError

	Retrieve last error code
Description	Gets last error code number. ()
Function	CardDav_CheckvCardIfChanged(uid, etag)
Example	CardDav_CheckvCardIfChanged(\$uid; \$etag)
Returns	Error code
Possible error codes	

	Set license info
Description	Set license information
Function	CardDav_License(name, key)
Example	CardDav_License(\$name; \$key)
Returns	VALID Error message
Possible error codes	MemoryError, Unknown, LicenseExpired, LicenseMissing, InvalidLicense

5. Appendix

5.1 vCard Mapping

In mappings it is not allowed to use the “_” character.

Default vcard mapping:

Custom Name	vCard Prop	Type
home	ADR	HOME
work	ADR	WORK
domestic	ADR	DOMESTIC
domestic	ADR	DOMESTIC
postal	ADR	POSTAL
international	ADR	ININTERNATIONAL
parcel	ADR	PARCEL
birthday	BDAY	
categories	CATEGORIES	
classdata	CLASS	
email1	EMAIL	PREF
email2	EMAIL	HOME
displayname	FN	
geo	GEO	
label	LABEL	
mailer	MAILER	
name	N	
nickname	NICKNAME	
note	NOTE	
company	ORG	
productid	PRODID	
photo	PHOTO	
revdate	REV	
role	ROLE	
source	SOURCE	
title	TITLE	
timezone	TZ	
url	URL	
gender	X-WAB-GENDER	
uniqueid	UID	
celltel	TEL	CELL
faxtel	TEL	FAX
hometel	TEL	HOME

pagertel	TEL	PAGER
isdntel	TEL	ISDN
modemtel	TEL	MODEM
msgtel	TEL	MSG
videotel	TEL	VIDEO
voicetel	TEL	VOICE
worktel	TEL	WORK
bbstel	TEL	BBS
cartel	TEL	CAR
version	VERSION	

By default to ease user access to composed values like ADR, N or GEO, plugin implements internal mapping for these values. Users can access internal mapping by adding after custom name the “_” character and the internal mapping name.

Internal mappings

ADR						
pobox	extended	address	city	state	postalcode	country
N						
last	first	additional	prefix	suffix		
GEO						
latitude	longitude					

Ex:

To access internal information of a vCard item ADR with the type HOME use the default mapping:

home_pobox, home_extended, home_city

Plugin contains basic mappings that cannot be overwritten like: uniqueid , etag, modified_on, created_on. These properties are managed by the plugin and cannot be set by the user.

5.2 Error codes

Unknown	-1
NoError	0
NotConnected	2
NotFound	3
MemoryError	7
NotSupportedEncoding	6
UnsupportedServer	8
DataError	9
DataIsMissingError	10
ServerConfigError	11
ServerManagedData	15
DefaultMapping	31
MappingFileNotFound	32
RequestForbidden	43
RequestNotFound	44
RequestError	45
RequestSslError	46
RequestServerError	47
InvalidLicense	150
LicenseExpired	151
LicenseMissing	152