WEB API: BMCVersion
3.1 | 01.04.2024

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Content

1. General

1 .1 . VARIUSSYSTEMSThe system is an online-based individual,

modular management software.

The system is extremely flexible and does not depend on the operating system, browser or hardware: VARIUSSYSTEMS (= VS) is compatible with Windows, Apple, Linux, PC, laptop, smartphone, tablet, smartwatch, GoogleChrome, Firefox, Safari and Internet Explorer. The system can be linked to plastic cards (or other devices) via NFC, bar and QR codes.

VS is already successfully used for contact management, event management, time recording, machine & order management and as a bonus card system.

1 .2.BundesMuseenCard (= BMC)The BMC is personalised, printed, activated and
spent. The entry of the data can be done by means of self-registration or online registration.

An activated BMC only stores a unique, encrypted ID and can be read and registered at all approved sales counters/entry areas with a SCAN (QR code / barcode).

Optionally, visitors can scan their own cards that are available or View used entries, create your own profile and access informative pages

Every SCAN - whether by administrator, institution, location or guest - is documented with a time stamp (date & time). Administrators can view LIVE statistics on activated cards and museum visits. The history of a BMC can thus be called up with the necessary read permissions.

1 .3.Web APIThe BMC is only available via the provided online backend
and reachable/manageable via the WEB API. Other functions/processes/commands can be adapted or added on request.

2. Login / Syntax / Parameters & HTTP Request

2.1 . Login/ AuthenticationSeparate authentication is not required after consultation with the customer. The call to the Web API can be limited to stored IP addresses/ranges.

2.2.SyntaxEvery BundesMuseenCard is equipped with a barcode and a QR code. This barcode/QR code hides a unique ID, also called a visitor code (= prefix "BMC" + 6 or 9 characters), which is linked to the respective profile when the card is activated.

Sample code: BMCF6C53KQR code:
https://vcrd.at/?id=BMCF6C53KBarcode:
BMCF6C53K

2.3.Syntax: Print -At -Home TicketThe BundesMuseenCard can be generated as a Print-At-Home ticket in the webshops of the Federal Museums. In this case, the visitor code will be structured by the institute according to the following scheme. Institute Abbreviation (alphabetical):M1 - AlbertinaM2 - Kunsthistorisches MuseumM3 - MAK - Austrian Museum of Applied ArtsM4 - Museum of Modern Art Ludwig Foundation Vienna (MUMOK)M5 - Natural History Museum ViennaM6 - Austrian Gallery BelvedereM7 - State Hall of the Austrian National LibraryM8 - Technical Museum Vienna

Structure: "B" + institute abbreviation + 6 or 9 charactersExample code: BM1F6C53K

2.4.Fixed ParametersTo use the Web API, the following fixed parameters are used

- Weburl:
  - Live: https://bmc-api-3.vcrd.at
  - Test: https://bmc-test.vcrd.at
- Customer ID: Institute Abbreviation
- Institut-token: Token of the respective location

2.5. Variable Parameter

To use the Web API, the following variable parameters are used:

- Command: see list (point 3.)
- Visitor code: see syntax

2.6.Calculated parameters

To use the Web API, unless otherwise noted, the following calculated parameters are used:

- Token: base64_encode(Institute Token|Command|Visitor Code)

Important: The delimiter "|" must not be used in the freely writable parameters.

2.7.HTTPS Request:

The placeholders to be replaced are marked in color.https://bmc-api-3.vcrd.at/?cst=Kunden-ID&token=TOKEN

2.8. Visitor Status / Status of BMC:

The following statuses are possible.

Status	Designation	Original	Relaunch 2024
0	Active	Entrance to the selected museum available,	Entrance to the selected museum available,
1	Attended	Admission not available. The museum has already been visited.	-
2	Expired	Admission not available. Expiration date reached or exceeded.	Admission not available. Expiration date reached or exceeded.
3	Locked	Admission not available. cardmanually locked.	Admission not available. Card manually locked.

2.9.BMC TypeThe following types are possible.

Status	Designation	Description
0	Original	BMC until the sales launch of the relaunch.Each BMC can visit each of the participating museums once within a year.
1	Relaunch 2024	BMC after the sales launch of the relaunch.Every BMC can visit each of the participating museums unlimitedly.

2.1 0. BMC Lock Codes

The following lock codes are possible.

	Designation
0	Printing Error
1	Test Card
2	Cashier Error
3	Loss
4	Theft

2.1 1 . Response Codes

The following responses are possible. The response message can contain several variables.

	Explanation/ Description	Response-Message
0	The command could be successfully implemented.	
1	General error	
2	Customer ID invalid	
3	Institute token invalid/erroneous	
4	Command invalid/incorrect	
5	Token syntax invalid/erroneous	
6	Duplicate. This visit has already been registered.	
7	BMC has expired.	{"expiry-date":"YYY-MM-DD"}
8	BMC has already visited the selected museum. [Type Original]	
9	BMC is locked.	{"lock-date":"YYY-MM-DD HH:MM:SS","lock-reason":"[sperrcode siehe 2.10]",lock-cst":"[Institut Kürzel]"}
10	Visitor code invalid/faulty	
11	Request parameter incomplete.	
12	Multiple scanning. This visit to this museum was registered in the defined time window.	

2.1 2. Http Status Code

The following HTTP status codes are possible.

	Status
200	Ok
405	Method Not Allowed
406	Not Acceptable
409	Conflict

3. Commands

3.1 . getVisitor

Description:
Reading the visitor status for a selected museum.

Calculated parameters:base64_encode(Institute-

token|getVisitor|Visitor

Code)NameTypeLengthDescription

Name	Type	Length	Description
Institut-Token	String		
Command	String		See 3.1 – 3.5
Visitor code	String	9-12	See 2.3

Return:

Name	Type	Length	Description
visitor-id	String	9-12	Visitor code
visitor-firstname	String	50	Visitor's first name
visitor-lastname	String	50	Visitor's last name
visitor-origin	String	4	Origin of the visitorÖ. Federal states: ISO 3166-2 – e.g. AT-1, AT-2,... Countries: ISO 3166-1 – e.g. AT, DE, CH...
visitor-status	Integer	2	Status of the polled BMC (see 2.8)
visitor-institute	String	25	Zero or institute token of the selected museum.
visitor-institute-visit	Datetime	19	Zero or the date and time of the visit.Important for the Original type. (YYYY-MM-DDHH:MM:SS)
visitor-type	Integer	2	Type of BMC queried (see 2.9)
response-status	Integer	3	See 2.11
response-message	String	255	See 2.11

Example:

Institut: 3af5183934535e1645c1cda6fc9be8dbBesucher:
[BMC123456] Doralynne Passmore

Berechnete
Parameter:base64_encode(3af5183934535e1645c1cda6fc9be8db|getVisitor|BMC123456)

HTTP Request:
https://bmc-api-
3.vcrd.at/?
cst=M6&token=M2FmNTE4MzkzNDUzNWUxNjQ1YzFjZGE2ZmM5YmU4ZGJ8Z2V0VmlzaXRvcnwgQk1DMTIzNDU2

Original: If the visitor has already visited the institute:
{„visitor-id":"BMC123456","visitor-firstname":"Doralynne","visitor-
lastname":"Passmore","visitor-origin":"AT-1","visitor-status":"1","visitor-
institute":"3af5183934535e1645c1cda6fc9be8db","visitor-institute-visit":"2018-11-
25 20:39:16","visitor-type":"0","response-status":"8","response-message":""}
Relaunch2024: If the visitor has not yet visited the institute:
{„visitor-id":"BMC123456","visitor-
firstname":"Doralynne","visitorlastname":"Passmore","visitor-origin":"AT-
1","visitor-status":"0","visitor-institute":"null","visitor-institute-
visit":"null","visitor-type":"1" ,"response-status":"0","response-message":""}

3.2.   saveVisit

Original: Description:
Change the visitor status to "Visited" for a selected institute.

Relaunch 2024: Description:
Increase the visitor counter for a selected institute.

Multiple scan with time window
A BMC can be successfully scanned in a museum and location within 10 seconds. Between 10 sec. and 10 minutes, error code 12 is returned for this museum and location.

Calculated parameters:
Token: base64_encode(Institute-Token|saveVisit|Visitor Code|DateTime)

Name	Type	Length	Description
Institut-Token	String		
Command	String		See 3.1 – 3.5
Visitor code	String	9-12	See 2.3
DateTimeDateTime		9	YYYY-MM-DD HH:MM:SS

Return:

Name	Type	Length	Description
response-status	Integer	3	See 2.11
response-message	String	255	See 2.11

Example:

Institut: 3af5183934535e1645c1cda6fc9be8dbBesucher:
[BMC123456] Doralynne Passmore

Berechnete
Parameter:base64_encode(3af5183934535e1645c1cda6fc9be8db|saveVisit|BMC123456|2024-04-01 15:39:12)

HTTP Request:
https://bmc-api-3.vcrd.at/?
cst=M6&token=M2FmNTE4MzkzNDUzNWUxNjQ1YzFjZGE2ZmM5YmU4ZGJ8c2F2ZVZpc2l0fEJNQzEyMzQ1NnwyM DI0LTA0LTAxIDE1OjM5OjEy
Successful recording of a visit:
{"response-status":"0","response-message":""}

Error: Visit has already been recorded:
{"response-status":"6","response-message":""}

Error: BMC locked:
{"response-status":"9","response-message":{„lock-date":"2024-03-21 15:55:11","lock-reason":"3","institute-token":"M3"}}

3.3. unsetVisit

Original: Description:
Change the visitor status to "Not Visited" for a selected institute.

Relaunch 2024: Description:
Reduce the visitor counter for a selected institute.

Calculated parameters:
Token: base64_encode(Institut-Token|unsetVisit|Besucher-Code|DateTime)

Name	Type	Length	Description
Institut-Token	String		
Command	String		See 3.1 – 3.5
Visitor code	String	9-12	See 2.3
DateTime	DateTime	19	Format YYYY-MM-DD HH:MM:SS

Return:

Name	Type	Length	Description
response-status	Integer	3	See 2.11
response-message	String	255	See 2.11

Example:

Institut: 3af5183934535e1645c1cda6fc9be8dbBesucher:
[BMC123456] Doralynne Passmore

Berechnete
Parameter:base64_encode(3af5183934535e1645c1cda6fc9be8db|unsetVisit|BMC123456|2024-04-01 15:39:12)

HTTP Request:
https://bmc-api-
3.vcrd.at/?
cst=M6&token=M2FmNTE4MzkzNDUzNWUxNjQ1YzFjZGE2ZmM5YmU4ZGJ8dW5zZXRWaXNpdHxCTUMxMjM0NTZ8MjAyNC0wNC0wMSAxNTozOToxMg==

Successful deletion of a visit:
{"response-status":"0" ,"response-message":""}

3.4. lockVisitor

Description:
Block visitor/card for all institutes.

Calculated parameters:
Token: base64_encode(Institute-Token|lockVisitor|Visitor Code|Reason for blocking)

Name	Type	Length	Description
Institut-Token	String		
Command	String		See 3.1 – 3.5
Visitor code	String	9-12	See 2.3
Reason for blocking	String	50	See 2.10

Return:

Name	Type	Length	Description
response-status	Integer	3	See 2.11
response-message	String	255	See 2.11

Example:

Institut: 3af5183934535e1645c1cda6fc9be8dbBesucher:
[BMC123456] Doralynne Passmore

Berechnete
Parameter:base64_encode(3af5183934535e1645c1cda6fc9be8db|unsetVisit|BMC123456|4)

HTTP Request:
https://bmc-api-
3.vcrd.at/?
cst=M6&token=M2FmNTE4MzkzNDUzNWUxNjQ1YzFjZGE2ZmM5YmU4ZGJ8dW5zZXRWaXNpdHxCTUMxMjM0NTZ8NA==

Successful blocking of a BMC:
{"response-status":"0" ," response-message":""}

3.5. createVisitor

Description:
Create a Bundesmuseen Card. A visitor code must be unique.

Calculated parameters
Token: base64_encode(Institute Token|Command|Visitor Code|First Name|Last Name|Origin|Effective Date)

Name	Type	Length	Description
Institut-Token	String		
Command	String		See 3.1 – 3.5
Visitor code	String	9-12	See 2.3
Forename	String	50	
Surname	String	50	
Origin	String	4	Origin of the visitorÖ. Federal states: ISO 3166-2 – e.g. AT-1, AT-2,... Countries: ISO 3166-1 – e.g. AT, DE, CH...
Expiration date	Date	19	OPTIONAL! Format YYYY-MM-DD

Return:

Name	Type	Length	Description
response-status	Integer	3	See 2.11
response-message	String	255	See 2.11

Example:

Institute:
3af5183934535e1645c1cda6fc9be8dbVisitors:
[BMC123456] Doralynne Passmore´Origin: Vienna

Calculated parameters:
base64_encode(3af5183934535e1645c1cda6fc9be8db|createVisitor|BM6123456|Doralynne|Passmore|AT-9)

HTTP Request:
https://bmc-api-3.vcrd.at/?
cst=M6&token=M2FmNTE4MzkzNDUzNWUxNjQ1YzFjZGE2ZmM5YmU4ZGJ8Y3JlYXRlRlfEJNNjEyMzQ1NnxEb3JhbHl ubmV8UGFzc21vcmV8QVQtOQ==
Successful creation of a BMC:
{"response-status":"0" ,"response-message":""}

Error: BMC code already taken/invalid
{"response-status":"10" ,"response-message":""}