

Personeel WEB API

Implementation guide

Document version	V2.4
Release date	September 20, 2024
Last modified	September 18, 2024
Last modified by	Pierre-Marie Mahieu

Contents

Document description.....	4
API Basics.....	5
Endpoint.....	5
Versioning.....	5
Character sets.....	5
Request Format and Responses.....	6
JSON Basics.....	6
HTTP Headers.....	7
Request Headers.....	7
Response Headers.....	8
HTTP Status Codes.....	8
Usage restrictions.....	9
Ground rules.....	9
Privacy concerns.....	9
Disclaimer.....	9
Security.....	10
Transport security.....	10
Secure Socket Layer.....	10
Authentication endpoint.....	10
Request authentication.....	10
Calling resources without Access Token.....	10
Getting an Access Token by client credentials.....	11
Getting access for 1 or multiple scopes.....	11
Request token for 1 scope.....	11
Request token for multiple scopes.....	12
Use of access token.....	13
Request.....	13
Resources.....	14
Employees.....	14
GET /employees?schoolyear={schoolYear}&structure={structure}.....	14
GET /employees/{personId}?schoolyear={schoolYear}&structure={structure}.....	22
Assignments.....	23
GET /employees/assignments? schoolyear={schoolYear}&structure={structure}&inclNonSubHours={inclNonSubHours}.....	23
GET /employees/{personId}/assignments? schoolyear={schoolYear}&structure={structure}&inclNonSubHours={inclNonSubHours}.....	27
Interruptions.....	29
GET /employees/interruptions?schoolyear={schoolYear}&structure={structure}.....	29
GET /employees/{personId}/interruptions?schoolyear={schoolYear}&structure={structure}.....	31
PUT /employees/{personId}/interruptions/{interruptionId}.....	33
DELETE /employees/interruptions/{interruptionId}.....	36
Diplomas.....	38
GET /employees/diplomas?schoolyear={schoolYear}&structure={structure}.....	38

GET /employees/{personId}/diplomas?schoolyear={schoolYear}&structure={structure}.....	39
Appointments.....	40
GET /employees/appointments?schoolyear={schoolYear}&structure={structure}.....	40
GET /employees/{personId}/appointments?structure={structure}.....	41
Photos.....	42
GET /employees/photos?schoolyear={schoolYear}&structure={structure}.....	42
GET /employees/{personId}/photos.....	43
Own fields.....	44
GET /employees/ownfields?schoolyear={schoolYear}&structure={structure}.....	44
GET /employees/{personId}/ownfields?schoolyear={schoolYear}&structure={structure}.....	46
Attachments.....	48
PUT /employees/interruptions/{interruptionId}/attachments/{attachmentId}.....	48
DELETE /employees/interruptions/{interruptionId}/attachments/{attachmentId}.....	50
APPENDIX Error-codes and descriptions.....	52
Document version history.....	54
References.....	56
List of attachments.....	57
Sample code (.NET).....	58

Document description

This document describes the “Personeel” Web API and provides details required for a technical implementation. It defines the communication model to use when talking to the Web API, including the required security algorithms. It describes all of the available methods in detail and is illustrated with examples.

Ownership

This document is written and maintained by Informat.

API Basics

The provided webservice is implemented as a RESTful service, based on the principles defined by Roy Fielding in his doctoral dissertation at UC Irvine in 2000.

Representational state transfer (REST) is an abstraction of the architecture of the World Wide Web; more precisely, REST is an architectural style consisting of a coordinated set of architectural constraints applied to components, connectors, and data elements, within a distributed hypermedia system. REST ignores the details of component implementation and protocol syntax in order to focus on the roles of components, the constraints upon their interaction with other components, and their interpretation of significant data elements.

This chapter describes the basic information you need to interact with the services provided by Informat within the Personeel context.

Endpoint

The **production environment** is available via:

```
endpoint = personeelsapi.informatsoftware.be
```

Versioning

The Personeel WEB API uses header embedded versioning to maintain backwards compatibility. This custom header is called "Api-Version".

Note that header names are case-insensitive.

C# coding example

```
Request.Headers.Add("Api-Version", "1");
```

The version number isn't mandatory. If not provided, it'll take its default value which is 1. Providing a version outside the accepted version-range will result in a 400 error (Bad request).

Using this allows users to upgrade their implementations at their own pace. If a release creates a change that will break the workings of previous versions, e.g. a change in the underlying data structure, or if a significant change in the internal logic is added, this will be announced at least 1 month in advance, to allow time for client implementations to upgrade. These changes will be kept to a minimum, and where possible bundled, to guarantee consistent availability.

Character sets

All service response objects will be formatted with UTF-8 encoding to ensure compatibility with most languages.

Request Format and Responses

JSON Basics

The majority of requests and responses to the WEB API use the JavaScript Object Notation (JSON) for formatting the content and structure of the data and responses.

JSON is used because it is the simplest and easiest solution for working with data within a web browser, as JSON structures can be evaluated and used as JavaScript objects within the web browser environment.

JSON supports the same basic types as supported by JavaScript, these are:

- **Number** (either integer or floating-point).
- **String**; this should be enclosed by double-quotes and supports Unicode characters and backslash escaping. For example: "A String"
- **Boolean** - a true or false value. You can use these strings directly. For example: { "value": true }
- **Array** - a list of values enclosed in square brackets. For example: ["one", "two", "three"]
- **Object** - a set of key/value pairs (i.e. an associative array, or hash). The key must be a string, but the value can be any of the supported JSON values. For example:

```
{  
  "servings" : 4,  
  "subtitle" : "Easy to make in advance, and then cook when ready",  
  "cooktime" : 60,  
  "title" : "Chicken Coriander"  
}
```

Handling dates (and time)

Dates should always be sent to the server in either UTC format or using the yyyy-MM-dd (hh:mm:ss) notation.

Example:

```
2019-09-30T15:30:22.000Z           // Valid UTC Format
2019-09-30T15:30:22+0100          // Valid UTC Format
2019-09-30
2019-09-30 15:30:22
```

If you're using javascript Date() objects in your request body, your browser will automatically convert these to the UTZ format.

Example:

```
// javascript
var someDate = new Date(2019,05,21) // will be sent as 2019-05-21T00:00:00.000Z
```

If you need to send a date and time object, use the UTC format or use yyyy-MM-dd hh:mm:ss

Example:

```
2019-09-30T22:30:00.000Z           // UTC Format
2019-09-30 22:30:00
```

Boolean

Booleans should always be formatted as true/false (lower case, no quotation marks).

Example:

```
{
  "isAdmin": true,
  "canAccess": false
}
```

HTTP Headers

Because the WEB API uses HTTP for all communication, you need to ensure that the correct HTTP headers are supplied (and processed on retrieval) so that you get the right format and encoding. Different environments and clients will be more or less strict on the effect of these HTTP headers (especially when not present). Where possible you should be as specific as possible.

Request Headers

Content-type

Specifies the content type of the information being supplied within the request. The specification uses MIME type specifications. For the majority of requests this will be JSON (`application/json`). For some settings the MIME type will be plain text. When uploading attachments it should be the corresponding MIME type for the attachment or binary (`application/octet-stream`).

The use of the correct `Content-type` header on a request is required, unless the body is empty.

Accept

Specifies the list of accepted data types to be returned by the server (i.e. that are accepted/understandable by the client). The format should be a list of one or more MIME types, separated by colons.

For the majority of requests the definition should be for JSON data (`application/json`). For attachments you can either specify the MIME type explicitly, or use `*/*` to specify that all file types are supported. If the `Accept` header is not supplied, then the `*/*` MIME type is assumed (i.e. client accepts all formats).

The use of `Accept` in queries for Personnel is not required, but is recommended as it helps to ensure that the data returned can be processed by the client.

Response Headers

Response headers are returned by the server when sending back content and include a number of different header fields, many of which are standard HTTP response header and have no significance to Personeel operation. The list of response headers important to Personeel are listed below.

HTTP Status Codes

With the interface to Leerlingen working through HTTP, error codes and statuses are reported using a combination of the HTTP status code number, and corresponding data in the body of the response data.

A list of the error codes returned by the WEB API, and generic descriptions of the related errors are provided below. The meaning of status codes for specific request types is provided in the corresponding API call reference.

Code	Text	Description
200	OK	Request completed successfully.
400	Bad Request	Bad request structure. The error can indicate an error with the request URL, path or headers. Differences in the supplied MD5 hash and content also trigger this error, as this may indicate message corruption.
401	Unauthorized	The item requested was not available using the supplied authorization, or authorization was not supplied.
403	Forbidden	The requested item or operation is forbidden.
404	Not Found	The requested content could not be found.
405	Resource Not Allowed	A request was made using an invalid HTTP request type for the URL requested. For example, you have requested a PUT when a POST is required. Errors of this type can also triggered by invalid URL strings.
406	Not Acceptable	The requested content type is not supported by the server.
409	Conflict	Request resulted in an update conflict.
415	Bad Content Type	The content types supported, and the content type of the information being requested or submitted indicate that the content type is not supported.
416	Requested Range Not Satisfiable	The range specified in the request header cannot be satisfied by the server.
500	Internal Server Error	The request was invalid, either because the supplied JSON was invalid, or invalid information was supplied as part of the request.

Usage restrictions

To be able to balance the load on our servers and the impact on our overall performance, this service requires client implementations to comply with some basic rules. In case a specific resource or method requires additional rules, these will be added to the corresponding chapters.

Ground rules

- Cache retrieved data as much as possible, use the provided ID's and references to maintain data consistency.
- The privacy and security of the private key is the responsibility of the end user. In case the private key is compromised, the end user is required to inform Informat as soon as possible. We will then take the necessary steps to ensure the safety of the data. A new private key will then be issued.

Privacy concerns

The user is responsible for the safe and correct processing of all personal data, conform privacy regulations, as is stipulated in the contract between the user and the supplier, Informat.

Disclaimer

All requests to the service are logged and monitored to aid in the improvement of the service, to help troubleshoot issues and to avoid abuse.

If Informat finds that the user is found guilty of abuse, Informat reserves the right to terminate the users' access to the service if the abuse continues after multiple warnings.

Security

Transport security

Secure Socket Layer

To ensure the safety of the transferred data and to prevent data-theft, this service operates only via HTTPS.

Transport Layer Security (TLS) and its predecessor, Secure Sockets Layer (SSL), are cryptographic protocols designed to provide communication security over the Internet. They use X.509 certificates and hence asymmetric cryptography to authenticate the counterparty with whom they are communicating, and to exchange a symmetric key. This session key is then used to encrypt data flowing between the parties. This allows for data/message confidentiality, and message authentication codes for message integrity and as a by-product, message authentication.

Authentication endpoint

The **production environment** is available via:

```
identityEndpoint = https://www.identityserver.be
```

Request authentication

Modern secure applications often use access tokens to ensure a user has access to the appropriate resources, and these access tokens typically have a limited lifetime. This is done for various security reasons: for one, limiting the lifetime of the access token limits the amount of time an attacker can use a stolen token. Also, the information contained in or referenced by the access token could become stale.

Calling resources without Access Token

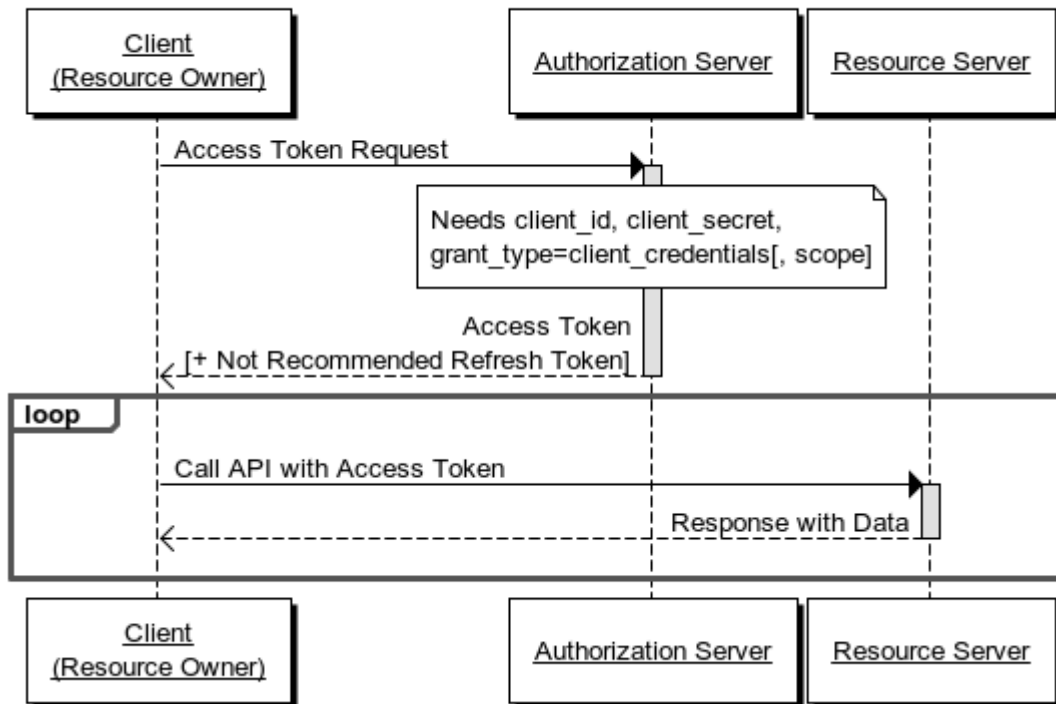
When trying to access the API without Access Token, an Unauthorized response will be returned.

```
HTTP/1.1 401 Unauthorized  
WWW-Authenticate: Bearer
```

Getting an Access Token by client credentials

The Client Credentials grant type is used by clients to obtain an access token by using a clientId and clientSecret.

Client Credentials Grant Flow



Getting access for 1 or multiple scopes

A scope is a permission that is set on a token, a context in which that token may act.

For example, a token with the **api_informat_sas_personeel.personeel.123456** scope is permitted to read or write data to the personeelsapi for the specified institute number, 123456 in this example. Otherwise you would be denied access.

You can request access for 1 scope but it's also possible to request a token for multiple scopes. See the following examples.

Request token for 1 scope

Request

```
POST https://<identityEndpoint>/connect/token HTTP/1.1
...
Content-Type: application/x-www-form-urlencoded

grant_type: client_credentials
client_id: <received client id>
client_secret: <received client secret>
scope: api_informat_sas_personeel.personeel.123456
```


Resources

This chapter lists all the resources available on the webservice. A resource can be thought of as an entity which you can get data for.

Employees

This chapter describes how to:

- Get all employees for an institute-number, school year and structure (2 versions);
- Get an employee by personId.

It describes all the available methods, their request/response format and provides input/output examples.

GET /employees?schoolyear={schoolYear}&structure={structure}

Gets all the employees for the combination institute number, school year and structure. The institute number is defined via the mandatory header "InstituteNo" and the school year & structure can be provided via the URL.

As already mentioned, there are **2 versions** of this resource. Switching between them can be done via the version number in the header.

Request version 1

Headers

Besides the mandatory headers, an optional [version number](#) can be provided.

URL

Field	Type	Required/optional	Description
structure	string	required	Limits the output results to employees who have ever had an assignment within the given structure (hoofdstructuur) and institute number. Format: "211" If not provided a bad request (400) error will be returned.
schoolYear	string	optional	Limits the output results to employees with an assignment within the given schoolyear. Format: "2022-23"

Body

This request has an empty body.

Response version 1

The response contains a list of registrations.

Field	Type	Description
personId	integer	Unique integer-value for the employee within the database.
naam	string	Employee's last name.
voornaam	string	Employee's first name.
stamnr	string	Employee's stamnummer. Format: 11 characters (digits)

ambtcode	string	Code of employee's main function (hoofdambt) Format: 8 characters (digits)
isActive	bool	Indicates whether this employee is marked as active.
email	array	List of email addresses, currently limited to those of type school.

Example request version 1

Request

```
GET https://<endpoint>/employees?structure=211 HTTP/1.1
InstituteNo: 999999
Api-Version: 1
Authorization: BEARER
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJ1bmlxdWVfbmFtZSI6Ikluc2M9ybWV0IiwiaXNzIjoiaHR0cDovL2xvY2FsaG9zdCI6ImF1ZCI6ImF1ZjAwMjdlNzNmOTU0MzVmNzc4MWEwY2ZhZDU5ZTVkIiwiaXNzIjoxNTc0NTIxODM3LCJ1YmYiOiJlNzQzNDkwMzd9.WOXKkj_a1-BaS3syFf-3k-ZT9JGS1_MLdHo4PqnE8eY
Accept: application/json
Content-Type: application/json
```

Example response version 1

Response

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Access-Control-Allow-Origin: *
Date: Mon, 03 Jul 2023 16:52:42 GMT
[
  {
    "personId": 4074,
    "naam": "Porter",
    "voornaam": "Tommy",
    "stamnr": "12358132134",
    "ambtcode": null,
    "isActive": true,
    "email": []
  },
  {
    "personId": 4481,
    "naam": "Luten",
    "voornaam": "Lotte",
    "stamnr": "55891442333",
    "ambtcode": "00000236",
    "isActive": true,
    "email": [
      "lotte.luten@school.be"
    ]
  },
  {...}
]
```

Request version 2

Headers

Besides the mandatory headers, an optional [version number](#) can be provided. But in this case Api-Version 2 must be added, otherwise the path we always lead to version 1.

URL

Field	Type	Required/optional	Description
schoolYear	string	required	For current & future school years: It limits the output results to employees with an assignment within the given schoolyear (and instituteNo) or which are marked as active for your instituteNo. For passed school years: It limits the output results to employees with an assignment within the given schoolyear (and instituteNo). Also used to determine the instituteNo's for the properties "EersteDienstScholengroep" and "EersteDienstScholengemeenschap". Format: "2023-24" If not provided a bad request (400) error will be returned.
structure	string	optional	This is an actually an additional restriction on the school year filter. Also used to determine the properties "HoofdAmbt", "EersteDienstSchool" and "IsActive" in a more detailed way, by means of the combination instituteNo & structure. Note: Only structures "311" & "312" are taken into account. Format: "311"

Body

This request has an empty body.

Response version 2

The response contains a list of registrations.

Field	Type	Description
pPersoon	integer	Unique integer-value for the employee within the database.
personId	Guid	Unique identifier for the employee. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50}
personaId	Guid	Unique identifier for the employee within the persona platform. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50}
naam	string	Employee's last name.
voornaam	string	Employee's first name.
bijkomendeVoornamen	string	Employee's additional names.
stamnr	string	Employee's stamnummer. Format: 11 characters (digits)
sortName	string	Employee's sortable name.
nickname	string	Employee's nickname.

geslacht	string	Employee's sex. Possible values: "M" or "V"
initialen	string	Employee's initials.
geboortedatum	date	Employee's date of birth. Format: yyyy-MM-dd
geboorteplaats	string	Employee's place of birth.
geboortelandCode	string	Employee's official country of birth code.
nationaliteitCode	string	Employee's official nationality code.
rijksregisternr	string	Employee's national registration number for Belgium residents. Format: "yymmddxxxxx" if provided
bisnr	string	Employee's national registration number for a foreign person. Format: 11 characters (digits) if provided
bank	object	Single object representing employee's private bank account. Returns a "null" if not provided.
iban	string	Employee's international bank account number.
bic	string	Employee's Bank Identification Code. Format: 8 to 11 characters if provided
hoofdAmbt	object	Single object representing employee's main function within the provided instituteNo and optional structure. Only "311" & "312" are taken into account. Returns a "null" if the value could not be determined.
code	string	Code of employee's main function. Format: 8 characters (digits)
naam	string	Description of employee's main function.
eersteDienstSchool	date	Date of first employment within the school (provided instituteNo and optional structure).
eersteDienstScholengroep	date	Date of first employment within the school group.
eersteDienstScholengemeenschap	date	Date of first employment within the school community.
isActive	bool	Indicates whether this employee is marked as active for the provided instituteNo and optional structure.
pensioendatum	date	Employee's possible retirement date.
isMindervalide	bool	Indicates whether this employee is a person with disabilities.
isOverleden	bool	Indicates whether this employee is deceased.
datumOverleden	date	Employee's date of death.
burgStand	int	Employee's civil status. Possible values: 1 = Ongehuwd 2 = Gehuwd of wettelijk samenwonend 3 = Weduwnaar/weduwe 4 = Gescheiden 5 = Feitelijk gescheiden 6 = Onbekend
partner	object	Single object representing employee's partner. Returns a "null" if not provided.
id	Guid	Unique identifier for the partner (as relationship). Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50}
naam	string	Partner's last name.

voornaam	string	Partner's first name.
geboortedatum	date	Partner's date of birth. Format: yyyy-MM-dd or null if empty
nationaliteitCode	string	Partner's official nationality code.
isOverleden	bool	Indicates whether the partner is deceased.
datumOverleden	date	Partner's date of death.
inkomen	int	Partner's Income. Possible values: 0 = Geen 1 = Ja (hoger inkomen) 2 = Beperkt inkomen andere dan pensioenen 3 = Beperkt inkomen: pensioenen
adressen	array	List of domicile or residence addresses.
id	Guid	Unique identifier for the address. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50}
aanspreekTitel	string	Addressable title.
aanspreekNaam	string	Addressable name.
straat	string	Street name.
nummer	string	House number & Alpha number.
bus	string	Bus number.
postcode	string	Main postal code.
gemeente	string	Submunicipality.
landCode	string	Official country code.
isDomicilie	bool	Indicates whether this address is a domicile address.
isVerblijf	bool	Indicates whether this address is a residence address.
comnrs	array	List of communication numbers.
id	Guid	Unique identifier for the communication number. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50}
type	string	Communication number type. Examples: Domicilie, Verblijf, Alternatief nummer, Noodnummer, Privé nummer, Werk, Partner, ...
soort	string	Communication number sort. Possible values: Telefoon, Fax or Gsm
nr	string	Communication number.
emailadressen	array	List of email addresses
id	Guid	Unique identifier for the email address. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50}
type	string	Email address type. Examples: Eigen, School, Privé, ...
email	string	Email address.
kinderen	array	List of children.
id	Guid	Unique identifier for the child (as relationship). Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50}

naam	string	Child's last name.
voornaam	string	Child's first name.
geslacht	string	Child's sex. Possible values: "M" or "V"
geboortedatum	date	Child's date of birth. Format: yyyy-MM-dd
isOverleden	bool	Indicates whether the child is deceased.
datumOverleden	date	Child's date of death.
personeelsgroepen	array	List of staff groups to which the employee is a member.
id	Guid	Unique identifier for the staff group. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50}
naam	string	Name of the staff group.

Example request version 2

Request

```
GET https://<endpoint>/employees?schoolyear=2023-24 HTTP/1.1
InstituteNo: 999999
Api-Version: 2
Authorization: BEARER
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJ1bmlxdWVfbmFtZSI6IklkluZm9ybWV0IiwiaXNzIjoiaHR0cDovL2xvY2FsaG9zdCIsImF1ZCI6ImFlZjAwMjdlNmOTU0MzVmNzc4MWEwY2ZhZDU5ZTVkIiwiaXZlZmVjoxNTc0NTIiOiJ0eXNzIiwiaWF0IjoiE1NzQzNDkwMzd9.WOXKkj_a1-BaS3syFf-3k-ZT9JGS1_MLdHo4PqnE8eY
Accept: application/json
Content-Type: application/json
```

Example response version 2

Response

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Access-Control-Allow-Origin: *
Date: Mon, 22 Jan 2024 15:11:42 GMT
[
  {
    "pPersoon": 263,
    "personId": "67e4c91d-0407-4759-a6a7-c427a4784f47",
    "personaId": null,
    "naam": "spropger",
    "voornaam": "Mia Mella",
    "bijkomendeVoornamen": "",
    "stamnr": "25702161637",
    "sortName": "SPROPGER,MIAMELLA,",
    "nickname": "spropger Mia Mella",
    "geslacht": "V",
    "initialen": "STRIN",
    "geboortedatum": "1957-02-16T00:00:00",
    "geboorteplaats": "Westkapelle",
    "geboortelandCode": "00129",
    "nationaliteitCode": "000",
    "rijksregisternr": "57021612345",
    "bisnr": null,
    "bank": {
      "iban": "BE33343536370048",
      "bic": "ARSPBE22"
    },
    "hoofdAmbt": {
      "code": "00000006",
      "naam": "Godsdienstleraar"
    },
    "eersteDienstSchool": "2011-09-01T00:00:00",
    "eersteDienstScholengroep": "1900-01-01T00:00:00",
    "eersteDienstScholengemeenschap": "1900-01-01T00:00:00",
    "isActive": true,
    "pensioendatum": null,
    "isMindervalide": false,
    "isOverleden": false,
    "datumOverleden": null,
    "partner": {
      "id": "5d70a9c8-1526-42e5-8614-f313b9eb154b",
      "naam": "Merckx",
      "voornaam": "Jozef",
      "geboortedatum": "1958-03-09T00:00:00",
      "nationaliteitCode": "00150",
      "isOverleden": false,
      "datumOverleden": null,
      "inkomen": 1
    }
  },
]
```

```

"adressen": [
  {
    "id": "a22b2980-d9e8-4449-8e0d-7ae2f722c78e",
    "aanspreekTitel": "Aan",
    "aanspreekNaam": "spropger Mia Mella",
    "straat": "Lakenmakerssteenweg",
    "nummer": "157",
    "bus": "",
    "postcode": "2800",
    "gemeente": "MECHELEN",
    "landCode": "00150",
    "isDomicilie": true,
    "isVerblijf": true
  }
],
"comnrs": [
  {
    "id": "e2d2fa0c-9d1b-4193-9d50-493b5a6e3be1",
    "type": "Domicilie",
    "soort": "Telefoon",
    "nr": "025 55 52 52"
  }
],
"emailadressen": [
  {
    "id": "b4b4e246-a61a-4499-8f9e-dd0827b19435",
    "type": "Privé",
    "email": "spropger.miamella@informat.be"
  },
  {
    "id": "ad4b6ec9-b9d5-489d-88fb-318a838e56d5",
    "type": "School",
    "email": "andere.spropger.miamella@informat.be"
  }
],
"kinderen": [
  {
    "id": "707da31a-44fd-45ba-904b-80ad0f2052c4",
    "naam": "Merckx ",
    "voornaam": "Wouter ",
    "geslacht": "M",
    "geboortedatum": "1986-12-23T00:00:00",
    "isOverleden": false,
    "datumOverleden": null
  }
],
"personeelsgroepen": [
  {
    "id": "a31577ff-2dda-426a-b689-1634b4545985",
    "naam": "Mechelen"
  },
  {
    "id": "53ce3cf5-cdb9-4dc4-b2ba-66b52bb51340",
    "naam": "leerkrachten 1ste graad"
  }
]
},
{...}
]

```

GET /employees/{personId}?schoolyear={schoolYear}&structure={structure}

Gets an employee by its personId. The institute number, school year and optional structure are used to determine some properties like "hoofdambt", "eersteDienstSchool", "eersteDienstScholengroep", "eersteDienstScholengemeenschap" and "isActive".

The institute number is defined via the mandatory header "InstituteNo" and the personId and school year must be send via the URL.

Request

Headers

Besides the mandatory headers, an optional [version number](#) can be provided. This call is also version neutral, which means that using version 1 or 2 will result in the same response.

URL

Field	Type	Required/optional	Description
personId	Guid	required	Limits the output results to an employee with the provided personId. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50} If not provided a bad request (400) will be returned.
schoolYear	string	required	Only used to determine the instituteNo's for the properties "EersteDienstScholengroep" and "EersteDienstScholengemeenschap". Format: "2023-24" If not provided a bad request (400) error will be returned.
structure	string	optional	Only used to determine the properties "HoofdAmbt", "EersteDienstSchool" and "IsActive" in a more detailed way, by means of the combination instituteNo & structure. Note: Only structures "311" & "312" are taken into account, the other structures are ignored. Format: "311"

Body

This request has an empty body.

Response

The response contains one employee instead of a list of employees. This makes the response similar to the call ["GET /employees?schoolYear={schoolYear}&structure={structure}" version 2.](#)

Example request

Request

```
GET https://<endpoint>/employees/e7fe8b72-1dd8-4bf8-a90a-0666e040f1ee?schoolyear=2023-24 HTTP/1.1
InstituteNo: 999999
Api-Version: 2
Authorization: BEARER
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJ1bmVudWVfbmFtZSI6IklkluZm9ybWV0IiwiaXNzIjoiaHR0cDovL2xvY2FsaG9zdCIsImF1ZCI6ImF1ZjAwMjdlNzNmOTU0MzVmNzc4MWEwY2ZhdDU5ZTVkIiwiaXZlbnV0IjoiaXNTc0NTIiwiaXNzIjoiODM3LCJ1YmYiOiJ0e1NzQzNDkwMzd9.WOXKkj_a1-BaS3syFf-3k-ZT9JGS1_MLdHo4PqnE8eY
Accept: application/json
Content-Type: application/json
```

Example response

Response

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Access-Control-Allow-Origin: *
Date: Mon, 22 Jan 2024 15:11:42 GMT
{
  "pPerson": 13050,
  "personId": "e7fe8b72-1dd8-4bf8-a90a-0666e040f1ee",
  "personaId": null,
  "naam": "Vondenwiengoint",
  "voornaam": "Jaime Fernando",
  ...
  SIMILAR TO THE GLOBAL GET EMPLOYEES CALL
  ...
}
```

Assignments

This chapter describes how to:

- Get all assignments for an institute-number, school year and structure;
- Get an employee's assignments by personId.

It describes all the available methods, their request/response format and provides input/output examples.

GET /employees/assignments?

schoolyear={schoolYear}&structure={structure}&inclNonSubHours={inclNonSubHours}

Gets all the assignments for the combination institute number, school year and structure. An additional filter can be applied for including/excluding non- subsidisable hours. The institute number is defined via the mandatory header "InstituteNo" and the school year must be send via the url. The optional structure and inclNonSubHours can also be provided via the URL.

Request

Headers

Besides the mandatory headers, an optional [version number](#) can be provided. This call is also version neutral, which means that using version 1 or 2 will result in the same response.

URL

Field	Type	Required/optional	Description
schoolYear	string	required	Limits the output results to assignments within the given schoolyear (and instituteNo). Format: "2023-24" If not provided a bad request (400) error will be returned.
structure	string	optional	This is an actually an additional restriction on the school year filter. It limits the output results to assignments for a given structure. Note: All structures are taken into account. Format: "311"
inclNonSubHours	bool	optional	Default value is true. So, assignments with non-subsidisable hours will only be excluded when a false is provided.

Body

This request has an empty body.

Response

The response contains a list of assignments.

Field	Type	Description
Id	Guid	Unique identifier for the assignment. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50}
personId	Guid	Unique identifier for the employee. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50}
begindatum	date	Assignment's begin date.
einddatum	date	Assignment's end date.
hfd	string	Assignment's structure. Format: "211"
vervangingen	array	List of substitutions.
opdrachtId	Guid	Unique identifier of the substitute assignment (child).
dold	Guid	Unique identifier of the linked interruption.
prestatieUren	decimal	Number of hours of the assignment.
prestatieNoemer	integer	Number of hours to perform for a full-time position.
urenTbsOB	decimal	Number of hours that cannot be performed. e.g. due to too few classes.
ato	string	Administrative situation Possible values: 1 = Aanstelling in niet-vacante uren (vervanging) 2 = Aanstelling in vacante uren 3 = Proeftijd 4 = Vast benoemd
afstandWachtgeld	decimal	Number of hours in which no "Reaffectatie/Wedertewerkstelling" is possible.
reaffWedertew	string	Reaffectatie status Possible values: R = Reaffectatie W = Wedertewerkstelling VT = Voorlopige toewijzing NV = Niet vatbaar voor reaffectatie Note: As this is not a mandatory field, the value may be empty ("").
bekwaamheidsbewijs	string	To what extent the employee's diploma is suitable to perform the assignment/task. Possible values: VE = Vereist bekwaamheidsbewijs VO = Voldoende AND = Andere Note: As this is not a mandatory field, the value may be empty ("0").
graad	string	Grade. Only applicable for secondary education & HBO5. Possible values: 1, 2 & 3 for secondary education H for HBO5 0 means not applicable

leerjaar	string	Year. Possible values: 1 through 6 Note: As this is not a mandatory field, the value may be empty ("0").
onderwijsvorm	string	Educational form. Possible values: SO, BSO, KSO, TSO, ASO, HBO Note: As this is not always a mandatory field, the value may be empty ("0"). The value SO is only applicable for the first grade; "BSO, KSO, TSO & ASO" for the 2 nd and 3 rd grade.
opleidingsvorm	string	Student's level of special needs. Only applicable for BUSO. Possible values: 'OV1' through 'OV4', and '-' if not applicable.
ambtCode	string	Official code of the function.
ambt	string	Official description of the function.
vakCode	string	Official code of the subject associated to the function.
vak	string	Official description of the subject.
gelijkgesteldVakCode	string	Official code of the "equivalent subject" (part within the subject).
gelijkgesteldVak	string	Official description of the "equivalent subject".
isAmbtvak	boolean	Indicates whether there is no subject for the specified function.
aanstellingscode	integer	Type of appointment Possible values: 1 = TADD (tijdelijk aanstelling van doorlopende duur) 4 = LIO (leerkracht in opleiding) 0 = Gewone aanstelling
isTao	boolean	Indicates whether this assignment is a temporarily different assignment (an assignment that deviates from the permanent position).
isVacature	boolean	The assignment is open to permanent appointment.
mandaatCode	string	To indicate that someone is a teacher specialist. Possible values: 00 = Niet van toepassing 01 = Leraar specialist
omkaderingCode	string	Official code for funds allocated to the school.
omkadering	string	Official description for funds allocated to the school.
opmerking	string	Remark.
vestiging	string	Location where the assignment takes place.
baremaCode	string	Official code of the wage scale.
barema	string	Official description of the wage scale.
vwoStudiegebiedCode	string	Official study area code, only applicable to adult education .
vwoStudiegebied	string	Official study area, only applicable to adult education .
vwoOpleidingCode	string	Official training area code, only applicable to adult education .
vwoOpleiding	string	Official training area, only applicable to adult education .
vwoModuleCode	string	Official module code, only applicable to adult education .
vwoModule	string	Official module, only applicable to adult education .

urenVanScholengem	boolean	Indicates whether a number of hours is allocated to the school by the school community.
urenVanAndereSchool	boolean	Indicates whether a number of hours is donated by another school.
opdrachtType	integer	Assignment type (hours) Possible values: 1 = Gewone subsidieerbare uren 2 = Niet-subsidieerbare uren

Example request

Request

```
GET https://<endpoint>/employees/appointments?schoolyear=2023-24&structure=311 HTTP/1.1
InstituteNo: 999999
Api-Version: 1
Authorization: BEARER
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJ1bm1xdWVfbmFtZSI6IklkluZm9ybWV0IiwiaXNzIjoiaHR0cDovL2xvY2FsaG9zdCI6ImF1ZCI6ImF1ZjAwMjdlNzNmOTU0MzVmNzc4MWEwY2ZhZDU5ZTVkIiwiaXZlIjoiaXNzIiwiaWF0IjoiE1NzQzNDkwMzd9.WOXKkj_a1-BaS3syFf-3k-ZT9JGS1_MLdHo4PqnE8eY
Accept: application/json
Content-Type: application/json
```

Example response

Response

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Access-Control-Allow-Origin: *
Date: Mon, 26 Aug 2024 15:11:42 GMT
[
  {
    "id": "1a65090a-2c68-4759-ac04-82d6dcf3b90d",
    "personId": "17a5d224-e470-4482-8925-5311cc031c89",
    "begindatum": "2023-09-01T00:00:00",
    "einddatum": "2024-08-31T00:00:00",
    "hfd": "311",
    "vervangingen": [
      {
        "opdrachtId": "c3441d1e-3408-4129-ab36-f1dc85555ae0",
        "doId": "fd179d48-ebf3-4e0c-8111-4149bffa7757"
      },
      {
        "opdrachtId": "4379d9af-0998-4111-b186-76eb6acb3e39",
        "doId": "fd179d48-ebf3-4e0c-8111-4149bffa7757"
      }
    ],
    "prestatieUren": 4.000,
    "prestatieNoemer": 20,
    "urenTbsOB": 0.000,
    "ato": "2",
    "afstandWachtgeld": 0.000,
    "reaffWedertew": "",
    "bekwaamheidsbewijs": "AND",
    "graad": "3",
    "leerjaar": "0",
    "onderwijsvorm": "ASO",
    "opleidingsvorm": "-",
    "ambtCode": "00000006",
    "ambt": "Godsdienstleraar",
    "vakCode": "00000140",
    "vak": "Katholieke godsdienst",
  }
]
```

```

    "gelijkgesteldVakCode": null,
    "gelijkgesteldVak": null,
    "isAmbtvak": false,
    "aanstellingscode": 1,
    "isTao": false,
    "isVacature": true,
    "mandaatCode": "01",
    "omkaderingCode": "00",
    "omkadering": "eigen omkadering (standaard)",
    "opmerking": "",
    "vestiging": null,
    "baremaCode": null,
    "barema": null,
    "vwoStudiegebiedCode": null,
    "vwoStudiegebied": null,
    "vwoOpleidingCode": null,
    "vwoOpleiding": null,
    "vwoModuleCode": null,
    "vwoModule": null,
    "urenVanScholengem": false,
    "urenVanAndereSchool": false,
    "opdrachtType": 1
  },
  {...}
]

```

GET /employees/{personId}/assignments? schoolYear={schoolYear}&structure={structure}&inclNonSubHours={inclNonSubHours}

Gets an employee’s assignments by personId and for the combination institute number, school year and structure. An additional filter can be applied for including/excluding non- subsidisable hours. The institute number is defined via the mandatory header “InstituteNo” and the personId and school year must be send via the url. Optional structure and inclNonSubHours can be provided via the URL.

Request

Headers

Besides the mandatory headers, an optional [version number](#) can be provided. This call is also version neutral, which means that using version 1 or 2 will result in the same response.

URL

Field	Type	Required/optional	Description
personId	Guid	required	Limits the output results to an employee’s assignments for the provided personId. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50} If not provided a bad request (400) will be returned.
schoolYear	string	required	Limits the output results to assignments within the given schoolyear (and instituteNo). Format: “2023-24” If not provided a bad request (400) error will be returned.
structure	string	optional	This is an actually an additional restriction on the school year filter. It limits the output results to assignments for a given structure. Note: All structures are taken into account. Format: “311”

inclNonSubHours	bool	optional	Default value is true. So, assignments with non-subsidisable hours will only be excluded when a false is provided.
------------------------	------	----------	--

Body

This request has an empty body.

Response

The response contains assignments for one employee instead of a list of employees. This makes the response similar to the call [GET /employees/assignments?schoolyear={schoolYear}&structure={structure}&inclNonSubHours={inclNonSubHours}](#).

Example request

Request

```
GET https://<endpoint>/employees/e7fe8b72-1dd8-4bf8-a90a-0666e040f1ee/assignments?schoolyear=2023-24
HTTP/1.1
InstituteNo: 999999
Api-Version: 1
Authorization: BEARER
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJ1bm1xdWVfbmFtZSI6IklmZmF1ZjZjZjAwMjd1NzNmOTU0MzVmNzc4MWEwY2ZhZDU5ZTVkIiwiaXNzIjoiaHR0cDovL2xvY2FsaG9zdCIsImF1ZCI6ImF1ZjZjZjAwMjd1NzNmOTU0MzVmNzc4MWEwY2ZhZDU5ZTVkIiwiaXNzIjoiaHR0cDovL2xvY2FsaG9zdC50eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.WOXKKj_a1-BaS3syFf-3k-ZT9JGS1_MLdHo4PqnE8eY
Accept: application/json
Content-Type: application/json
```

Example response

The response contains assignments for one employee (personId) instead of a list of employees. This makes the response example similar to [GET /employees/assignments?schoolyear={schoolYear}&structure={structure}](#).

Interruptions

This chapter describes how to:

- Get all interruptions for an institute-number, school year and structure;
- Get an employee's interruptions by personId;
- Add a new interruption or update an existing interruption;
- Remove an interruption.

It describes all the available methods, their request/response format and provides input/output examples.

GET /employees/interruptions?schoolyear={schoolYear}&structure={structure}

Gets all the interruptions for the combination institute number, school year and structure. The institute number is defined via the mandatory header "InstituteNo" and the school year must be send via the url. The optional structure can be provided via the URL.

Request

Headers

Besides the mandatory headers, an optional [version number](#) can be provided. This call is also version neutral, which means that using version 1 or 2 will result in the same response.

URL

Field	Type	Required/optional	Description
schoolYear	string	required	Limits the output results to interruptions within the given schoolyear (and instituteNo). Because an interruption can fall outside the school year boundaries, filtering is done like so: Enddate interruption >= start school year && Begindate interruption <= end of school Year. Format: "2023-24" If not provided a bad request (400) error will be returned.
structure	string	optional	This is an actually an additional restriction on the school year filter. It limits the output results to interruptions for a given structure. Note: All structures are taken into account. Format: "311"

Body

This request has an empty body.

Response

The response contains a list of interruptions.

Field	Type	Description
doid	Guid	Unique identifier for the interruption. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50}
personId	Guid	Unique identifier for the employee. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50}
hfd	string	Interruption's structure. Format: "211"
begindatum	date	Interruption's begin date.

einddatum	date	Interruption's end date.
code	string	Interruption's code.
omschrijving	string	Interruption's description.
soort	string	Interruption's RL-code. Note: Will be "0" for own defined interruptions.
verstuurdAgODi	bool	Indicates whether the last changes have been sent to AgODi. Note: Will be null for own defined interruptions.
opmSecretariaat	string	Remark entered by a secretarial staff member via Informat.
opmPersoneelslid	string	Remark sent along with the "/employees/{personId}/interruptions/{interruptionId}" call. Note: Not applicable for own defined interruptions.

Example request

Request

```
GET https://<endpoint>/employees/interruptions?schoolyear=2023-24&structure=311 HTTP/1.1
InstituteNo: 999999
Api-Version: 1
Authorization: BEARER
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJ1bm1xdWVfbmFtZSI6IklkluZm9ybWF0IiwiaXNzIjoiaHR0cDovL2xvY2FsaG9zdCIsImF1ZCI6ImF1ZjAwMjdlNzNmOTU0MzVmNzc4MWEwY2ZhZDU5ZTVkIiwiaXZlhwIjojoxNTc0NTIxODM3LCJucyYiOiJ0jE1NzQzNDkwMzd9.WOXKkj_a1-BaS3syFf-3k-ZT9JGS1_MLdHo4PqnE8eY
Accept: application/json
Content-Type: application/json
```

Example response

Response

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Access-Control-Allow-Origin: *
Date: Mon, 26 Aug 2024 15:11:42 GMT
[
  {
    "doId": "10271100-ea9e-4227-82ed-2a3370962a8b",
    "personId": "ba587efe-25a2-40f3-8c62-3cf8a2599124",
    "hfd": "311",
    "begindatum": "2023-10-27T00:00:00",
    "einddatum": "2023-10-27T00:00:00",
    "code": "1",
    "omschrijving": "Ziekteverlof",
    "soort": "2",
    "verstuurdAgODi": false,
    "opmSecretariaat": "Voelde zich griepig",
    "opmPersoneelslid": null
  },
]
```

```

{
  "doId": "3fd9f2d4-2797-45a6-a433-a5e43f9dd04c",
  "personId": "1c600b02-10ad-474b-8166-f5aa2c962254",
  "hfd": "311",
  "begindatum": "2023-11-15T00:00:00",
  "einddatum": "2023-11-16T00:00:00",
  "code": "144",
  "omschrijving": "Verlof wegens overmacht",
  "soort": "2",
  "verstuurdAgODi": false,
  "opmSecretariaat": "Staking openbaar vervoer",
  "opmPersoneelslid": null
},
{...}
]

```

GET /employees/{personId}/interruptions?schoolyear={schoolYear}&structure={structure}

Gets an employee's interruptions by personId and for the combination institute number, school year and structure. The institute number is defined via the mandatory header "InstituteNo" and the personId & school year must be send via the url. The optional structure can also be provided via the URL.

Request

Headers

Besides the mandatory headers, an optional [version number](#) can be provided. This call is also version neutral, which means that using version 1 or 2 will result in the same response.

URL

Field	Type	Required/optional	Description
personId	Guid	required	Limits the output results to an employee's interruptions for the provided personId. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50} If not provided a bad request (400) will be returned.
schoolYear	string	required	Limits the output results to interruptions within the given school year (and instituteNo). Because an interruption can fall outside the school year boundaries, filtering is done like so: Enddate interruption >= start school year && Begindate interruption <= end of school Year. Format: "2023-24" If not provided a bad request (400) error will be returned.
structure	string	optional	This is an actually an additional restriction on the school year filter. It limits the output results to interruptions for a given structure. Note: All structures are taken into account. Format: "311"

Body

This request has an empty body.

Response

The response contains a list of interruptions for a particular personId, limited based on the given school year & institute no (optional structure). The response is similar to the call "[GET /employees/interruptions?schoolyear={schoolYear}&structure={structure}](#)".

Example request

Request

```
GET https://<endpoint>/employees/bc334b17-58af-48cc-9fd5-1344acf33ab5/interruptions?schoolyear=2023-24&structure=311 HTTP/1.1
InstituteNo: 999999
Api-Version: 1
Authorization: BEARER
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJ1bm1xdWVfbmFtZSI6IkluZm9ybWV0IiwiaXNzIjoiaHR0cDovL2xvY2FsaG9zdCIsImF1ZCI6ImF1ZjAwMjdlNzNmOTU0MzVmNzc4MWEwY2ZhZDU5ZTVkIiwiaXNzIjoxNTc0NTIiLCJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.WOXKkj_a1-BaS3syFf-3k-ZT9JGS1_MLdHo4PqnE8eY
Accept: application/json
Content-Type: application/json
```

Example response

Response

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Access-Control-Allow-Origin: *
Date: Mon, 26 Aug 2024 15:11:42 GMT
[
  {
    "doId": "93520f0e-de7c-4da3-b35d-937fa635ec58",
    "personId": "bc334b17-58af-48cc-9fd5-1344acf33ab5",
    "hfd": "311",
    "begindatum": "2024-01-24T00:00:00",
    "einddatum": "2024-01-24T00:00:00",
    "code": "002",
    "omschrijving": "Te laat toegekomen",
    "soort": "0",
    "verstuurdAgODi": null,
    "opmSecretariaat": "Lekke autoband",
    "opmPersoneelslid": null
  },
  {
    "doId": "3fd9f2d4-2797-45a6-a433-a5e43f9dd04c",
    "personId": "bc334b17-58af-48cc-9fd5-1344acf33ab5",
    "hfd": "311",
    "begindatum": "2024-03-06T00:00:00",
    "einddatum": "2024-04-04T00:00:00",
    "code": "19",
    "omschrijving": "Verlof tijdelijk ander ambt/opdracht",
    "soort": "1",
    "verstuurdAgODi": false,
    "opmSecretariaat": "",
    "opmPersoneelslid": null
  },
  {...}
]
```


PUT /employees/{personId}/interruptions/{interruptionId}

This call can be used to:

- Add a new interruption into Informat for an employee (personId);
- Update an existing interruption based on the given interruptionId.

When adding or updating, several MNA (Method Not Allowed) errors may be thrown. An overview can be found over [here](#).

Request

Headers

Besides the mandatory headers, an optional [version number](#) can be provided. This call is also version neutral, which means that using version 1 or 2 will result in the same behavior.

URL

Field	Type	Required/optional	Description
personId	Guid	required	The mandatory unique identifier of an existing employee, to which the interruption will be linked. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50} If not provided in the correct format a Bad Request (400) will be returned. If not provided at all a Not Found (404) error will be returned.
interruptionId	Guid	required	A mandatory unique identifier which is used to identify the interruption. Based on this Id the decision will be made to add a new interruption or update an existing one. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50}

Body

Field	Type	Required/optional	Description
instelnr	string	required	Official institute number. Validation: required (BR003A)
schooljaar	string	required	The school year in which the employee's interruption takes place. Format: "yyyy-yy" Example: "2023-24" Validation: required (BR004A) and correct format (BR004B)
hfd	string	required	The school structure (111, 211,...) of the interruption. Validation: required (BR005A) and must have a length of 3 characters (BR005B)
code	string	required	Official interruption code. Example: "1" Possible values at this moment: "1" = ziekteverlof Validation: required (BR006A) and valid value (BR006B)
begindatum	date	required	Interruption's start date. Format: valid UTC Date or yyyy-MM-dd Validation: required (BR007A)


```

{
  "Instelnr" : "999999",
  "Schooljaar" : "2023-24",
  "Hfd" : "311",
  "Code" : "1",
  "Begindatum" : "2023-09-10T00:00:00",
  "Einddatum" : "2023-09-14T00:00:00",
  "Opmerking" : "Inserted by API",
  "NaamGeneesheer" : "Forever young",
  "TelefoonGeneesheer" : "056 11 22 33",
  "MagWoonstVerlaten" : true
}

```

Example response

Response with validation error(s):

```

HTTP/1.1 400 Bad Request
Content-Type: application/json; charset=utf-8
Access-Control-Allow-Origin: *
Date: Mon, 26 Aug 2024 15:11:42 GMT
{
  "errors": [
    {
      "Code": "BR006B",
      "Message": "Invalid Code"
    },
    {
      "Code": "BR008B",
      "Message": "Einddatum cannot be before Begindatum"
    }
  ]
}

```

Response with MNA error:

```

HTTP/1.1 405 Method Not Allowed
Content-Type: application/json; charset=utf-8
Access-Control-Allow-Origin: *
Date: Mon, 26 Aug 2024 15:11:42 GMT
{
  "errors": [
    {
      "Code": "MNA001",
      "Message": "This interruption is already linked to another school (institute no, school year & structure)"
    }
  ]
}

```


Example response

Response with validation error(s):

```
HTTP/1.1 400 Bad Request
Content-Type: application/json; charset=utf-8
Access-Control-Allow-Origin: *
Date: Wed, 18 Sept 2024 11:48:04 GMT
{
  "errors": [
    {
      "Code": "BR018",
      "Message": "No Interruption found for this Id"
    }
  ]
}
```

Response with MNA error:

```
HTTP/1.1 405 Method Not Allowed
Content-Type: application/json; charset=utf-8
Access-Control-Allow-Origin: *
Date: Wed, 18 Sept 2024 11:49:42 GMT
{
  "errors": [
    {
      "Code": "MNA009",
      "Message": "This interruption is already verified by the secretariat and can no longer be
removed"
    }
  ]
}
```

Diplomas

This chapter describes how to:

- Get all diplomas for an institute-number, school year and structure;
- Get an employee's diplomas by personId.

It describes all the available methods, their request/response format and provides input/output examples.

GET /employees/diplomas?schoolyear={schoolYear}&structure={structure}

Gets all the diplomas for the combination institute number, school year and structure. The institute number is defined via the mandatory header "InstituteNo" and the school year must be send via the url. The optional structure can be provided via the URL.

Request

Headers

Besides the mandatory headers, an optional [version number](#) can be provided. This call is also version neutral, which means that using version 1 or 2 will result in the same response.

URL

Field	Type	Required/optional	Description
schoolYear	string	required	For current & future school years: It limits the output results to diplomas for employees with an assignment within the given schoolyear (and instituteNo) or which are marked as active for your instituteNo. For passed school years: It limits the output results to diplomas for employees with an assignment within the given schoolyear (and instituteNo). Format: "2023-24" If not provided a bad request (400) error will be returned.
structure	string	optional	This is an actually an additional restriction on the school year filter. Note: Only structures "311" & "312" are taken into account. Format: "311"

Body

This request has an empty body.

GET /employees/{personId}/diplomas?schoolYear={schoolYear}&structure={structure}

Gets an employee's diplomas by personId and for the combination institute number, school year and structure. The institute number is defined via the mandatory header "InstituteNo" and the personId and school year must be send via the url. The optional structure can be provided via the URL.

Request

Headers

Besides the mandatory headers, an optional [version number](#) can be provided. This call is also version neutral, which means that using version 1 or 2 will result in the same response.

URL

Field	Type	Required/optional	Description
personId	Guid	required	Limits the output results to an employee's diplomas by the provided personId. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50} If not provided a bad request (400) will be returned.
schoolYear	string	required	For current & future school years: It limits the output results to diplomas for employees with an assignment within the given schoolyear (and instituteNo) or which are marked as active for your instituteNo. For passed school years: It limits the output results to diplomas for employees with an assignment within the given schoolyear (and instituteNo). Format: "2023-24" If not provided a bad request (400) error will be returned.
structure	string	optional	This is an actually an additional restriction on the school year filter. Note: Only structures "311" & "312" are taken into account. Format: "311"

Body

This request has an empty body.

Appointments

This chapter describes how to:

- Get all appointments for an institute-number, school year and structure;
- Get an employee's appointments by personId.

It describes all the available methods, their request/response format and provides input/output examples.

GET /employees/appointments?schoolyear={schoolYear}&structure={structure}

Gets all the appointments for the combination institute number, school year and structure. The institute number is defined via the mandatory header "InstituteNo" and the school year must be send via the url. The optional structure can be provided via the URL.

Request

Headers

Besides the mandatory headers, an optional [version number](#) can be provided. This call is also version neutral, which means that using version 1 or 2 will result in the same response.

URL

Field	Type	Required/optional	Description
schoolYear	string	required	For current & future school years: It limits the output results to appointments for employees with an assignment within the given schoolyear (and instituteNo) or which are marked as active for your instituteNo. For passed school years: It limits the output results to appointments for employees with an assignment within the given schoolyear (and instituteNo). Format: "2023-24" If not provided a bad request (400) error will be returned.
structure	string	optional	This is a two step filter: - An additional restriction on the school year filter for employees Note: Only structures "311" & "312" are taken into account. - A filter on the appointments itself. So, only appointments for this provided structure will be returned. Note: All structures are taken into account. Format: "311"

Body

This request has an empty body.

GET /employees/{personId}/appointments?structure={structure}

Gets an employee's appointments by personId and for the combination institute number and structure. The institute number is defined via the mandatory header "InstituteNo" and the personId must be send via the url. The optional structure can be provided via the URL.

Request

Headers

Besides the mandatory headers, an optional [version number](#) can be provided. This call is also version neutral, which means that using version 1 or 2 will result in the same response.

URL

Field	Type	Required/optional	Description
personId	Guid	required	Limits the output results to an employee's appointments for the provided personId. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50} If not provided a bad request (400) will be returned.
structure	string	optional	Limits the output results to an employee's appointments based on the provided structure. Note: All structures are taken into account. Format: "311"

Body

This request has an empty body.

Photos

This chapter describes how to:

- Get all photos for an institute-number, school year and structure;
- Get an employee's foto by personId.

It describes all the available methods, their request/response format and provides input/output examples.

GET /employees/photos?schoolYear={schoolYear}&structure={structure}

Gets all the photos for the combination institute number, school year and structure. The institute number is defined via the mandatory header "InstituteNo" and the school year must be send via the url. The optional structure can also be provided via the URL.

Request

Headers

Besides the mandatory headers, an optional [version number](#) can be provided. This call is also version neutral, which means that using version 1 or 2 will result in the same response.

URL

Field	Type	Required/optional	Description
schoolYear	string	required	For current & future school years: It limits the output results to photos for employees with an assignment within the given schoolyear (and instituteNo) or which are marked as active for your instituteNo. For passed school years: It limits the output results to photos for employees with an assignment within the given schoolyear (and instituteNo). Format: "2023-24" If not provided a bad request (400) error will be returned.
structure	string	optional	This is an actually an additional restriction on the school year filter. Note: Only structures "311" & "312" are taken into account. Format: "311"

Body

This request has an empty body.

GET /employees/{personId}/photos

Gets an employee's photo by personId. The institute number is defined via the mandatory header "InstituteNo".

Request

Headers

Besides the mandatory headers, an optional [version number](#) can be provided. This call is also version neutral, which means that using version 1 or 2 will result in the same response.

URL

Field	Type	Required/optional	Description
personId	Guid	required	Limits the output results to an employee's photo for the provided personId. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50} If not provided a bad request (400) will be returned.

Body

This request has an empty body.

Own fields

This chapter describes how to:

- Get all own fields for an institute-number, school year and structure;
- Get an employee's own fields by personId.

It describes all the available methods, their request/response format and provides input/output examples.

GET /employees/ownfields?schoolyear={schoolYear}&structure={structure}

Gets all the own fields for the combination institute number, school year and structure. The institute number is defined via the mandatory header "InstituteNo" and the school year must be send via the url. The optional structure can also be provided via the URL.

Request

Headers

Besides the mandatory headers, an optional [version number](#) can be provided. This call is also version neutral, which means that using version 1 or 2 will result in the same response.

URL

Field	Type	Required/optional	Description
schoolYear	string	required	<p>This is a two step filter:</p> <ul style="list-style-type: none">- For current & future school years: It limits the output results to own fields for employees with an assignment within the given schoolyear (and instituteNo) or which are marked as active for your instituteNo.or for passed school years: It limits the output results to own fields for employees with an assignment within the given schoolyear (and instituteNo).- A filter on the own fields itself. So, only own fields that are linked to a school with the provided instituteNo and school year are returned. <p>Format: "2023-24"</p> <p>If not provided a bad request (400) error will be returned.</p>
structure	string	optional	<p>This is a two step filter:</p> <ul style="list-style-type: none">- An additional restriction on the school year filter for employees Note: Only structures "311" & "312" are taken into account.- A additional restriction on the school year filter for the own fields itself. So, only own fields that are linked to a school with the provided structure are returned. Note: All structures are taken into account. <p>Format: "311"</p>

Body

This request has an empty body.

Response

The response contains a list of own fields.

Field	Type	Description
personId	Guid	Unique identifier for the employee. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50}
vvId	Guid	Unique identifier for the own field. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50}
naam	string	Own field's name.
waarde	string	Own field's value.
dataType	string	Own field's data type. Possible values: Tekst, datum or getal
rubriek	int	Own field's belongingness. Possible values: 1 = Personalia 2 = Tewerkstelling

Example request

Request

```
GET https://<endpoint>/employees/ownfields?schoolyear=2023-24&structure=211 HTTP/1.1
InstituteNo: 999999
Api-Version: 1
Authorization: BEARER
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJ1bm1xdWVfbmFtZSI6IklkluZm9ybWVfWF0iwiiaXNzIjoiaHR0cDovL2xvY2FsaG9zdC
IsImF1ZCI6ImF1ZjAwMjd1NzNmOTU0MzVmNmZc4MWEwY2ZhdDU5ZTVkIiwiaXNzIjoiaXNTc0NTIiOjE1NzQzNDkwMzd9.
W0XKkj_a1-BaS3syFf-3k-ZT9JGS1_MLdHo4PqnE8eY
Accept: application/json
Content-Type: application/json
```

Example response

Response

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Access-Control-Allow-Origin: *
Date: Mon, 05 Feb 2024 16:52:42 GMT
[
  {
    "personId": "dc500c63-2078-4ec7-924b-3e0df6b9435e",
    "vvId": "91eb3158-10a9-41a6-ab7c-27ce0853c5b2",
    "naam": "kastnummer",
    "waarde": "9345",
    "dataType": "Getal",
    "rubriek": 1
  },
  {
    "personId": "f49617bf-b0c5-4c18-89e8-a966229764b9",
    "vvId": "b69e572e-9ab3-48c2-a0a8-36d22f87d6a8",
    "naam": "nummerplaat",
    "waarde": "BFZ001",
    "dataType": "Tekst",
    "rubriek": 1
  },
  {...}
]
```


Example response

Response

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
Access-Control-Allow-Origin: *
Date: Mon, 05 Feb 2024 16:52:42 GMT
[
  {
    "personId": "bc334b17-58af-48cc-9fd5-1344acf33ab5",
    "vvId": "91eb3158-10a9-41a6-ab7c-27ce0853c5b2",
    "naam": "kastnummer",
    "waarde": "16",
    "dataType": "Getal",
    "rubriek": 1
  },
  {
    "personId": "bc334b17-58af-48cc-9fd5-1344acf33ab5",
    "vvId": "b69e572e-9ab3-48c2-a0a8-36d22f87d6a8",
    "naam": "nummerplaat",
    "waarde": "1-ABC-001",
    "dataType": "Tekst",
    "rubriek": 1
  },
  {...}
]
```

Attachments

This chapter describes how to:

- Add a new interruption-attachment or update an existing one;
- Remove an interruption-attachment.

It describes all the available methods, their request/response format and provides input/output examples.

PUT /employees/interruptions/{interruptionId}/attachments/{attachmentId}

This call can be used to:

- Add a new attachment into Informat linked to an interruption (interruptionId);
- Update an existing interruption-attachment based on the given attachmentId. An attachment can be linked to multiple interruptions of the same employee.

When adding or updating, a MNA007 (Method Not Allowed) error may be thrown (status code 405). An overview can be found over [here](#).

Request

Headers

Besides the mandatory headers, an optional [version number](#) can be provided. This call is also version neutral, which means that using version 1 or 2 will result in the same behavior.

URL

Field	Type	Required/optional	Description
interruptionId	Guid	required	The mandatory unique identifier of an existing interruption, to which the attachment will be linked. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50} If not provided in the correct format a Bad Request (400) will be returned. If not provided at all a Not Found (404) error will be returned. Validation: required (BR002)
attachmentId	Guid	required	A mandatory unique identifier which is used to identify the attachment. Based on this Id the decision will be made to add a new attachment or update an existing one. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50} Validation: required (BR015)

Additional validation checks are:

- BR018: No interruption found for this Id

See the section "[Bad Request errors](#)" for an overview of all BR-codes.

Body

Field	Type	Required/optional	Description
filename	string	required	The name of the file including the extension. Valid extensions are: 'bmp', 'jpg', 'jpeg', 'png', 'gif', 'svg', 'doc', 'docx', 'xls', 'xlsx', 'txt', 'zip' and 'pdf'. Validations: required (BR016A), max. length 100 (BR016B) and invalid file extension (BR016C)

Response with MNA error:

```
HTTP/1.1 405 Method Not Allowed
Content-Type: application/json; charset=utf-8
Access-Control-Allow-Origin: *
Date: Wed, 11 Sept 2024 10:28:42 GMT
{
  "errors": [
    {
      "Code": "MNA007",
      "Message": "Attachment already linked to another employee"
    }
  ]
}
```

DELETE /employees/interruptions/{interruptionId}/attachments/{attachmentId}

This call can be used to:

- Remove the link between an interruption and an attachment. If no other interruption is linked to this attachment then the attachment itself will also be removed.

Request

Headers

Besides the mandatory headers, an optional [version number](#) can be provided. This call is also version neutral, which means that using version 1 or 2 will result in the same behavior.

URL

Field	Type	Required/optional	Description
interruptionId	Guid	required	The mandatory unique identifier of an existing interruption, to which the attachment is linked. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50} If not provided in the correct format a Bad Request (400) will be returned. If not provided at all a Not Found (404) error will be returned. Validation: required (BR002)
attachmentId	Guid	required	A mandatory unique identifier of an existing attachment. Format: {42CD5A20-E22F-45D7-973C-FAB8734DEC50} Validation: required (BR015)

Additional validation checks are:

- BR019: Nothing found to delete for this interruptionId & attachmentId combination

See the section "[Bad Request errors](#)" for an overview of all BR-codes.

Body

This request has an empty body.

Response

- A successful add/insert process results in a response status code 200 (Ok) with empty body.
- When there are validation errors, then a status code 400 (Bad Request) is returned, with a list of errors in the body.

Example request

Request

```
DELETE https://<endpoint>/employees/interruptions/c5f21445-1180-42ef-832e-62a8d53044c2/attachments/{
54fea255-24d2-4a91-80db-7325d5dd3d5e} HTTP/1.1
InstituteNo: 999999
Api-Version: 1
Authorization: BEARER
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJ1bm1xdWVfbmFtZSI6Ikludm9ybWV0IiwiaXNzIjoiaHR0cDovL2xvY2FsaG9zdC
IsImF1ZCI6ImF1ZjAwMjd1NzNmOTU0MzVmNzc4MWEwY2ZhZDU5ZTVkIiwiaXhwIjojNTc0NTIxODM3LCJ1YmYiOiJlNzQzNDkwMzd9.
WOXKkj_a1-BaS3syFf-3k-ZT9JGS1_MLdHo4PqnE8eY
Accept: application/json
Content-Type: application/json
```

Example response

Response with validation error(s):

```
HTTP/1.1 400 Bad Request
Content-Type: application/json; charset=utf-8
Access-Control-Allow-Origin: *
Date: Wed, 11 Sept 2024 10:18:49 GMT
{
  "errors": [
    {
      "Code": "BR019",
      "Message": "Nothing found to delete for this interruptionId & attachmentId combination"
    }
  ]
}
```

APPENDIX Error-codes and descriptions

Bad Request errors

Code	Description
BR001	Invalid PersonId
BR002	Invalid InterruptionId
BR003A	Instelnr is required
BR004A	Schooljaar is required
BR004B	Invalid Schooljaar format
BR005A	Hfd is required
BR005B	Hfd must have a length of 3 characters
BR006A	Code is required
BR006B	Invalid Code
BR007A	Begindatum is required
BR008A	Einddatum is required
BR008B	Einddatum cannot be before Begindatum
BR009	Opmerking doesn't comply with the validationrule: max. length 500
BR010	NaamGeneesheer doesn't comply with the validationrule: max. length 75
BR011	TelefoonGeneesheer doesn't comply with the validationrule: max. length 20
BR012A	Afzender is required
BR012B	Afzender doesn't comply with the validationrule: max. length 50
BR013	Invalid combination InstituteNo, School year and Structure
BR014	No employee found for this PersonId
BR015	Invalid AttachmentId
BR016A	Filename is required
BR016B	Filename doesn't comply with the validationrule: max. length 100
BR016C	Invalid file extension
BR017A	File is required
BR017B	Max. file size: 10MB
BR018	No interruption found for this Id
BR019	Nothing found to delete for this interruptionId & attachmentId combination

Method Not Allowed errors

Code	Description
MNA001	This interruption is already linked to another school (institute no, school year & structure)
MNA002	This interruption is already linked to another employee
MNA003	Hfd, Code, Begin- and Einddatum can't be changed as the interruption has already been sent to AgODi
MNA004	Hfd, Begin- and Einddatum can't be changed as the interruption has already a substitution
MNA005	This interruption can't be added because an overlapping personal interruption already exists for this institute no.
MNA006	This interruption can't be adjusted because an overlapping personal interruption already exists for the institute no.
MNA007	Attachment already linked to another employee
MNA008	Only interruptions added via the API can be removed
MNA009	This interruption is already verified by the secretariat and can no longer be removed
MNA010	This interruption is already sent to AgODi and can no longer be removed
MNA011	This interruption has already a substitution and can no longer be removed

Document version history

The table below tracks the history of the different versions of this document and the respective release dates of the Api. The type can be initial / minor / major.

Doc Version	Release Date	Type	Changelog
1	July 3, 2023	Initial release	<ul style="list-style-type: none"> - First version containing the call: <ul style="list-style-type: none"> o GET /employees?structure={structure}&schoolYear={schoolYear}
2	January 30, 2024	Major	<ul style="list-style-type: none"> - A new version "Api-version 2" has been added for the call: <ul style="list-style-type: none"> o GET /employees?schoolYear={schoolYear}&structure={structure} - The following 11 new calls are implemented: <ul style="list-style-type: none"> o GET /employees/{personId}?schoolYear={schoolYear}&structure={structure} o GET /employees/assignments?schoolYear={schoolYear}&structure={structure}&inclNonSubHours={inclNonSubHours} o GET /employees/{personId}/assignments?schoolYear={schoolYear}&structure={structure}&inclNonSubHours={inclNonSubHours} o GET /employees/interruptions?schoolYear={schoolYear}&structure={structure} o GET /employees/{personId}/interruptions?schoolYear={schoolYear}&structure={structure} o GET /employees/diplomas?schoolYear={schoolYear}&structure={structure} o GET /employees/{personId}/diplomas?schoolYear={schoolYear}&structure={structure} o GET /employees/appointments?schoolYear={schoolYear}&structure={structure} o GET /employees/{personId}/appointments?structure={structure} o GET /employees/photos?schoolYear={schoolYear}&structure={structure} o GET /employees/{personId}/photos
2.1	February 13, 2024	Minor	<ul style="list-style-type: none"> - The following 2 new calls are implemented: <ul style="list-style-type: none"> o GET /employees/ownfields?schoolYear={schoolYear}&structure={structure} o GET /employees/{personId}/ownfields?schoolYear={schoolYear}&structure={structure}
2.2	September 10, 2024	Minor	<ul style="list-style-type: none"> - The response of the following calls is extended with "opmSecretariaat" and "opmPersoneelslid": <ul style="list-style-type: none"> o GET /employees/interruptions?schoolYear={schoolYear}&structure={structure} o GET /employees/{personId}/interruptions?schoolYear={schoolYear}&structure={structure} - One new call is implemented: <ul style="list-style-type: none"> o PUT /employees/{personId}/interruptions/{interruptionId}
2.3	September 17, 2024	Minor	<ul style="list-style-type: none"> - The following 2 new calls are implemented: <ul style="list-style-type: none"> o PUT /employees/interruptions/{interruptionId}/attachments/{attachmentId} o DELETE /employees/interruptions/{interruptionId}/attachments/{attachmentId}

Doc Version	Release Date	Type	Changelog
2.4	September 20, 2024	Minor	- One new calls is implemented: <ul style="list-style-type: none">○ DELETE /employees/interruptions/{interruptionId}

References

- Wikipedia on RESTful services, http://en.wikipedia.org/wiki/Representational_state_transfer
- MSDN, <http://msdn.microsoft.com>

List of attachments

Attachment 1 – List of result codes:

Result code	Resources	Description
200	All	The request was received and processed correctly. The requested data has been attached.
400	All	The server was unable to parse the request because of a problem with the content of the request, this can be a problem with the headers / URL / body data that was received.
401	All	The request was sent without a valid signature. This could mean that the signature header was not present, that the signature value wasn't present or that the provided signature is not correct.
404	All	The request was received and processed correctly, but there is no data in the response set.
405	All	The request was sent using an invalid HttpMethod. Example: Sending a request as GET while only POST is allowed.
500	All	The request triggered a handled exception on the service. The exception has been logged. Please try again and/or contact Informat about this problem.
999	All	The request triggered an unexpected exception on the service. The exception has been logged. Please try again and/or contact Informat about this problem.

Sample code (.NET)

```
// ClientId & ClientSecret received from Informat
private const string ClientId = "informat_customer_{clientName}";
private const string ClientSecret = "mySecretCode";
// address to retrieve the access token
private const string IdentityServerBaseAddress = "https://www.identityserver.be";
// address leerlingenapi
private const string ApiBaseAddress = "https://personeelsapi.informatsoftware.be";

private static async Task<string> CallApi() {
    // the scopes for which the api can be called (multiple scopes possible)
    var scopes = new List<string>
    {
        "api_informat_sas_personeel.personeel.{123456}"
    };

    // get token from identityserver
    var token = await GetToken(scopes);

    // create HttpClient and use received Bearer token
    using (var apiClient = new HttpClient
    {
        BaseAddress = new Uri(ApiBaseAddress),
        DefaultRequestHeaders = { Authorization = new AuthenticationHeaderValue("Bearer", token) }
    })
    {
        // set InstituteNo in header for which the request is done
        apiClient.DefaultRequestHeaders.Add("InstituteNo", "123456");
        // call leerlingenapi

        var result = await apiClient.GetStringAsync("/{api method name}");

        return result;
    }
}

private static async Task<string> GetToken(IEnumerable<string> scopes) {
    using var tokenClient = new HttpClient { BaseAddress = new Uri(IdentityServerBaseAddress) };
    var response = await tokenClient.PostAsync("/connect/token", new FormUrlEncodedContent(
        new Dictionary<string, string> {
            { "client_id", ClientId },
            { "client_secret", ClientSecret },
            { "grant_type", "client_credentials" },
            { "scope", string.Join(" ", scopes) }
        }
    ));
    response.EnsureSuccessStatusCode();
    var content = await response.Content.ReadAsStringAsync();
    var json = JsonDocument.Parse(content);
    var token = json.RootElement.GetProperty("access_token").GetString();
    return token;
}
```

