ZSAPI

Integration Manual

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Changes

To improve this document readability we removed reference to Interfaces and Actions that were replaced by new ones when v2 was released - we will keep the last revision of the v2 documentation available but will not be getting any updates.

Change log for V2.0 and above was moved to an independent document entitled: ChangeLog-ZSAPI-v2.5-Rev1.0

Introduction

This document is intended to describe the procedures and requirements necessary to use the Zone Soft API - ZSAPI.
This document is intended for our customers who wish to develop solutions that allow integrating other services with our services using the various operations provided by our API.

About the Zone Soft API - ZSAPI

- ZSAPI provides a set of features that applications and services external to the Zone Soft ecosystem can use to interact with our applications and services.

- ZSAPI does not implement any of the business logic used by our applications. However, it must be borne in mind that the features available are developed and guided by the way our applications and services work and their needs.

- Applications that interact with the API are solely responsible for the control and management of the data they use and should always be developed taking into account that their actions will affect all other applications that use the same database.

- ZSAPI implements validations for data integrity and legal issues that may not be published in this documentation.

- In case of doubts or difficulties in integration, you can contact us exclusively by email api@zonesoft.org and you must take into account the Communication Guide for support requests to api@zonesoft.org (defined in this document). There is the possibility, through the email api@zonesoft.org, of being scheduled on time and through the availability of our services, conference calls or calls via hangouts to clarify doubts.

Legal Note

The User may not use the API without a record. User registration is required for use of all features.

Zone Soft will deal with the data provided by the User for the purpose of improving his service, future contact and presentation of proposals or services. This data is for the exclusive use of Zone Soft and will not be transmitted to third parties without your consent. Pursuant to Law no. 67/98 of 26 October, the right to access, rectify and delete the above personal data is guaranteed. Non-personal information collected by Zone Soft through our API, or by other means, can be used for statistical purposes, with the identity of Users always protected. If you do not want to authorize the processing of your personal data or want to make its change or deletion, you should send an e-mail to api@zonesoft.org.

CHANGES TO THIS PRIVACY POLICY
Zone Soft may, from time to time, make changes to the Privacy Policy and these are always communicated to Registered Users. Users will be aware of any changes that Zone Soft may introduce via email or at the zonesoft.pt site.

Terms Used in This Document

Request - The request *http* itself. Used in this document as an entity (object).

URL - The address *URL* used in the *Request* - which is part of the *Request*.

Response - The response to the request *http* returned by the **API.** Used in this document as an entity (object).

StatusCode - Element *Response*, contains the id of the Response's status.

StatusMessage - Element *Response*,contains the text message for the returned Response's status code*.*

Content - Element *Response*, contains information requested in the *Request*.

POST - A request *http* using the method *POST* from the protocol *http*.

Assuming the JSON Request:

```
{
    "document":{
                  "id":0
                  }
}
```

The elements *document* are examples of Request Root Element; *id* is not Root Element.

Nomenclatures

delete - If an action that gives a command to erase something, you should always have at beginning of the name. ***delete*** Ex: ***deleteInstances***.

save - If it is an action that writes information in database, it should always contain in the beginning ***save***. Ex. ***saveInstances.***

get - If it is an action to read information to client, it should always contain at start ***get***. Ex. ***getInstances***.

Requests

Service address (since December 2014):

https://api.zonesoft.org

The ZSAPI expects the following structure *URL* in each *Request* regardless of the type of client accessing

https://api.zonesoft.org/**vVersion_number**/**interface_name**/**action_name**

such as:

https://api.zonesoft.org/**v3/**documents/getInstances

where:
1. **https://api.zonesoft.org/** - server address
2. **v3/** - the version of ZSAPI intended to use - **v must be lower case**
3. **documents/** - *Interface* that will process the *Request*
4. **getInstances** - the name of the Action within the *Interface* that will process the *Request*.

Only *POST Requests* are supported.
Any other type of *Request* originates Response **StatusCode:: ZSAPI_BAD_REQUEST 400**.

Only the following *HTTP CONTENT_TYPE header* is supported:
● *application/json; charset = utf-8*

It is mandatory to indicate the API version for each request through *URL* the *Request* and this should be the first parameter, just after the address *https* of the service - **v must be lower case**.

Example:

curl -k https://api.zonesoft.org/**v3/**products/getInstance

Note: The API version definition should be the first item just after the http service address as in the example above: https: //api.zonesoft.org/**v3/ - Failure to comply with this rule may result in a *response* different than expected; v must be lower case.**

Caution: If the version is not defined in the *Request*, the *Response* may be different from what is expected.

Responses

Supported formats:
- **JSON**

In an ideal approach, the Client should convert *Response* to an object whose properties are *StatusCode, StatusMessage* and the *Content* object.

The client must analyze the **Response.SatusCode** before processing the **Response.Content**.

Example 5 (pseudo-code):

```
if(Response.StatusCode === 400){
        (an error occurred while processing the request)
}else{
        (all okay, it can handle Response.Content - but it is advisable to check the value of
Response.Status before processing Response.Content)
}
```

Responses - Listings

All *Requests* that originate listings as Answers are **limited by default to a maximum of 250 instances** of entity requested/returned. This limit can be changed in the *Request* itself for any value between [**1, 250**].

Whenever a *Request* is made to obtain a list of instances, the list of instances will be provided inside the object **Response.Content** what will have a property with the lowercase singular name of the requested Interface. This property will be an *Array* that will contain the requested instances - There are however some exceptions properly identified.

All arguments presented in the table below may be defined for each *Request* for an Interface. To do this, they must be encapsulated in an entity with the lowercase and singular name of the ZSAPI Interface that will process the request.

Note: In *Requests* that originate listings it is mandatory to have a root element with the lowercase name of the *model_entity* containing an instance is mandatory (even if empty) of the *model_entity* - unless otherwise noted.

Arguments available for *Request* listing:

Argument	Required	Type	Defeito	Description
model_entity	YES	object		Instance of *model_entity*
model_entity [limit]	NO	integer	250	Number of records to obtain.
model_entity [offset]	NO	integer	0	Number of records from which to get the listing.
model_entity [order]	NO	string	'''	Order of listing, must comply with the following standard: *property_name[,property_name1,property_name2] order* Order can be one of the following: **ASC, DESC**.
model_entity [group]	NO	string	''	Properties to group.
model_entity [condition]	NO	string	''	Extra search criteria.

Example of a *Curl Request* to the Interface **documents** - Entity to use **document** :

curl -k https://api.zonesoft.org/v3/**documents**/getInstances/ -H 'Content-type: application/json' -X POST -d '{"**document**":{"limit":100,"offset":150}}'

Note: the combination of arguments *limit* and *offset* allows navigation between applications listings to the same interface, like the *queries* SQL.

Responses status: ZSAPI_UNPROCESSABLE_ENTITY (422)

Whenever a *Request* is made that returns a response with the status **ZSAPI_UNPROCESSABLE_ENTITY: 422**, a new **_errors** property is added a to each instance with errors, indicating the validation errors encountered for that instance. The property **_errors**, when set, returns a list (Array) where each element has the following structure:

```
        {
        "property": property_name_with_error (string),
        "error": description_of_the_found_error (string)
        }
```

Example de *Response* *ZSAPI_UNPROCESSABLE_ENTITY*:

```
{"store":{
        (...)
        , _errors:[{
                "property": "codigo",
                "error": "Codigo must be an integer"
                } ]
        (...)
        }
}
```

Note: In addition to the response codes described in each interface it is possible for ZSAPI to return the following response codes: **ZSAPI_TO_MANY_REQUESTS: 429, ZSAPI_INTERNAL_SERVER_ERROR: 500,   ZSAPI_NOT_IMPLEMENTED: 501.** We advise that applications be prepared to handle all http response codes themselves.

Communication Guide for support requests to api@zonesoft.org

The support channel api@zonesoft.org exists to assist integrators in developing their solutions using ZSAPI. To better assist in the requests for support by the api@zonesoft.org channel, the following must be taken into account:

- The support team will always assume that the integrators have read the documentation.
- For the same subject should be kept the history of exchanged emails - this way any member of the team will have more immediate access to all information exchanged on the subject addressed.
- The team does not know the solution that the integrator is implementing so the communication should be as clear as possible, keeping within the scope of the subject addressed and should not be based on assumptions.

- Whenever the request for help/clarification a *request* concerns to the API must be included in the following elements the initial email (in addition to any other information they deem necessary):
  - request url including the ZSAPI version eg: *https://api.zonesoft.org/v3/produtos/getInstance*
  - copy *request* Sent.
  - copy of the *response in* case of doubt.
- Questions or inquiries about how to affect behaviors of our applications using ZSAPI (for example: which fields/values need to be affected/set to produce certain behaviors in our applications) can be forwarded to Zone Soft's global support team, as they will be more qualified for such clarifications.

Conventions for Data Types

Data Type	Conventionated Format	Example	Description
date	YYYY-MM-DD	2001-01-01	Date ISO 8601
datetime	YYYY-MM-DD hh:mm:ss	2001-01-01 08:30:25	Date/time ISO 8601

Access

ZSAPI is only available to Zone Soft Clients who are properly licensed for this purpose.

To access ZSAPI services all users are submitted to register in portal developers (**https://developer.zonesoft.org**)

After registering you have access to your "**client id**", "**app-key**" and "**app-secret**".

All incoming requests to our API must include the specified header including your signature.

 - Example JSON request with headers required

```
curl --location 'https://api.zonesoft.org/v3/breaks/getInstances' \
--header 'Content-Type: application/json' \
--header 'X-ZS-SIGNATURE: YOUR-X-ZS-SIGNATURE' \
--header 'X-ZS-CLIENT-ID: YOUR-X-ZS-CLIENT-ID' \
--header 'X-ZS-APP-KEY: YOUR-X-ZS-APP-KEY' \
--data '{
    "break": {
        "limit": "10"
    }
}'
```

X-ZS-SIGNATURE - signature your body with hmac256 with your "app-secret".

Example signature in php

```
hash_hmac('SHA256', $your-body, $your-app-secret);
```

X-ZS-CLIENT-ID - your client id associated with a store and permissions the access
X-ZS-APP-KEY - your "app-key"

These last two headers and your-app-secret can be obtained from developer.zonesoft.org

Interfaces ZSAPI

Interface::Breaks

Interface responsible for processing all Requests concerning instances of: *break*.

Model Entity: **Break**

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**break**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::*ZSAPI_OK* (200)***:

```
(...)
     "break": [
       {
               "armazem": null,
               "codigo": 2,
               "data": "2021-03-01",
               "datahora": "2021-03-01 13:02:34",
               "empid": 1,
               "idcx": 1233,
               "lastupdate": "2021-03-01 13:02:34",
               "loja": 5,
               "mesa": 1,
               "motivo": 0,
               "motivodesc": "Artigo anulado s",
```

```
                    "posto": 0,
                    "precocompra": 0,
                    "precovenda": 0,
                    "qtd": 1,
                    "valor": 0,
                    "_errors": []
            }
        ]
(...)
```

Note: See information about listings.

*Interface::*Cancellations

Interface responsible for processing all Requests concerning instances of: *cancellation*.

Model Entity: ***Cancellation***

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	Instances are returned in the Response inside the attribute "**cancellation**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Example of response in *JSON* **StatusCode::*ZSAPI_OK* (200)***:*

```
(...)
 "cancellation": [
        {
                "codigo": 2700028,
```

```
                    "data": "2017-10-12",
                    "datahora": "2017-10-12 14:56:10",
                    "datahora_pedido": null,
                    "descricao": "Febra de Porco",
                    "empid": 2,
                    "id": 366,
                    "idcx": 3581,
                    "lastupdate": "2019-09-10 15:44:30.154",
                    "loja": 5,
                    "mesa": 1001,
                    "motivo": 2002,
                    "motivodesc": "7",
                    "posto": 1,
                    "precocompra": 0,
                    "precovenda": 0,
                    "qtd": 1,
                    "valor": 0,
                    "_errors": []
            }, (...)
```

Note: See information about listings.

Interface::<u>Cards</u>

Interface responsible for processing all Requests concerning instances of: *card*.

Model Entity: ***Card***

Action::*deleteInstances*

Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Arguments:

Argument	Required	Type	Description
card	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

card [numero]	YES	integer	Card ID.

Example request using JSON:

```
{
    "card":[
            {"numero":11},
            {"numero":12}
    ]
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	All instances were successfully removed. All instances are returned in the Response inside the attribute "**card**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_UNPROCESSABLE_ENTITY **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
card [codigo]	YES	integer	Card ID.

Example request using JSON:

```
{
    "card":{ "codigo":2}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	The instance is returned in the Response inside the attribute "**card**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	The requested instance was not found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "**card**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of this Model Entity were found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
  "card": [
      {
        "loja": 1,
        "numero": 4,
        "cliente": 6,
        "saldo": -9.01,
        "estado": 0,
        "motivo": "aaaa ddddd  ccccc",
        "data": "2016-04-11",
        "prepago": 1,
        "minimo": 0,
        "mingrupo": 0,
        "maximo": 0,
```

```
        "maxgrupo": 0,
        "zona": 0,
        "serie": 0,
        "perfil": 0,
        "creditos": 0,
        "gravacao": "",
        "maxcredito": 12,
        "lastupdate": "2016-04-11 10:05:11"
    }, (...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
card [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
      "card":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	Instances are returned in the Response inside the attribute "**card**" of type Array - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
card [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "card":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "**card**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
    "card": [
    {
        "loja": 1,
        "numero": 1019,
        "cliente": 0,
        "saldo": 0,
        "estado": 0,
        "motivo": "stuff",
        "data": "1899-12-30",
        "prepago": 1,
        "minimo": 0,
        "mingrupo": 0,
        "maximo": 0,
        "maxgrupo": 0,
```

```
        "zona": 0,
        "serie": 0,
        "perfil": 0,
        "creditos": 0,
        "gravacao": "",
        "maxcredito": 0,
        "lastupdate": "2017-01-30 14:56:22"
} (...)
```

Note: See information about listings.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
card	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::ZSAPI_CREATED **(201)**	Instances have been successfully processed.
StatusCode::ZSAPI_UNPROCESSABLE_ENTITY **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Action::*setFullSync*

Mark all Model Entities to be synchronized.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	In Response, an (empty) instance of type <Model Entity> inside the attribute "***card***".
StatusCode::*ZSAPI_NOT_MODIFIED* **(304)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Interface::Cardsseries

Interface responsible for processing all Requests concerning instances of card's series: *cardsseries*.

Model Entity: **Cardseries**

Action::*deleteInstances*

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
cardseries	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

cardseries [codigo]	YES	integer	Cardseries ID.

Example request using JSON:

```
{
```

```
"cardseries":[
        {"codigo":1},
        {"codigo":2}
        ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	All instances were successfully removed. All request instances are returned in the Response inside the attribute "**cardseries**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
cardseries [codigo]	YES	integer	Cardseries ID.

Example request using JSON:

```
{
"cardseries":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	The instance is returned in the Response inside the attribute "**cardseries**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	The requested instance was not found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**cardseries**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* **(200)***:*

```
(...)
"cardseries":[
            {"codigo":1,"descricao":"Serie 1",...},
            {"codigo":2,"descricao":"Serie 2",...}
        ]
(...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
cardseries [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "cardseries":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "**cardseries**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
cardseries [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "cardseries":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Note: See information about listings.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	Instances are returned in the Response inside the attribute "**cardseries**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	No instances of this Model Entity were found to synchronize.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
cardseries	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* (201)	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* (422)	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

*Interface::*Cashflowmotives

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
cashflowmotive [codigo]	YES	integer	Cashflowmotive ID.

Example request using JSON:

```
{
"cashflowmotive":{
        "codigo":1
        }
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	The instance is returned in the Response inside the attribute "**cashflowmotive**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	The requested instance was not found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	The instance is returned in the Response inside the attribute "**cashflowmotive**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	The requested instance was not found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a date time greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
cashflowmotive [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
    "cashflowmotive":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**cashflowmotive**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Example of response in _JSON_ **StatusCode::**_ZSAPI_OK_ **(200)**_:_

```
(...)
    "cashflowmotive": [
     {
          "categoria": null,
          "cod_externo": "",
          "codigo": 1,
          "descricao": "teste",
          "lastupdate": "",
          "loja": 26,
          "sync": 1,
          "tipo": 0,

     }
```

> (...)

Note: See information about listings.

Interface::<u>Cashoutflows</u>

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "**cardseries**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of this Model Entity were found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)**:

```
(...)
"cashoutflow":[
        {"loja":"5","caixa":"5", "data":null,"valor":null, "descricao":null, "empid":null, "empnome":null,
        "datahora":"2022-11-2810:08:33","idcx":"374","numero":"0","doc":"","serie":"",
        "produto":"0","codigo_motivo":null,"lastupdate":"2022-11-2810:59:05.008",
        "saidascaixacol":null, "saidascaixacol1":null}
        ]
(...)
```

Interface::<u>Categories</u>

Interface responsible for processing all Requests concerning instances of product's categories: *category*.

Model Entity: **Category**

Related Model Entities: **Subcategory**

Action::_deleteInstances_

Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Arguments:

Argument	Required	Type	Description
category	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Cada instância *Family* dentro do Array deve obedecer à seguinte estrutura:

category [codigo]	YES	integer	Category ID.

Example request using JSON:

```
{
"category":[
        {"codigo":11},
        {"codigo":12}
        ]
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	All instances were successfully removed. All instances are returned in the Response inside the attribute "**category**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.

StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Só podem ser removidos instâncias da Model Entity que não estejam associados a transações e que não tenham subfamílias associadas a transações.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
category [codigo]	YES	integer	Category ID

Example request using JSON:

```
{
    "category":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	The instance is returned in the Response inside the attribute "***category***" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	The requested instance was not found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "**category**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of this Model Entity were found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
    "category": [ {
     "codigo": 1,
     "descricao": "Cafés",
     "loja": 1,
     "subcategories": [
       {
         "codigo": 5,
         "descricao": "cafe",
         "categoria": 1,
         "sync": 0,
         "lastupdate": "2016-04-11 10:53:55"
       }
     ],
     "lastupdate": "2016-09-28 17:03:23"
    } ]
(...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
category [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "category":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	Instances are returned in the Response inside the attribute "*category*" of type Array - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
category [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "category":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	Instances are returned in the Response inside the attribute "*category*" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	No instances of this Model Entity were found to synchronize.

StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
    "category": [
     {
       "codigo": 914,
       "descricao": "Sem Categoria",
       "loja": 1,
       "subcategories": "",
       "lastupdate": "2016-10-07 09:41:16"
     }
(...)
```

Note: See information about listings.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
category	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::ZSAPI_CREATED **(201)**	Instances have been successfully processed.
StatusCode::ZSAPI_UNPROCESSABLE_ENTITY **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Action::*setFullSync*

Mark all Model Entities to be synchronized.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	In Response, an (empty) instance of type <Model Entity> inside the attribute "**category**".
StatusCode::*ZSAPI_NOT_MODIFIED* **(304)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Interface::<u>**Characteristics**</u>

Interface responsible for processing all Requests concerning instances of product's characteristics: *characteristic*.

Model Entity: **Characteristic**

Action::*deleteInstances*

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
characteristic	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

characteristic [id]	YES	integer	Characteristic ID.

Example request using JSON:

```
{
"characteristic":[
```

```
        {"id":1},
        {"id":2}
        ]
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK (200)	All instances were successfully removed. All request instances are returned in the Response inside the attribute "**characteristic**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_UNPROCESSABLE_ENTITY (422)	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::ZSAPI_BAD_REQUEST (400)	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
characteristic [id]	YES	integer	Characteristic ID.

Example request using JSON:

```
{
"characteristic":{
        "id":2
        }
}
```

Responses:

Response Code	Description
Response Code	Description

StatusCode::_ZSAPI_OK_ **(200)**	The instance is returned in the Response inside the attribute "**characteristic**" of type _<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	The requested instance was not found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::_getInstances_

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**characteristic**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of this Model Entity were found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Example of response in _JSON_ **StatusCode::**_ZSAPI_OK_ **(200)**_:_

```
(...)
"characteristic":[
            {"id":1,"valor":"Cor","ativo":0},
            {"id":2,"nome":"Tamanhos","ativo":1}
      ]
(...)
```

Note: See information about listings.

Action::_getInstancesToDelete_

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
characteristic [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "characteristic":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**characteristic**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::_getInstancesToSync_

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
characteristic [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "characteristic":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Note: See information about listings.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "***characteristic***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::saveInstances

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
characteristic	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Interface::Clients

Interface responsible for processing all Requests concerning instances of: *client*.

Model Entity: **Client**
Related Model Entities: **Addresses**

Action::_deleteInstances_

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
client	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

client [codigo]	YES	integer	ID do cliente.

Example request using JSON:

```
{
"client":[
        {"codigo":11},
        {"codigo":12}
        ]
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	All instances were successfully removed. All request instances are returned in the Response inside the attribute "**client**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
client [codigo]	YES	integer	Client ID.

Example request using JSON:

```
{
"client":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	The instance is returned in the Response inside the attribute "**client**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	The requested instance was not found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "**client**" of type *Array<Model Entity>* - see document for the model entity structure.

StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::*ZSAPI_OK* (200)***:*

```
(...)
"client":[
                {"codigo":12,"nome":"André Schneider","morada":"",(...)},
                {"codigo":12,"nome":"André Schneider","morada":"",(...)}
        ]
(...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
client [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "client":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "***client***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
client [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
      "client":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Note: See information about listings.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "**client**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database

Arguments:

Argument	Required	Type	Description
client	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::_ZSAPI_CREATED_ **(201)**	Instances have been successfully processed.
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Note: Only instances with _client.codigo > 1_ are accepted as _client.codigo = 0 and client.codigo = 1_ are system reserved instances.

Action::_setFullSync_

Mark all instances of the Model Entity to be synchronized.

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	In the Response, an empty instance of type _<Model Entity>_ inside the attribute "**_client_**".
StatusCode::_ZSAPI_NOT_MODIFIED_ **(304)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::_setInstancesAsInactive_

Processa uma lista (_Array_) de instâncias da Model Entity para serem marcados como inativos na base de dados.

Arguments:

Argument	Required	Type	Description
client	YES	Array	An Array of JSON Object of type _<Model Entity>_.

Each instance inside the Array must obey the following structure:

client [codigo]	YES	integer	Client ID.

Example request using JSON:

```
{
"client":[
        {"codigo":11},
        {"codigo":12}
        ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	Instances have been successfully processed. All request instances are returned in the Response inside the attribute "**client**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* (422)	Ocorreu um erro ao tentar processar pelo menos uma das instâncias. A(s) instância(s) com erro nsão retornadas na Response inside the attribute "**client**" of type *Array<Model Entity>* - see document for the model entity structure. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

*Interface::*Couverts

Interface responsible for processing all Requests concerning instances of *couverts*.

Model Entity: **Couvert**

Related Model Entities: **Couvertzone**

Action::*deleteInstances*

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
couvert	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

couvert [codigo]	YES	integer	Couvert ID.

Example request using JSON:

```
{
"couvert":[
        {"codigo":1},
        {"codigo":2}
        ]
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	All instances were successfully removed. All request instances are returned in the Response inside the attribute "***couvert***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::_getInstance_

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
couvert [codigo]	YES	integer	Couvert ID.

Example request using JSON:

```
{
"couvert":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	The instance is returned in the Response inside the attribute "**couvert**" of type _<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	The requested instance was not found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::_getInstances_

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**couvert**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of this Model Entity were found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
"couvert":[
                {"codigo":1,"descricao":"Entrada Azeitonas e Queijo",(...)},
                {"codigo":2,"descricao":"Azeitonas",(...)}
            ]
(...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
couvert [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "couvert":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "***couvert***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
couvert [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
      "couvert":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Note: See information about listings.

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**couvert**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::_saveInstances_

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
couvert	YES	json Array	An Array of JSON Object of type _<Model Entity>_.

Responses:

Response Code	Description
StatusCode::_ZSAPI_CREATED_ **(201)**	Instances have been successfully processed.
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	An error occurred while attempting to write at least one of the instances.

	The instance(s) with error were not saved. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Interface::<u>Discounttickets</u>

Interface responsible for processing all Requests concerning instances of the types of payments options available: _discounttickets_.

Model Entities: _**Discountticket**_
Action::_getInstance_

Returns the requested Model Entity instance.
Arguments:

Argument	Required	Type	Description
discountticket[numero]	YES	string	Discountticket ID.

Example request using JSON:

```
{
"discountticket":{
        "numero":"1111.1"
        }
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	The instance is returned in the Response inside the attribute "**discountticket**" of type <_Model Entity_> - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	The requested instance was not found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "**discountticket**" of type *Array<Model Entity>*- see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of this Model Entity were found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
"discountticket":[
                {"client":null,"data":"2018-03-10","datafim":"2019-03-10","descontado":0,...},
                {"client":null,"data":"2019-01-04","datafim":"2020-01-04","descontado":0,...},
        ]
(...)
```

Note: See information about listings.

*Interface::*Documents

Interface responsible for processing all Requests concerning instances of: *document*.

Model Entity: ***Document***

Related Model Entities: ***Sale, Store, PaymentDoc, Counterbalance***

Action::*getCounterBalancesInstancesFromDocument*

Returns a list (*Array*) containing all instances of the entity **CounterBalance** for a Document.
See Model Entity Structure: **CounterBalance**.

Arguments:

Argument	Required	Type	Description
document [doc]	YES	string(2)	The document type ID.
document [serie]	YES	string(20)	The ID of the document series.
document [numero]	YES	integer	The document number in for given document series.

Example request using JSON:

```
{
"document":{
        "numero":"1","doc":"RC","serie":"1L111025"
        }
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "***counterbalance***" of type *Array<Model Entity>* - see document on entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances were found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
"counterbalance":[
        {"rc":1,"rcSerie":"L1SAWT62",(...)},
        {"rc":1,"rcSerie":"L1SAWT62",(...)}
        ]
}
(...)
```

Action::*getDocumentsHeaders*

Returns a list (Array) of instances Model Entity with only the documents' headers - no related entities.

Arguments: Optional to use the arguments for the listings.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	Documents are returned in the Response inside the attribute "**document**" of type *Array<Model Entity>*. - see document on the structure of the entity.
StatusCode::*ZSAPI_NO_CONTENT* (204)	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* (200)*:*

```
(...)
"document":[
                {"numero":"1","doc":"RC","serie":"1L111025"},
                {"numero":"122","doc":"FA","serie":"1L111025"}
        ]
(...)
```

Note: See information about listings.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
document [doc]	YES	string(2)	The document type ID.
document [serie]	YES	string(20)	The ID of the document series.
document [numero]	YES	integer	The document number in for given document series.

Example request using JSON:

```
{
```

```
"document":{
        "numero":"1","doc":"AD","serie":"1L111025"
        }
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	The instance is returned in the Response inside the attribute "***document***" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	The requested instance was not found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) of complete instances (with their dependent entities) of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "***document***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::*ZSAPI_OK* (200)***:*

```
(...)
"document":[
                {"numero":"1","doc":"RC","serie":"1L111025"},
                {"numero":"122","doc":"FA","serie":"1L111025"}
        ]
(...)
```

Note: See information about listings.

Action::*getPaymentDocInstancesFromDocument*

Returns a list (*Array*) containing all instances of the entity **PaymentDoc** for a document whose payment type is 9 - multiple payments.

See Model Entity Structure - **PaymentDoc**.

Arguments:

Argument	Required	Type	Description
document [doc]	YES	string(2)	The document type ID.
document [serie]	YES	string(20)	The ID of the document series.
document [numero]	YES	integer	The document number in for given document series.

Example request using JSON:

```
{
"document":{
        "numero":"1","doc":"AD","serie":"1L111025"
        }
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "***paymentdoc***" of type *Array <PaymentDoc>* - see document on entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No Payment registries were found for the given document.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
"paymentdoc":[
```

```
            {"numero":1,"doc":"FA","serie":"L1SAWT62","tipo":1,(...)},
            {"numero":1,"doc":"FA","serie":"L1SAWT62","tipo":2,(...)}
            ]
        }
(...)
```

Action::*saveATCode*

Allows to save the code returned by the Portuguese Financial Authority to an instance of the Entity Model.

Arguments:

Argument	Required	Type	Description
document [doc]	YES	string(2)	The document type ID.
document [serie]	YES	string(20)	The ID of the document series.
document [numero]	YES	integer	The document number in for given document series.
document [ATDocCodeID]	YES	string	Código fornecido pela AT.
document [ATDocCodeSource]	YES	string(2)	One of the following values **M** - if entered manually; **P** - if it was registered automatically

Example request using JSON:

```
{
"document":{
        "numero":"1","doc":"AD","serie":"1L111025","ATDocCodeID":"EA12131DS","ATDocCodeSource
        ID":"P"
        }
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	The instance of the Document Voided in Response is returned inside the attribute "***document***" of type *<Model Entity>* - see document on entity structure.

StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	There was an error canceling the Document. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::_saveATTransportInstance_

Allows you to use ZSAPI to communicate a transport document to the AT. If the document is successfully communicated it will be processed to be stored in the database.

Arguments:

Argument	Required	Type	Description
document	YES	JSON object	A JSON Object instance of type <EntityModel>.

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(201)**	The instance was successfully processed. You should check the response code to act accordingly. An instance of **ATResponse** will be returned - you should see the Model Entity structure for **ATResponse**.
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	The instance received is not valid. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Note: Each instance to be processed must conform to the complete structure of the Model Entity.

Action::_saveInstances_

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Note:

For instances of the Model Entity from other certified softwares, the property **ATDocCodeSource** will have its value changed to **'I'** (capital i) and property **hashcontrol2** must be populated with the source software certification number and the hash version number according to the legislation. The property **hash** should contain the

hash generated by the original software. Both **hash** and **hashcontrol2** properties are required when the document to be integrated is reported in SAFT (model required for communications with Portuguese financial authority), documents of type 'FA', 'FS', 'FT', 'GT', ' GR ',' TA ',' GD ',' CM ',' RC '.

Arguments:

Argument	Required	Type	Description
document	YES	array	json object	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::_ZSAPI_CREATED_ **(201)**	All instances were saved successfully.
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	An error occurred while attempting to write at least one instance or one of its Related Entities (Sales, PaymentDocs, CounterBalances). The failed instance (s) - including its Related Entities - have not been recorded. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	*Request* malformed.

Notes:
1. Each instance of the Model Entity to be processed must conform with the Model Entity structure.

2.When sending documents of type CFA, CFT, CFS, CVD, CTK, CNC they will be replaced, if they already exist

Action::_setInstanceAsNulled_
Permite anular uma instância da Model Entity.

Arguments:

Argument	Required	Type	Description
document [doc]	YES	string(2)	The document type ID.
document [serie]	YES	string(20)	The ID of the document series.

document [numero]	YES	integer	The document number in for given document series.
document [empanulado]	YES	integer	Operator ID that nullified the document.
document [descanulado]	YES	string	Reason why document was nullified.
document [data_alteracao]	YES	datetime	Date the document was nullified.

Example request using JSON:

```
{
"document":{
        "numero":"1","doc":"AD","serie":"1L111025",”empanulado”:12,”descanulado”:”Devolução       do
        Cliente”
        }
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	The instance of the Nulled Document in the Response is returned under the attribute "**_document_**" of type _<Model Entity>_ - see document on entity structure.
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	There was an error canceling the Document. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Interface::<u>Exemptionreasons</u>

Interface responsible for processing all Requests relative to tax exemption reasons: _exemptionreason_.

Model Entity: **_Exemptionreason_**

Action::<u>_deleteInstances_</u>

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
exemptionreason	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

exemptionreason [codigo]	YES	integer	Exemptionreason ID.

Example request using JSON:

```
{
"exemptionreason":[
        {"codigo":'M01'},
        {"codigo":'M02'}
        ]
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	All instances were successfully removed. All request instances are returned in the Response inside the attribute *"**exemptionreason**"* of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::_getInstance_

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
exemptionreason [codigo]	YES	integer	Exemptio reason ID.

Example request using JSON:

```
{
"exemptionreason":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	The instance is returned in the Response inside the attribute "**exemptionreason**" of type _<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	The requested instance was not found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::_getInstances_

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**exemptionreason**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of this Model Entity were found.

StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Example of response in _JSON_ **StatusCode::**_ZSAPI_OK_ **(200)**_:_

```
(...)
"exemptionreason":[
                {"codigo":1,"descricao":"Loja Amadora"},
                {"codigo":2,"descricao":"Loja Braga"}
        ]
(...)
```

Note: See information about listings.

Action::_getInstancesToDelete_

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
exemptionreason [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
      "exemptionreason":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**_exemptionreason_**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::_getInstancesToSync_

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
exemptionreason [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
      "exemptionreason":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**exemptionreason**" of type _Array_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Note: See information about listings.

Action::_saveInstances_

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
exemptionreason	YES	json Array	An Array of JSON Object of type _<Model Entity>_.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Action::*setFullSync*

Mark all instances of the Model Entity to be synchronized.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	In the Response, an empty instance of type *<Model Entity>* inside the attribute "**exemptionreason**".
StatusCode::*ZSAPI_NOT_MODIFIED* **(304)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

*Interface::*Families

Interface responsible for processing all Requests concerning instances of product's families - *family*.

Model Entity: **Family**

Related Model Entities: **SubFamily**

Action::*deleteInstances*

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
group	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

group [codigo]	YES	integer	Group ID.

Example request using JSON:

```
{
"group":[
        {"codigo":1},
        {"codigo":2}
        ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	All instances were successfully removed. All request instances are returned in the Response inside the attribute "**group**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* (422)	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description

family [codigo]	YES	integer	Family ID.

Example request using JSON:

```
{
"family":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK (200)	The instance is returned in the Response inside the attribute "**family**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT (204)	The requested instance was not found.
StatusCode::ZSAPI_BAD_REQUEST (400)	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK (200)	Instances are returned in the Response inside the attribute "**family**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT (204)	No instances of this Model Entity were found.
StatusCode::ZSAPI_BAD_REQUEST (400)	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
"family":[
            {"codigo":1,"descricao":"Entradas",”frontoffice":1,”posicaofront”:100,”posicaoprint”:1,”fu
            ndo”:1,”letra”:1,”subfamilias”:[{subfam1}, {subfam2}]},
            {"codigo":2"descricao":"Acompanhamentos",”frontoffice":1,”posicaofront”:102,”posicaop
            rint”:12,”fundo”:1,”letra”:1,}
        ]
(...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
family [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "family”:{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "***family***" of type Array - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
family [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "family":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "*family*" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
"family":[

            {"codigo":1,"descricao":"Entradas","frontoffice":1,"posicaofront":100,"posicaoprint":1,"fu
            ndo":1,"letra":1,},
            {"codigo":2"descricao":"Acompanhamentos","frontoffice":1,"posicaofront":102,"posicaop
            rint":12,"fundo":1,"letra":1,}

        ]
(...)
```

Note: See information about listings.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
family	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Action::*setFullSync*

Mark all Model Entities to be synchronized.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	In Response, an (empty) instance of type <Model Entity> inside the attribute "**family**".
StatusCode::*ZSAPI_NOT_MODIFIED* **(304)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

*Interface::*Groups

Interface responsible for processing all Requests concerning instances of product's groups - *groups*.

Model Entities: **Group**

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
group [codigo]	YES	integer	Group ID.

Example request using JSON:

```
{
"group":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	The instance is returned in the Response inside the attribute "**group**" of type <*Model Entity*> - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	The requested instance was not found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description

StatusCode::*ZSAPI_OK* (200)	Instances are returned in the Response inside the attribute "***group***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* **(200)***:*

```
(...)
"group":[
                {"codigo":1,"descricao":"Grupo 1",...},
                {"codigo":2,"descricao":"Grupo 2",...}
        ]
(...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
group [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "group":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	Instances are returned in the Response inside the attribute "***group***" of type *Array<Model Entity>* - see document for the model entity structure.

StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::_getInstancesToSync_

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
group [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "group":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Note: See information about listings.

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**group**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::_saveInstances_

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description

group	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

*Interface::*Happyhours

Interface responsible for processing all Requests concerning instances of: *happyhour*.

Model Entities: ***Happyhour***

Action::*deleteInstances*

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
happyhour	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

happyhour [codigo]	YES	integer	Happyhour ID.

Example request using JSON:

```
{
"happyhour":[
          {"codigo":1},
          {"codigo":2}
          ]
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	All instances were successfully removed. All request instances are returned in the Response inside the attribute "**happyhour**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::_getInstance_

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
happyhour [codigo]	YES	integer	Happyhour ID.

Example request using JSON:

```
{
"happyhour":{
          "codigo":2
          }
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	The instance is returned in the Response inside the attribute "**happyhour**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	The requested instance was not found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**happyhour**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* **(200)***:

```
(...)
"happyhour":[
            {"codigo":1,"descricao":"Oferta 2º",”dom”:0,...},
            {"codigo":2,"descricao":"Oferta 3º",”dom”:1,...}
        ]
(...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
happyhour [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
      "happyhour":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**happyhour**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::_getInstancesToSync_

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
happyhour [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
      "happyhour":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Note: See information about listings.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**happyhour**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
happyhour	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

*Interface::*__Invoicedocuments__

Interface responsible for processing all Requests concerning instances of: *invoicedocument*.

Access to this interface requires the permission "API invoice documents" defined in developer.zonesoft.org

Model Entity: ***Invoicedocument***

Related Model Entities: ***Sale, Delivery***

Note: Invoicedocument is a specialization of the Model Entity **Document** for that reason instances of Invoicedocument may exist as instances of Document in responses from the Interface::Documents.
Use the structure of Document model entity as reference.

Supported document types: **VD**, **FT**
- FT for stores that operate inside Portugal;
- VD for stores that operate outside Portugal;

The country where the store operates is defined by a configuration inside our software applications.

Action::*getInstance*
Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
invoicedocument [doc]	YES	string(2)	The document type ID.
invoicedocument [serie]	YES	string(20)	The ID of the document series.
invoicedocument [numero]	YES	integer	The document number in for given document series.

Example request using JSON:

```
{
"invoicedocument":{
        "numero":"1","doc":"FT","serie":"1L111025"
        }
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	The instance is returned in the Response inside the attribute "***invoicedocument***" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	The requested instance was not found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) of complete instances (with their dependent entities) of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "***invoicedocument***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* **(200)***:*

```
(...)
"invoicedocument":[
                {"numero":"1","doc":"FT","serie":"1L111025"},
                {"numero":"122","doc":"FT","serie":"1L111025"}
        ]
(...)
```

Note: See information about listings.

Action::*saveInstance*

Allows to save an instance of the Model Entity, and sign it with a valid certification key.

If a **Delivery** instance is set on the *invoicedocument.delivery* property, that information will be used by our software for delivery management.

Updates are not supported - attempts to save an existing invoice document will cause a new invoice document to be created and returned in the response.

The client at which the document is created for must already exist. If the client does not exist, the document will issued to the client with id 0 (zero).

Note:

Clients with ids 0 and 1 (zero and one) are reserved by our software applications and will have predefined workflows and behaviours when processing the document - explanation about those behaviours fall outside the scope of this document and API's support channel. Support requests about those behaviours sent to the API's support channel will not be processed.

Arguments:

Argument	Required	Type	Description
invoicedocument [doc]	YES	string(2)	The document type ID. (VD,FT)
invoicedocument [cliente]	YES	integer	The client ID.
invoicedocument [ivaincluido]	YES	integer	This field should always be 1.
Invoicedocument [fornecedor]	YES	Integer	Supplier ID
invoicedocument[delivery]	NO	null	object	A JSON Object of type *<Delivery>* model entity.
invoicedocument[emp]	NO	0	integer	Operator ID.
invoicedocument [vendas]	YES	array	Sales lines
invoicedocument [vendas][codigo]	YES	integer	Product ID.

invoicedocument [vendas][qtd]	YES	float	Product quantity
invoicedocument [vendas][punit]	YES	float	Price for Unit of product
invoicedocument [vendas][desconto]	YES	float	Discount in value
invoicedocument [vendas][obs]	NO	string	Remarks/observations

invoicedocument [vendas][armazem]	NO | 1	integer	Wharehouse ID.

Example request using JSON:

```
{
        "invoicedocument": [{
                "loja": 1,
                "doc": "FT",
                "cliente": 0,
                "pagamento": 1,
                "ivaincluido": 1,
                "fornecedor": 1,
                "vendas": [{
                        "codigo": 21,
                        "qtd": 1,
                        "punit": 1,
                        "desconto": 0,
                        "obs": ""
                },
                {
                        "codigo": 10,
                        "qtd": 1,
                        "punit": 2,
                        "desconto": 0.50,
                        "obs": ""
                }],
                "delivery":{
                        "morada": "delivery address",
                        "dataentrega": "2018-11-01 04:30:01",
                        "obs": "some extra info",
                        "contacto": "960960960"
                }
        }]
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Document has been saved
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	An error occurred while saving the Document. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Note:

Upon a successful save the invoice document is returned in the response and it will have a new property "pdf" that will contain the url for the invoice pdf file.
The url will be available for 30 days.

Action::_setInstanceAsNulled_

Allows you to nullify an instance of the Model Entity that has been has been saved by the previous method. To use this method, the client_id used must have this active property, this same activation is not automatic and can only be done by Zone Soft, this entity only accepts documents of type (VD, FT).

Arguments:

Argument	Required	Type	Description
invoicedocument [doc]	YES	string(2)	The document type ID. (VD,FT)
invoicedocument [serie]	YES	string	The ID of the document series.
invoicedocument [numero]	YES	integer	The document number in for given document series.
invoicedocument [descanulado]	YES	string	Reason why document was nullified.

Example request using JSON:

```
{
    "invoicedocument": {
        "loja": 1,
        "doc": "FT",
```

```
    "serie": "AP2017L1",
    "numero": 67,
    "descanulado": "MOTIVO DA ANULAÇÂO"
  }

}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	Invoice Document was nullified
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* (422)	There was an error nullifying the Invoice Document. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Interface::Movements

Interface responsible for processing all Requests concerning instances of: *movements*.

Model Entity: **Movements**

Action::*getInstance*
Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
movements[cartao]	YES	Integer	The movements type ID.
movements[codigo]	YES	Integer	The ID of the movement codigo.
movements[pos]	YES	integer	The ID of the movement pos.
movements[datahora]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
           "movement":  {
             "cartao":2,
             "codigo": 16,
             "pos": 1,
              "datahora": "2012-04-11 12:30:23"
            }
}
```

Action::*getInstances*

Returns a list (Array) of complete instances (with their dependent entities) of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "***movement***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of this Model Entity were found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
 "movement": [
       {
              "cartao": 1,
              "codigo": 132,
              "codprom": 0,
              "data": "2012-07-19",
              "datahora": "2012-07-20 16:28:54",
              "descricao": "Manteiguinhas",
              "emp": 2,
              "id": 405,
              "id_loja": 0,
              "lastupdate": "2019-05-29 15:01:21.845",
              "loja": 5,
```

```
            "nome": "Tecnico",
            "pos": 2,
            "processado": 1,
            "qtd": 1,
            "serie": 0,
            "sync": 1,
            "valor": 1,
            "_errors": []
    }
        ]
(...)
```

Note: See information about listings.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
movements[lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "movement":{
        "lastupdate": "2017-05-08 00:01:00"
        }
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "***movement***" of type *Array* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: See information about listings.

Interface::<u>**Numdocseries**</u>

Interface responsible for processing all Requests relative to instances of document's series numbering: *numdocseries*.

Model Entity: ***Numdocserie***

Action::<u>*getInstances*</u>

Returns a list (Array) of complete instances (with their dependent entities) of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "***numdocserie***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* **(200)***:*

```
(...)
"numdocserie":[
            {"numero":"1","doc":"RC","serie":"1L111025"},
            {"numero":"122","doc":"FA","serie":"1L111025"}
       ]
(...)
```

Note: See information about listings.

Action::<u>*saveInstances*</u>

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
numdocserie	YES	JSON object	A JSON Object of type *<Model Entity>*.

Example de pedido em *JSON*:

```
(...)
"numdocserie":[
            {"numero":1,"doc":"RC","serie":"1L111025"},
            {"numero":122,"doc":"FA","serie":"1L111022"}
         ]
(...)
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	The instance was successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while trying to save the instance. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: The instance to be processed must conform to the complete structure of the Model Entity.

*Interface::*Operators

Interface responsible for processing all Requests concerning instances of *operadores (employees) - operator*.

Model Entities: **Operator**

Action::*deleteInstances*
Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
operator	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

operator [codigo]	YES	integer	Operator ID.

Example request using JSON:

```
{
    "operator":[
                {"codigo":11},
                {"codigo":12}
            ]
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	All instances were successfully removed. All request instances are returned in the Response inside the attribute "**operator**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::_getActiveInstances_

Returns a list (*Array*) containing all instances of the Model Entity that are marked as 'active'.

Arguments: Optional to use the arguments for the listings.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "***operator***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* **(200)***:*

```
(...)
"operator":[
        {"codigo":11,"foto":"","bloqueado":0,(...)},
        {"codigo":12,"foto":"","bloqueado":0,(...)}
        ]
(...)
```

Note: See information about listings.

Action::*getInactiveInstances*

Returns a list (*Array*) containing all instances of the Model Entity that are marked as 'inactive'.

Arguments: Optional to use the arguments for the listings.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "***operator***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	Não foram encontradas instâncias desta Model Entity.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* **(200)***:*

```
(...)
```

```
"operator":[
          {"codigo":25,"foto":"","bloqueado":1,(...)},
          {"codigo":18,"foto":"","bloqueado":1,(...)}
          ]
(...)
```

Note: See information about listings.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
operator [codigo]	YES	integer	Operator ID.

Example request using JSON:

```
{
   "operator":{"codigo":2}
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	The instance is returned in the Response inside the attribute "**operator**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	The requested instance was not found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "**operator**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of this Model Entity were found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)**:

```
(...)
"operator":[
        {"codigo":11,"foto":"","bloqueado":0,(...)},
        {"codigo":12,"foto":"","bloqueado":1,(...)}
        ]
(...)
```

Note: See information about listings.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
operator [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "operator":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**operator**" of type _Array_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Note: See information about listings.

Action::_saveInstances_

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
operator	YES	json Array	An Array of JSON Object of type _<Model Entity>_.

Responses:

Response Code	Description
StatusCode::_ZSAPI_CREATED_ **(201)**	Instances have been successfully processed.
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Action::_setFullSync_

Mark all Model Entities to be synchronized.

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	In Response, an (empty) instance of type _<Model Entity>_ inside the attribute "**operator**".
StatusCode::_ZSAPI_NOT_MODIFIED_ **(304)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Interface::<u>Options</u>

Interface responsible for processing all Requests concerning instances of group's options: _options_.

Model Entities: **Option**

Action::<u>_deleteInstances_</u>

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
option	YES	Array	An Array of JSON Object of type _<Model Entity>_.

Each instance inside the Array must obey the following structure:

option [codigo]	YES	integer	Option ID.

Example request using JSON:

```
{
"option":[
        {"codigo":1},
```

```
        {"codigo":2}
        ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	All instances were successfully removed. All request instances are returned in the Response inside the attribute "**option**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
option [codigo]	YES	integer	Option ID.

Example request using JSON:

```
{
"option":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description

StatusCode::*ZSAPI_OK* **(200)**	The instance is returned in the Response inside the attribute "**option**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	The requested instance was not found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**option**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::*ZSAPI_OK* (200)**:

```
(...)
"option":[
            {"codigo":1,"descricao":"Opção 1","grupo":1,...},
            {"codigo":2,"descricao":"Opção 2","grupo":1,...}
       ]
(...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
option [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "option:{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**option**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
option [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "option":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Note: See information about listings.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**option**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
option	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

*Interface::*Paymentoptions

Interface responsible for processing all Requests concerning instances of the types of payments options available: *paymentoptions*.

Model Entities: *PaymentOption*

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
paymentoption [id]	YES	integer	PaymentOption ID.

Example request using JSON:

```
{
"paymentoption":{
        "id":2
        }
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	The instance is returned in the Response inside the attribute "**paymentOption**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	The requested instance was not found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description

StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "***paymentOption***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::*ZSAPI_OK* (200)***:*

```
(...)
"paymentoption":[
                {"descricao":"30 dias","dias":30,"id":3,"lastupdate":"2020-06-01 17:13:36.821",...},
                {"descricao":"","dias":0,"id":4,"lastupdate":"2020-06-01 17:33:36.821",...},
        ]
(...)
```

Note: See information about listings.

*Interface::*Paymenttypes

Interface responsible for processing all Requests concerning instances of the types of payments with code > 100 available: *paymenttypes*.

Model Entities: ***PaymentType***

Action::*deleteInstances*

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
paymenttype	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

paymenttype [codigo]	YES	integer	PaymentType ID.

Example request using JSON:

```
{
"paymenttype":[
        {"codigo":11},
        {"codigo":12}
        ]
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	All instances were successfully removed. All request instances are returned in the Response inside the attribute "**paymentType**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_UNPROCESSABLE_ENTITY **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
paymenttype [codigo]	YES	integer	PaymentType ID.

Example request using JSON:

```
{
"paymenttype":{
        "codigo":2
```

```
        }
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	The instance is returned in the Response inside the attribute "***paymenttype***" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	The requested instance was not found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "***paymentType***" of type *Array<Model Entity>*- see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* **(200)***:*

```
(…)
"paymenttype":[
            {"codigo":1,"descricao":"Cartão Débito"},
            {"codigo":1,"descricao":"Cartão Crédito"}
        ]
(…)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
paymenttype [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "paymenttype":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**paymentType**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
paymenttype [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "paymenttype":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK (200)	Instances are returned in the Response inside the attribute "**paymentType**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT (204)	No instances of this Model Entity were found to synchronize.
StatusCode::ZSAPI_BAD_REQUEST (400)	*Request* malformed.

Note: See information about listings.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
paymenttype	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::ZSAPI_CREATED (201)	Instances have been successfully processed.
StatusCode::ZSAPI_UNPROCESSABLE_ENTITY (422)	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.

StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Action::*setFullSync*

Mark all instances of the Model Entity to be synchronized.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	In the Response, an empty instance of type *<Model Entity>* inside the attribute "**paymentType**".
StatusCode::*ZSAPI_NOT_MODIFIED* **(304)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

*Interface::*Productioncentres

Interface responsible for processing all Requests concerning instances of: *productioncentre*.

Model Entities: **Productioncentre**

Action::*deleteInstances*

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
productioncentre	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

| productioncentre [codigo] | YES | integer | Productioncentre ID.. |

Example request using JSON:

```
{
"productioncentre":[
        {"codigo":1},
        {"codigo":2}
        ]
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK (200)	All instances were successfully removed. All request instances are returned in the Response inside the attribute "**productioncentre**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_UNPROCESSABLE_ENTITY (422)	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::ZSAPI_BAD_REQUEST (400)	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
productioncentre [codigo]	YES	integer	Productioncentre ID.

Example request using JSON:

```
{
```

```
"productioncentre":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	The instance is returned in the Response inside the attribute "**productioncentre**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	The requested instance was not found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**productioncentre**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* **(200)***:*

```
(...)
"productioncentre":[
                {"codigo":1,"descricao":"Bar ",...},
                {"codigo":2,"descricao":"Balcao 22",...}
        ]
(...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
productioncentre [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "productioncentre":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "**productioncentre**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
productioncentre [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "productioncentre":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Note: See information about listings.

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**productioncentre**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	*Request* malformed.

Action::_saveInstances_

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
productioncentre	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::_ZSAPI_CREATED_ **(201)**	Instances have been successfully processed.
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Interface::<u>Products</u>

Interface responsible for processing all Requests concerning instances of: products.

Model Entity: ***Produtos***

Related Entities: ***Unit, Family, SubFamily, Store, ExemptionReason***

Action::*<u>deleteInstances</u>*

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
product	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

product [codigo]	YES	integer	Product ID.

Example request using JSON:

```
{
"product":[
        {"codigo":11},
        {"codigo":12}
        ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	All instances were successfully removed. All request instances are returned in the Response inside the attribute "**product**" of type *Array<Model Entity>* - see document for the model entity structure.

StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
product [codigo]	YES	integer	Product ID.

Example request using JSON:

```
{
"product":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	The instance is returned in the Response inside the attribute "***product***" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	The requested instance was not found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) of instances da Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "**product**" of type *Array <Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of this Model Entity were found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
"product":[
        {"codigo":1,"descricao":"Manteiga",(...)},
        {"codigo":2,"descricao":"Porta da Ravel",(...)}
        ]
(...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
product [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
      "product":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "**product**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
product [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "product":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "**product**" of type *Array* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Note: See information about listings.

Action::*getNextCodigo*

Returns the next available produtc id.

Example request using JSON:

```
{
     "product":{}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Returns an instance of *<Model Entity>* which porperty 'codigo' will contain the next available Product ID to be used.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
product	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: In situations of updating products with associated sales only the modifications allowed by law will be persisted.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Action::*setFullSync*

Mark all instances of the Model Entity to be synchronized.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	In the Response, an empty instance of type <Model Entity> inside the attribute "***product***".
StatusCode::*ZSAPI_NOT_MODIFIED* **(304)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

*Interface::*__Productstocks__

Interface responsible for processing all Requests concerning instances of products stocks: *productstock*.

Model Entities: ***ProductStock***

Action::*getCurrentStockInstances*

Returns a list (*Array*) containing the instances of the Model Entity requested in the request - the returned values refer to the date the request is made.

Arguments:

Argument	Required	Type	Description
productstock	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Each instance within the Request Array must obey the following structure:

Argument	Required	Type	Description
productstock [loja]	YES	integer	Store ID.
productstock [produto]	YES	integer	Product ID.
productstock [armazem]	NO	integer	Wharehouse ID.
productstock [uid_caracteristica]	NO	integer	Characteristic combo ID.

Example request using JSON:

```
{
"productstock":[
               {"produto":11,"loja":1},
               {"produto":12,"loja":1,"armazem":1},
               {"produto":12,"loja":1,"armazem":1,"uid_caracteristica":1}
        ]
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK (200)	Instances are returned in the Response inside the attribute "*productstock*" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT (204)	No instances of this Model Entity were found.
StatusCode::ZSAPI_BAD_REQUEST (400)	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
"productstock":[
        {"produto":11,"loja":1,"stock":232.22,"stkmin":0,"stkmax":1000.45,"data":"2013-01-01"},
        {"produto":12,"loja":1,"armazem":1,"stock":212.22,"stkmin":0,"stkmax":0,"data":"2013-01-01"},
        ]
(...)
```

Note: The options in the listings do not apply.

Action::*getCurrentStockInstancesByBarcode*

Returns a list (*Array*) containing the instances of the Model Entity requested in the request - the returned values refer to the date the request is made.

Arguments:

Argument	Required	Type	Description
productstock	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Each instance within the Request Array must obey the following structure:

Argument	Required	Type	Description
productstock [loja]	YES	integer	Store ID.
productstock [codbarras]	YES	string	Product Bar code.
productstock [armazem]	NO	integer	Wharehouse ID.
productstock [uid_caracteristica]	NO	integer	Characteristic combo ID.

Example request using JSON:

```
{
"productstock":[
            {"codbarras":"1247328497483278238","loja":1},
            {"codbarras":"1247328497483278232","loja":1,"armazem":1},
            {"codbarras":"1247328497483278333","loja":1,"armazem":1,"uid_caracteristica":1}
      ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	Instances are returned in the Response inside the attribute "***productstock***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
"productstock":[
        {"produto":11,"loja":1,"stock":232.22,"stkmin":0,"stkmax":1000.45,"data":"2013-01-01"},
        {"produto":12,"loja":1,"armazem":1,"stock":212.22,"stkmin":0,"stkmax":0,"data":"2013-01-01"},
        ]
(...)
```

Note: The options in the listings do not apply.

Action::*getCurrentStockInStores*

Returns an Array of instances of the Model Entity - one instance per store - the returned stock value refers to the date the order is placed.

If the *caracteristica_id* is supplied in the request, the value of the property *stock* in each instance of the response refers to the quantity in each store of the combination produto + combinations of characteristics in which *id_id* is present.

If the_id_id is not supplied, the value of the property *stock* in each instance of the response returns the existing quantity of the produto in each store - one instance per produto + combination is returned.

The response only includes instances whose value of the property *'stock'* is greater than 0.

In the Response a new property is returned *Store* representing an instance of the Model Entity *Store* containing store contact information - see Example Response.

In Response is returned a new property *descricao* of type string representing the name of the combination of characteristics associated with the produto - see example of Response.

Arguments:

Argument	Required	Type	Description
productstock	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Each instance within the Request Array must obey the following structure:

Argument	Required	Type	Description
productstock [produto]	YES	integer	Product ID.

productstock [caracteristica_id]	NO	integer	Characteristic combo ID.

Example request using JSON:

```
{
"productstock": {"produto":6,"caracteristica_id":9}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**productstock**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::*ZSAPI_OK* (200)***:

```
(...)
"productstock":[
        {"loja":6,"produto":6,"uid_caracteristica":229,"stock":20,"data":"2014-03-27","descricao":"T
        SHIRT - Cor: Laranja, Tamanho: L","caracteristica_id":9,"Store":{"codigo":6,"descricao":"Teste
        Sonia","designacao":"Loja  Teste  Entroncamento","morada":"Rua  ao  pé  da  rotunda
        23","numero_porta":"111","cod_postal":"1000-100","localidade":"Entroncamento"}},
        {"loja":6,"produto":6,"uid_caracteristica":230,"stock":27,"data":"2014-03-27","descricao":"T
        SHIRT - Tamanho: XS, Cor: Azul","caracteristica_id":9,"Store":{"codigo":6,"descricao":"Teste
        Sonia","designacao":"Loja  Teste  Entroncamento","morada":"Rua  ao  pé  da  rotunda
        23","numero_porta":"111","cod_postal":"1000-100","localidade":"Entroncamento"}}
]
(...)
```

Note: The options in the listings do not apply.

Action::*getStockInstanceByDate*

Returns an instance of the Model Entity on the requested date.

Arguments:

Argument	Required	Type	Description

productstock [loja]	YES	integer	Store ID.
productstock [produto]	YES	integer	Product ID.
productstock [data]	YES	date	Date in which to obtain the instance
productstock [armazem]	NO	integer	Wharehouse ID.
productstock [uid_caracteristica]	NO	integer	Characteristic combo ID.

Example request using JSON:

```
{
"productstock":{"produto":11,"loja":1,"data":"2013-01-01"}
}
```

Example de um *Request JSON para um armazém*:

```
{
"productstock":{"produto":12,"loja":1,"armazem":1,"data":"2013-01-01"}
}
```

Example de um *Request JSON para um armazém e combinação de caracteristicas*:

```
{
"productstock":{"produto":12,"loja":1,"armazem":1,"uid_caracteristica":1}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	The instance is returned in the Response inside the attribute "**productstock**" of type *<Model Entity>* - see document for the model entity structure..
StatusCode::ZSAPI_NO_CONTENT **(204)**	The instance of this Model Entity was not found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)**:

```
(...)
"productstock":[
          {"produto":11,"loja":1,"stock":232.22,"stkmin":0,"stkmax":1000.45,"data":"2013-01-01"},
          {"produto":12,"loja":1,"armazem":1,"stock":212.22,"stkmin":0,"stkmax":0,"data":"2013-01-01"},
          {"produto":12,"loja":1,"armazem":1,"stock":212.22,"stkmin":0,"stkmax":0,"data":"2013-01-01"},

          ]
(...)
```

Note: The options in the listings do not apply.

Interface::<u>Productstocksmovements</u>

Interface responsible for processing all Requests concerning instances of movements of product's stocks: *productstockmovement* .

Model Entities: ***Productstockmovement***

Action::*getInstances*

Returns a list (*Array*) containing the instances of the Model Entity requested in the request - the returned values refer to the logged in store.

Arguments:

Argument	Required	Type	Description
productstockmovement	YES	Object	An JSON Object of type *<Model Entity>*.

Each instance within the Request Array must obey the following structure:

Argument	Required	Type	Description
productstockmovement [produto]	YES	integer	Product ID.
productstockmovement [armazem]	NO	integer	Wharehouse ID..
productstockmovement [uid_caracteristica]	NO	integer	Characteristic combo ID.

Example request using JSON:

```
{
"productstockmovement":[
                {"produto":11},
                {"produto":12,"armazem":1},
                {"produto":12,"armazem":1,"uid_caracteristica":1}
          ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "***productstockmovement***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* **(200)***:

```
(...)
"productstockmovement":[
        {"produto":11,"loja":1,"qtd":-232.22,"doc":"FA","numero":145,"datahora":"2013-01-01
        08:30:12",...},
        {"produto":11,"loja":1,"qtd":-1,"doc": "FA","numero":144,"datahora":"2013-01-01 09:30:12",...},
        ]
(...)
```

Note: See information about listings.

*Interface::*Properties

Interface responsible for processing all Requests concerning instances of: *property.*
A property defines a type of behaviour for a value to be used by one or more products.

Model Entities: ***Property***

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
property [id]	YES	integer	Property ID.

Example request using JSON:

```
{
"property":{
        "id":2
        }
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	The instance is returned in the Response inside the attribute "***property***" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	The requested instance was not found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "***property***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of this Model Entity were found.

StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* **(200)***:*

```
(...)
"property":[
            {"id":1,"nome":"Bar ",...},
            {"id":2,"nome":"Balcao 22",...}
        ]
(...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
property [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "property":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**property**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
property [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
    "property":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Note: See information about listings.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK (200)	Instances are returned in the Response inside the attribute "**property**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT (204)	No instances of this Model Entity were found to synchronize.
StatusCode::ZSAPI_BAD_REQUEST (400)	*Request* malformed.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
property	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
Response Code	Description

StatusCode::_ZSAPI_CREATED_ **(201)**	Instances have been successfully processed.
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Action::_setFullSync_

Mark all instances of the Model Entity to be synchronized.

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	In the Response, an empty instance of type <Model Entity> inside the attribute "**_property_**".
StatusCode::_ZSAPI_NOT_MODIFIED_ **(304)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Interface::**Reasonbreaks**

Interface responsible for processing all Requests concerning instances of reasons of stock breaks: _reasonbreak_.

Model Entity: **_ReasonBreak_**

Action::_deleteInstances_

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
reasonbreak	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

reasonbreak [codigo]	YES	integer(11)	ReasonBreak ID.

Example request using JSON:

```
{
"reasonbreak":[
        {"codigo":1},
        {"codigo":2}
        ]
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	All instances were successfully removed. All instances are returned in the Response inside the attribute "**reasonbreak**" of type Array - see document for the model entity structure.
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::_getInstance_

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
reasonbreak [codigo]	YES	integer	ReasonBreak ID.

Example request using JSON:

```
{
"reasonbreak":{"codigo":2}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	The instance is returned in the Response inside the attribute "**reasonbreak**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	The requested instance was not found.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	Instances are returned in the Response inside the attribute "**reasonbreak**" of type *Array* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* (200)*:

```
(...)
"reasonbreak":[
              {"codigo":1,"descricao":"Lixo",(...)},
              {"codigo":2,"descricao":"Fora de Prazo",(...)}
       ]
(...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
reasonbreak [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "reasonbreak":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	Instances are returned in the Response inside the attribute "**reasonbreak**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
reasonbreak [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "reasonbreak":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	Instances are returned in the Response inside the attribute "**reasonbreak**" of type *Array* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	No instances of this Model Entity were found to synchronize.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
reasonbreak	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Example request using JSON:

```
{
    "reasonbreak":
        [
          {"codigo":1,"descricao":"Lixo","reposicao":1},
          {"codigo":2,"descricao":"Fora de Prazo","reposicao":1}
        ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* (201)	Instances have been successfully processed.

StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Action::setFullSync

Mark all instances of the Model Entity to be synchronized.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	In the Response, an empty instance of type <Model Entity> inside the attribute "**reasonbreak**".
StatusCode::*ZSAPI_NOT_MODIFIED* **(304)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Interface::Sales

Interface responsible for processing all Requests concerning instances of document lines: *sales*.

Model Entity: **Sale**

Action::getInstance

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description

sale [doc]	YES	string(3)	The document type ID.
sale [serie]	YES	string(20)	The ID of the document series.
sale [numero]	YES	integer	The document number in for given document series.
sale [id]	YES	integer	Sale ID

Example request using JSON:

```
{
"sale":{
        "numero":1,"doc":"FA","serie":"1L111025",”id”:1,(...)
        }
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	The instance is returned in the Response inside the attribute "**sale**" of type _<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	The requested instance was not found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Example of response in _JSON_ **StatusCode::**_ZSAPI_OK_ **(200)**:

```
(...)

        "sale":{"numero":1,”doc”:”FA”,”serie”:”1L111025”,”codigo”:1,(...)}
        }
(...)
```

Action::_getInstancesFromDocument_

Returns a list (_Array_) of instances of the Model Entity relative to a specific document.

Arguments (optionally, arguments to the listings can be used):

Argument	Required	Type	Description

sale [doc]	YES	string(3)	The document type ID.
sale [serie]	YES	string(20)	The ID of the document series.
sale [numero]	YES	integer	The document number in for given document series.

Example request using JSON:

```
{
(...)
"sale":[
        {"numero":"1","doc":"AD","serie":"1L111025","total":22.00;"qtd":221.1111,"codigo":1,"descricao":"
        Produto 1",(...)},
        {"numero":"2","doc":"AD","serie":"1L111025","total":212.00;"qtd":1.1111,"codigo":21,"descricao":"
        Produto 21",(...)},
        ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**sale**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::*ZSAPI_OK* (200)***:

```
(...)
"sale":[
            {"numero":"1","doc":"RC","serie":"1L111025",(...)},
            {"numero":"122","doc":"FA","serie":"1L111025",(...)}
        ]
(...)
```

Interface::<u>Salesday</u>

Interface responsible for processing all Requests concerning instances of tellers' sales day: *salesday*.

Model Entity: **Salesday**

Action::*getInstance*

Get an instance of the teller last sales day instance present in the database. .

Arguments:

Argument	Required	Type	Description
salesday [caixa]	YES	integer	Teller ID.
salesday [data]	YES	data	The date the record refers to.

Example request in *JSON:*

```
(...)
"salesday":{"caixa":1, "data":"2012-11-09"}
(...)
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	An instance is returned inside the attribute "**salesday**" of type *<Model Entity>* - see document on entity structure.
StatusCode::ZSAPI_NOT_FOUND **(404)**	No instance was found.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**salesday**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of this Model Entity were found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Example of response in _JSON_ **StatusCode::**_ZSAPI_OK_ **(200)**_:_

```
(...)
"salesday":[
            {"caixa":1, "data":"2012-11-09",(...)},
            {"caixa":2, "data":"2012-11-09",(...)}
        ]
(...)
```

Note: See information about listings.

Action::_saveInstances_

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
salesday	YES	json Array	An Array of JSON Object of type _<Model Entity>_.

Responses:

Response Code	Description
StatusCode::_ZSAPI_CREATED_ **(201)**	All instances were saved successfully.
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	An error occurred while attempting to write at least one of the instances. A(s) instância(s) com erro não foram gravadas. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Interface::<u>Salessessions</u>

Interface responsible for processing all Requests concerning instances of tellers' sales sessions: *salessession* .

Model Entities: **SalesSession**

Action::<u>*closeSaleSession*</u>
Close the sales session in use.

Arguments:

Argument	Required	Type	Description
salessession [caixa]	YES	integer	Teller ID.
salessession [opencx]	YES	string	Operator name.
salessession [idcx]	YES	integer	Salesession ID.
salessession [empid]	YES	integer	Operator ID.
salessession [data]	YES	date	Salesession date returned in action response: **getSaleSession**.

Example request in *JSON:*

```
(...)
"salessession ":{"caixa":2,"opencx":"Operador 1","idcx":1,"empid":1,"data":"2013-01-01"}
(...)
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	The session was successfully closed - an instance is returned inside the attribute "**salessession** " of type *<Model Entity>* - see entity structure document.
StatusCode::ZSAPI_UNPROCESSABLE_ENTITY **(422)**	There was an error closing the session. You should see the returned message.

StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstance*

Create a sales session. To open a session, a salesday must be open and active
. If an open sales session already exists, that session is returned.

Arguments:

Argument	Required	Type	Description
salessession [caixa]	YES	integer	Teller ID.
salessession [opencx]	YES	string	Operator name.
salessession [empid]	YES	integer	Operator ID.

Example request in *JSON:*

```
(...)
"salessession ":[
                {"caixa":1,"opencx":"Operador 1","empid":125}
        ]
(...)
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	The instance is returned in the Response inside the attribute "**salessession** " of type *<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An active salesday was not found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::*ZSAPI_OK* (200)***:*

```
(...)
"salessession ":{"idcx":12,"caixa":1,"data":"2013-01-01",(...)}
(...)
```

Action::*getOpenSaleSessionInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
salessession [caixa]	YES	integer	Teller ID.
salessession [data]	YES	date	Date of the session to be searched.

Example request in *JSON:*

```
(...)
"salessession ":{"caixa":2,"data":"2013-01-01"}
(...)
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	The session was successfully closed - an instance is returned inside the attribute "**salessession** " of type *<Model Entity>* - see entity structure document.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	Session not found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted into the database.

Arguments:

Argument	Required	Type	Description
salessession	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	All instances were saved successfully.

StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Interface::**Salesstations**

Interface responsible for processing all Requests concerning instances of sales stations (point of sale) - _salestation_.

Model Entities: **_SaleStation_**

Action::_deleteInstances_
Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
salestation	YES	Array	An Array of JSON Object of type _<Model Entity>_.

Each instance inside the Array must obey the following structure:

salestation [codigo]	YES	integer	SaleStation ID.

Example request using JSON:

```
{
"salestation":[
            {"codigo":11},
            {"codigo":12}
        ]
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK (200)	All instances were successfully removed. All request instances are returned in the Response inside the attribute "*salestation*" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_UNPROCESSABLE_ENTITY (422)	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::ZSAPI_BAD_REQUEST (400)	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
salestation [codigo]	YES	integer	SaleStation ID.

Example request using JSON:

```
{
"salestation":{"codigo":2}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK (200)	The instance is returned in the Response inside the attribute "*salestation*" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT (204)	The requested instance was not found.
StatusCode::ZSAPI_BAD_REQUEST (400)	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "**salestation**" of type *Array* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of this Model Entity were found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
"salestation":[
        {"codigo":11,"descricao":"Posto 11"},
        {"codigo":12,"descricao":"Posto 11"}
        ]
(...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
salestation [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
      "salestation":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**salestation**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed
at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
salestation [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "salestation":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**salestation**" of type *Array* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: See information about listings.

Action::*getInstancesWithSettings*

Identical to **Action::***getInstances* - Returns a list (*Array*) containing all instances of the Model Entity, and each instance has the property *SaleStationSettings* populated with an *Array* of **SaleStationSetting** instances - see the Model Entity Structure of **SaleStationSetting**.

Action::*getInstanceWithSettings*

Identical to **Action::***getInstance* - Returns the Model Entity instance requested, with property *SaleStationSettings* populated with an *Array* of **SaleStationSetting** instances - see the Model Entity Structure of **SaleStationSetting**.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
salestation	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

*Interface::*Saleszones

Interface responsible for processing all Requests concerning instances of sales zones - *salezone*.

Model Entities: **Salezone**

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
salezone [codigo]	YES	integer	Sale zone ID.

Example request using JSON:

```
{
"salezone":{
        "codigo": 4,
        "descricao": "Zona Interna",
        "lastupdate": "2018-10-24 12:42:49.477",
        "loja": 6,
        "precozona": 0,
        "tabelaiva": 0,
        }
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	The instance is returned in the Response inside the attribute "**salezone**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	The requested instance was not found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "***salezone***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* **(200)***:*

```
(...)
"salezone":[
                {"codigo": 3, "descricao": "Interno", ...},
                {"codigo": 4, "descricao": "Zona 1",...}
        ]
(...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
salezone [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "salezone":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**salezone**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
salezone [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "salezone":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Note: See information about listings.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**salezone**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
salezone	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::ZSAPI_CREATED **(201)**	Instances have been successfully processed.
StatusCode::ZSAPI_UNPROCESSABLE_ENTITY **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Interface::**Signeddocumentscounts**

Interface responsible for processing all Requests concerning instances of - *signeddocumentscount*. Gives information about the number of documents (invoice documents) that were created using the ZS API.

Model Entities: **Signeddocumentscount**

Action::*getInstance*

Returns an instance of the Model Entity - containing information about the current number of documents that were created by the API for the year/month the request is made.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty).

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instance is returned in the Response inside the attribute "**signeddocumentscount**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instance of this Model Entity was found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)**:

```
(...)
"signeddocumentscount":
            {"month": 11, "year": 2018, "invoicedocuments": 21, "wokingdocuments": 2, "lastupdate":
            "2018-11-12 15:16:10.087"}
(...)
```

Interface::Stores

Interface responsible for processing all Requests concerning instances of*: store*.

Model Entity: **Store**

Related Model Entities: **StoreSettings**

Action::getInstance
Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
store [codigo]	YES	integer	Store ID.

Example request using JSON:

```
{
"store":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	The instance is returned in the Response inside the attribute "**store**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	The requested instance was not found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description

StatusCode::*ZSAPI_OK* (200)	Instances are returned in the Response inside the attribute "**store**" of type *Array* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	No instances of this Model Entity were found to synchronize.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* **(200)***:*

```
(...)
"store":[
        {"codigo":1,"descricao":"Loja Amadora"},
        {"codigo":2,"descricao":"Loja Braga"}
        ]
(...)
```

Note: See information about listings.

Action::*getInstanceWithSettings*

Returns the instance of the requested Model Entity with the property **StoreSettings** populated with an Array of **StoreSettings** instances- see the Model Entity Structure of **StoreSettings**.

Arguments:

Argument	Required	Type	Description
store [codigo]	YES	integer	Store ID.

Example request using JSON:

```
{
"store":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description

StatusCode::*ZSAPI_OK* (200)	The instance is returned in the Response inside the attribute "**store**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	The requested instance was not found.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Action::saveInstances

Processes an Array of instances of the Model Entity to be updated in the database.

Note: Only the morada (address) and descricao (description) fields can be changed.

Arguments:

Argument	Required	Type	Description
store	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* (201)	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* (422)	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Interface::Subcategories

Interface responsible for processing all Requests concerning instances of product's subcategories - *subcategory*.

Model Entities: *Subcategory*

Action::*deleteInstances*

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
subcategory	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

subcategory [codigo]	YES	integer	Subcategory ID.

Example request using JSON:

```
{
"subcategory":[
        {"codigo":1},
        {"codigo":2}
        ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	All instances were successfully removed. All request instances are returned in the Response inside the attribute "**subcategory**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
subcategory [codigo]	YES	integer	Subcategory ID.

Example request using JSON:

```
{
"subcategory":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	The instance is returned in the Response inside the attribute "**subcategory**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	The requested instance was not found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description

StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**subcategory**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of this Model Entity were found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Example of response in _JSON_ **StatusCode::**_ZSAPI_OK_ **(200)**_:_

```
(...)
"subcategory":[
                {"codigo":1,"descricao":"C/ gás","categoria": 1,...},
                {"codigo":2,"descricao":"S/ gás", "categoria": 1,...}
        ]
(...)
```

Note: See information about listings.

Action::_getInstancesToDelete_

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp.

Arguments:

Argument	Required	Type	Description
subcategory [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "subcategory":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description

StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "***subcategory***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
subcategory [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
      "subcategory":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Note: See information about listings.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "***subcategory***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
subcategory	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Interface::<u>Subfamilies</u>

Interface responsible for processing all Requests concerning instances of product' subfamilies - *subfamilies*.

Model Entity: **Subfamily**

Action::<u>deleteInstances</u>
Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
subfamily	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

subfamily [codigo]	YES	integer	Subfamily ID.

Example request using JSON:

```
{
"subfamily":[
        {"codigo":11},
        {"codigo":12}
        ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	All instances were successfully removed. All instances are returned in the Response inside the attribute "**subamily**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Only can be removed instances of the Model Entity that are not associated with transactions.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
subfamily [codigo]	YES	integer	Subfamily ID.

Example request using JSON:

```
{
"subfamily":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	The instance is returned in the Response inside the attribute "**subfamily**" of type _<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	The requested instance was not found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::_getInstances_

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**subfamily**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of this Model Entity were found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Example of response in _JSON_ **StatusCode::**_ZSAPI_OK_ **(200)**:

```
(...)
"subfamily":[
            {"codigo":1,"descricao":"Entradas",...]},
            {"codigo":2"descricao":"Acompanhamentos",...}
        ]
(...)
```

Note: See information about listings.

Action::*getInstancesFromFamily*

Returns a list (*Array*) containing all instances of the SubFamily Entity of a Family.

Arguments:

Argument	Required	Type	Description
subfamily [familia]	YES	integer	Family ID.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "**subfamily**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	Não foram encontradas Sub Famílias.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
"subfamily":[
            {"codigo":1,"descricao":"Com Gás","familia":1,"fundo":100,"letra":1,"posicao":1},
            {"codigo":2,"descricao":"Sem Gás","familia":1,"fundo":100,"letra":1,"posicao":2}
        ]
}
(...)
```

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp.

Arguments:

Argument	Required	Type	Description
subfamily [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
    "subfamily":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**subfamily**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
subfamily [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
    "subfamily":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**subamily**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found to synchronize.

StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* **(200)***:*

```
(...)
"subfamily":[
            {"codigo":1,"descricao":"Entradas","frontoffice":1,"posicaofront":100,"posicaoprint":1,"fundo":1,"letra":1,},
            {"codigo":2"descricao":"Acompanhamentos","frontoffice":1,"posicaofront":102,"posicaoprint":12,"fundo":1,"letra":1,}
        ]
(...)
```

Note: See information about listings.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
subfamily	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Action::*setFullSync*

Mark all Model Entities to be synchronized.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	In Response, an (empty) instance of type <Model Entity> inside the attribute "**subfamily**".
StatusCode::ZSAPI_NOT_MODIFIED **(304)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Interface::Suppliers

Interface responsible for processing all Requests concerning instances of *supplier*.

Model Entities: **Supplier**

Action::deleteInstances

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
supplier	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

supplier [codigo]	YES	integer	Supplier ID.

Example request using JSON:

```
{
"supplier":[
        {"codigo":11},
        {"codigo":12}
        ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	All instances were successfully removed. All request instances are returned in the Response inside the attribute "**supplier**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* (422)	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
supplier [codigo]	YES	integer	Supplier ID.

Example request using JSON:

```
{
"supplier":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	The instance is returned in the Response inside the attribute "**supplier**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	The requested instance was not found.

StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::_getInstances_

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the _model_entity_ is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**supplier**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of this Model Entity were found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Example of response in _JSON_ **StatusCode::**_ZSAPI_OK_ **(200)**_:_

```
(...)
"supplier":[
            {"codigo":12,"nome":"André Schneider","morada":"",(...)},
            {"codigo":11,"nome":"Zone Soft","morada":"",(...)}
      ]
(...)
```

Note: See information about listings.

Action::_getInstancesToDelete_

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
supplier [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "supplier":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "***supplier***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
supplier [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "supplier":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Note: See information about listings.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "***supplier***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found to synchronize.

StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
supplier	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Interface::Tablemovements

Interface responsible for processing all Requests concerning instances of table movements - *tablemovement*.

Model Entities: ***Tablemovement***

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "***tablemovement***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of this Model Entity were found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)**:

```
(...)
"tablemovement":[
                {"data":"2015-04-01", "pessoas": 1,(...)},
                {"data":"2015-04-01","pessoas": 21,(...)}
        ]
(...)
```

Note: See information about listings.

Action::*getTableDetails*

Returns a list (*Array*) containing part of the instances of the Model Entity.

Arguments:

Argument	Required	Type	Description
tablemovement [início]	YES	String	Start date
tablemovement [fim]	YES	String	End date

Example request using JSON:

```
{
        "tablemovement": {
                "início ":"2014-01-01",
                "fim":"2014-01-31"
        }
```

```
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "***tablemovement***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of this Model Entity were found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
    "tablemovement": [
      {
        "mesa": "72",
        "lugar": "0",
        "pessoas": "1",
        "country": "PT"
      }
    ] (...)
```

Interface::<u>Taxes</u>

Interface responsible for processing all Requests concerning instances of taxes - *tax*.

Model Entities: ***Tax***

Action::<u>*deleteInstances*</u>

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
tax	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

tax [codigo]	YES	integer	Tax ID.

Example request using JSON:

```
{
"tax":[
        {"codigo":11},
        {"codigo":12}
        ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	All instances were successfully removed. All instances are returned in the Response inside the attribute "***tax***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::*getActiveInstances*

Returns a list (*Array*) of **all** active instances.

Arguments: Optional to use the arguments for the listings.

Responses:

Response Code	Description

StatusCode::*ZSAPI_OK* (200)	Instances are returned in the Response inside the attribute "*tax*" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	No instances of this Model Entity were found to synchronize.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* **(200)***:*

```
(...)
"tax":[
                {"codigo":1,"descricao":"IVA 23%",”factor”:23,”activa”:1},
                {"codigo":3,"descricao":"IVA 5%",”factor”:5,”activa”:1}
        ]
(…)
```

Note: See information about listings.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
tax [codigo]	YES	integer	Tax ID.

Example request using JSON:

```
{
"tax":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	The instance is returned in the Response inside the attribute "*tax*" of type *<Model Entity>* - see document for the model entity structure.

StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	The requested instance was not found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::_getInstances_

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**_tax_**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of this Model Entity were found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Example of response in _JSON_ **StatusCode::**_ZSAPI_OK_ **(200)**_:_

```
(...)
"tax":[
            {"codigo":1,"descricao":"IVA 23%","factor":23,"activa":1},
            {"codigo":2,"descricao":"IVA 16%","factor":16,"activa":0}
      ]
(...)
```

Note: See information about listings.

Action::_getInstancesToDelete_

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
tax [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "tax":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "**tax**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
tax [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "tax":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description

StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "***tax***" of type *Array* <Model Entity>- see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: See information about listings.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
tax	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Action::*setFullSync*

Mark all Model Entities to be synchronized.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	In the Response, an empty instance of type *<Model Entity>* inside the attribute "***tax***".
StatusCode::*ZSAPI_NOT_MODIFIED* (304)	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Action::*setInstancesAsInactive*

Processes an Array of instances of the Model Entity to be marked as inactive.

Arguments:

Argument	Required	Type	Description
tax	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Cada instância Tax dentro do Array deve obedecer à seguinte estrutura:

tax [codigo]	YES	integer	Tax ID.

Example request using JSON:

```
{
"tax":[

            {"codigo":11},
            {"codigo":12}

      ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	As instâncias do pedido são retornadas na Response inside the attribute "***tax***" of type *Array<Model Entity>* - see document for the model entity structure.

StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	Ocorreu um erro ao tentar processar pelo menos uma das instâncias. A(s) instância(s) com erro não foi(foram) processada(s). You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Interface::<u>Technicalcards</u>

Interface responsible for processing all Requests concerning instances of product's techical cards - *technicalcard*.

Model Entities: **Technicalcard**

Related Model Entities: **Technicalcardingredient, Technicalcardpreparation**

Action::*deleteInstances*

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
technicalcard	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

technicalcard [codigo]	YES	integer	Technicalcard ID.

Example request using JSON:

```
{
"technicalcard":[
        {"codigo":1},
        {"codigo":2}
        ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	All instances were successfully removed. All request instances are returned in the Response inside the attribute "***technicalcard***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* (422)	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
technicalcard [codigo]	YES	integer	Technicalcard ID.

Example request using JSON:

```
{
"technicalcard":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	The instance is returned in the Response inside the attribute "***technicalcard***" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	The requested instance was not found.

StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::_getInstances_

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**technicalcard**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of this Model Entity were found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Example of response in _JSON_ **StatusCode::**_ZSAPI_OK_ **(200)**_:_

```
(...)
"technicalcard":[
            {"codigo":1,"empcriacao":1,(...)},
            {"codigo":2,"empcriacao":1,(...)}
    ]
(...)
```

Note: See information about listings.

Action::_getInstancesToDelete_

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
technicalcard [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "technicalcard":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK (200)	Instances are returned in the Response inside the attribute "**technicalcard**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT (204)	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::ZSAPI_BAD_REQUEST (400)	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
technicalcard [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "technicalcard":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Note: See information about listings.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK (200)	Instances are returned in the Response inside the attribute "**technicalcard**" of type *Array<Model Entity>* - see document for the model entity structure.

StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
technicalcard	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

*Interface::*Tellers

Interface responsible for processing all Requests concerning instances of tellers - *teller*.

Model Entities: **Teller**

Action::*deleteInstances*

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
teller	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

teller [codigo]	YES	integer	Teller ID.

Example request using JSON:

```
{
"teller":[
        {"codigo":1},
        {"codigo":2}
        ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	All instances were successfully removed. All request instances are returned in the Response inside the attribute "**teller**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
teller [codigo]	YES	integer	Teller ID.

Example request using JSON:

```
{
"teller":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	The instance is returned in the Response inside the attribute "**teller**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	The requested instance was not found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "**teller**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of this Model Entity were found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
"teller":[
                {"codigo":1,"descricao":"Caixa 1º","loja":1,...},
                {"codigo":2,"descricao":"Caixa 2","loja":1,...}
          ]
(...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
teller [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
       "teller":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "***teller***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
teller [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "teller":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Note: See information about listings.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	Instances are returned in the Response inside the attribute "**teller**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	No instances of this Model Entity were found to synchronize.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
teller	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description

StatusCode::*ZSAPI_CREATED* (201)	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* (422)	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

*Interface::*Timeregisters

Interface responsible for processing all Requests concerning instances of employees time register - *timeregister*.

Model Entities: **Timeregister**

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
timeregister [codigo]	YES	integer	Type ID.

Example request using JSON:

```
{
"timeregister":{
        "datahora": "2012-02-27 15:29:57",
        "sentido": 1,
        "empid": 1
        }
}
```

Responses:

Response Code	Description

StatusCode::_ZSAPI_OK_ **(200)**	The instance is returned in the Response inside the attribute "**timeregister**" of type _<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	The requested instance was not found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Action::_getInstances_

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Instances are returned in the Response inside the attribute "**timeregister**" of type _Array<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	No instances of this Model Entity were found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Example of response in _JSON_ **StatusCode::**_ZSAPI_OK_ **(200)**:

```
(...)
"timeregister":[
                {"datahora": "2012-02-27 15:29:57", "dataval": "2012-02-27", "diasemana": ...},
                {"datahora": "2012-02-27 08:29:57", "dataval": "2012-02-27", "diasemana": ...}
         ]
(...)
```

Note: See information about listings.

Action::_getInstancesToDelete_

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
timeregister [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
      "timeregister":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "***timeregister***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
timeregister [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
      "timeregister":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Note: See information about listings.

Responses:

Response Code	Description
Response Code	**Description**

StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**timeregister**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Interface::<u>Types</u>

Interface responsible for processing all Requests concerning instances of family types - *type*.

Model Entities: ***Type***

Action::*deleteInstances*

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
type	YES	Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

type [codigo]	YES	integer	Type ID.

Example request using JSON:

```
{
"type":[
        {"codigo":1},
        {"codigo":2}
        ]
}
```

Responses:

Response Code	Description

StatusCode::*ZSAPI_OK* (200)	All instances were successfully removed. All request instances are returned in the Response inside the attribute "**type**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
type [codigo]	YES	integer	Type ID.

Example request using JSON:

```
{
"type":{
       "codigo":2
       }
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	The instance is returned in the Response inside the attribute "**type**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	The requested instance was not found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	Instances are returned in the Response inside the attribute "***type***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* (204)	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Example of response in *JSON* **StatusCode::***ZSAPI_OK* **(200)***:*

```
(...)
"type":[
            {"codigo":1,"descricao":"Type 1"},
            {"codigo":2,"descricao":"Type 2"}
        ]
(...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
type [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
      "type":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK (200)	Instances are returned in the Response inside the attribute "*type*" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT (204)	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::ZSAPI_BAD_REQUEST (400)	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
type [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
      "type":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Note: See information about listings.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK (200)	Instances are returned in the Response inside the attribute "*type*" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT (204)	No instances of this Model Entity were found to synchronize.
StatusCode::ZSAPI_BAD_REQUEST (400)	*Request* malformed.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
type	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Interface::Units

Interface responsible for processing all Requests concerning instances of products' units - *unit*.

Model Entity: **Unit**

Action::*deleteInstances*

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description

unit	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Each instance inside the Array must obey the following structure:

unit [codigo]	YES	integer	Unit ID.

Example request using JSON:

```
{
"unit":[
        {"codigo":11},
        {"codigo":12}
        ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* (200)	All instances were successfully removed. All instances are returned in the Response inside the attribute "***unit***" of type Array - see document for the model entity structure.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* (422)	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* (400)	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
unit [codigo]	YES	integer	Unit ID.

Example request using JSON:

```
{
"unit":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK (200)	The instance is returned in the Response inside the attribute "**unit**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT (204)	The requested instance was not found.
StatusCode::ZSAPI_BAD_REQUEST (400)	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK (200)	Instances are returned in the Response inside the attribute "**unit**" of type *Array* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT (204)	No instances of this Model Entity were found.
StatusCode::ZSAPI_BAD_REQUEST (400)	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)**:

```
(…)
"unit":[
            {"codigo":1,"descricao":"Unidade"},
            {"codigo":2,"descricao":"Pack 6"}
        ]
(…)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
unit [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
     "unit":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "***unit***" of type *Array<Model Entity>* - consultar documento sobre estrutura da entidad
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
unit [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "unit":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**unit**" of type *Array* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
unity	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Example request using JSON:

```
{
    "unit":
        [
          {"codigo":132,"descricao":"NovaUnidade2"},
          {"codigo":131,"descricao":"NovaUnidade1"}
        ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	Instances have been successfully processed.

StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

Action::*setFullSync*

Mark all instances of the Model Entity to be synchronized.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	In the Response, an empty instance of type <Model Entity> inside the attribute "***unit***".
StatusCode::*ZSAPI_NOT_MODIFIED* **(304)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

*Interface::*__Versions__

Interface responsible for processing all Requests concerning instances of database versions - *version*.
Both for versions of the local DB and the local application, eg: BD 2016.0.0.1.

Model Entities: ***Version***

Action::*getInstance*

Returns the active Model Entity instance for the store in use.

Arguments: **No arguments.**

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	The instance is returned in the Response inside the attribute "**version**" of type _<Model Entity>_ - see document for the model entity structure.
StatusCode::_ZSAPI_NO_CONTENT_ **(204)**	The requested instance was not found.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

_Interface::_Warehouses

Interface responsible for processing all Requests concerning instances of store's warehouses - _warehouse_.

Model Entities: **_Warehouse_**

Action::_deleteInstances_

Processes an Array of instances of the Model Entity to be removed from the database.

Arguments:

Argument	Required	Type	Description
warehouse	YES	Array	An Array of JSON Object of type _<Model Entity>_.

Each instance inside the Array must obey the following structure:

warehouse [codigo]	YES	integer	Warehouse ID.

Example request using JSON:

```
{
"warehouse":[
        {"codigo":1},
        {"codigo":2}
        ]
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	All instances were successfully removed. All request instances are returned in the Response inside the attribute "**warehouse**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	There was an error while trying to remove at least one of the instances. Instance(s) with error have not been removed. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Only instances of the Model Entity that are not associated with transactions can be removed.

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
warehouse [codigo]	YES	integer	Warehouse ID.

Example request using JSON:

```
{
"warehouse":{
        "codigo":2
        }
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	The instance is returned in the Response inside the attribute "**warehouse**" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	The requested instance was not found.

StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) containing all instances of the Model Entity.

Arguments: The presence of a root element containing an instance of the model_entity is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(200)**	Instances are returned in the Response inside the attribute "***warehouse***" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::ZSAPI_NO_CONTENT **(204)**	No instances of this Model Entity were found.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::**ZSAPI_OK **(200)***:*

```
(...)
"warehouse":[
            {"codigo":1,"descricao":"Geral",...},
            {"codigo":2,"descricao":"Cozinha",...}
        ]
(...)
```

Note: See information about listings.

Action::*getInstancesToDelete*

Returns an Array containing all instances of the Model Entity that have been marked for database removal since the given timestamp

Arguments:

Argument	Required	Type	Description
warehouse [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "warehouse":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**warehouse**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of the Model Entity were found - Ensure that there are records in the database.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstancesToSync*

Returns an Array containing all instances of the Model Entity that have changed at a datetime greater than or equal to the value provided in the request.

Arguments:

Argument	Required	Type	Description
warehouse [lastupdate]	YES	datetime	Verification Timestamp.

Example request using JSON:

```
{
        "warehouse":{"lastupdate": "2012-01-01 00:01:01.001"}
}
```

Note: See information about listings.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**warehouse**" of type *Array<Model Entity>* - see document for the model entity structure.

StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found to synchronize.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*saveInstances*

Processes an Array of instances of the Model Entity to be inserted/updated in the database.

Arguments:

Argument	Required	Type	Description
warehouse	YES	json Array	An Array of JSON Object of type *<Model Entity>*.

Responses:

Response Code	Description
StatusCode::*ZSAPI_CREATED* **(201)**	Instances have been successfully processed.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while attempting to write at least one of the instances. The instance(s) with error were not saved. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance of the Model Entity to be processed must conform with the Model Entity structure.

*Interface::*Workingdocuments

Interface responsible for processing all Requests concerning instances of: *workingdocument*.
Access to this interface requires the permission "API working documents" defined in developer.zonesoft.org

Model Entity: ***Workingdocument***

Related Model Entities: *Sale, Delivery*

Note: Workingdocument is a specialization of the Model Entity **Document** for that reason instances of Workingdocument may exist as instances of Document in responses from the Interface::Documents.
Use structure of Document Model Entity as reference.

Supported document types: EC

Action::*getInstance*

Returns the requested Model Entity instance.

Arguments:

Argument	Required	Type	Description
workingdocument [doc]	YES	string(2)	The document type ID.
workingdocument [serie]	YES	string(20)	The ID of the document series.
workingdocument [numero]	YES	integer	The document number in for given document series.

Example request using JSON:

```
{
"wokingdocument":{
        "numero":"1","doc":"EC","serie":"1L111025"
        }
}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	The instance is returned in the Response inside the attribute "***workingdocument***" of type *<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	The requested instance was not found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Action::*getInstances*

Returns a list (Array) of complete instances (with their dependent entities) of the Model Entity.

Arguments: The presence of a root element containing an instance of the *model_entity* is mandatory (even if empty) - optionally, arguments to the listings can be used.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Instances are returned in the Response inside the attribute "**workingdocument**" of type *Array<Model Entity>* - see document for the model entity structure.
StatusCode::*ZSAPI_NO_CONTENT* **(204)**	No instances of this Model Entity were found.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Example of response in *JSON* **StatusCode::*ZSAPI_OK* (200)***:

```
(...)
"workingdocument":[
                {"numero":"1","doc":"EC","serie":"1L111025"},
                {"numero":"122","doc":"EC","serie":"1L111025"}
        ]
(...)
```

Note: See information about listings.

Action::*saveInstance*

Allows to save an instance of the Model Entity, and sign it with a valid certification key.

If a **Delivery** instance is set on the *workingdocument.delivery* property, that information will be used by our software for delivery management.

Updates are not supported - attempts to save an existing working document will cause a new working document to be created and returned in the response.

The client at which the document is created for must already exist. If the client does not exist, the document will be issued to the client with id 0 (zero).

Note:

Clients with ids 0 and 1 (zero and one) are reserved by our software applications and will have predefined workflows and behaviours when processing the document - explanation about those behaviours fall outside the scope of this document and API's support channel. Support requests about those behaviours sent to the API's support channel will not be processed.

Arguments:

Argument	Required	Type	Description
workingdocument [doc]	YES	string(2)	The document type ID. (EC)
workingdocument [cliente]	YES	integer	The client ID.
workingdocument [ivaincluido]	YES	integer	This field should always be 1.
workingdocument [delivery]	NO | null	object	A JSON Object of type *<Delivery>* model entity.
workingdocument[emp]	NO | 0	integer	Operator ID.
workingdocument [delivery][morada]	YES	string	Address
workingdocument [delivery][dataentrega]	YES	string	Delivery date
workingdocument [vendas]	YES	array	Sales lines
workingdocument [vendas][codigo]	YES	integer	Product ID.
workingdocument [vendas][qtd]	YES	float	Product quantity
workingdocument [vendas][punit]	YES	float	Price for Unit of product
workingdocument [vendas][desconto]	YES	float	Discount in value

workingdocument [vendas][obs]	NO	string	Remarks/observations
workingdocument [vendas][armazem]	NO | 1	integer	Wharehouse ID.
workingdocument [levantamento]	NO	string	Delivery date

Example request using JSON:

```
{
        "workingdocument": {
                "loja": 1,
                "doc": "EC",
                "cliente": 0,
                "pagamento": 1,
                "ivaincluido": 1,
                "vendas": [{
                        "codigo": 21,
                        "qtd": 1,
                        "punit": 1,
                        "desconto": 0,
                        "obs": ""
                },
                {
                        "codigo": 10,
                        "qtd": 1,
                        "punit": 2,
                        "desconto": 0.50,
                        "obs": ""
                }],
                "delivery":{
                        "morada": "delivery address",
                        "dataentrega": "2018-11-01 04:30:01",
                        "obs": "some extra info",
                        "contacto": "960960960"
                },
                "levantamento": "2018-11-01 04:30:01"
}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(200)**	Document has been saved

StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	An error occurred while saving the Document. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note:

Upon a successful save the working document is returned in the response and it will have a new property "pdf" that will contain the url for the document's pdf file.
The url will be available for 30 days.

Action::*setInstanceAsNulled*

Allows you to nullify an instance of the Model Entity that has been saved by the *saveInstance* method.

Arguments:

Argument	Required	Type	Description
workingdocument [doc]	YES	string(2)	The document type ID. (EC)
workingdocument [serie]	YES	string	The ID of the document series.
workingdocument [numero]	YES	integer	The document number in for given document series.
workingdocument [descanulado]	YES	string	Reason why document was nullified.

Example request using JSON:

```
{
    "workingdocument": {
        "loja": 1,
        "doc": "EC",
        "serie": "AP2017L1",
        "numero": 67,
        "descanulado": "MOTIVO DA ANULAÇÂO"
    }

}
```

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(200)**	Invoice Document was nullified
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	There was an error nullifying the Working Document. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

*Interface::*Transferdocuments

Action::*saveInstance*

Allows you to use ZSAPI to create a transfer document (doc type 'TA'). If the document is successfully communicated it will be processed to be stored in the database.

Arguments:

Argument	Required	Type	Description
document	YES	JSON object	A JSON Object instance of type <EntityModel>.

Responses:

Response Code	Description
StatusCode::*ZSAPI_OK* **(201)**	The instance was successfully processed. You should check the response code to act accordingly. An instance of **ATResponse** will be returned - you should see the Model Entity structure for **ATResponse**.
StatusCode::*ZSAPI_UNPROCESSABLE_ENTITY* **(422)**	The instance received is not valid. You should check the received message.
StatusCode::*ZSAPI_BAD_REQUEST* **(400)**	*Request* malformed.

Note: Each instance to be processed must conform to the complete structure of the Model Entity.

Action::*cancelInstance*

Allows you to use ZSAPI to cancel a transfer document (doc type 'TA'). If the document is successfully communicated it will be processed to be stored in the database.

Arguments:

Argument	Required	Type	Description
transferdocuments[doc]	YES	string	The document type ID.
transferdocuments[serie]	YES	string	The ID of the document series.
transferdocuments[numero]	YES	integer	The document number in for given document series.
transferdocuments[descanulado]	YES	string	Reason why the document was nullified.

Example request using JSON:

```
{
    "transferdocument": {
        "loja": 1,
        "doc": "TA",
        "serie": "AP2024L1I1",
        "numero": 67,
        "descanulado": "MOTIVO DA ANULAÇÂO"
    }

}
```

Responses:

Response Code	Description
StatusCode::_ZSAPI_OK_ **(201)**	The instance was successfully processed. You should check the response code to act accordingly. An instance of **ATResponse** will be returned - you should see the Model Entity structure for **ATResponse**.
StatusCode::_ZSAPI_UNPROCESSABLE_ENTITY_ **(422)**	The instance received is not valid. You should check the received message.
StatusCode::_ZSAPI_BAD_REQUEST_ **(400)**	_Request_ malformed.

Interface::**Transportdocuments**

Action::*saveInstance*

Allows you to use ZSAPI to communicate a transport document (doc type 'GT') to the AT. If the document is successfully communicated it will be processed to be stored in the database.

Arguments:

Argument	Required	Type	Description
document	YES	JSON object	A JSON Object instance of type <EntityModel>.

Responses:

Response Code	Description
StatusCode::ZSAPI_OK **(201)**	The instance was successfully processed. You should check the response code to act accordingly. An instance of **ATResponse** will be returned - you should see the Model Entity structure for **ATResponse**.
StatusCode::ZSAPI_UNPROCESSABLE_ENTITY **(422)**	The instance received is not valid. You should check the received message.
StatusCode::ZSAPI_BAD_REQUEST **(400)**	*Request* malformed.

Note: Each instance to be processed must conform to the complete structure of the Model Entity.