SMARTVISTA EXCHANGE PROTOCOL OF DICTIONARIES (SVXP DICT)

API developer reference

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Contents

[1 PREFACE 3](#_Toc536536373)

[1.1 Revision history 3](#_Toc536536374)

[1.2 Document purpose 3](#_Toc536536375)

[2 SMARTVISTA INTEGRATION SERVICES OVERVIEW 3](#_Toc536536376)

[2.1 General concepts 3](#_Toc536536377)

[2.2 Data types, Occurrence, Dictionaries 3](#_Toc536536378)

[2.3 References 4](#_Toc536536379)

[3 DICTIONARY FILE STRUCTURE 4](#_Toc536536380)

[3.1 Overview 4](#_Toc536536381)

[3.2 References 4](#_Toc536536382)

[3.3 List of elements 5](#_Toc536536383)

[3.4 Dictionaries retrieval method 6](#_Toc536536384)

[3.4.1 Request format 6](#_Toc536536385)

[3.4.2 Response format 6](#_Toc536536386)

[4 CURRENCY RATES FILE STRUCTURE 7](#_Toc536536387)

[4.1 Overview 7](#_Toc536536388)

[4.2 References 7](#_Toc536536389)

[4.3 List of elements 7](#_Toc536536390)

[5 MCC FILE STRUCTURE 8](#_Toc536536391)

[5.1 Overview 8](#_Toc536536392)

[5.2 References 9](#_Toc536536393)

[5.3 List of elements 9](#_Toc536536394)

1. PREFACE
   1. Revision history

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Revision | Date | Author | | Details |
| 1.0 | 11.04.2018 | | Kolodkina Y. | Initial version |
| 2.0 | 18.07.2018 | | Kolodkina Y. | Added MCC file structure  Added notation about web services (2.3 References) |
| 2.0 | 29.01.2019 | | Viktorov N. | Add web-service address and request and response format for dictionary web service method |

* 1. Document purpose

SVXP DICT is a reference manual for developers who are implementing API of the SmartVista solution. This document is written for internal use of BPC. The document describes the content and the structure of the API.

It is supposed document users to be familiar with financial transactions, communications and XML data format.

1. SMARTVISTA INTEGRATION SERVICES OVERVIEW
   1. General concepts

SmartVista exchange protocol of Dictionaries (SVXP DICT hereafter) provides a description of the file formats of information upload into External Systems from SmartVista. File format xml. For each format will be described in this document, XML Schema Definition language (XSD) and provided examples.

* 1. Data types, Occurrence, Dictionaries

For SVXP DICT methods the standard XML data types are used. Those are fully described in the following document**XML Schema Part 2: Datatypes Second Edition and** t can be found here: [***http://www.w3.org/TR/xmlschema-2/***](http://www.w3.org/TR/xmlschema-2/)

Within the current document all the SVXP DICT messages are described in the table structure below.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Tag name | Data type | | Length | | Occurrence (min-max) | | Description | |
| article | | | | | | | | | |
| code | | string | | 8 | | 1-1 | | Code of article | |
| article\_name | | complex | |  | | 0-\* | | Article name that may be presented in different languages at once. This tag must contain the LANGUAGE attribute to display them in the proper language | |
| article\_name | | | | | | | | | |
| name | | string | | 200 | | 1-1 | | Name of article | |
| description | | string | | 200 | | 0-1 | | Description of article | |

**Data Type:** SVXP DICT tags can be of Primitive XML Data Types (string, long, boolean, etc ) or Complex Data Types (Aggregates).

**Occurrence**: This field defines if the field is mandatory or optional (first number) as well as maximum number occurrences of this tag in the message (last digit)

e.g. 1-1 = minOccurs="1" maxOccurs="1"

Documentation is provided along with Examples of the Request messages for all of the methods described below.

* 1. References

SVXP DICT Web Services schema and its underlying components are required for SmartVista.  
The following are the locations of the WSDL file.

SVXP DICT WSDL: svxp\_dict.wsdl

1. DICTIONARY FILE STRUCTURE
   1. Overview

The file contains information on dictionaries used in many processes which unload information from SmartVista.

Tag DICTIONARIES is root tag and it include itself one or more tags DICTIONARY.

* 1. References

Format of dictionary file described by XSD file: svxp\_dictionary.xsd

The web-service schema is described in svxp\_dict.wsdl

The web-service address wsdl address: smartvistaaddress/DictionaryWS?wsdl

Example of xml document: svxp\_dictionary.xml – dictionaries information.

* 1. List of elements

| Tag name | Data type | Length | Is mandatory | Description |
| --- | --- | --- | --- | --- |
| dictionaries | | | | It is root tag and it include itself one or more tags dictionary |
| file\_id | long | 16 | 0-1 | Unique identifier of outgoing file |
| file\_type | string | 8 | 1-1 | Type of outgoing file. Describe the purpose of data in file. Dictionary FLTP. Value FLTPDICT |
| dictionary | complex |  | 0-\* | Dictionary data |
| dictionary | | | | |
| code | string | 4 | 1-1 | Dictionary code |
| dictionary\_name | complex |  | 1-\* | Dictionary name that may be presented in different languages at once. This tag must contain the LANGUAGE attribute to display them in the proper language |
| articles | complex |  | 1-1 | List of dictionaries articles |
| dictionary\_name | | | | |
| name | string | 200 | 1-1 | Name of dictionary |
| description | string | 200 | 0-1 | Description of dictionary |
| articles | | | | |
| article | complex |  | 0-\* | Articles data |
| article | | | | |
| code | string | 8 | 1-1 | Code of article |
| article\_name | complex |  | 0-\* | Article name that may be presented in different languages at once. This tag must contain the LANGUAGE attribute to display them in the proper language |
| article\_name | | | | |
| name | string | 200 | 1-1 | Name of article |
| description | string | 200 | 0-1 | Description of article |

* 1. Dictionaries retrieval method
     1. Request format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| DictionariesRequest | | | | |
| dict\_version | string | 200 | 1-1 | Interface version. |
| lang | string | 8 | 0-1 | Dictionary language. |
| inst\_id | long | 4 | 0-1 | Institution to which belong dictionaries. |
| array\_dictionary\_id | long | 12 | 0-1 | The array of dictionaries which must be unloaded. |

* + 1. Response format

| Tag name | Data type | Length | Occurrence (min-max) | Description |
| --- | --- | --- | --- | --- |
| DictionariesResponse | | | | |
| dictionaries | complex |  | 0-1 | Unloaded dictionaries. |

1. CURRENCY RATES FILE STRUCTURE
   1. Overview

The file is used to update the exchange rates in the SmartVista in the case when exchange rates are set in the external system.

1. To load the Bank Selling exchange rate (when the Bank sells currency. Such exchange rate is used for debit transactions) The tags «scr currency» (source currency) and «dst currency» (destination currency) should be filled in the following way:

* Source currency is transaction currency
* Destination currency is account currency

1. To load the Bank Buying exchange rate (When the Bank buys currency. Such exchange rate is used for credit transactions) .The tags «scr currency» and «dst currency» should be filled in the following way:

* Source currency is account currency
* Destination currency is transaction currency

The direction of the file is INCOMING and OUTGOING.

* 1. References

Format of currency rate file described by XSD file: svxp\_currency\_rate.xsd

The web-service schema is described in svxp\_dict.wsdl.

Example of xml document: svxp\_currency\_rate\_example.xml

* 1. List of elements

| Tag name | Data type | Size | Occurs | Description |
| --- | --- | --- | --- | --- |
| currency\_rates | | | | |
| currency\_rate | currency\_rate |  | 1-\* | Exchange rate between two currencies on the particular date. |
| currency\_rate | | | | |
| inst\_id | int | 4 | 1-1 | Financial institution ID for which the rate is applied. |
| rate\_type | string | 8 | 1-1 | Exchange rate type. It is an article of dictionary RTTP (Rate types). |
| effective\_date | dateTime |  | 1-1 | Start date of the rate. |
| expiration\_date | dateTime |  | 0-1 | End date of the rate. |
| src\_currency | currency\_scale |  | 1-1 | Source currency. |
| dst\_currency | currency\_scale |  | 1-1 | Destination currency. |
| rate | float |  | 1-1 | Rate. |
| inverted | int | 1 | 0-1 | Flag whether to invert the rate value or not. Default value 0 – do not invert. |
| result\_code | string | 8 | 0-1 | Result of processing incoming currency rate. Filled only in response file. |
| error\_code | string | 200 | 0-1 | Error code of processing incoming currency rate. Filled only in response file if status not successful. |
| currency\_scale | | | | |
| scale | int |  | 1-1 | Currency scale value in rate. |
| currency | string | 3 | 1-1 | Currency code. ISO code (3 digits). |
| exponent\_scale | float |  | 0-1 | Additional scale exponent that influence on the result. |

1. MCC FILE STRUCTURE
   1. Overview

The file contains information on Merchant Category Codes (MCC) used in processes which unload information from SmartVista.

Tag MCC is root tag and it include itself one or more tags record.

* 1. References

Format of mcc file is described by XSD file: svxp\_mcc.xsd

The web-service schema is described in svxp\_dict.wsdl

Example of xml document: svxp\_mcc.xml – MCC information.

* 1. List of elements

| Tag name | Data type | Length | Is mandatory | Description |
| --- | --- | --- | --- | --- |
| mcc | | | | It is root tag and it include itself one or more tags dictionary |
| file\_id | long | 16 | 1-1 | Unique identifier of outgoing file |
| file\_type | string | 8 | 1-1 | Type of outgoing file. Describe the purpose of data in file. Dictionary FLTP. Value FLTPMCC |
| record | complex |  | 0-\* | MCC data |
| record | | | | |
| mcc | string | 4 | 1-1 | MCC code |
| tcc | string | 4 | 0-1 | Transaction Category Code (TCC) |
| mastercard\_cab\_type | string | 4 | 0-1 | Card Acceptor Business (CAB) type |
| visa\_mcg | string | 4 | 0-1 | Visa Merchant Category Group (MCG) |
| mcc\_name | complex |  | 1-\* | MCC name that may be presented in different languages at once. This tag must contain the LANGUAGE attribute to display them in the proper language |
| mcc\_name | | | | |
| name | string | 200 | 1-1 | Name of mcc |