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# Internet Offer Format (IOF) version 2.2

Technical Specification

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Language used in this document: English (en-GB)

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# Content of this document

## The scope of this document

The scope of this document deals with the product offer description format – **Internet Offer Format (IOF)** – available as version **2.2**. This format was developed by IAI S.A. and is a sole property of this company.

It is to notify that a use of the **IOF version 1.0 is unadvisable** and should be considered obsolete. **We strongly recommend using IOF version 2.0 or later.**

## Terms and Conditions of using Internet Offer Format (IOF)

Please advise that the any version of the Internet Offer Format is a product of IAI S.A. and is distributed on the terms of Creative Commons license defined by [Creative Commons Attribution-No Derivative Works 2.5](#), including the following:

1. You are allowed to copy, distribute and to use the IOF format in terms defined hereby by IAI S.A. and this document.
2. You may not alter, transform, or use it in any modified form with any other purposes.



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# What has changed since 2.1

## IOF version 2.2 released

The IOF version 2.2 is currently available. We have extended functionality of this format adding new features listed below. Following document concerns only the IOF 2.2.

## List of modifications from version 2.1

1. Traits are not supported by IOF 2.2 (but are still supported by IOF 2.1).
2. Manufacturer code is supported. This code can be defined in light.xml file as an attribute named **code\_producer**.
3. Every product defined in full.xml and light.xml file may contain information about its quantity in particular stock in light.xml file.
4. Weight for product in particular size may be defined in light.xml file.
5. SRP (Suggested Retail Price) may be defined for every product in light.xml file.
6. Every product may include links to attachments: movie, audio, document or other type of file.
7. File gateway.xml may contain information about time period within offer is valid.
8. IOF 2.2 version supports multi-language. This feature applies to:
  - name of product, name of product in group, name of group, size, series, unit, category, attachment, warranty
  - description of product (short and long) and name of warranty
9. Warranty may be assigned to particular product in full.xml file. Every warranties are specified in warranties.xml file. Warranty details may be also specified in warranties.xml file: name, description, time period, provider.
10. When using the IAI Downloader, it is worth mentioning, that attributes like **@id** can not contain '-' (minus) symbol. It is a restricted symbol for the IAI Downloader requirements.

# Introduction

Internet Offer Format (IOF) version 2.2 is the product offer description format, based on XML.

This format is fully portable and easy to implement in any information system.

The IOF was developed for the **IAI Downloader** application. Although, it is possible to use this format in other system dedicated for processing data of products.

[Learn more about the IAI Downloader and the IOF format](#)

This document concerns the structure of files included in the IOF format and a client-oriented implementation procedure.

Attachments to this document:

- example XML files
- example XSD files (XML Schema)

[Learn more about XML](#)

[Learn more about XML Schema](#)

# Documentation files

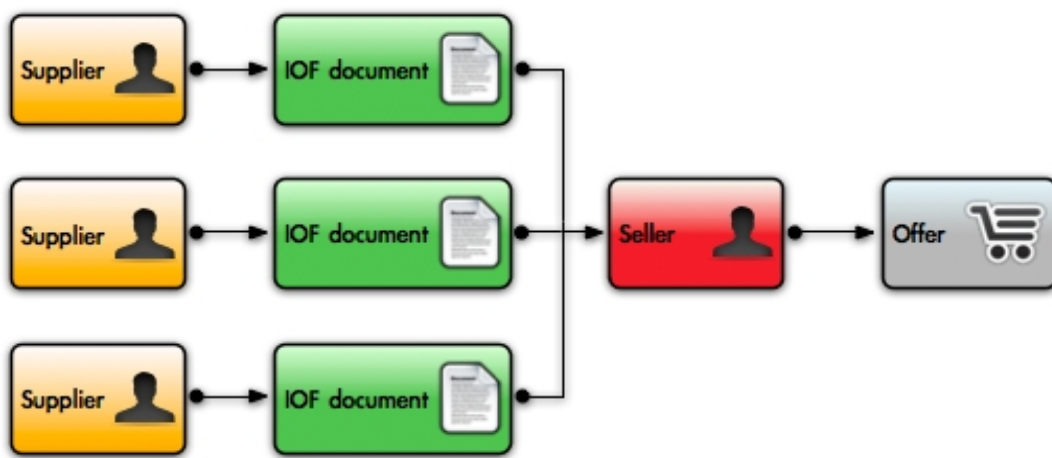
Following technical specification is available to download in two separated packages:

- as a PDF file
- as a compressed ZIP archive including documentation in PDF file and also XML and XSD files. Included ZIP archive should be unzipped (uncompressed) after download.

# Philosophy of IOF format

The IOF format uses meta-data to describe products for the IAI Downloader. It is not essential to use exactly that program. This format is ultra portable and can be used in any applications processing full data of products - for the needs of e-commerce.

The IOF format describes products in **integration process** between **supplier** and **seller** (distributor), who wishes for the widest assortment and the best conditions of sale (Fig. 1).



*Figure 1, System based on the IOF format.*

The **IOF document** has a modular structure referring to particular categories of information. Reference mechanism is performed via URL requests to files of the IOF format. An integral part of this document is a **gateway.xml** file, so called **gateway**. That file is a main part of the IOF format. This file is prepared from following elements:

- Meta-data describing a supplier
- Information about time period within offer is valid
- URL to file including a full description of offer (pictures, descriptions – **full.xml**)



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- URL to file including a short description of offer (sizes, prices, stock level of particular sizes – **light.xml**)
- URL to file including a list of categories (**categories.xml**)
- URL to file including a list of sizes (**sizes.xml**)
- URL to file including a list of producers (**producers.xml**)
- URL to file including a list of measure units (**units.xml**)
- URL to file including a list of dictionaries (**dictionaries.xml**)
- URL to file including a list of product series (**series.xml**)
- URL to file including a list of warranties (**warranties.xml**)

All these elements are especially useful for those, who do not use the IAI Downloader. Why?

Because it becomes easier to import and export product descriptions when you make use of the IOF format. So:

1. If you are a supplier (wholesaler), and you wish to integrate your warehouse with a retail stores, prepare an appropriate IOF files in accordance with recipe specified in this specification. Make familiar yourself with structure and requirements of each file linked in gateway.xml.
2. If you are a seller (offer receiver) prepare appropriate tools designed for processing XML files. If you do not have time to work with those files, you can use the IAI Downloader which is entirely integrated with the IAI-Shop.com system platform.

In order to prepare particular XML files, make familiar with following content of this document.

Next section discusses cooperation between the IOF format and the IAI-Shop.com system platform. If you are not interested, leave next section and make familiar yourself with structure of the IOF format.

# Offer sharing via IAI-Shop.com system platform

This feature is free for every our client using the IAI-Shop.com system platform. Stay noticed, that this feature uses the IOF format in version 2.2. To make your offer accessible for your partners, **log in to the Administration Panel** of your online store. Now, you have to carry out a several straightforward operations.

[Learn more about offer sharing](#)

[Learn more about the Administration Panel of the IAI-Shop.com system platform](#)

Already logged in? It is necessary to perform following operations now:

1. go to the **MARKETING** module,
2. select **Udostępnianie oferty do integracji**,
3. select an online store from which you wish to make an export.

After you select an online store, an appropriate form will appear. If this service have not been activated before, it is necessary to activate it, by clicking '**tak**' in section **Aktywacja modułu udostępniania oferty do integracji**. Next, click '**Zapisz**'. Service will be activated within 12 hours.

If service have been already activated, follow steps listed below:

1. in section **Ustawienia konfiguracyjne wymagane do udostępniania oferty**, in field **Customer login**, type in a customer login for whom you want to export your offer,
2. in section **Ustawienia eksportu oferty ze stanami magazynowymi** mark '**URL z ofertą dla programu Downloader**' and '**Ilość w magazynie**'.

After clicking '**Next**', a system will generate an appropriate URL address. Give this link to your business partner. This link should be pasted in filed '**Dodaj dostawcę**' in the IAI Downloader.

# Descriptive conventions and common issues

There are many common issues applied to all files of the IOF format. In order to do not duplicate them, we introduce them in this section. It concerns tags and attributes.

To make code more simply, there are following descriptive conventions for tags and attributes for the IOF document and XSD files:

- **size@id** - specifies 'size' tag and its attribute 'id'
- **@name** - specifies attribute 'name' for current tag
- **<product>** - specifies 'product' tag

Attributes such as **@code**, **@code\_producer** may contain symbols '0-9', 'a-z', 'A-Z', '\_', '-'. Content of each attribute must be unique for each product, size, etc. It is not allowed to enter the same data to **@id**, **@code** and **@code\_producer** tags.

Every file must contain attributes of version and format (placed inside the main tag). For version 2.2 - **@file\_format="IOF"** and **@version="2.2"**. In every files, except gateway.xml, in main tag in **@language** attribute, there is an information about current language of particular file, e.g. **eng**. This attribute is required.

An **xml:lang** attribute defines language of particular element. Click link below to check ISO 639.2 Codes for the representation of names of languages.

[Codes arranged alphabetically by ISO 639-2 Code](#)

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Elements supported by multi-language feature:

- name of product
- name of product in group
- name of group
- short description of product
- long description of product
- name of category
- name of size
- name of measure unit
- name of series
- name and description of warranty
- name of attachment

Files such categories.xml, unit.xml, series.xml, warranties.xml, sizes.xml may contain **@name** (file warranties.xml may include also **@description**) in many languages (thanks to **xml:lang** attribute) and those contents will be imported to Administration Panel. Those elements may be defined by only one language in full.xml file - content in exactly that language will be assigned to product.

Note:

**xml:lang** attribute is required

The multi-language feature is extended for name of product, its short and long description. File full.xml may include those contents in many languages. All defined contents will be imported.

Every client, for whom the IOF document is generated, is called as business client or target client.

# Structure of gateway.xml file

It is a main file of the IOF format. This file contains data of supplier who share his offer to business client, and URL addresses to files of the IOF format, e.g. full.xml and light.xml.

Section **meta** specifies provider details and time period within offer is valid. The **<short\_name>** tag can not contain white-spaces. Only permitted is using symbols such as '**0-9**', '**a-z**', '**A-Z**', '**\_**'.

Required tags:

- **full** – URL to full.xml file containing the most important information about products, i.e. name, price given by supplier, short description, long description, URL address to product tab, relations between categories, producers, picture information, etc.
- **light** – URL to light.xml file containing information which are not included in full.xml file, i.e. unique code, prices and stock levels for particular size,
- **categories** – URL to categories.xml file containing category tree,
- **sizes** – URL to sizes.xml file containing groups of sizes,
- **producers** – URL to producers.xml file containing information about producers.

Additional tags:

- **units** – list of measure units (units.xml),
- **dictionaries** – list of dictionaries (dictionaries.xml),
- **series** – list of series of product (series.xml),
- **warranties** – list of warranties (warranties.xml),

Notice for additional tags:

In case when any unit, series or warranty are not specified for particular product, empty additional tags are not acceptable. E.g. instead of specifying **<series />** tag, do not specify that

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tag:

```
<producer id="23" name="Bosh"/>
<category id="10" xml:lang="eng" name="Drill"/>
<unit />
<series />
```

**INCORRECT**

```
<producer id="23" name="Bosh"/>
<category id="10" xml:lang="eng" name="Drill"/>
<series id="3" xml:lang="pol" name="Tools"/>
```

**CORRECT**

Below there is an example gateway.xml file:

```
<?xml version="1.0" encoding="UTF-8"?>
<provider_description file_format="IOF" version="2.2" generated="2011-03-17 12:35:52">
  <meta>
    <long_name><![CDATA[My example]]></long_name>
    <short_name><![CDATA[Super store]]></short_name>
    <showcase_image url="http://iai-shop.com/gfx/iai-logo.gif"/>
    <email><![CDATA[support@superstore.com]]></email>
    <tel><![CDATA[+48 91 000 000]]></tel>
    <fax><![CDATA[+48 91 000 001]]></fax>
    <www><![CDATA[www.iai-shop.com]]></www>
    <address>
      <street><![CDATA[Madalińskiego 8]]></street>
      <zipcode><![CDATA[76-234]]></zipcode>
      <city><![CDATA[Szczecin]]></city>
      <country><![CDATA[Polska]]></country>
    </address>
    <time>
      <offer date_created="2011-03-17 12:35:52"/>
      <offer date_expires="2011-03-24 12:35:52"/>
    </time>
  </meta>

  <full url="http://www.iai-shop.com/panel/file-gate.php?id=1696"/>
  <light url="http://www.iai-shop.com/panel/file-gate.php?id=1697"/>
  <categories url="http://www.iai-shop.com/panel/file-gate.php?id=1698"/>
  <sizes url="http://www.iai-shop.com/panel/file-gate.php?id=1700"/>
  <producers url="http://www.iai-shop.com/panel/file-gate.php?id=1699"/>
  <units url="http://www.iai-shop.com/panel/file-gate.php?id=1701"/>
  <dictionaries url="http://www.iai-shop.com/panel/file-gate.php?id=1702"/>
  <series url="http://www.iai-shop.com/panel/file-gate.php?id=1703"/>
  <warranties url="http://www.iai-shop.com/panel/file-gate.php?id=1706"/>
</provider_description>
```

# Structure of full.xml file

File full.xml contains complex information about product, except prices for target client and stock levels for particular sizes.

Tag **<product>** includes all information about single product: name, description, category, producer, measure unit, series, warranty, dictionary, asking price, url, images. Each product has an unique **@id** attribute and **@currency** attribute contains information about currency under the ISO-4217 standard. Those attributes are required.

Tag **<description>** contains name of product, its short and long description. All elements may be defined in many languages.

Tag **<images>** contains pictures and icons. Each picture may be described by optional attributes: **@date\_changed** (last modified date in YYYY-MM-DD hh:mm:ss format) and **@hash** (MD5 value). Those attributes are not required.

Asking price and URL to imported product may be also defined. Price of particular size for target client is defined in file light.xml.

IOF 2.2 makes accessible to include attachments to imported product. Four types of attachment may be added to product: movie file, document file, audio file, or other type of file (e.g. ZIP).

There are following relations between data:

- **producer@id** is related to **producers.producer@id** from producers.xml file,
- **category@id** is related to **categories.category@id** from categories.xml file,

- **unit@id** is related to **units.unit@id** from units.xml file,
- **series@id** is related to **series.series@id** from series.xml file
- **warranty@id** is related to **warranties.warranty@id** from warranties.xml file
- **dictionary@id** is related to **dictionaries.dictionary@id** from dictionaries.xml file

## Groups of products

Below, there are a few simple rules concerning groups of products. Defining groups of products is an additional feature. Please, read following list only when you want to define groups of products:

1. Groups of products can be specified in files full.xml and light.xml as a completely new tag hierarchy. All conventions are specified by following requirements.
2. Group of products is defined by **offer.products.group** tag.
3. Every group of products in full.xml has to be specified using exactly the same structure as in light.xml.
4. The first product in group is a main product. If any product in group is missing some data, then all data are inherited from main product, e.g. if picture is assigned to main product and product in group does not have assigned pictures, then product inherits those pictures from main product.
5. Common data for all products are those, which do not appear in all product in group, but appear in main product.
6. Every group of products in full.xml file includes text information in tag **offer.products.group.group\_details@name**. This is an information about name of group of products, e.g. Colours.
7. Tag **offer.products.group.product.description.version@name** is the only one tag which is not inherited from main product. This tag specify an additional name for product in group, e.g. Green.

Below there is an example full.xml file:



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```
<?xml version="1.0" encoding="UTF-8"?>
<offer file_format="IOF" version="2.2" generated="2011-03-15 17:16:51">
<products language="pol">

<product id="1175009456" currency="GBP" code_producer="ARMACJZAP0022" >
  <producer id="1222413262" name="ActiveJet"/>
  <category id="1222083475" xml:lang="pol" name="Zapachy samochodowe"/>
  <unit id="0" xml:lang="pol" name="szt."/>
  <description>
    <name xml:lang="eng"><![CDATA[AAC-220A Example name]]></name>
    <short_desc xml:lang="eng"><![CDATA[Example short description]]></short_desc>
    <long_desc xml:lang="eng"><![CDATA[Example long description]]></long_desc>
    <name xml:lang="pol"><![CDATA[AAC-220A Drzewko zapachowe - zielone jabłuszko]]></name>
    <short_desc xml:lang="pol"><![CDATA[Drzewko zapachowe w formie zawieszki o zapachu zielonego
jabłuszka]]></short_desc>
    <long_desc xml:lang="pol"><![CDATA[Drzewko zapachowe w formie zawieszki o zapachu zielonego jabłuszka]]></long_desc>
  </description>
  <card url="http://exampleurladdress1.com"/>
  <price gross="7.81" net="6.35" vat="23.0"/>
  <images>
    <large>
      <image url="http://iai-shop.com/gfx/iai-logo.gif" date_changed="2008-10-14 00:00:00"
hash="c5e4b534d4d25162ae9bda7508473c80"/>
      <image url="http://iai-shop.com/gfx/iai-logo.gif" date_changed="2008-10-14 00:00:00"
hash="b8ae98d8d6d808b7af129303f620fd47"/>
    </large>
    <icons>
      <icon url="http://iai-shop.com/gfx/iai-logo.gif" date_changed="2011-01-10 00:00:00"
hash="7d753fef7cf26ef277aa7c5c410a6c8a"/>
    </icons>
  </images>
  <warranty id="1222786255" xml:lang="pol" name="plik"/>
  <attachments>
    <audio>
      <sound url="http://exampleattachment1.com" xml:lang="pol" name="plik mp3" />
    </audio>
    <document>
      <doc url="http://exampleattachment2.com" xml:lang="pol" name="dokument odt" date_changed="2010-09-05 00:00:00"
hash="b8a999d6d808b7af129303f620fd47" />
    </document>
    <video>
      <movie url="http://exampleattachment3.com" xml:lang="pol" name="klip video" />
    </video>
    <other>
      <file url="http://exampleattachment4.com" xml:lang="pol" name="specyfikacja" date_changed="2010-09-05 00:00:00"
hash="b8a999d6d808b7af129303f620fd47"/>
    </other>
  </attachments>
</product>
```

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```
<product id="1175030433" currency="GBP">
  <producer id="1269606328" name="AGATKA"/>
  <category id="1233680906" xml:lang="pol" name="Akcesoria dodatkowe"/>
  <unit id="1" xml:lang="pol" name="para"/>
  <series id="506" xml:lang="pol" name="Modern"/>
  <description>
    <name xml:lang="eng"><![CDATA[Test name]]></name>
    <short_desc xml:lang="eng"><![CDATA[Example short description]]></short_desc>
    <long_desc xml:lang="eng"><![CDATA[Example long description]]></long_desc>
  </description>
  <card url="http://exampleurladdress2.com"/>
  <price gross="100.00" net="81.30" vat="23.0"/>
  <images>
    <large>
      <image url="http://iai-shop.com/gfx/iai-logo.gif" date_changed="2011-01-05 00:00:00"
hash="355d0dcb66e0616b121a50cc7c451ee3"/>
      <image url="http://iai-shop.com/gfx/iai-logo.gif" date_changed="2011-01-05 00:00:00"
hash="4fa2527900dd72b47634a95187394a2b"/>
    </large>
    <icons>
      <icon url="http://iai-shop.com/gfx/iai-logo.gif" date_changed="2011-01-10 00:00:00"
hash="5a630aae2de23810a4f028cff5e76378"/>
    </icons>
  </images>
  <warranty id="1211183111" xml:lang="pol" name="2 lata"/>
</product>
```

```
<product id="47909" currency="GBP">
  <producer id="1207558226" name="Klub Książki Katolickiej"/>
  <category id="1206711779" xml:lang="pol" name="Przewodniki"/>
  <series id="31" xml:lang="pol" name="Active Start W"/>
  <unit id="4" xml:lang="pol" name="butelka"/>
  <dictionary id="1190101090" name="Poradniki">
    <element id="1189689819" name="Wydawnictwo">
      <value id="1189689889" name="Prószyński i S-ka"/>
    </element>
    <element id="1189689517" name="Autor">
      <value id="1189761600" name="Richard Bachman"/>
    </element>
    <element id="1189689538" name="Oprawa">
      <value id="1189690029" name="mięka"/>
    </element>
    <element id="1195659703" name="element słownika POL" value="super"/>
    <element id="1189689749" name="Ilość stron" value="120"/>
    <element id="1189689717" name="Format" value="AA"/>
    <element id="1199088154" name="tekst nowy" value="dodatkowy tekst"/>
  </dictionary>
  <description>
```

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```
<name xml:lang="eng"><![CDATA[Test name in English]]></name>
<short_desc xml:lang="eng"><![CDATA[Example short description]]></short_desc>
<long_desc xml:lang="eng"><![CDATA[Example long description]]></long_desc>
<long_desc xml:lang="pol"><![CDATA[Przykładowy opis długiej]]></long_desc>
</description>
<card url="http://exampleurladdress3.com"/>
<price gross="2.35" net="1.91" vat="23.0"/>
</product>

<group type="versions">

<group_details name="Okładka">
  <name xml:lang="eng"><![CDATA[Cover]]></name>
  <name xml:lang="pol"><![CDATA[Okładka]]></name>
</group_details>

<product id="433" currency="GBP" code_producer="BBTK29" >
  <producer id="58" name="Ferrari"/>
  <category id="35" xml:lang="pol" name="Bluzki"/>
  <unit id="0" xml:lang="pol" name="szt."/>
  <series id="1170" xml:lang="pol" name="Byblos Byblos W"/>
  <description>
    <version name="bluzka">
      <name xml:lang="eng"><![CDATA[blouse]]></name>
      <name xml:lang="pol"><![CDATA[bluzka]]></name>
    </version>
    <name xml:lang="pol"><![CDATA[Bluzka z długim rękawem]]></name>
    <name xml:lang="eng"><![CDATA[Long sleeve]]></name>
    <long_desc xml:lang="eng"><![CDATA[Shirt 100% cotton]]></long_desc>
    <long_desc xml:lang="pol"><![CDATA[Bluzka z długim rękawem. Z przodu nadruk. Tył gładki. 92% bawełna. ]]></long_desc>
  </description>
  <card url="http://exampleurladdress4.com"/>
  <price gross="4.67" net="3.80" vat="23.0"/>
  <images>
    <large>
      <image url="http://iai-shop.com/gfx/iai-logo.gif" date_changed="2010-04-12 00:00:00"
hash="a46d783e7833c1cbe2b96699df7092b7"/>
    </large>
    <icons>
      <icon url="http://iai-shop.com/gfx/iai-logo.gif" date_changed="2011-01-10 00:00:00"
hash="d6ac59e8a51f5b3e961c740a9d1ea70a"/>
    </icons>
  </images>
</product>

<product id="450" currency="GBP" code_producer="BBTK1181" >
  <description>
    <version name="Koszula">
      <name xml:lang="eng"><![CDATA[Shirt]]></name>
```

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```
<name xml:lang="pol"><![CDATA[Koszula]]></name>
</version>
<long_desc xml:lang="eng"><![CDATA[Example long description]]></long_desc>
<long_desc xml:lang="pol"><![CDATA[Przykładowy opis długi]]></long_desc>
</description>
<card url="http://exampleurladdress5.com"/>
<price gross="5.63" net="4.58" vat="23.0"/>
</product>

<product id="452" currency="GBP" code_producer="BBTK20" >
<description>
<version name="Koszula z długim rękawem">
<name xml:lang="eng"><![CDATA[Shirt]]></name>
<name xml:lang="pol"><![CDATA[Koszula z długim rękawem]]></name>
</version>
<long_desc xml:lang="eng"><![CDATA[Example long description]]></long_desc>
<long_desc xml:lang="pol"><![CDATA[Przykładowy opis długi]]></long_desc>
</description>
<price gross="4.40" net="3.58" vat="23.0"/>
</product>

</group>

</products>
</offer>
```

# Structure of light.xml file

File light.xml contains information about products, except information included in full.xml file: prices in currency for target client, and stock level of particular sizes.

Price of particular product is contained in **<price>** tag. Price is automatically calculated to currency requested by target client – in **@currency** attribute.

Each product has an unique **@id** – the same as in full.xml file. Within **<product>** tag, a **<price>** tag with **@net** attribute is required. To specify different prices for particular **<size>**, enter a **<price>** tag within **<size>**.

A suggested retail price (SRP) may be defined for each product in **<srp>** tag. That tag may contain information about gross price, net price and vat rate. That tag is optional.

Each size has following attributes: **@id**, **@code**, **@code\_producer**, **@weight**.

Required attributes:

- **@id** – product ID (the same ID used in full.xml file)
- **@code** – unique product code consisted of product id and size id, e.g. 1454-03

Optional attributes:

- **@code\_producer** – manufacturer code
- **@weight** – weight of product in particular size

Information of price of particular size is an optional feature. Optional is also a product quantity. A **<stock>** tag contains information about **@quantity** of product (product in particular size).

Remember, that stock **@id** should be specified.

Example stocks and their **@id** attributes:

- M0 – **id="0"**
- M1 – **id="1"**
- M2 – **id="2"** etc.

**@quantity** attribute may contain a fractional value.

Note: **-1** value in **@quantity** tag is interpreted by the IAI Downloader application as an infinity.

There are following relations between data:

- **size@id** tag is related to **sizes.group.size@id** from sizes.xml file
- product price is assembled from following fields:
  - **offer.products.product.price@gross**
  - **offer.products.product.price@net**
  - **offer.products.product.price@vat**

In case when only **@net** price is specified, this price is set as retail price.

In both cases, **@vat** is not required.

Below there is an example light.xml file:

```
<?xml version="1.0" encoding="UTF-8"?>
<offer file_format="IOF" version="2.2" generated="2011-03-17 12:48:34" >
<products currency="GBP">

<product id="1175009456">
  <price gross="1.68" net="1.37" vat="23.0"/>
  <srp gross="90.00" net="69.30" vat="23.0" />
  <sizes>
    <size id="757" code="1175030433-757" weight="657" code_producer="zxcvbnm">
      <stock id="1" quantity="1"/>
    </size>
    <size id="756" code="1175030433-756" weight="555" code_producer="mnbvxcz">
```

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```
<stock id="2" quantity="6"/>
</size>
<size id="755" code="1175030433-755" weight="900" code_producer="bnmzxcv">
  <stock id="1" quantity="7"/>
</size>
</sizes>
</product>
```

```
<product id="1175030433">
  <price gross="2.15" net="1.75" vat="23.0"/>
  <sizes>
    <size id="757" code="1175030433-757" weight="657" >
      <stock id="1" quantity="3"/>
    </size>
    <size id="756" code="1175030433-756" weight="555" >
      <stock id="2" quantity="6"/>
    </size>
    <size id="755" code="1175030433-755" weight="900" >
      <stock id="1" quantity="1"/>
    </size>
  </sizes>
</product>
```

```
<product id="47909">
  <price gross="0.50" net="0.41" vat="23.0"/>
  <sizes>
    <size id="0" code="47909-0" weight="151" ></size>
  </sizes>
</product>
```

```
<group type="versions">
```

```
<product id="433">
  <srp gross="50.00" net="38.50" vat="23.0" />
  <price gross="1.00" net="0.81" vat="23.0"/>
  <sizes>
    <size id="783" code="433-783" weight="0" >
      <stock id="2" quantity="3"/>
    </size>
  </sizes>
</product>
```

```
<product id="450">
  <price gross="1.21" net="0.98" vat="23.0"/>
  <sizes>
    <size id="782" code="450-782" weight="0" >
      <stock id="1" quantity="1"/>
    </size>
    <size id="783" code="450-783" weight="100" >
```

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```
<stock id="1" quantity="984"/>
</size>
</sizes>
</product>

<product id="452">
<price gross="0.95" net="0.77" vat="23.0"/>
<sizes>
  <size id="0" code="452-0" weight="0" ></size>
</sizes>
</product>

</group>

</products>
</offer>
```



# Structure of categories.xml file

File categories.xml uses a tree structure to present all categories of products. Every category has an **@id** and **@name** attributes which have an unique content. Those attributes are required. Each category may contain subcategories. The multi-language feature is available for every category **@name** attribute.

Below there is an example categories.xml file:

```
<?xml version="1.0" encoding="UTF-8"?>
<categories file_format="IOF" version="2.2" language="pol" generated="2011-03-10 11:11:40">

  <category id="1222083475" name="Zapachy samochodowe">
    <name xml:lang="pol">Zapachy samochodowe</name>
    <name xml:lang="eng">Example name</name>
  </category>

  <category id="1233680906" name="Akcesoria dodatkowe">
    <name xml:lang="pol">Akcesoria dodatkowe</name>
    <name xml:lang="eng">Accessories</name>
  </category>

  <category id="1233677105" name="Książki">
    <name xml:lang="pol">Książki</name>
    <name xml:lang="eng">Books</name>
    <category id="1233677121" name="Edukacyjne">
      <name xml:lang="pol">Edukacyjne</name>
      <name xml:lang="eng">Edu</name>
      <category id="1206711779" name="Przewodniki">
        <name xml:lang="pol">Przewodniki</name>
        <name xml:lang="eng">Guide books</name>
      </category>
    </category>
  </category>

  <category id="35" name="Bluzki">
    <name xml:lang="pol">Bluzki</name>
    <name xml:lang="eng">Blouses</name>
  </category>

</categories>
```

# Structure of sizes.xml

File sizes.xml defines groups of sizes and same sizes as well. Each product may be assigned only to one group of size. Similarly to product categories, every group and size require to be specified by **@id** and **@name** tags. Tags **@name** and **@id** should be unique within group – as the same as for sizes in groups. Tags **@id** and **@name** of each size may be duplicated, if particular sizes are in different groups. The multi-language feature is available for **size@name** attribute.

Below there is an example sizes.xml file:

```
<?xml version="1.0" encoding="UTF-8"?>
<sizes file_format="IOF" version="2.2" language="pol" generated="2011-03-17 12:52:23">

  <group id="-1" name="Grupa rozmiarów uniwersalnych">

    <size id="0" name="uniwersalny">
      <name xml:lang="eng">onesize</name>
      <name xml:lang="pol">uniwersalny</name>
    </size>

  </group>

  <group id="1271319313" name="top">

    <size id="783" name="80B">
      <name xml:lang="eng">80B</name>
      <name xml:lang="pol">80B</name>
    </size>

    <size id="782" name="75C">
      <name xml:lang="eng">75C</name>
      <name xml:lang="pol">75C</name>
    </size>

  </group>

  <group id="1271319287" name="biustonosze">
```

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```
<size id="757" name="90E">  
  <name xml:lang="eng">90E</name>  
  <name xml:lang="pol">90E</name>  
</size>
```

```
<size id="756" name="70H">  
  <name xml:lang="eng">70H</name>  
  <name xml:lang="pol">70H</name>  
</size>
```

```
<size id="755" name="105G">  
  <name xml:lang="eng">105G</name>  
  <name xml:lang="pol">105G</name>  
</size>
```

```
</group>
```

```
</sizes>
```

# Structure of dictionaries.xml

File dictionaries.xml defines a dictionaries of products, which may be useful for e.g. price comparison websites. Main dictionary contains all elements. Rest of defined dictionaries (with specified **@id** element) use elements defined in main dictionary **<main\_dictionary>**. Main dictionary defines elements and their values and types. There are three types of dictionary elements:

- **predefined** – contains many values, but only one value may be assigned to product in full.xml file.
- **multi-predefined** – contains many values, and many of them may be assigned to product in full.xml file.
- **text** – element containing text value.

Type of dictionary element is defined by **@type** tag – but only in main dictionary.

Example shown below presents two dictionaries created on the basis of main dictionary. Tags **@id** and **@name** of dictionary element have to be the same as in main dictionary. All of **@id** tags of dictionary and its elements, have to be unique.

Below there is an example sizes.xml file:

```
<?xml version="1.0" encoding="UTF-8"?>
<dictionaries file_format="IOF" version="2.2" language="pol">

  <main_dictionary>
    <element id="1193325505" name="Parametr 1" type="text"/>
    <element id="1193325547" name="Parametr 2" type="text"/>
    <element id="1193325569" name="Parametr 3" type="text"/>
    <element id="1193325596" name="Supper lekki parametr" type="predefined">
      <value id="1193325755" name="Supper lekki parametr"/>
    </element>
    <element id="1189689819" name="Wydawnictwo Naukowe PWN" type="predefined">
      <value id="1189689929" name="Helion"/>
      <value id="1189689889" name=" Prószyński i S-ka"/>
    </element>
  </main_dictionary>
</dictionaries>
```

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```
<value id="1189689880" name="Wydawnictwo Naukowe PWN"/>
</element>
<element id="1189689517" name="Richard Bachman" type="multi-predefined" description="" >
  <value id="1189690326" name="Stephen King" description="Stephen King - amerykański pisarz" />
  <value id="1189761600" name="Richard Bachman" description="" />
</element>
<element id="1189689538" name="Oprawa" type="predefined" description="(o. klejona ze sztywnymi okładzinami)" >
  <value id="1189690029" name="miękka" description="(o. klejona z elastycznymi okładzinami)" />
  <value id="1189690057" name="twarda" description="(o. klejona ze sztywnymi okładzinami)" />
</element>
<element id="1195659703" name="element słownika POL" type="text" description="opis"/>
<element id="1189689749" name="Ilość stron" type="text"/>
<element id="1189689717" name="Format" type="text"/>

<element id="1199088154" name="tekst nowy" type="text" description="tekst nowy"/>
<element id="1286355317" name="Wart 33" type="multi-predefined" description="opis" >
  <value id="1286361742" name="pozycja 1" description="opis" />
  <value id="1286361793" name="pozycja 2" description="opis" />
</element>
</main_dictionary>

<dictionary id="1190101090" name="Poradniki">
  <element id="1189690376" required="true"/>
  <element id="1189689517" required="true"/>
  <element id="1189689819" required="true"/>
  <element id="1195659703" required="true"/>
  <element id="1189689749" required="true"/>
  <element id="1189689717" required="true"/>
  <element id="1189689538" required="true"/>
  <element id="1199088154" required="true"/>
  <element id="1286355317" required="false"/>
</dictionary>

<dictionary id="1190101099" name="Przewodniki">
  <element id="1193325569" required="true"/>
  <element id="1189689749" required="true"/>
  <element id="1195659703" required="true"/>
  <element id="1199088154" required="true"/>
</dictionary>

</dictionaries>
```

# Structure of producers.xml, units.xml and series.xml

Those files have a similar structure, so all three of them are discussed in one section. Content of those files includes main tags consisted of **@id** and **@name** attributes. The multi-language feature is not available for **@name** attribute in **<producer>** tag. The multi-language feature is available for **<name>** tags in **<unit>** and **<series>** tags.

Example files are included in ZIP archive: **producers.xml**, **series.xml** and **units.xml**.

# Structure of warranties.xml

This file includes an information about warranties. One product may be assigned to only one warranty. Similarly to product categories, every **<warranty>** requires to be specified by **@id** and **@name** attributes. Warranty terms may be specified in **<terms>** tag by following attributes:

- **@type** (defines a provider of warranty) – two values are available: **seller** or **producer**
- **@period\_number** (defines number of months within warranty is valid) – integer value
- **@period\_unit** (defines name of time period) – one value is available: **month**

Tag **<terms>** is an optional tag, but all three attributes are required when **<terms>** tag is specified for **<warranty>**.

The multi-language feature is available for **<name>** and **<description>** tags.

Below there is an example warranties.xml file:

```
<?xml version="1.0" encoding="UTF-8"?>
<warranties file_format="IOF" version="2.2" language="pol" generated="2011-03-17 12:55:36">

  <warranty id="1222786255" name="plik">
    <terms type="seller" period_number="12" period_unit="month"/>
    <name xml:lang="pol">plik</name>
    <description xml:lang="pol"><![CDATA[przykładowy plik]]></description>
  </warranty>

  <warranty id="1211183111" name="2 lata">
    <terms type="producer" period_number="24" period_unit="month"/>
    <name xml:lang="eng">2 years</name>
    <description xml:lang="eng"><![CDATA[Example description of selected warranty]]></description>
    <name xml:lang="pol">2 lata</name>
    <description xml:lang="pol"><![CDATA[2 lata bezpiecznego użytkowania]]></description>
  </warranty>

</warranties>
```

# Document History

## **Specyfikacja techniczna Internet Offer Format (IOF) wersja 2.1**

Language: pl-PL

Compiled by IAI S.A. in 13.11.2009

## **Technical specification of the Internet Offer Format (IOF) version 2.1**

Language: en-GB

Compiled by IAI S.A. in 02.08.2010

## **Technical specification of the Internet Offer Format (IOF) version 2.2**

Language: en-GB

Compiled by IAI S.A. in 19.04.2011