Manual XML-Generator-tool

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Summary:

This manual describes how to use the XML-generator-tool to upload information to the PRO TRACE system.

System requirements:

The described XML-generator-tool requires MS Excel 2007, 2010 or 2016.
It was tested on the operating systems MS Windows 7 and Windows 10.
It does not run on MS Excel 2003, 2000 or older versions.

History:

v1.1	Creation
v1.2	Update for Meat v1.08
v1.3	Update for Fish v2.08
v1.4	Update for Meat v1.10, some amendments
v1.5	update screenshots for Meat v1.15, Fish v2.13, FishAqua v. 1.07, Fruit v.1.10
v1.6	system requirements added; further amendments
v1.7	add english screenshots for data-entry-website
v1.8	add alignment of export data, update screenshots, add links
v1.9	add PRO TRACE mobile app chapter

Contents

1. Preparatory steps for first use (one time)

For each category, you need to enter a different set of attributes for traceability.

This is why there are four different versions of this XML-generator-tool, depending on the information you want to process. If you do not have the suitable version for your products, please contact the following e-mail address: **EPCONxls@eecc.info** .

1.1 Align the source data (e.g. export from ERP-system)

If you are using a ERP system which contains all necessary traceability information, you need to generate an export which is aligned to the table structure of the XML-generator-tool. That means the order of the columns and the value they contain need to be equals. More details which columns are required by which version of the XML-generator-tool can be found in the corresponding version (Fruit & vegetables, Fish, Fish aquaculture and Meat) chapters. After the proper alignment, the exported values can just be copied into the "Input" sheet of the XML-generator tool and the XML file can be generated (see chapter 2.5).

1.2 Add Masterdata

When you open the tool for the very first time, you may see depending on the security settings in your company or your Excel configuration e.g. the following two informatory messages: (1)'Macros have been deactivated'. In this case press the button 'Activate content' to allow the macros in this Excel sheet to be executed. (2) This file originates from an email attachment and may represent a risk. Click here to show further details.' In this case press the button 'Activate editing'.
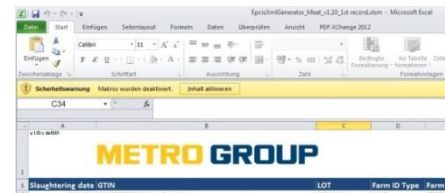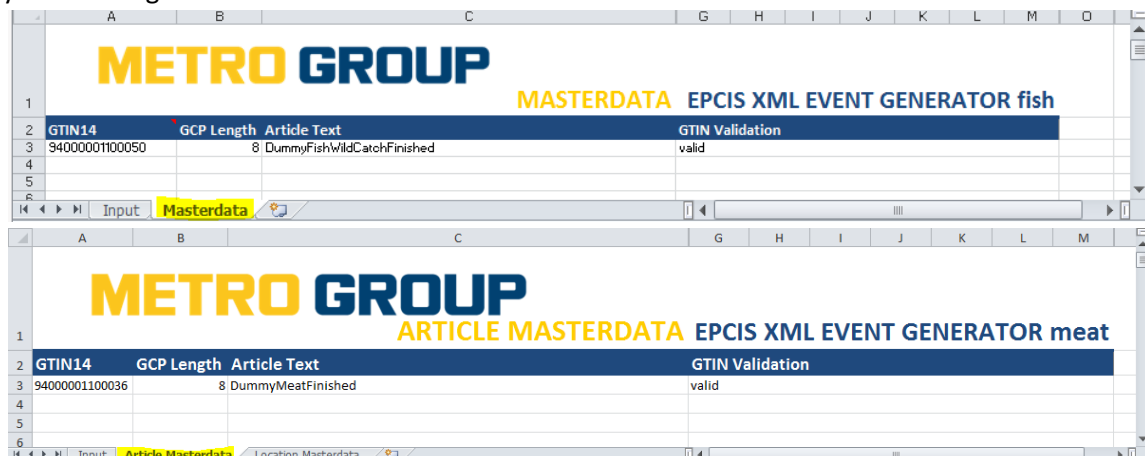

For all different assortments, there is one thing in common: You need to enter your article master data first:

For this, just switch to the sheet master data and enter all the GTINs, you want to use.
You also need to enter the Global Company Prefix (GCP)-length (see Appendix for further explanation).
Finally, you can assign an article text to each GTIN. This will make it easier to work with the tool later on.

GLN13	GCP Length	Location Text	GLN Validation
4000000110002	8	GS1-sample-company	valid
4000001000005	7	GS1	valid
4004876000009	7	Keinhörster	valid

Example screenshots are above on fish and meat. The templates for fruit&vegetables and fish aquaculture appear to be very similar and can be used equivalently.

The columns "GTIN validation" and "GLN validation" show, if you entered a valid GTIN / GLN.

Once, you have entered your article master data, the tool is ready to use.

2. Steps for regular use: enter the relevant information

When you had completed the master data maintenance as described in chapter 1, navigate to the "Input" tab where you can enter information to specific lots associated with those GTINs for which you entered master data. When you finished entering lot IDs and the related attribute information, press the button

You will be asked, where to store the generated XML-file, which you will need later on to upload it to the PRO TRACE-system.

2.1   Fruit & vegetables

For the fruit & vegetables assortment, the input sheet looks like this:

Basically, you will need to give the following indications for each article:

- Processing date
- GTIN
- Lot-number
- Country of origin (two character ISO-code for the country)
- Grade code: I, II, III
- Size code: Size 1, Size 2 …
- Global Gap number (GGN) (13 digits)
- Analysis type: usually GGN → column will be removed
- Harvesting date
- Farm GLN/GGN:
  In case, there is no GLN for the farm, you can also use the GGN. But, if you do so, please assure that previously, you aligned all used GGN with their related addresses with METRO / PRO TRACE as there is unfortunately no direkt link yet between PROTRACE and Global Gap.

At the end of the line you get the status "OK", if the rough check of the data you entered was positive.

If not, you will get a hint in the column "Input advice".

2.2 Fish

For the fish assortment, the input sheet looks like this:

Basically, you will need to give the following indications for each article:

Attributes specifying the final product:

- Processing date
- GTIN
- Lot-number

Attributes specifying the input(s):

- Catching period start
- Catching period end
- Storage state code: NOT_ PREVIOUSLY_FROZEN or PREVIOUSLY_FROZEN
- Unloading port: → please choose the code from the list
    for further details see also: http://www.unece.org/cefact/locode/service/location.html
- Catch method
- Catch area and sub-area: e.g. 27.4 – North Sea (Subarea IV) → please choose from list
- Vessel ID
- Vessel Name

At the end of the line you get the status "OK", if the rough check of the data you entered was positive.
If not, you will get a hint in the column "Input advice".

2.3 Fish aquaculture

For the fish aquaculture assortment, the input sheet looks like this:

Basically, you will need to give the following indications for each article:

- Processing date
- GTIN
- Lot-number
- Catching date
- Best before date
- Storage state code: NOT_ PREVIOUSLY_FROZEN or PREVIOUSLY_FROZEN

Attributes specifying the origin:

- Country of origin
- Number of farms: 0, if no farm GLNs are given

    x, if x farm GLNs are indicated

- Farm GLN: please enter here all GLNs for the farms the specified GTIN-Lot-combination comes from

At the end of the line you get the status "OK", if the rough check of the data you entered was positive.

If not, you will get a hint in the column "Input advice".

2.4 Meat

For the meat assortment, the input sheet looks like this:

Basically, you will need to give the following indications for each article:

- Slaughtering date
- GTIN (any GTIN from the list in "Article Masterdata" can be chosen)
- Lot-number

Attributes specifying the input(s):

- Country of birth
- Farm ID Type: → please choose from the list
     - GLN: The indication of the farm location in the next column will be a GLN.
        (see also further explanation on the next page)
     - VVVO: The indication of the farm location in the next column will be a VVVO.
        (VVVO means **V**ieh**V**erkehrs**V**er**o**rdnung)
- Farm ID: → please enter a 13-digit GLN or a VVVO-number
- Cutting date
- Cutting GLN → any GLN from the list in "Location Masterdata" can be chosen
- Best before date

At the end of the line you get the status "OK", if the rough check of the data you entered was positive.
If not, you will get a hint in the column "Input advice".

2.5   Further processing

Once, you entered all data, press on the play icon :

Then, you are asked for confirmation, please press "Yes". ("No" will stop the process)

Select a folder, where the generated XML-files should be stored
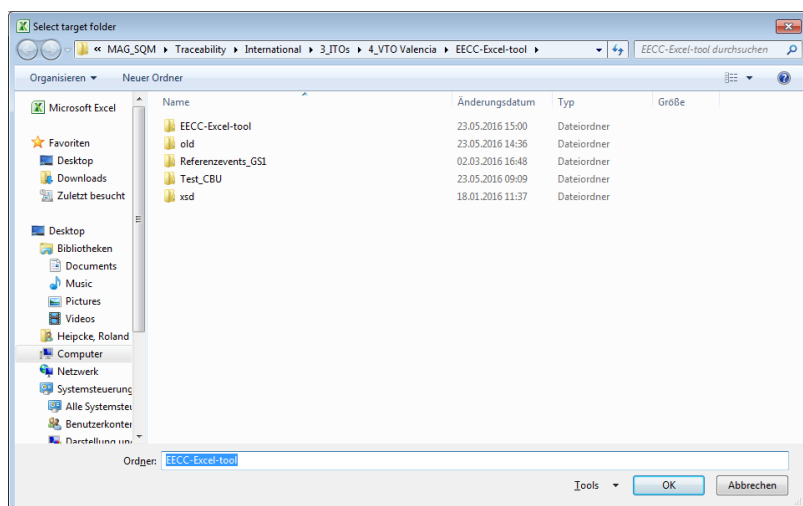
Finally, you get a result-message like this:
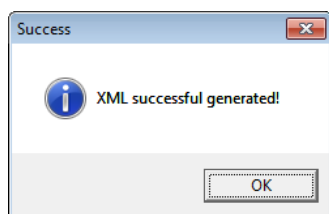
Then, please proceed to upload the file to the fTRACE-system (see chapter 3.).

3. Upload to the PRO TRACE DATA ENTRY-website

Once you generated an XML-file, you can upload it to PRO TRACE like this:

Login to the data entry-website of PRO TRACE: https://dataentry.protrace.metrosystems.net/login
using the login-data you were provided with during your company's PRO TRACE onboarding process. In case you didn't receive any login data, please contact protrace@metro.de

Chose "File Upload" in the menu and then press the button "Choose files":
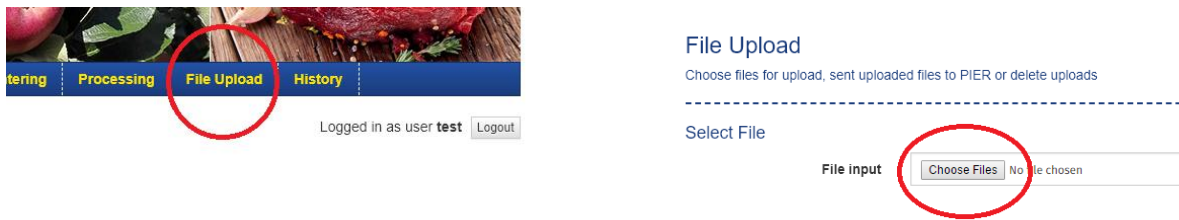
Click "Upload" and choose the file you generated as described in the previous chapter. After successful uploading the file/s you can see them in the "Pending Uploads" section listed with the status "UPLOADED":

Pending Uploads

	Last update	Filename	Status
☐	2018-02-18T13:37:01.001	20180116_142600_epcis_event_meat.xml	UPLOADED
☐	2018-02-18T13:37:00.001	20180116_135522_epcis_event_meat.xml	UPLOADED

Selecting one or all rows and pressing "Send" will submit the uploaded files to the PRO TRACE Event Repository (PIER).

	Last update	Filename	Status
☑	2018-02-18T13:37:01.001	20180116_142600_epcis_event_meat.xml	UPLOADED
☐	2018-02-18T13:37:00.001	20180116_135522_epcis_event_meat.xml	UPLOADED

After this was successful, please check the result. If the file/s were processed successful the status changed to "SUBMITTED" in case of any error, an error message is shown and the status is changing to "FAILED"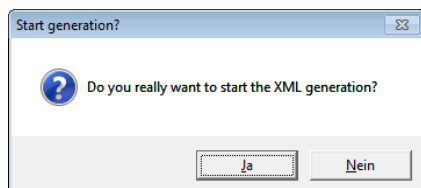. To delete failed files, you can select them and press "Delete". This deletes the file on the system. Already submitted data is not affected from this delete!

The uploaded data can be shown on the "History" page, choose "History" from the navigation:

On the "History" page you can see all of your– successful – submitted events

History

Last Events
Page 1 of 2 pages. Displaying 20 of 36 Events

Creation Date	Event Type	Event ID	Created By	
2018-02-18T14:47:08.015	fishing	07032121-6a6a-441e-0211-1322e6539f70	TEST	🔍
2018-02-15T16:52:45.944	file-upload	847e6f19-0154-4afb-1424-09814df915e2	TEST	🔍

The original XML structure can be displayed by clicking on the magnifier icon

Creation Date	Event Type	Event ID	Created By	
2018-02-18T14:47:08.015	fishing	07032121-6a6a-441e-0211-1322e6539f70	TEST	🔍
2018-02-15T16:52:45.944	file-upload	847e6f19-0154-4afb-1424-09814df915e2	TEST	🔍

The EPCIS Event-XML will look similar to the file which was used during the upload and submit process on the "File Upload" page:

Event-Details

Showing Event-Details for event with id '07032121-6a6a-441e-82a1-1322e6539f70'.

EPCIS Event-XML

```xml
<epcis:ObjectEvent xmlns:epcis="urn:epcglobal:epcis:xsd:1" xmlns:epcismd="urn:epcglobal:epcis-masterdata:xsd:1"
xmlns:fT_fruit="http://ns.fruit.ftrace.com" xmlns:fT_fish="http://ns.fish.ftrace.com"
xmlns:sbdh="http://www.unece.org/cefact/namespaces/StandardBusinessDocumentHeader"
xmlns:epcisq="urn:epcglobal:epcis-query:xsd:1" xmlns:epcglobal="urn:epcglobal:xsd:1"
xmlns:fT="http://ns.ftrace.com/epcis" xmlns:eecc="http://ns.eecc.info/epcis">
    <eventTime>2018-03-12T00:00:00Z</eventTime>
    <recordTime>2018-03-19T10:59:37.767Z</recordTime>
    <eventTimeZoneOffset>+00:00</eventTimeZoneOffset>
    <epcList/>
    <action>ADD</action>
    <bizStep>urn:epcglobal:cbv:bizstep:commissioning</bizStep>
    <readPoint>
        <id>urn:epc:id:sgln:4047111.00000.0</id>
    </readPoint>
    <bizLocation>
        <id>urn:epc:id:sgln:4047111.00000.0</id>
    </bizLocation>
    <extension>
        <quantityList>
            <quantityElement>
                <epcClass>urn:epc:class:lgtin:48951979.01002.1234</epcClass>
                <quantity>20</quantity>
                <uom>KGM</uom>
            </quantityElement>
        </quantityList>
        <ilmd>
            <fT:storageStateCode>NOT_PREVIOUSLY_FROZEN</fT:storageStateCode>
            <fT_fish:catchingPeriodEnd>2018-03-18T00:00Z</fT_fish:catchingPeriodEnd>
            <fT_fish:vesselCatchInformation>
                <fT:catchArea>21.4</fT:catchArea>
                <fT:catchMethod>TB</fT:catchMethod>
            </fT_fish:vesselCatchInformation>
        </ilmd>
    </extension>
    <eecc:eventId>07032121-6a6a-441e-82a1-1322e6539f70</eecc:eventId>
</epcis:ObjectEvent>
```

The submitted values can be queried using the PRO TRACE app for Android or iOS (see chapter 4.).

4. Request traceability information via the PRO TRACE app

To query traceability information stored in PRO TRACE the PRO TRACE mobile app is available in the app stores:

Android: https://play.google.com/store/apps/details?id=net.metrosystems.followMETRO

iOS: https://itunes.apple.com/de/app/pro-trace/id886168099

After downloading and installing the app on your mobile phone, you are able to directly scan a product code or manually enter a GTIN and LOT of a processed product.
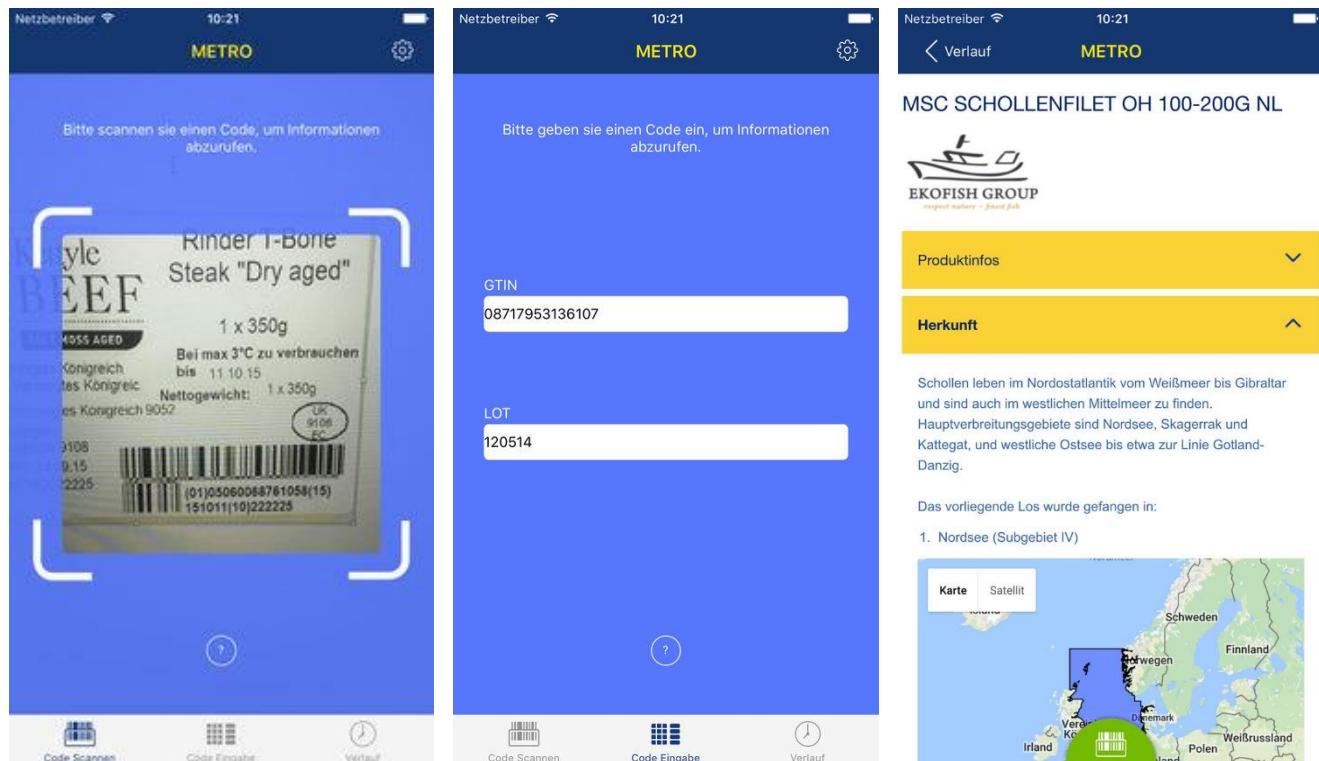
Advise:

Your master data (GLN, supplier name, sourcing country, and GTIN with description, product type, etc.) have to be provided to protrace@metro.de or your responsible METRO contact person upfront to be able to query for traceability information via the PRO TRACE mobile app!

5. Appendix

5.1 GLN (Global Location Number) and GCP (Global Company Prefix):

With the help of the GEPIR-tool (provided online by GS1), you can find out more about a supplier for a given GTIN.

German version: http://www.gepir.de

Spanish version: http://sede.aecoc.es:8000/GEPIR/consultas/SearchByGTIN.aspx

                                   to be found on: http://www.gs1es.org/

The output looks a little bit different and you do not get a direct feedback for the global company prefix.

International site: http://gepir.gs1.org/v32/xx/default.aspx?Lang=en-US/

To understand more about the GCP, please take a look at the following example:

If you start from a GTIN like 08411030020135 (LONGANIZA MAGRO 2.2KG BL SRR), you can enter it to the GEPIR-system, to retrieve the related supplier data.

Then you get a result like this:

'Unternehmen means 'company'

,Firmenname´ means ,company name'

,Adresse´ means ,address'

,Kontakt' means ,contact'

,Letzte Änderung ' means ,last updated'

Basisnummer means 'Global company prefix'

So, the related GLN for the supplier is: 8411030000007

Thereof, the **G**lobal **C**ompany **P**refix (GCP) is: 8411030

This **G**lobal **C**ompany **P**refix is of variable length, so, the GCP-length is 7 for this supplier!

A GTIN contains basically an ID that identifies a company in a globally unique way and an item reference that is assigned to a certain item type by the owner of the global company prefix. The global company prefix is typically

assigned to a company by the local GS1 organization. For further Information please refer to the GS1-general specifications.

5.2   Example XML file

The XML-generator-tool generate an XML file which contains several EPCIS Events (see GS1 global).

For example, one row of the "fish" has the following lines as result:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<epcis:EPCISDocument xmlns:fT_fruit="http://ns.fruit.ftrace.com" xmlns:epcis="urn:epcglobal:epcis:xsd:1"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:fT="http://ns.ftrace.com/epcis"
    xmlns:fT_fish="http://ns.fish.ftrace.com" schemaVersion="1.1"
    xsi:schemaLocation="urn:epcglobal:epcis:xsd:1 http://static.ftrace.de/xsd/EPCglobal-epcis-1_1.xsd" creationDate="2015-09-07T11:23:54+02:00">
    <EPCISBody>
        <EventList>
            <ObjectEvent>
                <eventTime>2016-02-20T00:00:00Z</eventTime>
                <eventTimeZoneOffset>+02:00</eventTimeZoneOffset>
                <epcList/>
                <action>ADD</action>
                <bizStep>urn:epcglobal:cbv:bizstep:commissioning</bizStep>
                <readPoint>
                    <id>urn:epc:id:sgln:4000000.00000.0</id>
                </readPoint>
                <bizLocation>
                    <id>urn:epc:id:sgln:4000000.00000.0</id>
                </bizLocation>
                <extension>
                    <quantityList>
                        <quantityElement>
                            <epcClass>urn:epc:class:lgtin:40000011.90005.1234573a</epcClass>
                            <quantity>1</quantity>
                            <uom>KGM</uom>
                        </quantityElement>
                    </quantityList>
                    <ilmd>
                        <fT_fish:catchingPeriodEnd>2016-02-28T00:00:00Z</fT_fish:catchingPeriodEnd>
                        <fT:bestBeforeDate>2016-03-07</fT:bestBeforeDate>
                        <fT:storageStateCode>PREVIOUSLY_FROZEN</fT:storageStateCode>
                        <fT_fish:unloadingPort>DE BRV</fT_fish:unloadingPort>
                        <fT_fish:vesselCatchInformation>
                            <fT:catchMethod>DRB</fT:catchMethod>
                            <fT:catchArea>27.1</fT:catchArea>
                            <fT_fish:vesselID>V.11-01</fT_fish:vesselID>
                            <fT_fish:vesselName>M/V Dunedin Star</fT_fish:vesselName>
                        </fT_fish:vesselCatchInformation>
                    </ilmd>
                </extension>
            </ObjectEvent>
            <extension>
                <TransformationEvent>
                    <eventTime>2016-02-28T00:00:00Z</eventTime>
                    <eventTimeZoneOffset>+02:00</eventTimeZoneOffset>
                    <inputQuantityList>
                        <quantityElement>
                            <epcClass>urn:epc:class:lgtin:40000011.90005.1234573a</epcClass>
                            <quantity>1</quantity>
                            <uom>KGM</uom>
                        </quantityElement>
                        <quantityElement>
                            <epcClass>urn:epc:class:lgtin:40000011.90005.1234573b</epcClass>
                            <quantity>1</quantity>
                            <uom>KGM</uom>
                        </quantityElement>
                    </inputQuantityList>
                    <outputQuantityList>
                        <quantityElement>
                            <epcClass>urn:epc:class:lgtin:40000011.90005.1234573</epcClass>
                            <quantity>1</quantity>
                            <uom>KGM</uom>
                        </quantityElement>
                    </outputQuantityList>
                    <bizStep>urn:epcglobal:cbv:bizstep:transforming</bizStep>
                    <readPoint>
                        <id>urn:epc:id:sgln:4000000.00000.0</id>
                    </readPoint>
                    <bizLocation>
                        <id>urn:epc:id:sgln:4000000.00000.0</id>
                    </bizLocation>
                    <ilmd>
                        <fT:bestBeforeDate>2016-03-07</fT:bestBeforeDate>
                    </ilmd>
                </TransformationEvent>
            </extension>
        </EventList>
    </EPCISBody>
</epcis:EPCISDocument>
```