

XML interfaces

ZSVR XML interface guide

## I. Document version history

CHANGE HISTORY			
Date	Version	Change/update	Author
30 August 2018	1.0	Description: brand name XML interface	Stiftung Zentrale Stelle Verpackungsregister
26 November 2018	1.1	Description: automatic data reconciliation XML interface	Stiftung Zentrale Stelle Verpackungsregister
22 October 2019	1.2	Description: producer volume report XML interface pursuant to section 10 VerpackG; smaller-sized updates	Stiftung Zentrale Stelle Verpackungsregister
3 December 2019	1.3	System operator added	Stiftung Zentrale Stelle Verpackungsregister
18 August 2021	1.4	System operator added	Stiftung Zentrale Stelle Verpackungsregister
21 December 2021	1.5	System operator added	Stiftung Zentrale Stelle Verpackungsregister
4 May 2022	1.6	Update to the description of the XML brand name interface	Stiftung Zentrale Stelle Verpackungsregister

Table 1: Document version history

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# 1 General

## 1.1 Who is this guide for?

This guide is for producers / initial distributors of packaging filled with goods in Germany who would like to use an XML interface to upload brand names and/or volume reports to the LUCID Packaging Register. This guide is also for those who would like to use automatic data reconciliation.

## 1.2 When is it helpful to use the XML interface?

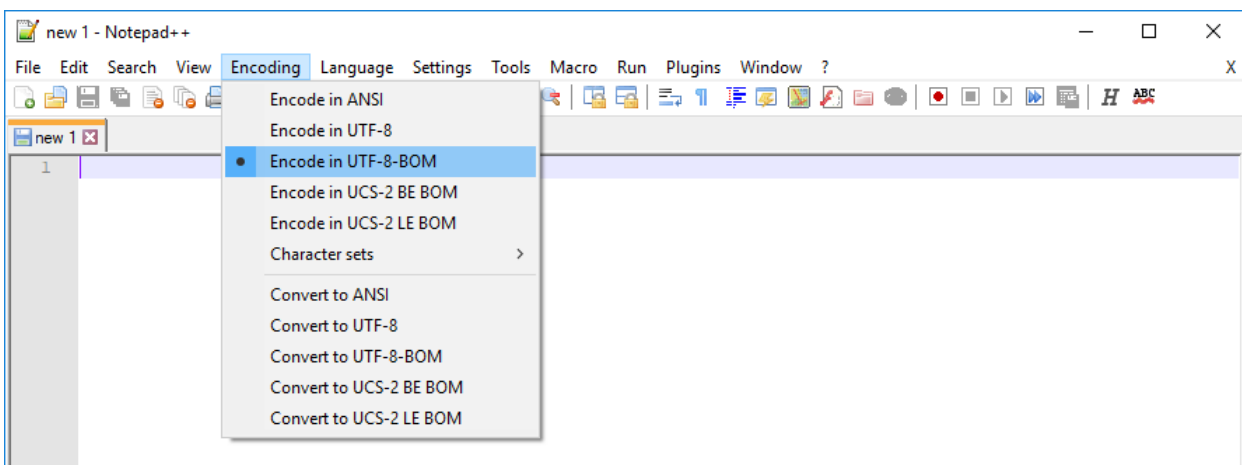
Using XML interfaces can make entering data in the LUCID Packaging Register easier. This is especially true when larger volumes of data need to be entered, maintained or updated. One way would be, for example, exporting brand names from a merchandise management system as an XML file. That file could then be uploaded to the LUCID Packaging Register using an XML interface.

## 1.3 General information about the XML interface

### 1.1.1 Character encoding

The character encoding for the XML file must be UTF-8-BOM.

To check the character encoding of the file, you can use Notepad++ (for example). In the menu bar, click on *Encoding* and make sure that *Encode in UTF-8-BOM* is selected.



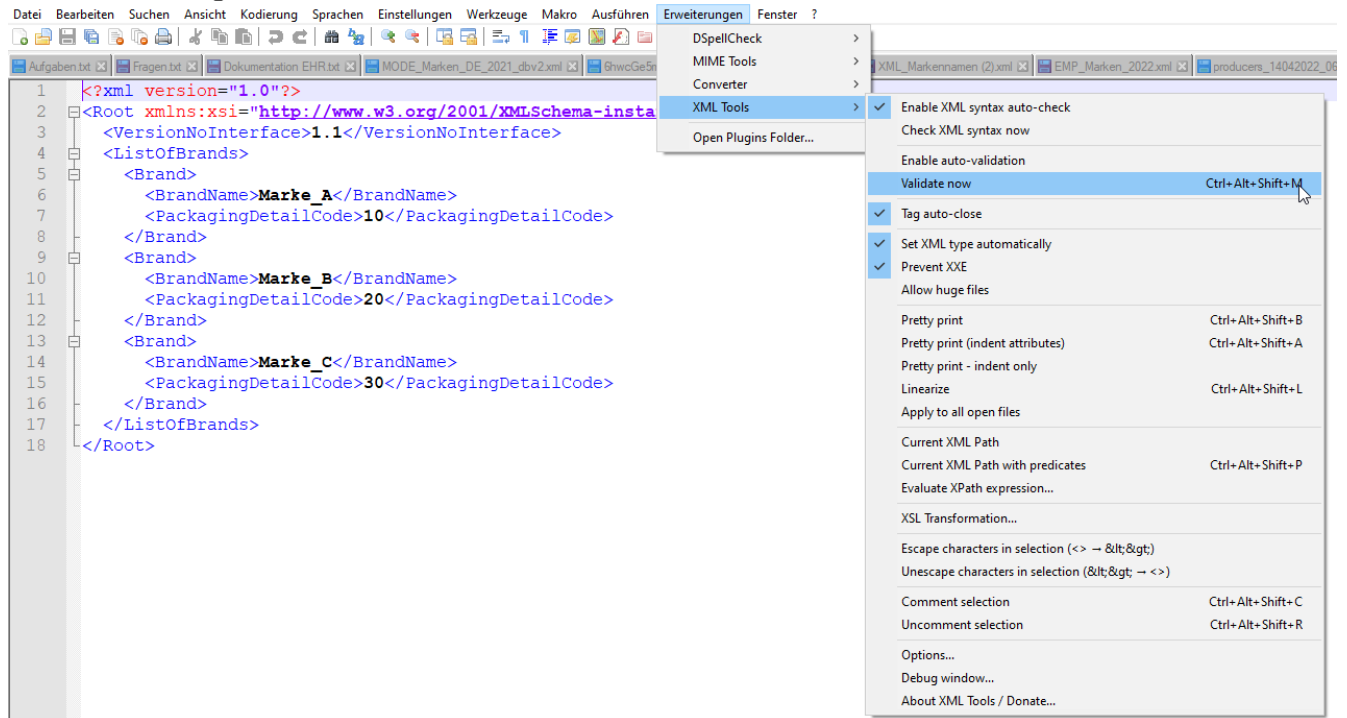
LUCID only accepts Latin-1, Latin-2 and Latin-3 coding characters.

### 1.1.2 XML file validation

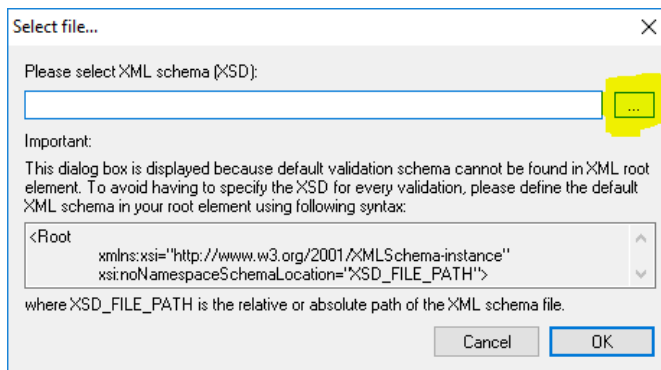
An XML file can be validated with the help of an XML schema. The usual file extension for an XML schema is '.xsd'. To carry out the check, you can use Notepad++ with the 'XML Tools' plugin (for example).

Follow these steps to validate the XML file:

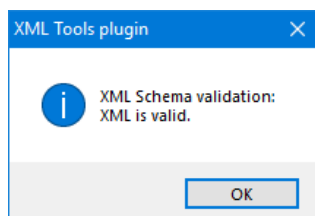
1. Open Notepad++
2. Click on *File* => *Open*, select the XML file you would like to validate and click *Open*
3. Click on *Plugins* => *XML Tools* => *Validate now*



4. Click on the button with the three dots, select the XML schema and confirm by clicking *OK*



5. If the XML file is valid, the following message will be displayed:



## 2 Brand name interface

### 2.1 How can I use the XML interface?

To be able to use the XML interface, you need to create and upload a valid XML file with the correct schema.

Below is a sample XML file for uploading brand names with explanations:

```

1  <?xml version="1.0"?>
2  <Root xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
3  <VersionNoInterface>1.1</VersionNoInterface>
4  <ListOfBrands>
5  <Brand>
6  <BrandName>Marke_A</BrandName>
7  <PackagingDetailCode>10</PackagingDetailCode>
8  </Brand>
9  <Brand>
10 <BrandName>Marke_B</BrandName>
11 <PackagingDetailCode>20</PackagingDetailCode>
12 </Brand>
13 <Brand>
14 <BrandName>Marke_C</BrandName>
15 <PackagingDetailCode>30</PackagingDetailCode>
16 </Brand>
17 </ListOfBrands>
18 </Root>

```

The first two lines as well as the last line are the framework of the XML file. They are required and must not be changed

Enter your brand name here

Enter the required PackagingDetailCode (10, 20 oder 30) here

Once the file is uploaded in LUCID, the following entries appear:

Brand name	Packaging subject to system participation	from 1 July 2022 Packaging not subject to system participation	Actions
Marke_1	✓	—	
Marke_2	✓	—	
Marke_3	✓	—	

10 items per page 1 - 3 of 3 items

### 2.2 Information about the elements

The following presets are defined by the XML schema:

- The first two lines and the last line are the 'bones' of the XML file. These lines may not be changed.
- The third line shows the interface's version number. The current interface version number is 1.1.
- Following that, the ListOfBrands begins. There can only be one ListOfBrands.
- The ListOfBrands contains the individual brand names. Any number of brands can be created. If a brand is created, a BrandName must also be added. Brand names such as 'no name' or 'no description' are not permitted. The maximum number of characters is 255. **A duplicate BrandName is not permitted.**

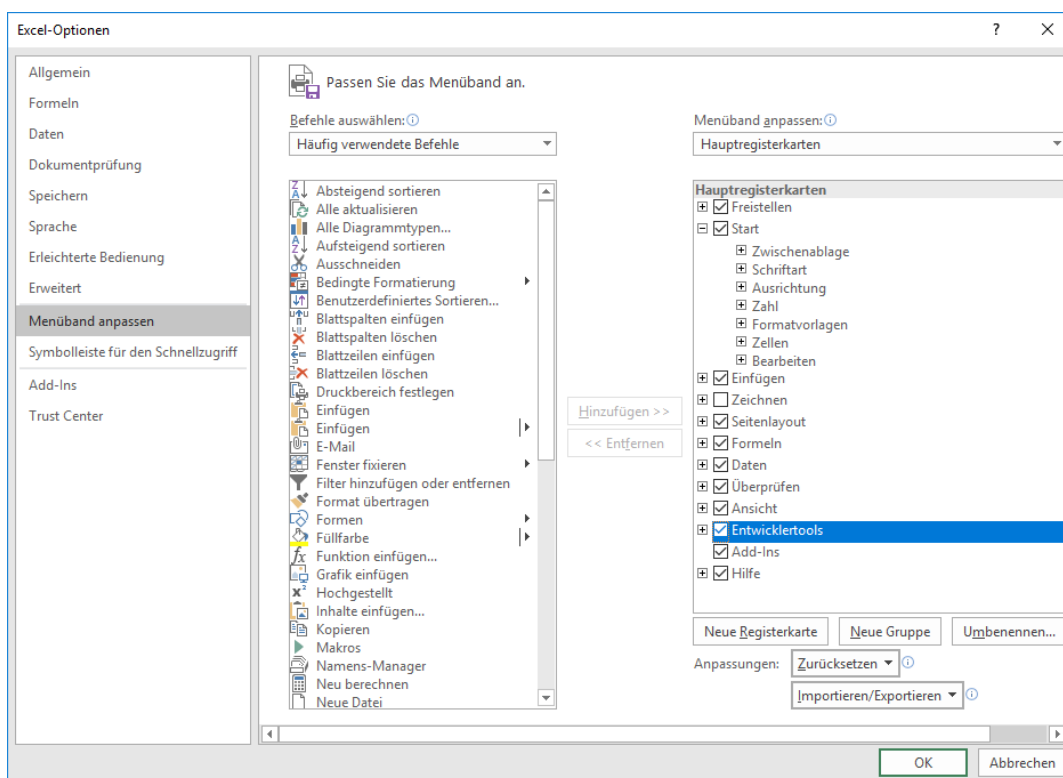
- Permitted PackagingDetailCodes are 10, 20 or 30
  - 10: Packaging subject to system participation
  - 20: Packaging not subject to system participation
  - 30: both (10 and 20) If you place exclusively packaging subject to system participation or exclusively packaging not subject to system participation on the German market, the PackagingDetailCode may be left blank.

## 2.3 Other information

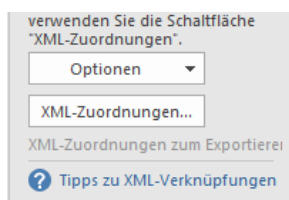
When uploading the XML file in LUCID, a valid (in relation to the XML schema) XML file can still be refused. The LUCID Packaging Register carries out other checks that are not covered by the XML schema (e.g. whether the PackagingDetailCode is valid).

## 2.4 Creating XML files in Excel 2016

1. Open Excel and under *File => Options => Customise the Ribbon => Main Tabs*, tick the *Developer Tools* box and then click on *OK*

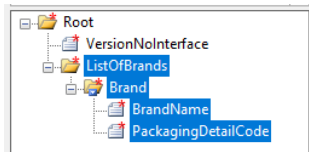


2. In the ribbon, click on *Developer Tools => Source*
3. In the menu that opens, click on *XML Mapping*



4. In the menu that opens, click on *Add*, select the XML schema and click on *OK*

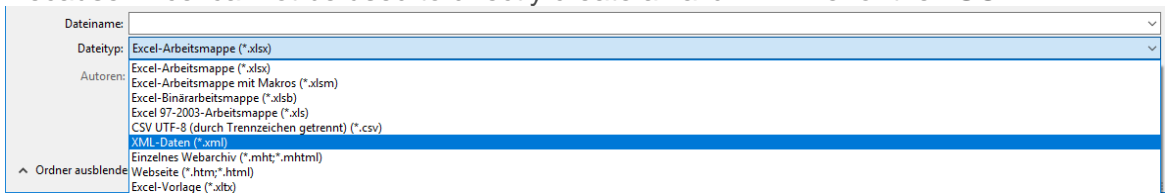
- The schema is now imported in Excel. Click on ListOfBrands and, pressing down on the mouse, drag the schema into the Excel table



- You can now enter your brand names under BrandName and under PackagingDetailCode or, for example, copy and paste from another Excel table. The important thing is to enter the brand names under BrandName and the corresponding code under PackagingDetailCodes next to the appropriate brand names.

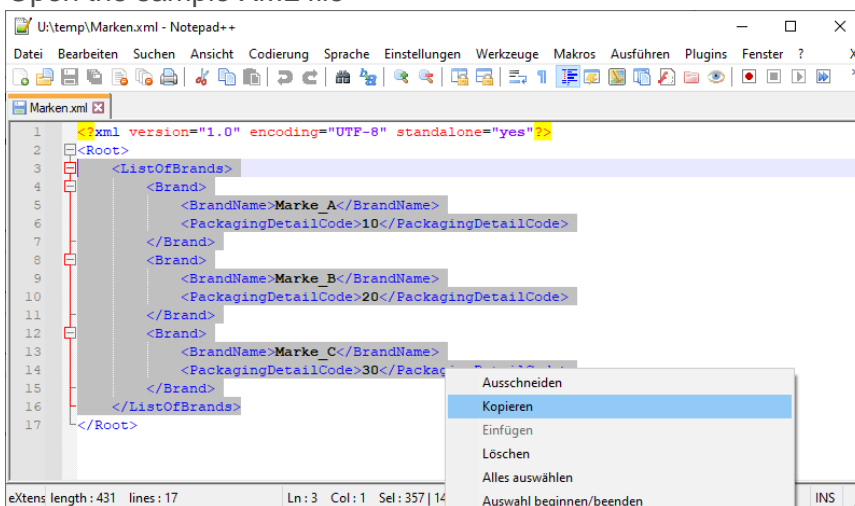
BrandName	PackagingDetailCode
Marke_A	10
Marke_B	20
Marke_C	30

- To export the brand names as an XML file, click on *File => Export => Change File Type => Save as Type => Save as*
- Select *XML File*, select a file destination, enter a file name and save the file
- Because Excel cannot be used to directly create a valid XML file for the LUCID



Packaging Register, the file needs further editing in a text editor

- Open the newly created XML file in a text editor (such as Notepad++)
- Select the entire ListOfBrands and copy the ListOfBrands from your newly created XML file to your clipboard
- Open the sample XML file





13. Delete the ListOfBrands from the sample XML file and paste the ListOfBrands from your clipboard into the XML file
14. Click on *File => Save as* to save the new XML file
15. Check the validity of the XML file by using the XML schema

### 3 Producer volume report interface (section 10 VerpackG)

#### 3.1 How can I use the XML interface?

To be able to use the XML interface, you need to create and upload a valid XML file with the correct schema.

In order to make XML data reporting as simple as possible, all of the information that is relevant for the fields in a manual report is included in the XML file. After the file has been uploaded, the data is displayed and must be confirmed by the user.

Below is a sample XML file for uploading volume reports with explanations:

```
1  <?xml version="1.0"?>
2  <Root>
3    <VersionNoInterface>1.0</VersionNoInterface>
4    <PackagingTypeCode>V</PackagingTypeCode>
5    <TypeOfReportCode>HPM1</TypeOfReportCode>
6    <ReportingPeriodFrom>2019-01-01</ReportingPeriodFrom>
7    <ReportingPeriodTo>2019-12-31</ReportingPeriodTo>
8    <ListOfSystemOperators>
9      <SystemOperator>
10       <SystemOperatorID>XX1234543456789</SystemOperatorID>
11       <ListOfMaterials>
12         <Material>
13           <MaterialCode>10000</MaterialCode>
14           <Mass>3244,000</Mass>
15         </Material>
16         <Material>
17           <MaterialCode>20000</MaterialCode>
18           <Mass>1234,542</Mass>
19         </Material>
20         <Material>
21           <MaterialCode>30000</MaterialCode>
22           <Mass>54,125</Mass>
23         </Material>
24         <Material>
25           <MaterialCode>40000</MaterialCode>
26           <Mass>19518,456</Mass>
27         </Material>
28         <Material>
29           <MaterialCode>80000</MaterialCode>
30           <Mass>2084,254</Mass>
31         </Material>
32         <Material>
33           <MaterialCode>50000</MaterialCode>
34           <Mass>21003,999</Mass>
35         </Material>
36         <Material>
37           <MaterialCode>60000</MaterialCode>
38           <Mass>541,258</Mass>
39         </Material>
40       </ListOfMaterials>
41     </SystemOperator>
42   </ListOfSystemOperators>
43 </Root>
```

Tragen Sie hier den VerpackArtCode ein (Derzeit nur V zulässig)

Tragen Sie hier den MeldeArtCode ein.

Tragen Sie hier das Anfangsdatum des Meldezeitraums ein.

Tragen Sie hier den das Enddatum des Meldezeitraums ein.

Tragen Sie hier die SystembetreiberID ein für die Sie die Mengen melden.

Tragen Sie hier den MaterialCode ein.

Tragen Sie hier die Masse der Verpackungen zu dem Materialcode ein.

Weitere Hinweise:

- Die Zeilen eins, zwei und drei sowie die letzte Zeile stellen den Rahmen der XML-Datei dar. Sie sind erforderlich und dürfen nicht verändert werden.
- Eine Liste mit gültigen Codes befindet sich im nachfolgenden Kapitel.
- Sollten Sie mit mehreren Systembetreibern Verträge abgeschlossen haben, so können Sie innerhalb der ListOfSystemOperator den Abschnitt <SystemOperator> bis einschließlich </SystemOperator> kopieren und so weitere Systembetreiber hinzufügen.

#### 3.2 Information about the elements

- The first two lines and the last line are the 'bones' of the XML file. These lines may not be changed.
- VersionNoInterface: the version number relates to the technical version of the interface; the current interface version number is 1.0.

- PackagingTypeCode: code for 'packaging' (V). Other options are technically possible, but not permitted at this time. For details, refer to Table 3: Packaging types.
- TypeOfReportCode: code for initial planned volume report, intra-year volume report, year-end volume report, supplementary volume report or deducted volumes. For details, refer to Table 4: Producer report types.
- ReportingPeriodFrom: period of the report (date YYYY-MM-DD); only month and year are applied
- ReportingPeriodTo: period of the report (date YYYY-MM-DD); only month and year are applied
- SystemOperatorID: conclusive identification number of the system operator for the ZSVR. For details, refer to Table 5: System operators.
- MaterialCode: code for material type. Depending on the reporting period, the material types are based on the Verpackungsverordnung (Packaging Ordinance: year-end report, supplementary volume report, deducted volume report for 2018) or the Verpackungsgesetz (Packaging Act: from 2019 onwards, even if filed in 2018). The MaterialCodes can be taken from Table 2: Material type overview.
- Mass: packaging material mass in kg to the third decimal place without thousands separators (decimal place demarcated with comma).

## Reported volumes

Depending on report types, a distinction needs to be made between different reported volumes. The report types *initial planned volume report*, *intra-year volume report*, *year-end volume report* and *deducted volumes* are always full reports. The *supplementary volume report* is an additive report.

- Full report: provides the total volume for the reporting period. Where information already exists for a given reporting period, a new file will replace it as long as the correction window is still open.
- Additive report: provides the difference between the previous and the new volume for the reporting period. Where information already exists for a given reporting period, the new information will be added to the existing information. Negative values can also be entered.

## 3.3 Information about the codes

The reports in 2019 for the 2018 reporting year must be filed according to the material types in the Verpackungsverordnung (VerpackV) exclusively. Reports for 2019 onwards are filed on the basis of the material types in the Verpackungsgesetz (VerpackG).

Material type	VerpackV MaterialCode	VerpackG MaterialCode
Glass	10000	10000
PPC	20000	20000
Tinplate	39000	
Ferrous metals		30000
Aluminium	49000	40000
Plastics	50000	50000
Beverage carton packaging		60000
Composite materials	79000	
Other composite packaging		70000
Other materials	80000	80000

Table 2: Material type overview

The packaging types are listed in the following table. At present, the only packaging type allowed is 'packaging'.

PackagingType	PackagingTypeCode
Packaging	V

Table 3: Packaging types

Type of report	TypeOfReportCode:	Reported volumes
Initial planned volume report	HPM1	Full report
Intra-year volume report	HMM1	Full report
Year-end volume report	HJM1	Full report
Supplementary volume report	HNM1	Additive report
Deducted volumes	HAM1	Full report

Table 4: Producer report types

System operator	SystemOperatorID
INTERSEROH Dienstleistungs GmbH	DE6005779374130
Reclay Systems GmbH	DE6005973594801
RKD Recycling Kontor Dual GmbH & Co. KG	DE6006382012686
Der Grüne Punkt – Duales System Deutschland GmbH	DE6004919627351
Landbell AG für Rückhol-Systeme	DE6005906579671
Noventiz Dual GmbH	DE6005959764031
Zentek GmbH & Co. KG	DE6007094250999
Veolia Umweltservice Dual GmbH	DE6007086225568
ELS Europäische Lizenzierungssysteme GmbH	DE6007168805143
BellandVision GmbH	DE6004738522858
PreZero Dual GmbH	DE6004844021815
EKO-PUNKT GmbH & Co. KG	DE6007780383579
Recycling Dual GmbH	DE6257129182400
INTERSEROH+ GmbH	DE6161328237553
Altera System GmbH	DE6229413357273

Table 5: System operators

### 3.4 Other information

The XML file is not saved permanently by the ZSVR and only serves to transfer the data to the web interface. The rules for manually entering the data reports also apply to filing data via XML. In addition, there are technical plausibility checks, such as version, format, logic, completeness and structural checks. As such, a valid XML file (in relation to the XML schema) may be refused. Only once the XML file has been corrected, made free of any errors and uploaded can the data be saved.

The 'ReportingPeriodFrom' and 'ReportingPeriodTo' must always be in the same calendar year. XML data reports that span multiple years are not permitted. In such a case, two files must be uploaded.

The material codes in the XML file can be entered in any order. If the volume of a material is 0,000 kg, then the entire MaterialCode with mass (including the *Material* start and end tag) can be left out as an alternative.

## 4 Automatic data reconciliation interface

### 4.1 How can I use the XML interface?

To be able to use the XML interface, you need to create and upload a valid XML file with the correct schema. Taxpayer reference numbers and VAT IDs are entered into this XML file. After a successful upload, an XML file will be available for download containing information for producers about whether they are registered in the LUCID Packaging Register as an active producer ('yes' or 'no').

Below is a sample XML file for automatic data reconciliation with explanations. Below is an example of a query of the registration status for three producers:

```
1  <?xml version="1.0"?>
2  <Root>
3      <VersionNoInterface>1.0</VersionNoInterface>
4      <ListOfManufacturers>
5          <Manufacturer>
6              <Taxnumber>
7                  DE123456789
8              </Taxnumber>
9          </Manufacturer>
10         <Manufacturer>
11             <Taxnumber>
12                 DE111111111
13             </Taxnumber>
14         </Manufacturer>
15         <Manufacturer>
16             <Taxnumber>
17                 DE222222222
18             </Taxnumber>
19         </Manufacturer>
20     </ListOfManufacturers>
21 </Root>
```

Tragen Sie hier die Steuernummer oder USt-ID des abzugleichenden Herstellers ein

Weitere Hinweise:  
- Die Zeilen eins, zwei und drei sowie die letzte Zeile stellen den Rahmen der XML-Datei dar. Sie sind erforderlich und dürfen nicht verändert werden.

### 4.2 Information on the elements of the XML file (upload)

- The first two lines and the last line are the 'bones' of the XML file. These lines may not be changed.
- VersionNoInterface: the version number relates to the technical version of the interface; the current interface version number is 1.0.
- Taxnumber: taxpayer reference number or VAT ID of the producer to be queried.

### 4.3 Other information

When uploading the XML file in LUCID, a valid (in relation to the XML schema) XML file can still be refused. LUCID carries out other checks that are not covered by the XML schema.

## 4.4 XML file download

Once an XML file has been successfully uploaded, an XML file with the requested information can be downloaded.

Below is the XML file available for download:

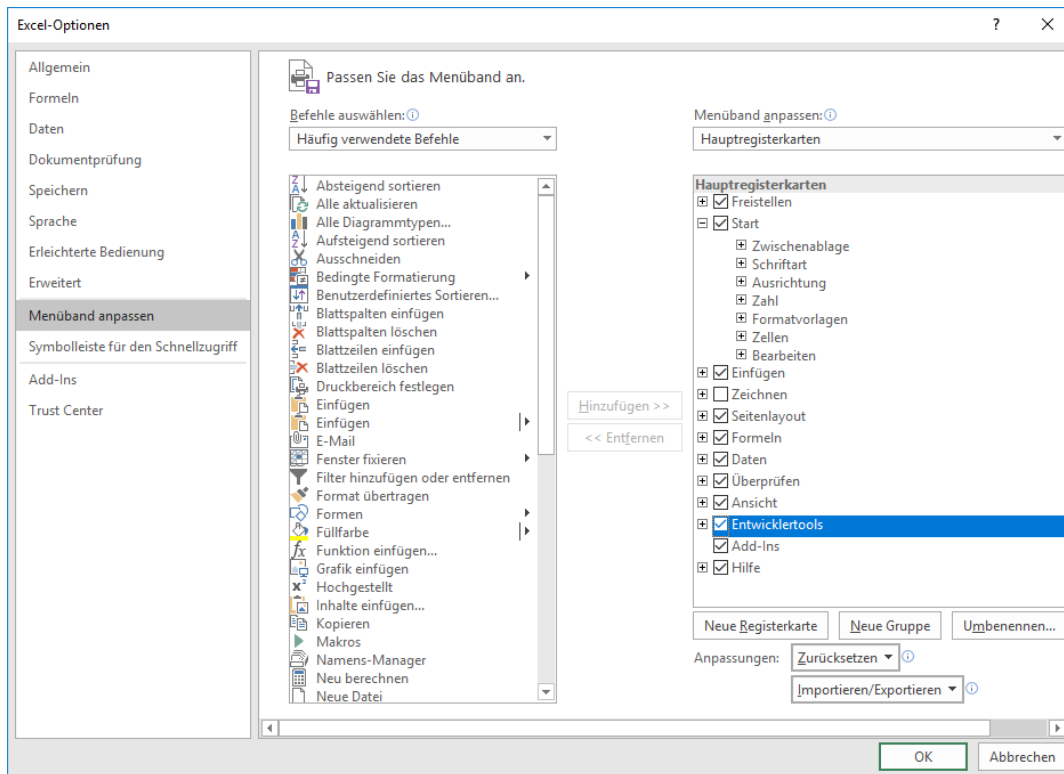
```
1 <?xml version="1.0" encoding="utf-8"?>
2 <Root>
3   <VersionNoInterface>1.0</VersionNoInterface>
4   <DateOfRequest>2018-11-19T08:45:40</DateOfRequest>
5   <DateOfCreation>2018-11-19T08:45:40</DateOfCreation>
6   <ListOfManufacturers>
7     <Manufacturer>
8       <Taxnumber>
9         DE123456789
10      </Taxnumber>
11     <Registered>Ja</Registered>
12   </Manufacturer>
13   <Manufacturer>
14     <Taxnumber>
15       DE111111111
16     </Taxnumber>
17     <Registered>Nein</Registered>
18   </Manufacturer>
19   <Manufacturer>
20     <Taxnumber>
21       DE222222222
22     </Taxnumber>
23     <Registered>Nein</Registered>
24   </Manufacturer>
25 </ListOfManufacturers>
26 </Root>
```

## 4.5 Information on the elements of the XML file (download)

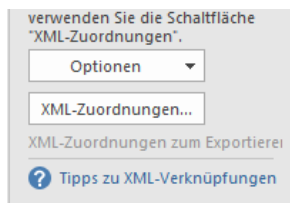
- VersionNoInterface: the version number relates to the technical version of the interface; the current interface version number is 1.0.
- DateOfRequest: date the query is made.
- DateOfCreation: date the file is created.
- Taxnumber: taxpayer reference number or VAT ID of the producer to be queried.
- Registered: information ('yes' or 'no') about whether an active producer is registered with the ZSVR and has consented to automatic data reconciliation.

## 4.6 Creating an XML file for automatic data reconciliation in Excel 2016

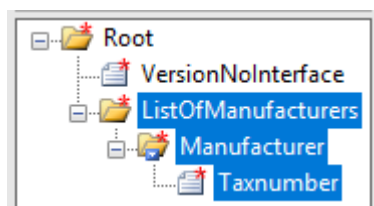
1. Open Excel and under *File => Options => Customise the Ribbon => Main Tabs*, tick the *Developer Tools* box and then click on *OK*



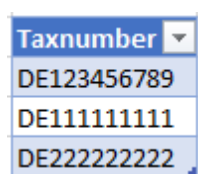
2. In the ribbon, click on *Developer Tools* => *Source*
3. In the menu that opens, click on *XML Mapping*



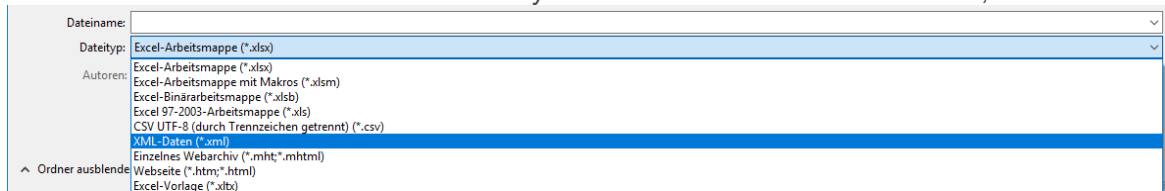
4. In the menu that opens, click on *Add*, select the XML schema and click on *OK*
5. The schema is now imported in Excel. Click on *ListOfManufacturers* and, pressing down on the mouse, drag the schema into the Excel table



6. You can now enter the taxpayer reference number and VAT IDs under *Taxnumber* or you can also, for example, copy and paste from another Excel table

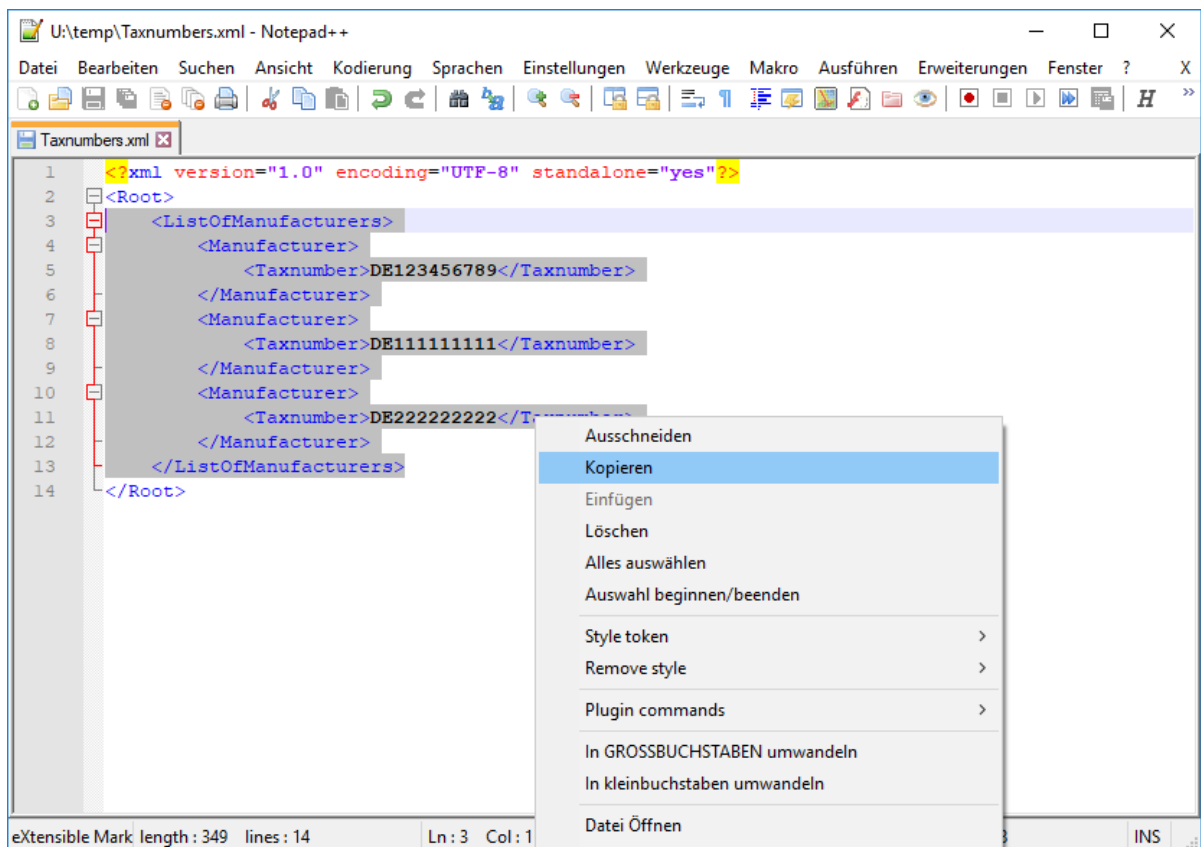


7. To export the taxpayer reference numbers or VAT IDs, click on *File* => *Export* => *Change File Type* => *Save as Type* => *Save as*
8. Select *XML File*, select a file destination, enter a file name and save the file
9. Because Excel cannot be used to directly create a valid XML file for LUCID, the file



requires further editing in a text editor

10. Open the newly created XML file in a text editor (such as Notepad++)
11. Select the entire ListOfManufacturers and copy the ListOfManufacturers from your newly created XML file to your clipboard



12. Open the sample XML file
13. Delete the ListOfManufacturers from the sample XML file and paste the ListOfManufacturers from your clipboard into the XML file
14. Click on *File* => *Save as* to save the new XML file
15. Check the validity of the XML file by using the XML schema