User Guide | PUBLIC

Document Version: 1.2 – 2025-02-25

How to Create a “XRechnung” in the Germany Localization

Content

1 Document History

Version	Date	Change
1.0	2021-02-11	First version
1.1	2025-02-05	Guide converted from PDF to HTML format for viewing on the SAP Help Portal.
1.2	2025-02-25	Updated document for various changes including changes in versions of XRechnung and *Document Settings*

2 Introduction

2.1 Legal Background

XRechnung is an XML-based semantic data model, which is used to exchange invoices with public-sector customers in Germany and is increasingly establishing itself as a general standard for electronic invoices. The XRechnung standard was adopted in version 1.0 at the 23rd meeting of the IT Planning Council for the Federal and State Governments on June 22, 2017. XRechnung specifies the currently valid version of the European standard for electronic invoicing EN 16931. Germany thus implemented Directive 2014/55/EU of the European Parliament and of the Council. Since April 2020, federal states and municipalities must be able to receive and process e-invoices, thereby bringing about a standardization of invoice exchange with public bodies.

The XRechnung standard was developed as part of the specifications for electronic data exchange in public administration (XML in der öffentlichen Verwaltung (XÖV)). New versions of XRechnung are continually introduced by the authorities. Check SAP Note 2957995 for the latest available version of XRechnung for use with SAP Business One. All versions of XRechnung are compliant with European standard EN 16931-1. The XRechnung standard has been operated by the Coordination Office for IT Standards (KoSIT) since January 1, 2019.

> **Note**
>
> Information about the current valid version of the XRechnung format is available from the authorities (KoSIT) on the XStandards Einkauf page.

Since November 27, 2020, XRechnung has been mandatory for all suppliers to federal public entities and must be submitted digitally to the "Zentrale Rechnungseingangsplattform des Bundes" (*ZRE*) or to the OZG-Konforme Rechnungseingangsplattform (OZG-RE) using Peppol Infrastructure.

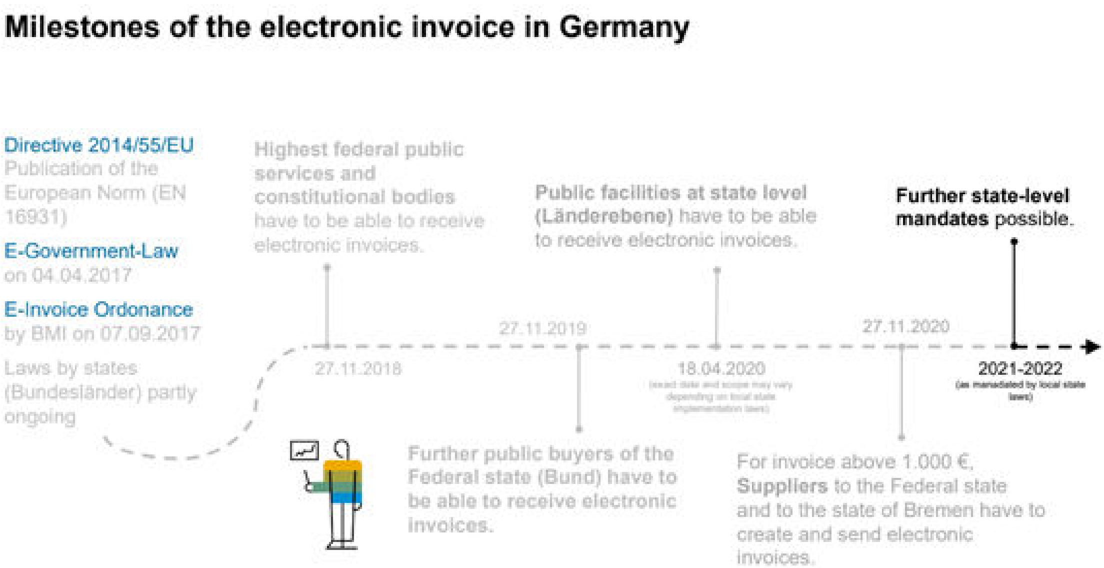


Figure 1: Milestones of the electronic invoice in Germany

2.2 Mode of Transmission

After successfully registering with ZRE, invoices can be sent as XML files by e-mail, uploaded via a Web form, or communicated using a Web service through Peppol.

Peppol was launched as an international project with the aim of standardizing cross-border, electronically supported public procurement procedures within the European Union and has been in regular operation since 2012. Peppol now covers a wider set of scenarios and territories than originally defined. Companies and public bodies can exchange business documents through the Peppol network. The format of electronic business documents can be, for example, XRechnung.

> ⓘ Note
>
> SAP offers a registered Access Point in the Peppol Network. Click here to learn more or read SAP Note 3378987 .

SAP Business One and SAP Business One, version for SAP HANA (subsequently referred to jointly as SAP Business One) use a combination of applications to exchange business documents using the Peppol network. The applications that are used for Peppol have changed over time. The following applications are used by SAP Business One 10.0 Feature Package (FP) 2502:

- SAP Business One Client
- Electronic File Manager (EFM)
- Electronic Document Service
- SAP Document and Reporting Compliance, Cloud Edition

Peppol builds on the standard setup of SAP Business One infrastructure for processing electronic documents. For the standard setup and basic general information about SAP Business One and Web services, see SAP Note 2880322 - Generic Web Service Enhancement in version 10.0.

> ⓘ Note
>
> The XRechnung standard only formalizes the invoice itself (format, data structure and semantics), The XRechnung standard does not consider the transmission route of the invoice. To enable all public-sector customers as invoice recipients to receive invoices through at least one standardized channel, the IT Planning Council has decided to connect to Peppol infrastructure as a standardized secure Web service. It obliges the federal and state governments to offer at least Peppol by the end of the implementation period of Directive 2014/55/EU if they provide a Web service for the delivery of electronic invoices.

3 Settings in SAP Business One and Components

You need to choose settings within SAP Business One, and its components, to generate and send an XRechnung.

3.1 Activating Electronic Document Service

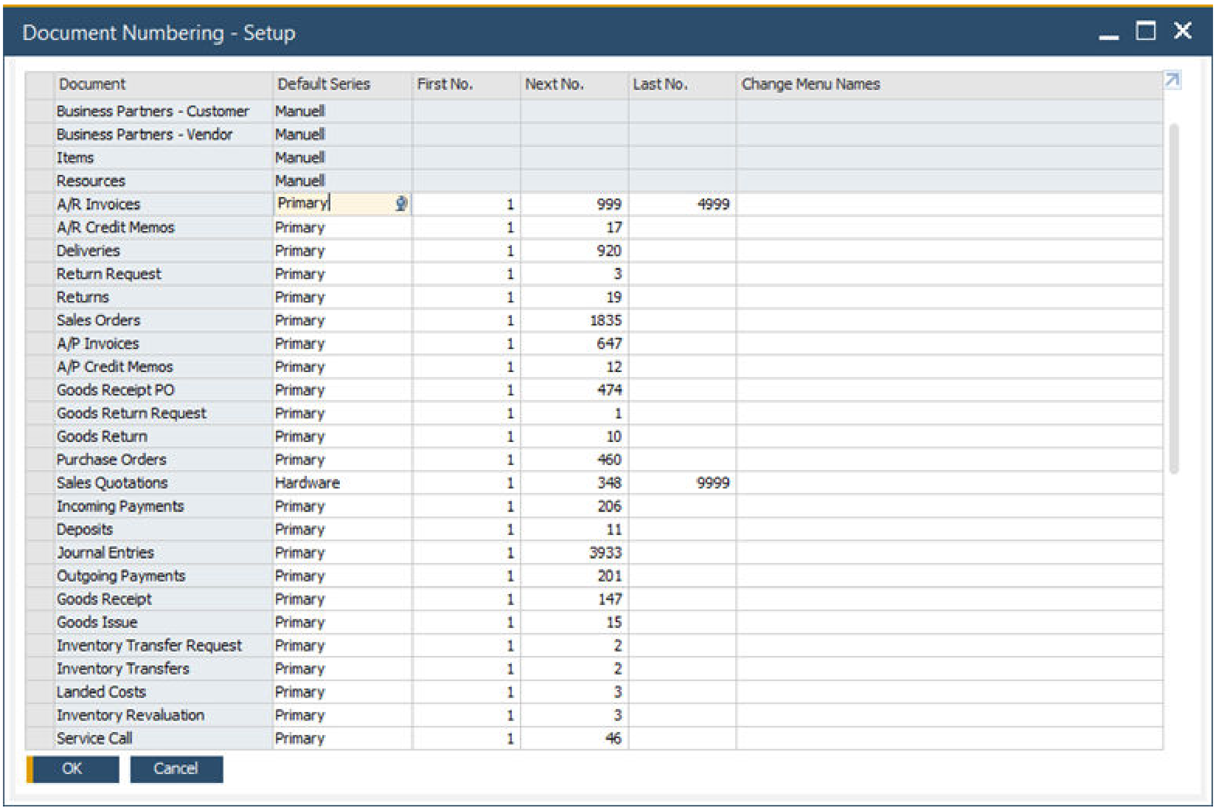
Electronic Document Service (EDS) is required for processing and communicating electronic documents and reports for SAP Business One. The EDS component must be installed on the server where SAP Business One is located. For more information on EDS, including activation settings, see SAP Note 2952067.

An EDS dashboard is provided to manage connections and protocols with EDS. You can access the dashboard through System Landscape Directory (SLD).

EDS replaces some methods for handling electronic documents and reporting. EDS improves the management of electronic marketing documents processed to and from SAP Business One.

3.2 Settings for Document Numbering

Choose *Administration* > *System Initialization* > *Document* and select the corresponding line of the document level by double-clicking.



Document Numbering - Setup

Document	Default Series	First No.	Next No.	Last No.	Change Menu Names
Business Partners - Customer	Manuell				
Business Partners - Vendor	Manuell				
Items	Manuell				
Resources	Manuell				
A/R Invoices	Primary	1	999	4999	
A/R Credit Memos	Primary	1	17		
Deliveries	Primary	1	920		
Return Request	Primary	1	3		
Returns	Primary	1	19		
Sales Orders	Primary	1	1835		
A/P Invoices	Primary	1	647		
A/P Credit Memos	Primary	1	12		
Goods Receipt PO	Primary	1	474		
Goods Return Request	Primary	1	1		
Goods Return	Primary	1	10		
Purchase Orders	Primary	1	460		
Sales Quotations	Hardware	1	348	9999	
Incoming Payments	Primary	1	206		
Deposits	Primary	1	11		
Journal Entries	Primary	1	3933		
Outgoing Payments	Primary	1	201		
Goods Receipt	Primary	1	147		
Goods Issue	Primary	1	15		
Inventory Transfer Request	Primary	1	2		
Inventory Transfers	Primary	1	2		
Landed Costs	Primary	1	3		
Inventory Revaluation	Primary	1	3		
Service Call	Primary	1	46		

OK Cancel

ⓘ Note

Please note that you must first select the Peppol checkbox "Enable Protocol" in *Document Settings* before you can create the series of digital document numbers. If the electronic protocol is not activated, a warning message "Invalid next serial number" appears.

3.3 Import of Peppol Relevant Data from Excel

Context

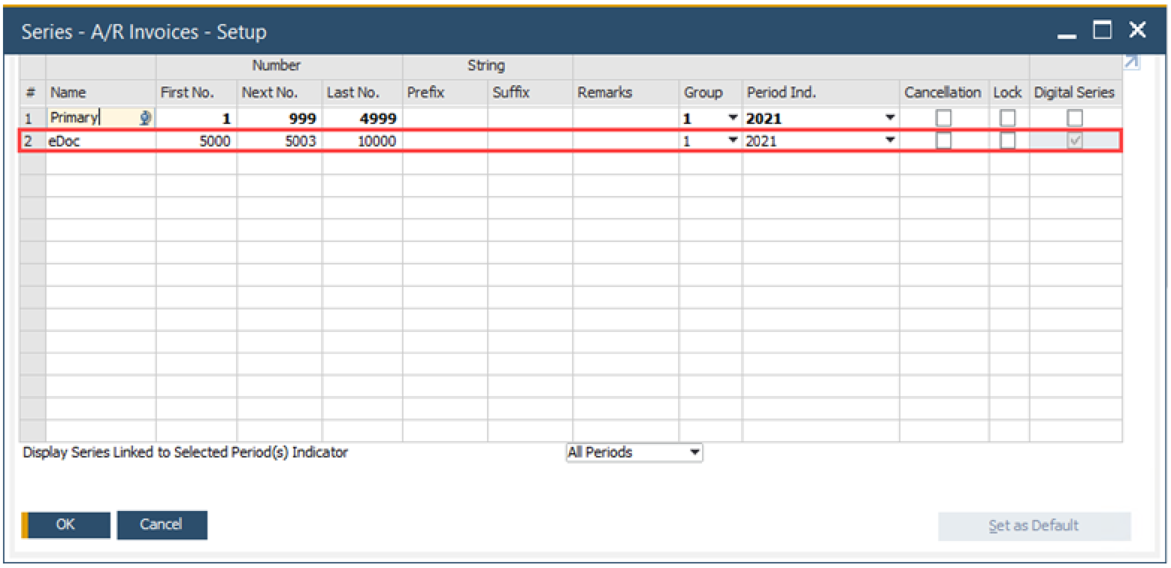
Importing from Microsoft Excel to SAP Business One is a straightforward way of setting up the required Peppol data in Business Interoperability Specification (BIS) codes. Alternatively, you can add the code directly into SAP Business One.

Procedure

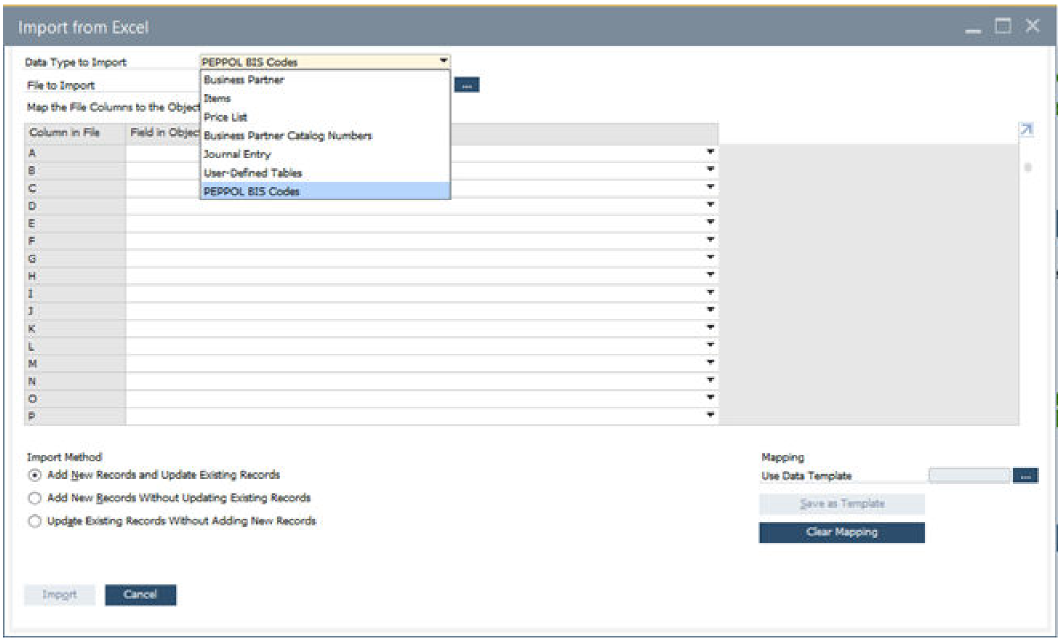
1. Prepare the required values in Excel.

   The numerical code in the first column (A) of the Excel file identifies the type of Peppol code (Code List). Make sure that your *BIS Code List Type* selection matches the codes in column A.

   - Code "1" for Order Type documents
   - Code "2" for Delivery Type documents
   - Code "3" for Invoice Type documents
   - Code "4" for Credit Memo Type documents
   - Code "5" for Standard Item Type Identification
   - Code "6" for Item Commodity Classification Codes.

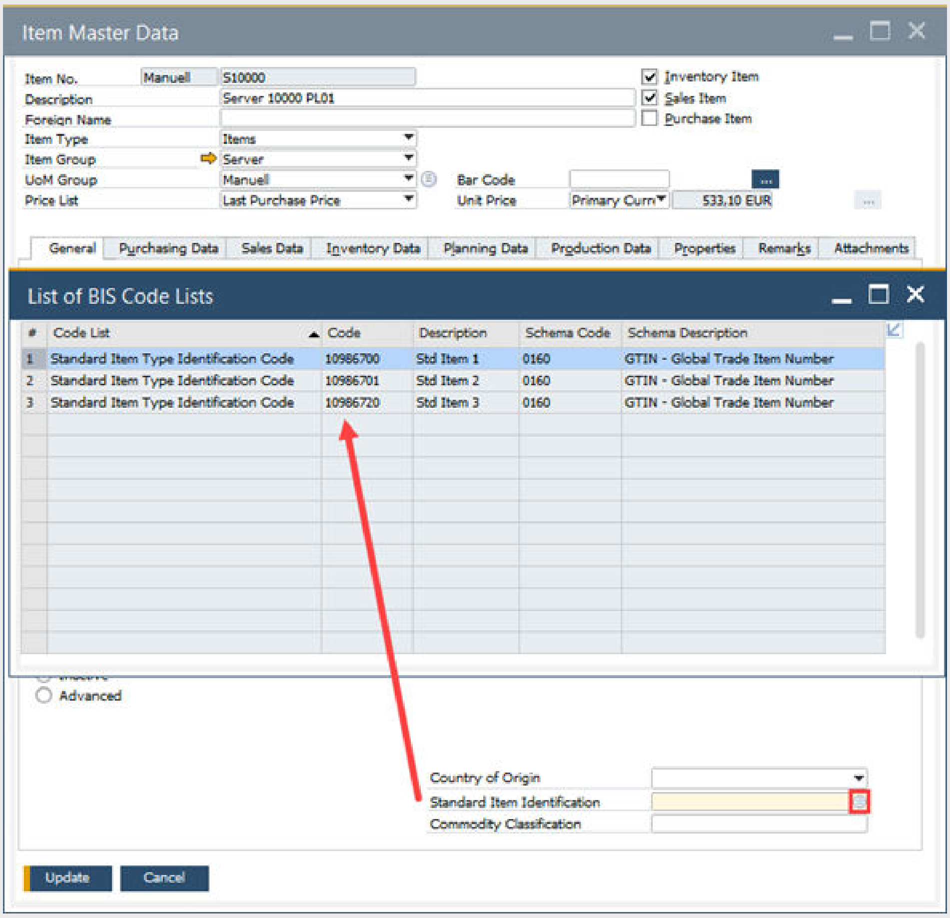


2. Choose *Administration* > *Data Import/Export* > *Data Import* > *Import from Excel* in SAP Business One.
3. Choose "Peppol BIS Codes" in *Data Type to Import*.

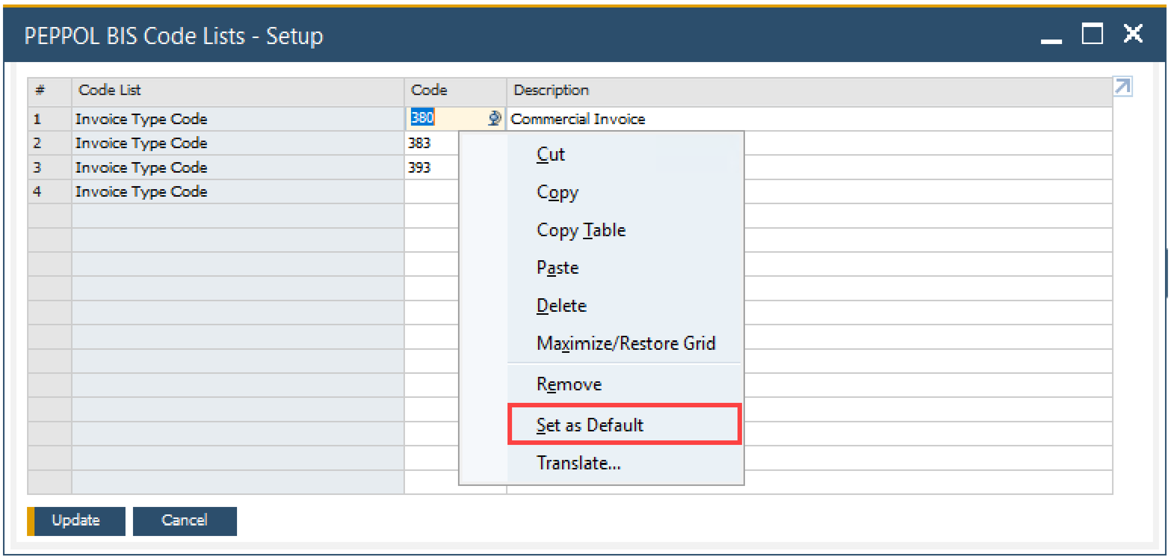


4. Select the symbol next to the field *File to Import*. Choose the Excel file from Step 1.
5. Select the appropriate object fields from the drop-down lists.
6. There are three import methods available for selection:
    - Add New Records and Update Existing Records
    - Add New Records Without Updating Existing Records
    - Update Existing Records Without Adding New Records
7. Save and use the defined setup as a template for further use.

> ⓘ Note
>
> As soon as the codes and other relevant fields have been imported into the table “OUNCL”, the values are visible in the relevant code tables.



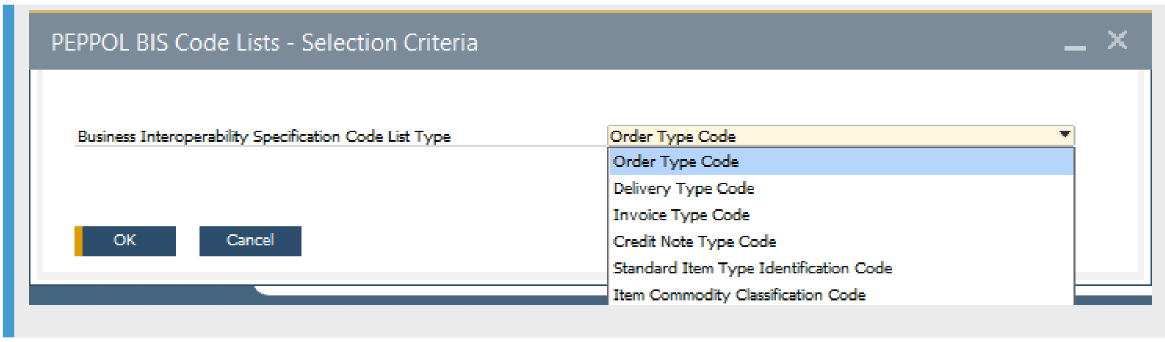
Set a default type for the electronic document, by right-clicking *Code* and selecting *Set as Default*.



ⓘ Note

Alternatively, you can import from Excel directly in *PEPPOL BIS Code Lists* from the context menu.

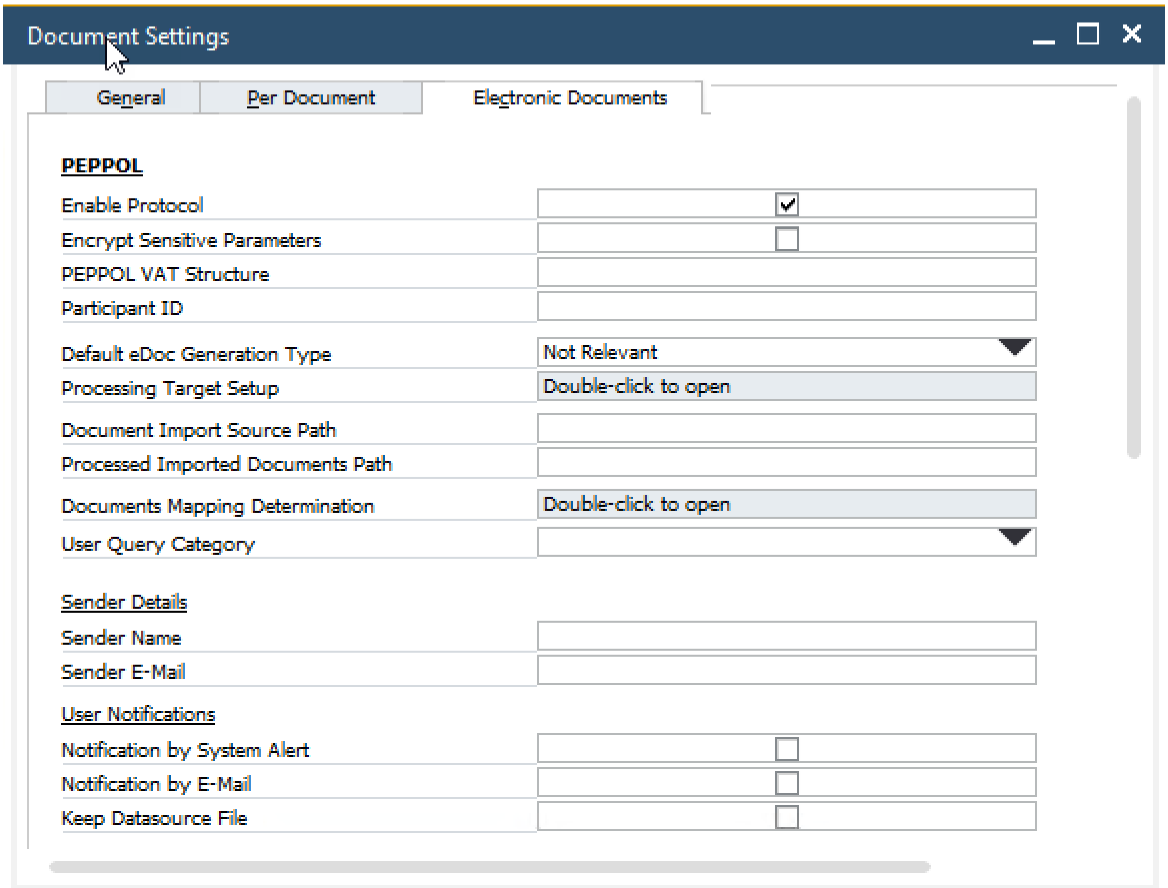
Choose *Administration* > *Setup* > *Electronic Documents* > *Peppol BIS Code Lists*.



3.4 Electronic Document Settings for Peppol

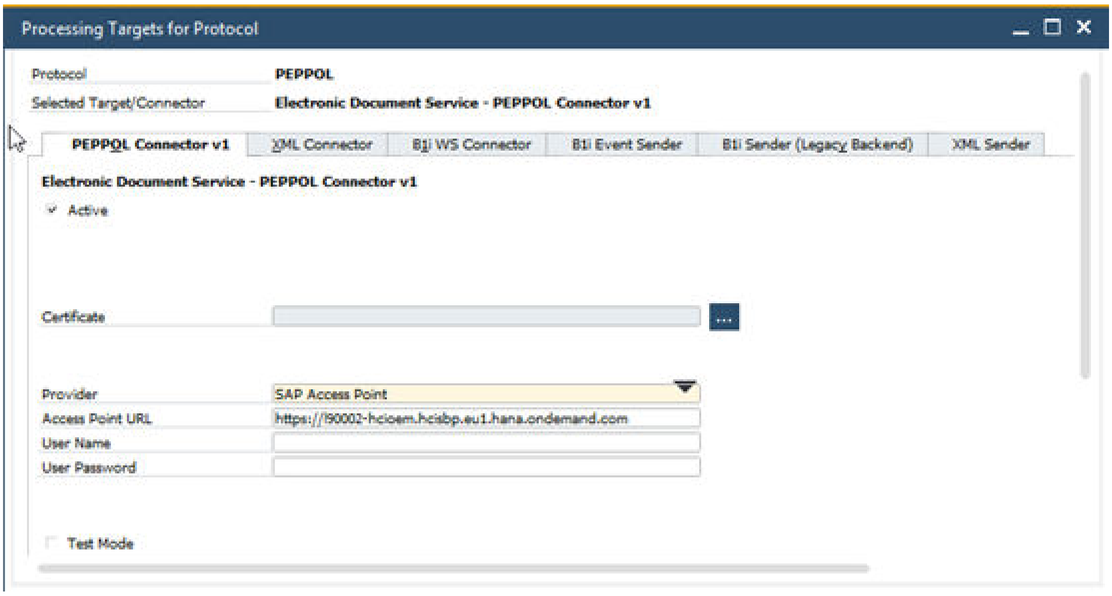
> ⓘ Note
>
> In order to use access the cloud edition of the SAP Document and Reporting Compliance solution, you need a company *Certificate*.

Choose *Administration* > *System Initialization* > *Document Settings* > *Electronic Documents* tab.



Some additional details about the fields for Peppol on the *Electronic Documents* tab follow:

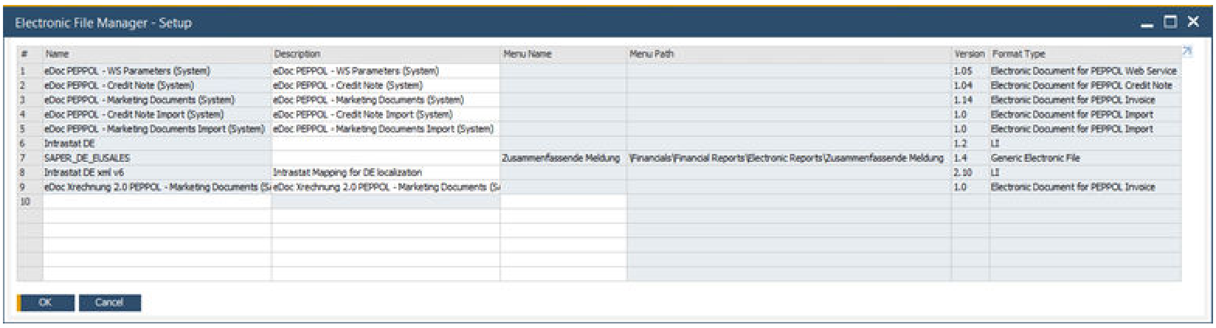
- Add a *Peppol VAT Structure*, for example, the Peppol VAT structure for Germany is 9930.
- Add the *Participant ID* as defined in Peppol Exchange.
- Choose *Document Mapping Determination* to select a format file that you have uploaded to *Electronic File Manager*.
- Option *Processing Target Setup* opens the window *Processing Targets for Protocol*, which gives you several target and connector options on different tabs. The tab *Peppol Connector v1* shows the details and settings for a connector through EDS.



For more information about the initial release and set up for Peppol, see SAP Note 2915144. For information about changes released for Peppol and connectors in version 10.0 SP 2311, see SAP Note 3378987.

3.5 Electronic File Manager

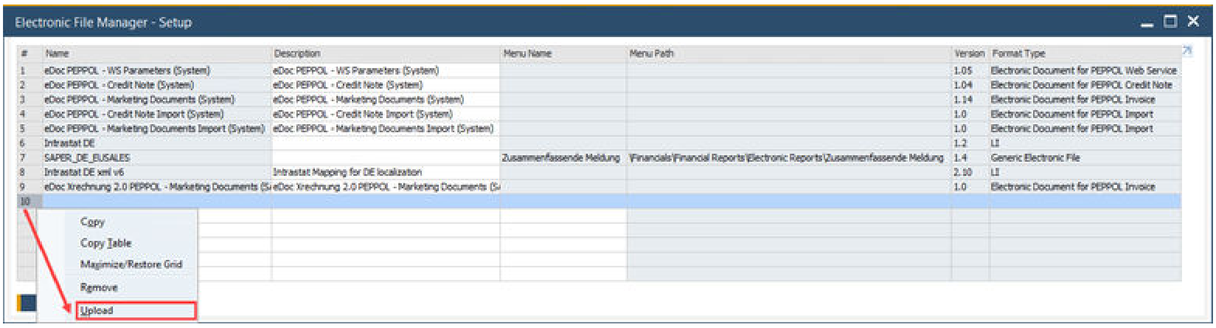
Choose *Administration* > *Setup* > *General* > *Electronic File Manager*.



From SAP Note 2957995 you can download the currently valid XRechnung format.

You can make changes to the downloaded file in *Electronic File Manager: Format Definition* (also known as Electronic File Manager Designer) to meets your business requirements.

After right-clicking the first free line of *Electronic File Manager - Setup*, select *Upload* in the context menu to upload your EFM file for the XRechnung format.

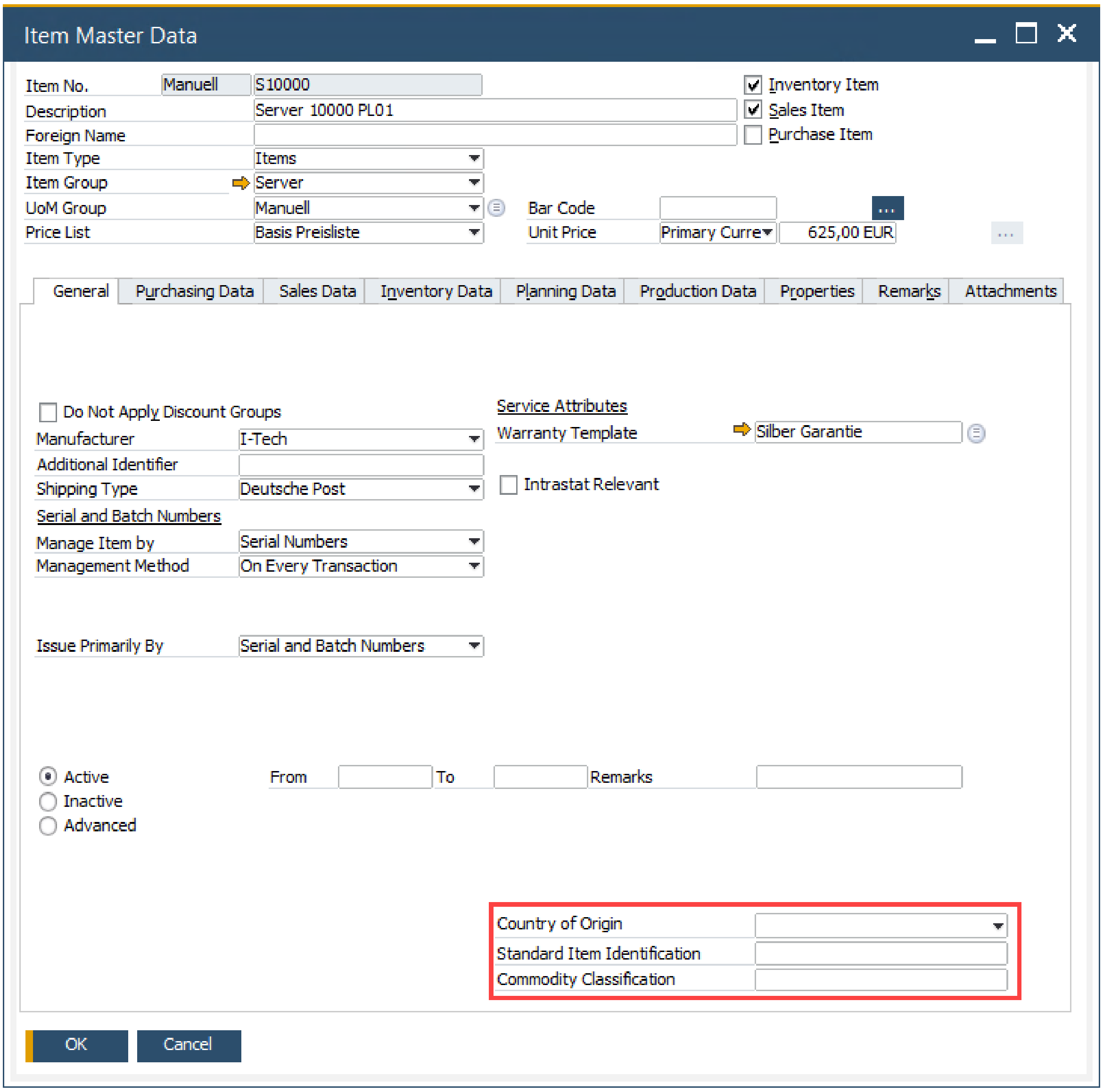


As a result, you can now use the chosen format from EFM to generate an XRechnung.

3.6 Item Master Data

Along with standard item master data that is required for creating business documents, some additional data is needed for items that are included in Xrechnung.

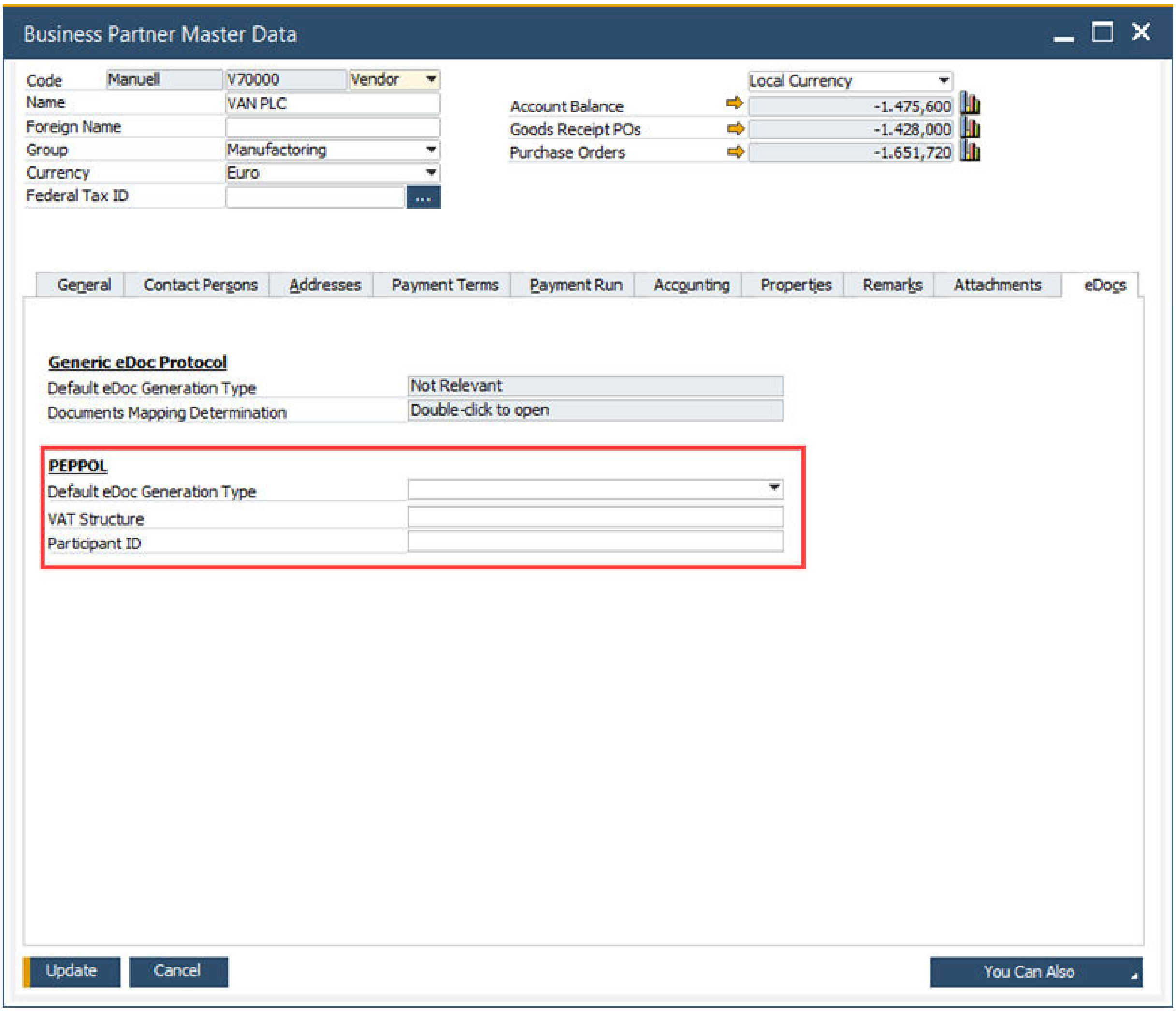
Provide a *Country of Origin*, a *Standard Item Identification*, and a *Commodity Classification* in *Item Master Data*.



3.7 Business Partner Master Data

Along with standard business partner master data that is required for creating business documents, some additonal data is needed for business partners that are included in Xrechnung.

On the *Electronic Documents* tab of business partner master data, enter the Peppol relevant data of the respective business partner. Select a *Default eDoc Generation Type* and provide a *VAT Structure* and a *Participant ID*. The respective business partner should provide you with this.



3.8 Import Wizard for Electronic Documents

For imports of XRechnung using the Peppol protocol, the *Electronic Documents Import Wizard* is required, choose *Purchasing - A/P* > *Electronic Documents Import Wizard*.

The wizard needs to be activated and settings need to be made. For more information, see SAP Note 2915186 and referenced notes.

4 SAP Document and Reporting Compliance, Cloud Edition

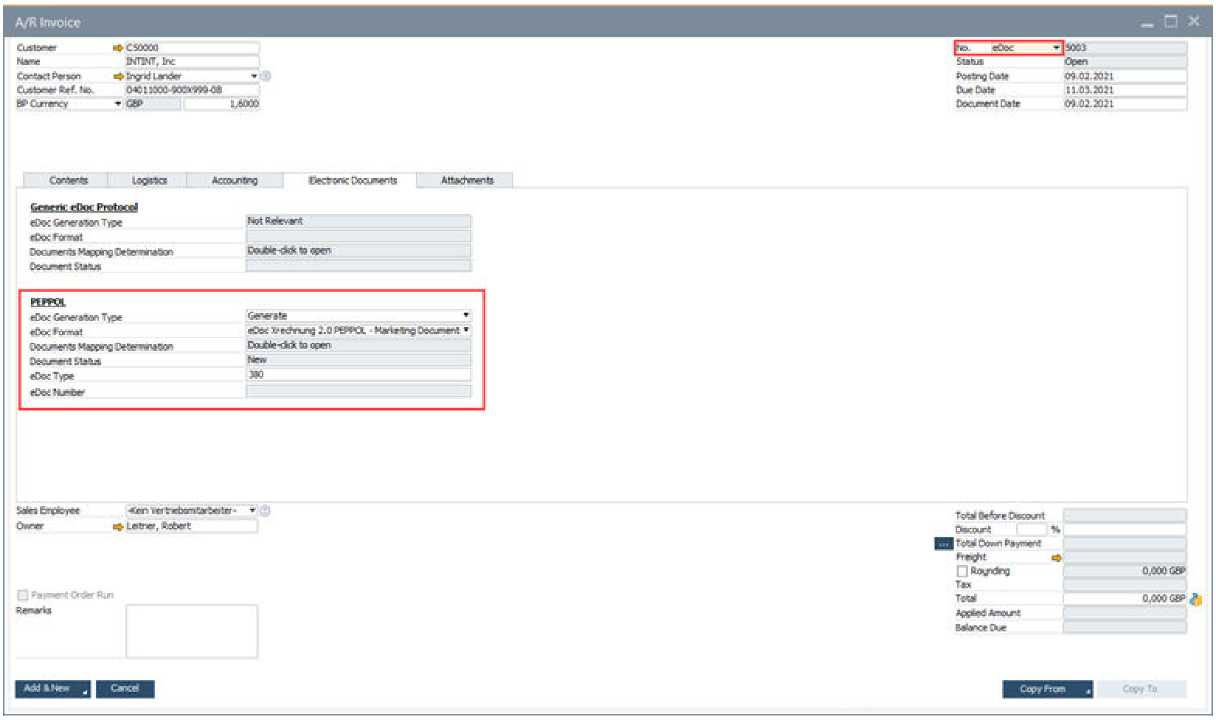
SAP offers the cloud edition of the SAP Document and Reporting Compliance solution as a registered Access Point in the Peppol Network.

- See here to learn more about the cloud edition.
- See here to learn about integrating the cloud edition with SAP Business One.
- See SAP Note 3378987 to learn more about SAP Business One with the cloud edition.

The cloud edition is the supported solution for connecting to the Peppol Network from SAP Business One.

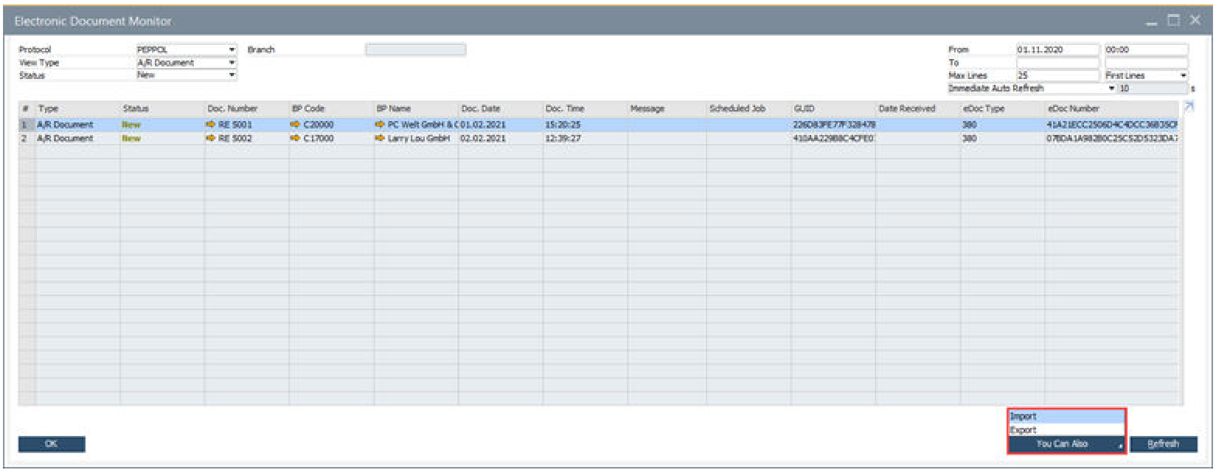
5 Generating and Sending XRechnung

In the A/R invoice window, you can create a new outgoing invoice in XRechnung format. To do this, select *eDoc* as the document number series and enter the Peppol-relevant data if these are not automatically drawn from the master data and settings. You can now create the XRechnung in the correct format using *Add*.



6 Electronic Document Monitor

Use the *Electronic Document Monitor* to see the status of documents and other related information, choose *Reports* > *Electronic Document Monitor*. You can also manage follow-up actions for documents directly through *Electronic Document Monitor*.



You can download generated XML files to the system through *Electronic Document Monitor*. Select the respective invoice, and choose *Export* in *You Can Also*.

7 Appendix

7.1 XRechnung Components

XRechnung comprises the following components, which are used for the transmission of electronic invoices to the public administration or support the technical implementation of the standard and are maintained, updated and provided within the operation:

- Documentation of XRechnung (specification XRechnung)
- Technical implementation of the XRechnung business rules. The technical means for validating the supplementary national business rules are available as schema and XSL files.
  Note: CEN provides the technical means for validating EN 16931
- Genericode files (technical representation of code lists in the OASIS standard "Genericode 1.0")
- Validator and validator configuration (open source reference implementation for checking an XML document for conformity to XRechnung)
- Test suite provision of test cases for example calculations as well as reference messages.
- Components to support the visualization of XRechnung.

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