



XMW

Electronic Reporting System in XML format

– Banking statistics –

**Modifications induced by the new ECB regulation for
reports from December 2009**

© Deutsche Bundesbank July 10

Published by Deutsche Bundesbank (Central Office)
Banking and External Stock Statistics Division (S1)

Wilhelm-Epstein-Strasse 14
60431 Frankfurt am Main, Germany

statistik-s100@bundesbank.de
www.bundesbank.de

Author Dr Jürgen Krelaus (S43-2)
Statistical Information Systems and Mathematical Approaches Division (S4)
Tel +49 69 9566 2399

Version 2010-07-14

Contents

Contents	3
1 About this document	4
2 General information	4
2.1 Work areas	4
2.2 Data delivery	4
2.3 File names	4
2.4 XML	5
2.5 Validation	5
2.6 Banking statistics XML schema files	5
2.7 Notation, character set, declaration and datatypes	5
3 File structure	7
3.1 General structure	7
3.1.1 First hierarchical level: root element	8
3.1.2 Second hierarchical level: reporting element	9
3.1.3 Third hierarchical level: form element	9
3.1.4 Fourth hierarchical level: field element	10
3.2 Special features specific to work areas	11
3.2.1 Special item designations	11
3.2.2 XML format modifications specific to work areas	11
3.2.3 AUSFI work area	12
3.2.4 AUSLT work area	12
3.2.5 AUSTA work area	12
3.2.6 BAUSP work area	14
3.2.7 BISTA work area	15
3.2.8 REGST work area	17
3.2.9 REGVJ work area	18
3.2.10 VJKRE work area	18

1 About this document

This document describes file formats for banking statistics accepted by the Deutsche Bundesbank's XML-based electronic reporting system (*XML-basiertes elektronisches Meldewesen* = XMW). The focus is on specialist content; technical details are presented in simplified form. More detailed documentation (XML schema files) is available separately. If there are any discrepancies or doubts, XML schema files are the sole authentic guideline for creating XML files.

2 General information

2.1 Work areas

Banking statistics comprise

- balance sheet statistics, which are broken down into "domestic MFIs", "foreign branches", "foreign subsidiaries", "building and loan associations" and "regional reports";
- the external position of domestic MFIs, foreign branches and foreign subsidiaries (without any further breakdown by work area);
- borrowers statistics, broken down into the "domestic MFIs" and "regional reports" work areas.

There are currently no plans to present the current version of the safe custody account statistics in XML format because these statistics are being completely redesigned.

The table below lists the work areas and their (German) abbreviations.

Work areas in banking statistics

Statistics	Work area	Abbreviation
Balance sheet statistics	Domestic MFIs	BISTA
	Building and loan associations	BAUSP
	Foreign branches/total reports	AUSFI
	Foreign subsidiaries	AUSLT
	Regional reports	REGST
External status	Banks' (MFIs') external status	AUSTA
Borrowers statistics	Domestic MFIs	VJKRE
	Regional reports	REGVJ

2.2 Data delivery

Files are delivered via the Bundesbank's ExtraNet. More information on this is available on the Bundesbank's website. Normally a data delivery consists of one XML file per sender, reporting date and work area. To circumvent size limits,* a delivery can be spread over more than one XML file. XML files can be compressed into ZIP archives. Distributed XML files in a single delivery can be compressed into a single ZIP archive.

* ExtraNet files have a maximum size of 50 MB. This size limit therefore applies to banking statistics files in XML format as well.

2.3 File names

A complete file name consists of the name, a dot and the three-letter file extension. All letters in the file name are written in lower case. The file extension for XML files is **.xml**; for ZIP archives, it is **.zip**. The name is made up of the work area abbreviation and a date, given as *YYMM* (eg September 2006 is shown as 0609). If a data delivery is spread over more than one XML file, a counter in *_XX* form is added to the name, beginning with *_00*. All file names must give some indication of the content. Examples:

- **bista0611.xml** Balance sheet statistics of domestic banks for the November 2006 reporting month in XML format.
- **vjkre0506_03.xml** Fourth (!) file of a data delivery on borrowers statistics for the June 2005 reporting date.
- **regst0412.zip** ZIP archive from an XML file called **regst0412.xml** or from more than one XML file with names ranging between **regst0412_00.xml** and **regst0412_99.xml**.

The file names can also be given in short form (8-digit name, dot, three-letter extension). All valid file name formats are given in the table below.

Valid file names

Work area	Long form (YYMM = Year/Month)	Long form, spread (XX=00 to 99)	Short form	Short form, spread (XX=00 to 99)
AUSFI	ausfi YYMM.xml	ausfi YYMM_XX.xml	ausf YYMM.xml	af YYMMXX.xml
AUSLT	auslt YYMM.xml	auslt YYMM_XX.xml	ausl YYMM.xml	at YYMMXX.xml
AUSTA	austa YYMM.xml	austa YYMM_XX.xml	aust YYMM.xml	as YYMMXX.xml
BAUSP	bausp YYMM.xml	bausp YYMM_XX.xml	baus YYMM.xml	bp YYMMXX.xml
BISTA	bista YYMM.xml	bista YYMM_XX.xml	bist YYMM.xml	bi YYMMXX.xml
REGST	regst YYMM.xml	regst YYMM_XX.xml	regs YYMM.xml	rs YYMMXX.xml
REGVJ	regvj YYMM.xml	regvj YYMM_XX.xml	regv YYMM.xml	rv YYMMXX.xml
VJKRE	vjkre YYMM.xml	vjkre YYMM_XX.xml	vjkr YYMM.xml	vk YYMMXX.xml

2.4 XML

XML (Extensible Markup Language) is the industry standard for defining documents with hierarchically structured content. Files are structured using elements and attributes. An element consists of a start-tag `<ElementName>`, the element content and an end-tag `</ElementName>`. Data or further elements form the content of the element. In the start-tag attributes can be added to the element using the following syntax: `attributname="Attributwert"`. Each XML document has a tree structure with a unique root element. XML is case-sensitive.

Example of basic XML structure

```

<!-- this is a comment -->
<WurzelElement name="wurzel">
  <!-- Element mit dem Attribut name-->
  Wurzeldaten <!-- Daten als Elementinhalt-->
  <KindElement nummer="1">
    <!-- Unterelement als Elementinhalt-->
    Kind-1-Daten
  </KindElement>
  <KindElement nummer="2">
    Kind-2-Daten
  </KindElement>
</WurzelElement>

```

2.5 Validation

Permitted forms of content for elements or attributes are defined using document type definitions (DTDs) or XML schema definitions (XSDs). Frequently used structures are combined to form datatypes which can then be used in various places in an XML document. An XML file meeting the formal criteria of DTDs or XSDs is said to be valid.

2.6 Banking statistics XML schema files

The Bundesbank posts schema definitions on its website. The **BbkXmwBasis.xsd** and **BbkXmwBsm.xsd** files are needed to create and validate banking statistics reports. They form the basis for this description.

2.7 Notation, character set, declaration and datatypes

In XMW the names of elements are written in capital letters and those of attributes in small letters. If different elements are located at the same hierarchical level, the sequence of elements generally needs to be noted. The sequence of attributes is insignificant. The character set is *Latin-1/West European (ISO-8859-1)*. Each XML report begins with the XML declaration, which never changes.

XML declaration

```
<?xml version="1.0" encoding="ISO-8859-1"?>
```

The XMW schema definitions contain self-defined datatypes. The following types are helpful for understanding these instructions.

alphanum datatype

The *alphanum* datatype is used for text content, eg name fields. Data of this type may be up to 80 characters in length. In principle, all characters in the character set are permitted; the XML special characters <, >, &, " and ' are rewritten as <, >, &, " and '. Multiple space characters, tabs and line breaks are interpreted as a single space character.

adresse datatype

The *adresse* datatype describes address data. It is used in the ERSTELLER, ADRESSAT, ABSENDER, and MELDER elements and has the following subelements.

Element	Nec ¹	Value range/format	Contents
BLZ or RZLZ or TESTLZ	+	8 or 9 digits R followed by 8 digits T followed by 8 digits	BLZ: Bank sort code for MFIs RZLZ: Computer centre code for other file submitters TESTLZ: Code for testing purposes The nine-digit form with check digit is the preferable choice for a BLZ
NAME	+	<i>alphanum</i>	Name of the institution
STRASSE or POSTFACH	-	<i>alphanum</i>	Street/PO box
PLZ	-	<i>alphanum</i> , 1–10 places	Post code
ORT	-	<i>alphanum</i>	Place
LAND	-	2 capital letters	Host country ISO code (ISO-3166)
KONTAKT	-	Subelements see below	Contact person or agency

¹ Column "Nec": +/- means "necessary" and "optional" respectively

The KONTAKT element contains information on how to contact a person or unit for further information. It contains the following subelements.

Element	Nec	Value range/format	Contents
ANREDE	-	<i>alphanum</i>	Form of address (Dr, Prof etc) of the contact person
VORNAME	-	<i>alphanum</i>	Contact person's first name
ZUNAME	+	<i>alphanum</i>	Contact person's last name or the name of the contact unit
ABTEILUNG	-	<i>alphanum</i>	Contact person's division
TELEFON	-	Sequences of digits; optionally with "(.)" or "/" to signify the area code, "-" for the extension and spaces for structuring the number	Telephone (direct dial to contact person)
FAX	-	see TELEFON	Fax number
EMAIL	-	characters@characters	E-mail address (personal or unit address)
EXTRANET-ID	-	8 Letters starting with "EXN"	Login name for the Bundesbank ExtraNet, if available

Example of adresse datatype in XML

The example shows an element of the *adresse* datatype with all optional information.

```
<MELDER>
  <BLZ>123456789</BLZ>
  <NAME>Musterbank</NAME>
  <STRASSE>Bankstraße 12</STRASSE>
  <!-- oder <POSTFACH>12</POSTFACH>-->
  <PLZ>67891</PLZ>
  <ORT>Bankstadt</ORT>
  <LAND>DE</LAND>
  <KONTAKT>
    <ANREDE>Frau</ANREDE>
    <VORNAME>Inge</VORNAME>
    <ZUNAME>Müller</ZUNAME>
    <ABTEILUNG>K1</ABTEILUNG>
    <TELEFON>023/121414-11</TELEFON>
    <FAX>023/121414-21</FAX>
    <EMAIL>i.mueller@kl.musterbank.de</EMAIL>
```

```
<EXTRANET-ID>EXNABCDE</EXTRANET-ID>
</KONTAKT>
</MELDER>
```

The shortest possible form is

```
<MELDER>
  <BLZ>123456789</BLZ>
  <NAME>Musterbank</NAME>
</MELDER>
```

3 File structure

3.1 General structure

All XML banking statistics files share a four-level structure. The root element is on the first level. It comprises data delivery and contains, besides general address information, one or more report elements on the second level. Each report element contains the reports of a single MFI. The report elements contain form elements on the third hierarchical level. Each form element combines the data to be reported from a single form. It contains the field elements on the fourth hierarchical level for this purpose.

XML example

The following XML file with minimal content shows the basic XML structure used for banking statistics. It shows a delivery for the BISTA work area consisting of a report from a single MFI. The report contains only a single form with a single field content. A realistic data delivery contains several field elements per form, several forms per report and, as appropriate, more than one report (MFIs) by the sender.

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<LIEFERUNG-BISTA
  xmlns="http://www.bundesbank.de/xmw/2003-01-01"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="BbkXmwBsm.xsd"
  erstellzeit="2003-08-11T11:00:00"
  version="1.0"
  stufe="Produktion"
  bereich="Statistik">
  <ABSENDER>
    <RZLZ>R12345678</RZLZ>
    <NAME>Rechenzentrum X</NAME>
  </ABSENDER>
  <MELDUNG erstellzeit="2003-08-11T11:00:00">
    <MELDER>
      <BLZ>500005005</BLZ>
      <NAME>bank</NAME>
    </MELDER>
    <MELDETERMIN>2003-08</MELDETERMIN>
    <FORMULAR name="B1" modus="Normal">
      <FELD pos="Z100S11">452456</FELD>
    </FORMULAR>
  </MELDUNG>
</LIEFERUNG-BISTA>
<!--
  das Attribut  xsi:noNamespaceSchemaLocation="BbkXmwBsm.xsd"
  kann ersetzt werden durch
  xsi:schemaLocation="http://www.bundesbank.de/xmw/2003-01-01
  BbkXmwBsm.xsd"
-->
```

3.1.1 First hierarchical level: root element

The root element is called `LIEFERUNG-ARBEITSGEBIET`. For `ARBEITSGEBIET` the abbreviation for the work area is to be entered in capital letters, eg `LIEFERUNG-AUSFI` for foreign subsidiaries' balance sheet statistics reports.

Attributes of the root element

Name	Nec	Value range/format	Contents
version	+	1.0	Version of XMW schema; currently fixed
erstellzeit	+	YYYY-MM-DDThh:mm:ss For example: 2004-08-21T12:00:00	Date and time of file creation
stufe	+	Test Production	Distinguishes between test and production data
dateireferenz	-	0 to 99	Counter if delivery is spread across more than one XML file. Corresponds to the counter in the name of the spread files.
bereich	+	Statistics (supervision)	Statistics for all work areas in banking statistics
xmlns or xmlns:bbk	+	http://www.bundesbank.de/xmw/2003-01-01	Empty prefix (preferred) or prefix "bbk:" for the name space of the Deutsche Bundesbank
xmlns:xsi	+	http://www.w3.org/2001/XMLSchema-instance	Prefix "xsi:" for the name space of the XML schema definition
xsi:noNameSpaceSchemaLocation	+	[Pfad]BbkXmwBsm.xsd	Search path for the XML schema file ¹
xsi:schemaLocation	+	http://www.bundesbank.de/xmw/2003-01-01 [Pfad]BbkXmwBsm.xsd	Alternative search path for the XML schema file ¹

¹ The search path [path] for the schema file has to be adapted to the software installed locally. Please ensure that the schema file `BbkXmwBsm.xsd` includes the second schema file `BbkXmwBasis.xsd`. A path adjustment may also be necessary here.

Elements of the root element

Element	Nec/Rep ¹⁾	Value range/format	Contents
ABSENDER	+	adresse	Address of the delivering institution. See description of the <i>adresse</i> datatype for further details.
ERSTELLER	-	adresse	Address of the file creator, if not same as sender
ADRESSAT	-	adresse	Optional information on the addressee of the report. N/A if submitted to the Deutsche Bundesbank. Intended for data exchange with third parties.
KOMMENTAR	-	alphanum	Comment by sender; generally N/A
MELDUNG	+/+	Report element see below	Report by an MFI for the work area specified in the root element. The report includes the MFI's address, the report date and the contents of the forms required to be reported by the work area.

¹ Column Rep: + means repeatable

Sample root element in XML

```
<LIEFERUNG-REGST
  xmlns="http://www.bundesbank.de/xmw/2003-01-01"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation=
    "http://www.bundesbank.de/xmw/2003-01-01 BbkXmwBsm.xsd"
  erstellzeit="2003-08-14T11:15:00" version="1.0"
  stufe="Produktion"
  bereich="Statistik">
  <ABSENDER>
    <RZLZ>R12345678</RZLZ>
    <NAME>Rechenzentrum</NAME>
  </ABSENDER>
  <!-- weitere optionale Elemente -->
  <MELDUNG [ggf. Attribute von MELDUNG]>
```

```

    <!-- Inhalt des Meldungselements-->
  </MELDUNG>
</LIEFERUNG-REGST>

```

3.1.2 Second hierarchical level: reporting element

The reporting element contains an MFI's report at a given reporting date. It includes address data and all forms required for submission. The element is called `MELDUNG` and contains the `erstellzeit` attribute. Additional attributes are required in some work areas.

Attributes of the reporting element

Name	Nec	Value range/format	Contents
erstellzeit	+	YYYY-MM-DDThh:mm:ss For example: 2004-08-21T12:00:00	Date and time the MFI's report was created

Subelements of the reporting element

Element	Nec/Rep	Value range/format	Contents
MELDER	+	adresse	Reporting party's master data. The first subelement is called <code>BLZ</code> and contains the MFI's bank sort code; the other elements are optional. Contact information should be provided to enable subject-related queries.
KOMMENTAR	-	alphanum	For messages by the MFI; generally N/A.
MELDETERMIN	+	YYYY-MM Example: 2005-07	Reporting period
FORMULAR	+/+	Form element	Content of a form.

Sample reporting element in XML

```

<!-- Auszug aus einer LIEFERUNG-BISTA -->
<MELDUNG erstellzeit="2005-12-31T10:34:40">
  <MELDER>
    <!-- Inhalt vom Typ adresse -->
  </MELDER>
  <MELDETERMIN>2005-12</MELDETERMIN>
  <Formularelement [ggf. Attribute des Formularelements]>
    <!-- Inhalt des Formularelements -->
  </Formularelement>
</MELDUNG>

```

3.1.3 Third hierarchical level: form element

The form element is generally called `FORMULAR`. It describes the forms for each work area, which have a uniform structure. The `name` attribute is used for making a distinction. All additional attributes are optional.

Attributes of the form element

Name	Nec	Value range/format	Contents
name	+	Enumeration type specific to work area	Form name, depending on work area.
pruefung	-	Nein Fehler Erfuellt	Result of a plausibility check run by reporter/sender. Standard value: Nein (no), ie not checked.
korrektur	-	Yes No	Indicates whether data on the form have already been reported and are to be corrected. Even in the case of this type of correction report, all form contents, and not only altered field content, area to be re-reported. Standard value: no.
modus	-	Normal Bewkorr	Distinction between forms and assigned valuation correction forms. Standard value: normal, ie no value correction form.

Subelements of the form element

Element	Nec/Rep	Value range/format	Contents
KOMMENTAR	-	alphanum	Remarks on the form
FELD	-(+)	Field element see below	Content of a form field.

Sample form element in XML

```
<!-- Auszug aus einer LIEFERUNG-BISTA -->
<!-- Bewertungskorrektur zu Anlage B3 -->

<FORMULAR name="B3" modus="Bewkorr">
  <FELD pos="Z112S01">2341</FELD>
  <FELD pos="Z112S02">214</FELD>
  <FELD pos="Z112S03">4323</FELD>
  <FELD pos="Z112S04">425</FELD>
  <!-- (...) weitere Felder -->
</FORMULAR>
```

Sample empty form element in XML

```
<!-- Auszug aus einer LIEFERUNG-BISTA -->
<!--Leeres Formulare B3, keine Bewertungskorrektur-->

<FORMULAR name="B3"/>
```

Notes on content

A missing form element is interpreted as a missing report on the relevant form. Forms which are not required to be reported therefore do not show up in the report file. An empty form element, by contrast, is an explicit report on a form in which zeroes are entered in all items. The above sample empty form element is a B3 form which is required to be reported and in which all values are zero.

3.1.4 Fourth hierarchical level: field element

The field element is called FELD and contains the entry of a form position. It contains the following attributes.

Attributes of the field element

Name	Nec	Value range/format	Contents
einheit	-	Anzahl Prozent Waehrung Relation (Datum) (JaNein)	Information on the unit of the form field entry. Values in brackets are not used in banking statistics. The standard value is currency.
dim	-	cnt Tsd Mio	Quantity factor for numerical field entries. cnt=1/100, Tsd=1,000, Mio=1,000,000. If this attribute is missing, the factor expected in the form is imputed (generally Tsd).
iso-w	-	Three capital letters eg USD, EUR, SFR	ISO code of the currency in which field entries are given. The standard value is EUR.
pos	+	ZXXSYY Example: Z123S07	Position designation of the form field. Line-column form with three digits for the line and two digits for the column.

Contents of the field element

The element contains a number in *double* format. Examples are 12345, -5, +34, 1.32, -1E-3. Whole numbers are generally sufficient for the balance sheet positions of all banking statistics. A period is used as the decimal separator. A null item is reported by an explicit field element containing 0 or by leaving out the field element. The latter option is preferable for keeping the file size small.

Item designations

The item designations, ie the values of the `pos` attribute, are generally given as ZXXXSYY. They may be extracted from the paper forms. Most forms are structured as tables with three-digit line numbers XXX and two-digit column numbers YY which are combined to form the item designation ZXXXSYY.

Some forms are not structured as tables. For these exceptional cases, the method of ascertaining the item designations is described separately.

Sample field element in XML

```

<!-- Ausführlich -->

<FELD einheit="Waehrung" dim="Tsd" iso-w="EUR" pos="Z112S01">
  2341
</FELD>

<!-- Kurzform -->

<FELD pos="Z112S01">
  2341
</FELD>

```

3.2 Special features specific to work areas

3.2.1 Special item designations

The main forms HV of work areas AUSFI, BISTA, BAUSP have four subforms called HV 11, HV 12, HV 21 and HV 22, the item designations of which are three-digit line numbers. In the XML reporting system the subforms are combined into a single form. The items on the form are designated in line-column format. The line numbers are those of the subforms, while the column numbers are the subform numbers 11, 12, 21 or 22. For example, item 010 of the HV 11 subform is encoded as Z010S11.

The main form THV of the AUSLT work area consists of two sheets called THV 1 and THV 2 with three-digit line numbers. The sheets are combined. The items of the combined form are designated in line-column format, the line numbers being those of the sheets and the sheet numbers (01 or 02) being column numbers. For example, item 010 of the THV 1 subform is encoded as Z010S01.

Form J of the subject area BAUSP has line numbers only. The items are reported in line-column format as ZXXXS00, with the three-digit form number being inserted for XXX.

Form D9 of the subject area REGST has only line numbers under "Additional information on assets and liabilities". The items are reported in line-column format as ZXXXS00, with the three-digit form number being inserted for XXX.

The item designations for the main form of the AUSTA work area are described under special features specific to work areas.

3.2.2 XML format modifications specific to work areas

In the work areas, the basic XML structure will require varying degrees of modification. The name of the root element needs to be modified in all work areas. The `name` attribute of the form element may only contain the values allowed in the relevant work area. Individual work areas require additional or modified content.

The table below provides a rough overview of modifications. These modifications are described in the following sections in greater detail.

XML element modifications specific to work areas

Element	Root element	Reporting element	Form element			Field element
			name attribute	special attributes	Specific name FORMULAR-XX	
Modification	Name	Additional attributes	name attribute	special attributes	Specific name FORMULAR-XX	Specific attributes
AUSFI	+	+	+		+	
AUSLT	+		+			
AUSTA	+	+	+		+	+

BAUSP	+		+	+	+	
BISTA	+		+	+	+	
REGST	+		+	+		
REGVJ	+		+	+		
VJKRE	+		+			

3.2.3 AUSFI work area

Formal modifications to XML file

Name of the root element	LIEFERUNG-AUSFI
Additional attribute <code>typ</code> in the MELDUNG element with the possible values	Branch Total
Values of the <code>name</code> attribute in the FORMULAR element	A1, A2, B1, C1, C2, D1, D2, E1, E2, E4, F1, F2, HV For building and loan associations with foreign branches also B2
Special form elements	FORMULAR-O2, FORMULAR-P1, FORMULAR-S1

Both structure and attributes of the special form elements agree with those of the BISTA area, see section 3.2.7.

XML example

```
<MELDUNG typ="Filiale" erstellzeit="2005-12-31T14:34:00">
  <!-- Inhalt des Meldungselements -->
</MELDUNG>
```

Notes on content

The MELDUNG element has the additional attribute `typ`. Individual reports by foreign branches are reported as `typ="Filiale"`. In the MELDER element of the BLZ element the pseudo-bank sort code of the foreign branch is entered. Overall reports are reported as `typ="Gesamt"`. In that case, the domestic institution's bank sort code is to be entered.

3.2.4 AUSLT work area

Formal modifications to XML file

Name of the root element	LIEFERUNG-AUSLT
Values of the <code>name</code> attribute in the FORMULAR element	THV, TA, TB

Notes on content

The BLZ of the MELDER element is the pseudo-bank sort code of the foreign branch of a domestic MFI.

3.2.5 AUSTA work area

Formal modifications to XML file

Name of the root element	LIEFERUNG-AUSTA
Additional attribute <code>typ</code> in the MELDUNG element with the potential values	Domestic Branch Subsidiary
Additional attribute <code>buchwaehrung</code> in the MELDUNG element in the format	ISO currency code of book currency
Values of the <code>name</code> attribute in the FORMULAR element	FW
Specific form element	FORMULAR-R for main forms

Attributes of the FORMULAR-R form element

Name	Nec	Value range/format	Contents
pruefung		as in FORMULAR	
modus		as in FORMULAR	
korrektur		as in FORMULAR	
seite	+	11, 12, 21, 22	Subdivision of pages of main forms
meldewaehrungEuro	-	ja/nein	marker for "field content reported in Euro"

Attributes of the FELD field element of the FORMULAR-R form element

Name	Nec	Value range/format	Comments
einheit		as in the general field element	
dim		as in the general field element	
iso-w	+	3 capital letters	ISO currency code
iso-land	+	2 capital letters or one digit and one capital letter	2 letters: a country's ISO code Number and letter: pseudo-ISO code of an international organisation
pos	+	Three-digit item information	XS: sum column Line number of the form field

The following sample of a complete XML file of the AUSTA work area with minimal content illustrates the special features of the FORMULAR-R element.

XML example of the use of the FORMULAR element

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<LIEFERUNG-AUSTA
  erstellzeit="2004-03-01T10:00:00"
  version="1.0"
  stufe="Produktion"
  bereich="Statistik"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="http://www.bundesbank.de/xmw/2003-01-01"
  xsi:schemaLocation=
    "http://www.bundesbank.de/xmw/2003-01-01 BbkXmwBsm.xsd">
  <ABSENDER>
    <RZLZ>R12456078</RZLZ>
    <NAME>Rechenzentrum AG</NAME>
  </ABSENDER>
  <MELDUNG   erstellzeit="2004-03-01T10:00:00"
             buchwaehrung="EUR"
             typ="Tochter">
    <MELDER>
      <BLZ>12345678</BLZ>
      <NAME>Italienische Tochterbank</NAME>
    </MELDER>
    <MELDETERMIN>2004-02</MELDETERMIN>
    <FORMULAR-R
      pruefung="Fehler"
      modus="Normal"
      seite="11">
      <FELD pos="123" iso-w="EUR" iso-land="IT">
        7547
      </FELD>
    </FORMULAR-R>
  </MELDUNG>
</LIEFERUNG-AUSTA>
```

Notes on content

A detailed description of the content can be found in the Bundesbank publication "Banking statistics, guidelines and customer classification". The MELDUNG element has the additional attribute `typ`. Here, domestic MFIs enter "Inland", foreign branches "Filiale" and foreign subsidiaries "Tochter". The `buchwaehrung` attribute contains the accounting currency of the MFI. For domestic MFIs and foreign branches, this is expected to be Euro.

The main forms are described with the FORMULAR-R form element. The name attribute is not applicable to this element. Instead, the `seite` attribute appears for breakdown into a maximum of four different pages. Each column of the printed form corresponds to a report referring to one country and one currency. The sequence and number of countries is insignificant. Instead of using columns and lines, field content is assigned using both positions (attribute `pos`) and the information on the country and the currency (attributes `iso-land` and `iso-w`). This information corresponds to the country and currency keys to be provided in the table header of the printed form. The ISO codes to be used can be taken from the Bundesbank publication "Banking statistics, guidelines and customer classification". For international organisations as well as for the sum column, pseudo-ISO codes are used. The code for the sum column is `XS`.

The FORMULAR-R element must have a `meldewaehrungEuro` attribute with a value of "ja" if the content of the FELD elements for individual countries is reported in Euro. If this attribute is missing or if it has a value of "nein", the content of the FELD elements is expected to be shown in the currency of the respective `iso-w` attribute. The FELD elements of the *sum column* are *always* shown in the currency of their `iso-w` attribute. For limitations in the choice of currencies see "Banking statistics, guidelines and customer classification".

The table below gives an overview of how the paper forms are displayed in XML.

Name of the paper form	seite attribute in the FORMULAR-R element (<i>use optional</i>)	modus attribute in the FORMULAR-R element	Attribute <code>typ</code> in the MELDUNG element
Main form "External assets" sheet 1 and continuation	11	Normal	Inland
Supplement to sheet 1 of main form "External assets" (changes through value corrections) and continuation	11	Bewkorr	Inland
Main form "External assets" sheet 2 and continuation	12	Normal	Inland
Supplement to sheet 2 of main form "External assets" (changes through value corrections) and continuation	12	Bewkorr	Inland
Main form "External liabilities" sheet 1 and continuation	21	Normal	Inland
Main form "External liabilities" sheet 2 and continuation	22	Normal	Inland
Main form "External assets of foreign branches" and continuation	11	Normal	Filiale
Main form "External liabilities of foreign branches" and continuation	21	Normal	Filiale
Main form "External assets of foreign subsidiaries" and continuation	11	Normal	Tochter
Main form "External liabilities of foreign subsidiaries" and continuation	21	Normal	Tochter

The items of the attachment FW are given with the help of the FORMULAR element in the above-mentioned line-column form. The `typ` attribute in the MELDUNG element is to be set to "Inland" for the attachment FW.

Delivering a void report for external assets is mandatory. In this case, form R11 has to be reported with a value of "0" in the sum column at position 101. Void reports for the attachment FW and for the changes through value corrections are not necessary.

3.2.6 BAUSP work area

Formal modifications to XML file

Name of the root element	LIEFERUNG-BAUSP
--------------------------	-----------------

Values of the name attribute in the FORMULAR element	A1, A2, A3, B1, B2, B3, B5, B6, C1, C2, C3, C4, C5, D1, D2, E1, E2, E3, E4, F1, F2, H, HV, J, K
Special form elements	FORMULAR-O1, FORMULAR-O2, FORMULAR-P1, FORMULAR-S1

Both structure and attributes of the special form elements agree with those of the BISTA area, see section 3.2.7.

3.2.7 BISTA work area

Formal modifications to XML file

Name of the root element	LIEFERUNG-BISTA
Values of the name attribute in the FORMULAR element	A1, A2, A3, B1, B3, B4, B5, B6, B7, C1, C2, C3, C4, C5, D1, D2, E1, E2, E3, E4, F1, F2, H, HV
Special form elements	FORMULAR-O1, FORMULAR-O2, FORMULAR-P1, FORMULAR-S1

Attributes of the form element FORMULAR-O1

Name	Nec	Value range/format	Contents
pruefung	-	as in FORMULAR	
modus	-	as in FORMULAR	
korrektur	-	as in FORMULAR	
fvctxtyp	+	„Traditionelle Verbriefung“, „Sonstige Transaktion“, „Synthetische Verbriefung“	Transaction type. Fixed value „Sonstige Transaktion“
bilanzrelevanz	+	ja/nein	Effect on balance sheet (position 905 of reporting scheme)

Attributes of the form element FORMULAR-O2

Name	Nec	Value range/format	Contents
pruefung	-	as in FORMULAR	
modus	-	as in FORMULAR	
korrektur	-	as in FORMULAR	
txcode	+	alphanumeric	Internal Code of the transaction (position 901 of reporting scheme)
fvcname	+	alphanumeric	Name of FVC (position 902)
fvctrpostf	+	alphanumeric	Street or post office box (position 903)
fvcpbz	+	alphanumeric	Postal code (position 908)
fvccort	+	alphanumeric	City (position 909)
fvcsitzland	+	2 capital letters	Country (position 904), ISO-Code
fvctxtyp	+	„Traditionelle Verbriefung“, „Sonstige Transaktion“, „Synthetische Verbriefung“	Transaction type. Fixed value „Traditionelle Verbriefung“
fvctxfallgruppe	+	„1“, „2“	Case group of the transaction (position 906)
bilanzrelevanz	+	ja/nein	Effect on balance sheet (part of position 905)
fvcservicing	+	ja/nein	Servicing (part of position 905)
fvccoriginator	+	ja/nein	„ja“ if the reporting MFI is the originator (part of position 905). Note: if „nein“ is selected, the attribute values bilanzrelevanz = „ja“ and fvcservicing = „ja“ are expected.
txvolexbista	+	Integer value	Amount not comprised in balance (position 907)

Attributes of the form element FORMULAR-P1

Name	Nec	Value range/format	Contents
------	-----	--------------------	----------

pruefung	-	as in FORMULAR-O2	
modus	-	as in FORMULAR-O2	
korrektur	-	as in FORMULAR-O2	
txcode	+	as in FORMULAR-O2	
fvcname	+	as in FORMULAR-O2	
fvctrpostf	+	as in FORMULAR-O2	
fvcpplz	+	as in FORMULAR-O2	
fvccort	+	as in FORMULAR-O2	
fvcsitzland	+	as in FORMULAR-O2	
fvctxtyp	+	as in FORMULAR-O2	Fixed value „Traditionelle Verbriefung“
fvctxfallgruppe	+	as in FORMULAR-O2	
bilanzrelevanz	+	as in FORMULAR-O2	Fixed value „nein“
fvcservicing	+	as in FORMULAR-O2	Servicing (part of position 905)
fvccoriginator	+	as in FORMULAR-O2	Fixed value „ja“

Attributes of the form element FORMULAR-S1

Name	Nec	Value range/format	Contents
pruefung	-	as in FORMULAR-O2	
modus	-	as in FORMULAR-O2	
korrektur	-	as in FORMULAR-O2	
txcode	+	as in FORMULAR-O2	
fvcname	+	as in FORMULAR-O2	
fvctrpostf	+	as in FORMULAR-O2	
fvcpplz	+	as in FORMULAR-O2	
fvccort	+	as in FORMULAR-O2	
fvcsitzland	+	as in FORMULAR-O2	
fvctxtyp	+	as in FORMULAR-O2	Fixed value „Traditionelle Verbriefung“
fvctxfallgruppe	+	as in FORMULAR-O2	
bilanzrelevanz	+	as in FORMULAR-O2	
fvcservicing	+	as in FORMULAR-O2	Fixed value „ja“
fvccoriginator	+	as in FORMULAR-O2	

Mapping between positions/codes of attachments O1, O2, P1 und S1 and XML attributes

The following table shows the positions 901 to 909 of the attachments O1, O2, P1 und S1 and the dimensional attributes of the XML schema. For specific codes expected in positions 905 und 906, the values of the dimensional attributes are given. Except for position 905, a 1:1 mapping between positions and dimensional attributes exist. Position 905, however, is a combination of three independent pieces of information and is therefore mapped into three independent dimensional attributes.

Form / Position	O1	O2	P1	S1
-	fvctxtyp=„Sonstige Transaktion“	fvctxtyp=„Traditionelle Verbriefung“		
901	-	txcode		
902	-	fvcname		
903	-	fvctrpostf		
904	-	fvcsitzland		
905	Code 1: bilanzrelevanz=„ja“ Code 2: bilanzrelevanz=„nein“	Code 1: bilanzrelevanz = „ja“ fvcservicing = „ja“ fvccoriginator = „ja“ Code 2: bilanzrelevanz = „ja“ fvcservicing = „nein“ fvccoriginator = „ja“ Code 3: bilanzrelevanz = „nein“ fvcservicing = „ja“ fvccoriginator = „ja“ Code 4: bilanzrelevanz = „nein“ fvcservicing = „nein“ fvccoriginator = „ja“ Code 5:	Code 1: bilanzrelevanz = „nein“ fvcservicing = „ja“ fvccoriginator = „ja“ Code 2: bilanzrelevanz = „nein“ fvcservicing = „nein“ fvccoriginator = „ja“	Code 1: bilanzrelevanz = „ja“ fvcservicing = „ja“ fvccoriginator = „ja“ Code 2: bilanzrelevanz = „nein“ fvcservicing = „ja“ fvccoriginator = „nein“ Note.: the attribute bilanzrelevanz refers to the reporting MFI and must be „nein“ for fvccoriginator = „nein“

		bilanzrelevanz = "ja" fvcservicing = "ja" fvoriginator = "nein"		
906	-	Code 1: fvctxfallgruppe="1"		
		Code 2: fvctxfallgruppe="2"		
907	-	txvolexbista	-	-
908	-		fvcpplz	
909	-		fvkort	
908	-		fvcpplz	
909	-		fvkort	

3.2.8 REGST work area

Formal modifications to XML file

Name of the root element	LIEFERUNG-REGST
Values of the name attribute in the FORMULAR element	B8, C8, C9, D8, D9
Attribute bundesland in the FORMULAR element	Abbreviation of Federal state (DIN EN ISO 3166-2)

The bundesland attribute is mandatory and should contain the following values (DIN EN ISO 3166-2)

Federal state abbreviations

Abbre- viation	Federal state
BB	Brandenburg
BE	Berlin
BW	Baden-Württemberg
BY	Bavaria
HB	Bremen
HH	Hamburg
HE	Hesse
MV	Mecklenburg-West Pomerania
NI	Lower Saxony
NW	North Rhine-Westphalia
RP	Rheinland-Palatinate
SH	Schleswig-Holstein
SL	Saarland
SN	Saxony
ST	Saxony-Anhalt
TH	Thuringia

XML example

```
<FORMULAR pruefung="Nein" modus="Normal"
  name="B8" bundesland="BB">

  <!-- Feldelemente -->

</FORMULAR>
```

Notes on content

The bank sort code in the MELDER element is the bank sort code of the reporting MFI. There is no provision for the use of pseudo-bank sort codes for regional reports. An MFI reports the regional reports of all Federal states in a single reporting element by using the bundesland attribute.

3.2.9 REGVJ work area

Formal modifications to XML file

Name of the root element	LIEFERUNG-REGVJ
Values of the name attribute in the FORMULAR element	V6, V7, V8, V9, VR, VS
bundesland attribute in the FORMULAR element	Abbreviation of Federal state (DIN EN ISO 3166-2)

Notes on content

same as for REGST work area

3.2.10 VJKRE work area

Formal modifications to XML file

Name of the root element	LIEFERUNG-VJKRE
Values of the name attribute in the FORMULAR element	V1, V2, V3, V4, VA, VB