



# SLOVENSKI STANDARD

## SIST EN 18158:2026

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### Ravnanje z odpadki - Mobilni informacijski sistemi - Zahteve za vmesnik XML Office-Mobile

Waste management - Mobile IT systems - Requirements for the XML interface Office-Mobile

Abfallwirtschaft - Mobile IT-Systeme - Anforderungen an die XML-Schnittstelle Office-Mobile

Gestion des déchets - Réseaux IT mobiles - Exigences pour l'interface XML Office-Mobile

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35.240.99	Uporabniške rešitve IT na drugih področjih	IT applications in other fields

**SIST EN 18158:2026**

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EUROPEAN STANDARD

**EN 18158**

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2026

ICS 13.030.40

English Version

## Waste management - Mobile IT systems - Requirements for the XML interface Office-Mobile

Gestion des déchets - Réseaux IT mobiles - Exigences  
pour l'interface XML Office-Mobile

Abfallwirtschaft - Mobile IT-Systeme - Anforderungen  
an die XML-Schnittstelle Office-Mobile

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**EN 18158:2026 (E)****European foreword**

This document (EN 18158:2026) has been prepared by Technical Committee CEN/TC 183 “Waste management”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2026, and conflicting national standards shall be withdrawn at the latest by December 2026.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document is intended to be read in conjunction with the digital files of the XSD schema as listed in Annex A.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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## 1 Scope

This document specifies the standard for the digital exchange of data between the disposition (i.e. registered Office) and the mobile waste and recycling collection units (revolving emptying system according to the EN 840 series and the EN 13071 series and refuse collection vehicles according to the EN 1501 series).

The technique of data transmission is not part of this document.

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

### 3.1

#### **Extensible Markup Language**

##### **XML**

language not specific to the system and hardware to illustrate data and their structure in an XML document

Note 1 to entry: An XML document is a text object that contains the data and markup and that defines the structure of the data.

Note 2 to entry: For details see XML – Extensible Markup Language 1.0, Fifth Edition, 26-Nov-2008 [13].

[SOURCE: IEC 62755:2012+A1:2020 (VDE 0493-6-3), 3.1.40]

### 3.2

#### **World Wide Web Consortium**

##### **W3C**

main international standardisation organisation that maintains the definitions for XML and associated standards

[SOURCE: IEC 62755:2012+A1:2020 (VDE 0493-6-3), 3.1.39]

### 3.3

#### **job processing software**

software that generates jobs for mobile technology on a stationary computer and adopts and further processes the job data processed on the mobile technology

### 3.4

#### **mobile technology**

##### **MobT**

computer technology on board the waste disposal vehicle or handheld device via which data is collected on the execution state of the jobs during a waste collection tour (or job processing tour in the further sense)

**EN 18158:2026 (E)****3.5****refuse collection vehicle****RCV**

vehicle used for the collection and transportation of refuse (e.g. household refuse, bulky refuse, recyclable materials) based on loading via refuse containers or by hand

Note 1 to entry: Most of the time it consists of a chassis or rigid chassis onto which a bodywork is mounted. Sometimes it can also be a truck and trailer combination.

Note 2 to entry: An RCV is a special purpose vehicle according to Regulation (EU) 2018/858. Regulation (EU) 2018/858 contains requirements for special purpose vehicles.

[SOURCE: EN 1501-1:2021, 3.1]

**3.6****electronic waste verification procedure****eANV**

waste verification procedure for waste that needs to be verified

Note 1 to entry: This is generally hazardous waste.

**3.7****Office**

registered Office for the waste management company that exchanges information with the vehicles

**3.8****mobile devices**

all of the on board computers and handheld devices (handhelds) used for providing disposal services

**3.9****Office-Mobile interface**

uniform interface for the computer-assisted exchange of information between the Office and the disposal vehicles/mobile devices

**3.10****data transmission**

transfer of data from one point to one or more other points over telecommunication facilities

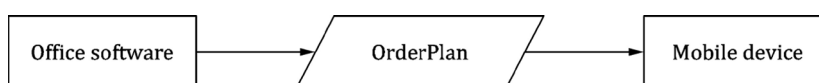
[SOURCE: EN ISO/IEC 19762-1:2012, 01.02.16]

**3.11****OrderPlan**

all of the orders that are processed for a defined period of time

Note 1 to entry: The OrderPlan is used to transfer job data to the mobile device and data to the organization. The OrderPlan contains all of the information required on the mobile device to process jobs.

Note 2 to entry: The job data are subdivided into Tours, Jobs and Services.



**Figure 1 — Linking the OrderPlan into the information structure**

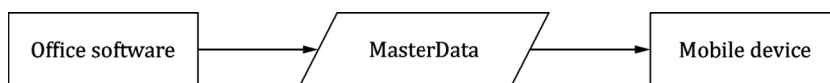
### 3.12

#### MasterData

organisational information that is required on the mobile device to process jobs as part of the OrderPlan

Note 1 to entry: See Figure 2. It can be transmitted to the mobile device with every OrderPlan or in separate files. It contains:

- personnel lists;
- unloading points;
- transponder lists for black/white list;
- messages.



**Figure 2 — Integration of the MasterData into the information structure**

### 3.13

#### OrderReport

report which contains all of the data that is documented as part of job processing and provides confirmation from the vehicle about the OrderPlan

Note 1 to entry: It is generated by the mobile device during the provision of services. The data in the OrderReport provides the Office software with a usage-based invoice of the processed jobs.



**Figure 3 — Integration of the OrderReport into the information structure**

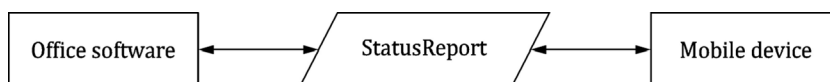
### 3.14

#### StatusReport

report that transmits short status messages and/or status requirements from the Office to the mobile device and vice versa

Note 1 to entry: The StatusReport can be used to exchange requirements or information on the job processing procedure, the position of the mobile device and job-independent status information (see Figure 4).

Note 2 to entry: No performance data are transmitted with the StatusReport.



**Figure 4 — Integration of the StatusReport into the information structure**

**EN 18158:2026 (E)****3.15****tour**

## sequencing of individual services and jobs

Note 1 to entry: To cover the event that a RCV/mobile device processes several disposal areas, several tours can be transmitted at the same time. They are summarized in a TourList.

A tour primarily includes:

- description and identification of the tour using a name;
- all job data;
- amendment information, validity;
- references to “Black list”/”White list” (TransponderLists) and unloading points, which have been transmitted in MasterData;
- applicable documents (e.g. from eANV – electronic waste verification procedure);
- tour profile for activating/deactivating certain functions of the RCV.

**3.16****job**

## individual work order from the tour

Note 1 to entry: A job contains the necessary information to process jobs at a site (a place of performance). Essentially, this includes:

- site where a job is to be executed;
- customer for whom a job is to be executed (generator);
- services to be provided;
- additional information;
- information about a route (tour specification).

Note 2 to entry: All of the jobs in a tour are summarized in a JobList.

EXAMPLE Handling the vessel.

**3.17****service**

## activities for the individual work order

Note 1 to entry: A service contains the information on the services that are to be provided at the place of performance. Essentially, this includes:

- planned time of the service provision;
- quantity specification regarding the service to be provided;
- container data;
- material data;

- activities (work process);
- processing status.

Note 2 to entry: All services of a job are summarized in a ServiceList.

EXAMPLE positioning, emptying and replacing a container.

### 3.18

#### **disposal XML schema**

information to be exchanged in a structure which is normal for XML

Note 1 to entry: XML and XML schema are recommendations of the World Wide Web Consortium (W3C).

### 3.19

#### **EventLog**

central point for collecting all of the data accumulated for a job

### 3.20

#### **ComplexType**

description of the enumeration types divided into their elements and attributes

## 4 Objective of the Office-Mobile interface

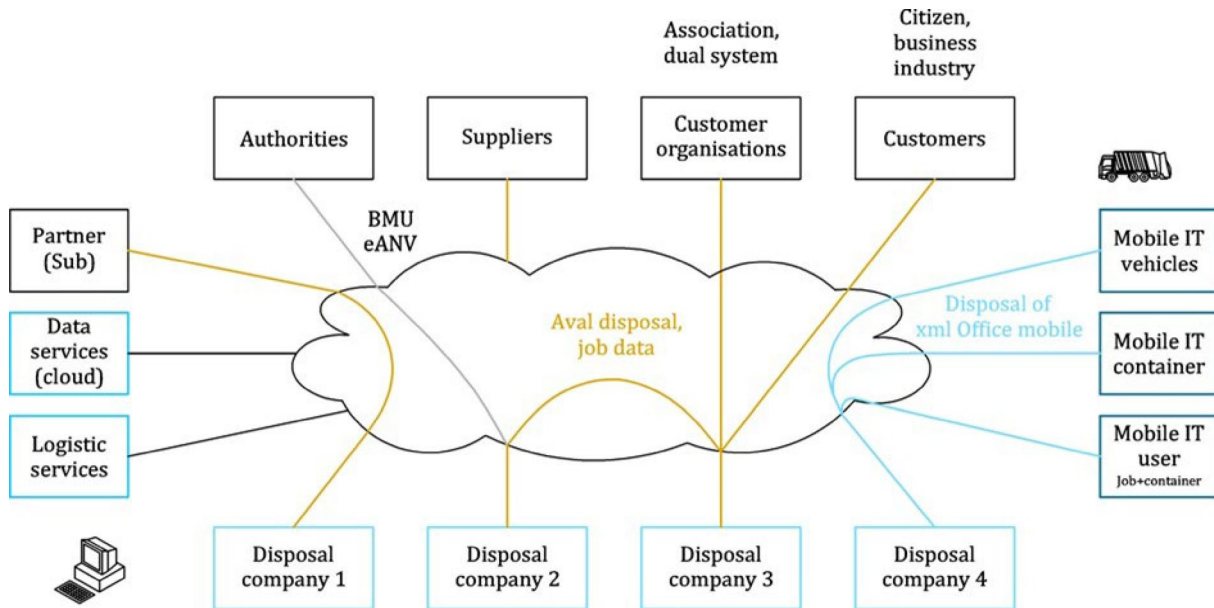
The interface enables data to be exchanged between components (Office and the waste disposal vehicles/mobile devices) including ones from different manufacturers. In this way, the waste disposal companies are more flexible, when it comes to the selection of components to support the disposal process.

## 5 Interfaces

### 5.1 Classification of the interface

Figure 5 shows an overview of the interfaces in the waste management industry and the classification of the Office-Mobile waste interface described here.

## EN 18158:2026 (E)

**Key**

BMU Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection

eANV electronic waste verification procedure

Aval exchange of job-specific performance data

**Figure 5 — Classification of the interface**

## 5.2 Interface — Exchange of information in files

The interface between the mobile technology for job processing on disposal vehicles and mobile devices shall be realized by data in XML format. See Figure 6.

This data are exchanged in the form of files. The following file names are used within this document for the purpose of uniform naming. In this specific case, the file names may deviate and contain a date stamp, mobile device ID etc.:

- The file OrderPlan.xml contains all of the information transmitted from the Office to the mobile device (see Figure 1).
- The file MasterData.xml contains organisational data and is transmitted from the Office to the mobile device where necessary (initial preparation, amendment of MasterData) (see Figure 2).
- The file OrderReport.xml contains all of the information transmitted from the mobile device to Office (see Figure 3).
- The file StatusReport.xml contains current status messages on the job processing and is used to update the Office software.

All of the information for processing the job is included in the files.

Generally, jobs are generated by an Office software. The job data are made available to the mobile technology. The execution of the jobs is documented using the mobile technology. The jobs processed there are also transferred to the post-processing software via this XML interface.

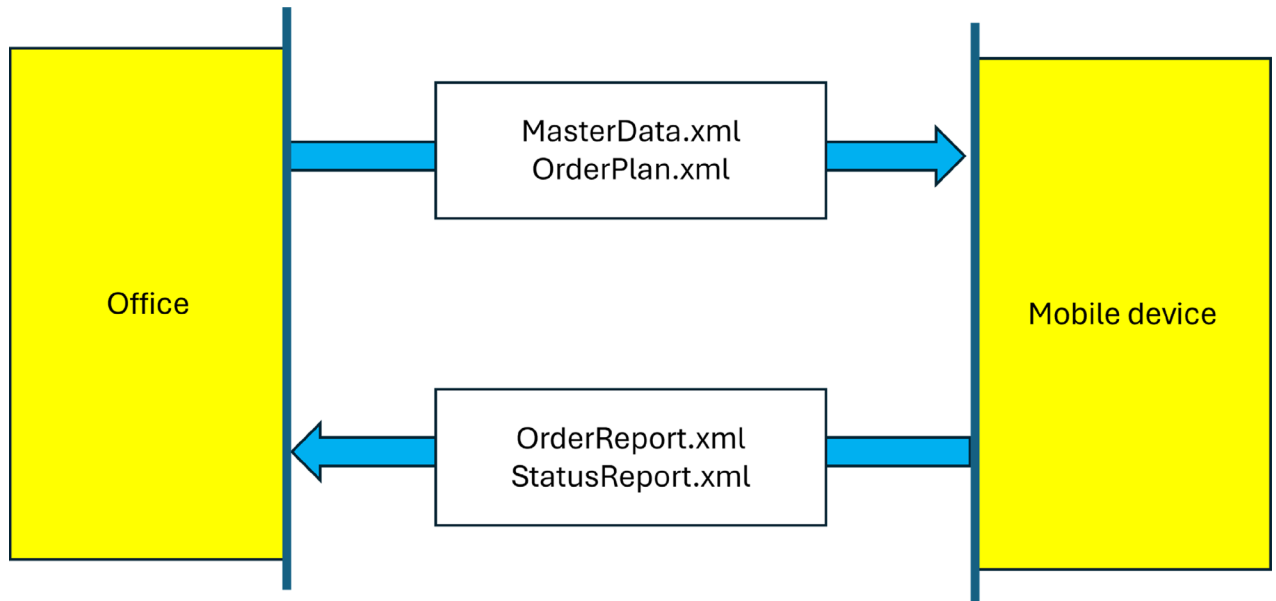


Figure 6 — Structure of the file-based exchange of data

### 5.3 Basic structure

#### 5.3.1 General

The data exchange between Office and the mobile device takes place by transmitting the data elements.

#### 5.3.2 MasterData, OrderPlan, OrderReport, StatusReport

The interface is split into mobile jobs, which are then divided into the OrderPlan, OrderReport and StatusReport (see terms and definitions in Clause 3). The organisational information in the MasterData are referenced by the mobile jobs.

### 5.4 Data transmission

The wireless data transmission with or without a provider is usually implemented via standard such as WLAN, GSM/GPRS, UMTS.

## 6 Disposal XML schema

### 6.1 Specifications for creating the schema

#### 6.1.1 Example for naming job designations

The companies use different designations to name and invoice the disposal services, including:

- Job;
- Tour;
- Service certificate.

## EN 18158:2026 (E)

## 6.1.2 Tour, Job, Service

Every BaseType of the job interface (Tour, Job, Service) contains further elements (not mentioned here) that serve for more detailed specification of the jobs. Their meaning, format and contents are described in Clause 3. For these BaseTypes, the term “service elements” is also used in the documentation. For the relationship between the job elements, refer to the following Table 1.

**Table 1 — Relationships between Tour, Job, Service job elements to actual jobs**

Designation	Time period	Vehicle mobile device	Place of performance	Services	Container
Tour	1– <i>n</i> days (shift) (holiday pre- /post-runs)	1 vehicle	<i>n</i> sites	1– <i>n</i>	1– <i>n</i>
Job	1 day (shift)	1 vehicle	1 site	1– <i>n</i> of a waste category	1– <i>n</i>
Service	1 day (shift)	1 vehicle	1 site	1	1– <i>n</i>

## 7 Variables and structure of the schema

## 7.1 Format

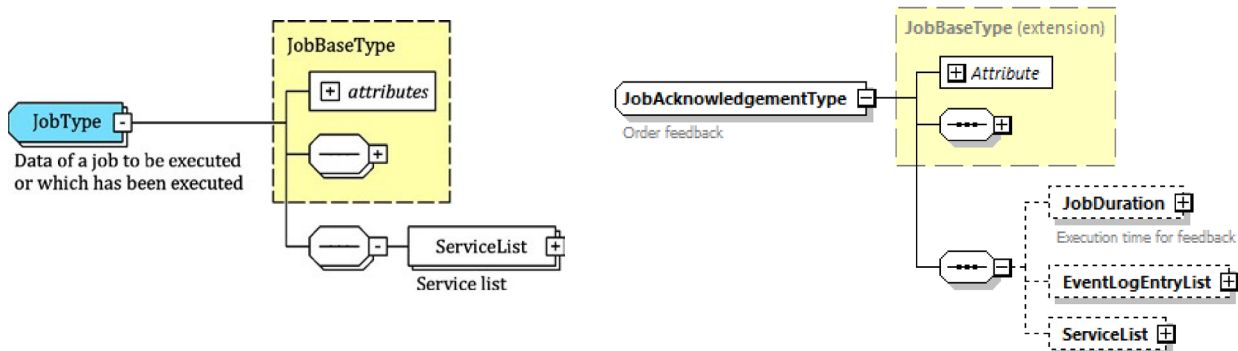
The meaning, validity periods of the contents of the XML tags as well as the additional information are described in this document and potential usage scenarios are explained using examples. The following clauses only consider those elements for which explanations are required beyond this document.

The elements necessary for job processing are mandatory elements. They shall therefore be completed.

## 7.2 Object-based layout of the elements

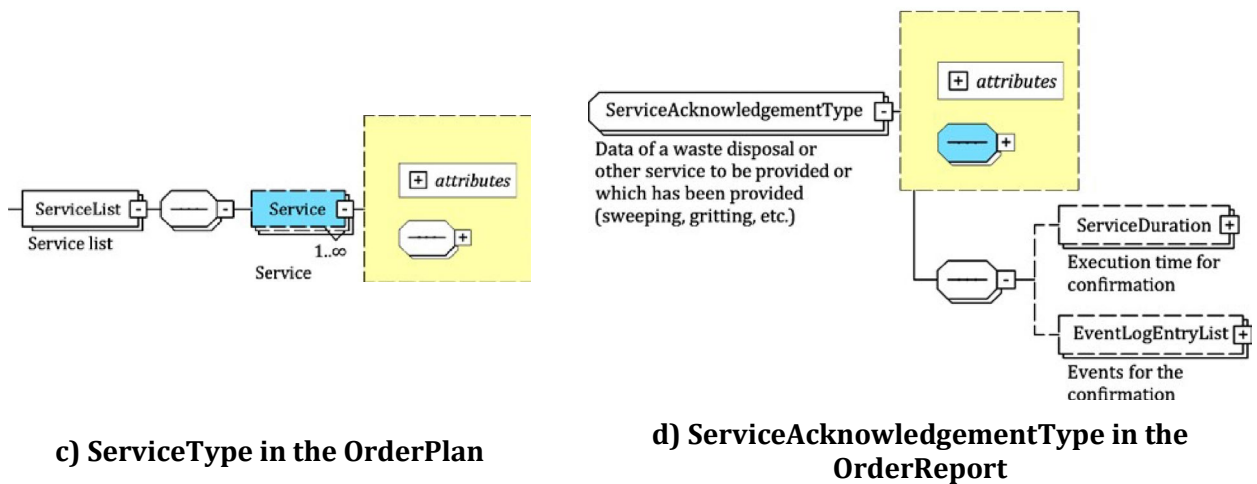
In order to illustrate common and different data in the OrderPlan and OrderReport in the XML schema, an “item-orientated” layout of the data structures is used.

For Job and Service, there is a BaseType (JobBaseType, ServiceType), which contains the common data and any diverted types for OrderPlan (JobType, ServiceType shall be used without an amendment in the OrderPlan and shall hence not be diverted) and OrderReport (JobAcknowledgementType, ServiceAcknowledgementType), which contain additional data elements according to the respective requirements. The JobBaseType is thus a BaseType. See Figure 7.



**a) For JobType in the OrderPlan**

**b) For JobAcknowledgementType in the OrderReport**



**Figure 7 — Example of BaseTypes of the JobBaseType**

Since the elements TourType in the OrderPlan and TourAcknowledgementType in the OrderReport are very different (the TourAcknowledgementType contains only the essential TourNumber and Status, as well as the Duration, JobList and EventList), a common BaseType has not been used.

### 7.3 Attributes of elements

Attributes are permitted for some elements, see Table 2. The use of attributes is optional.

**Table 2 — Permitted attributes and their use**

Attribute	Type	Purpose
ID	IDType	The ID constitutes a clear code of a data set so that the Office software can retrieve the data sets transmitted to a mobile device and processed there in the database. Since there are different procedures for clear IDs from the Office software, the type was defined on xs:token, which is a string without formatting characters (no line feeds, tabs, leading and trailing space characters). GUIDs, figures or other strings can thus be transmitted.
Source	DataSourceType	The application, which generates an element and enters it into the interface, writes this attribute. Through assessment, every application of the entire system Office / mobile device software can determine through which application the element was generated and react accordingly.
CSVendor	xs:string	The manufacturer-specific checksum across the entire entry can, for example, be used to ensure the integrity of the data when generating/transporting/processing the data.
CSBDE	xs:unsignedInt	Designed to secure the data integrity with a simple CRC-32 algorithm IEEE 802.3. It is determined across the entire enclosed node, and all of the whitespaces (tabs, spaces, line breaks) are ignored. An amendment to the usage content of the data are therefore no longer possible, but better formatting (“pretty print XML”) is.