

OTF20 - Message Implementation Guide (MIG)

- [Introduction](#)
 - [MISSION](#)
 - [HISTORY](#)
 - [COMMITTEE](#)
 - [SUPPORTED PROCESSES](#)
 - [CONTAINER DEPOT](#)
 - [CONTAINER INSPECTION](#)
 - [OLDER OTF FILES](#)
 - [CHANGES, UPDATES & ROADMAP](#)
- [General Rules](#)
 - [Message Types](#)
 - [Filenames](#)
- [Localization](#)
 - [DateTime](#)
 - [Currency](#)
 - [Weights](#)
 - [Temperatures](#)
- [Definitions](#)
 - [XSD BluePrint conventions](#)
 - [Filename Conventions](#)
 - [Prefix](#)
 - [Domain segment](#)
 - [Special](#)
 - [Content Conventions](#)
 - [XSD Browsing Recommendations](#)

Introduction

*Open Tank Format is the Industry Standard
for the Tank Container Business*

MISSION

Our mission is to unify data exchange formats for all B2B (Business to Business) processes of the tank container industry.

Open Tank Format (OTF) is a vendor independent open file format for data exchange related to the tank container industry. OTF is used by development-teams.

HISTORY

During development of a Value Added Network (VAN) initiative and subsequent customer pilots, the Lucrasoft ICT Group realised that vendor independent open formats were needed for various connected development parties associated with the tank container industry. There were also many gaps in existing classic data exchange formats, which prevented important business processes such as pre announcements for tank container service providers. Open Tank Format (OTF) is the result of efforts to resolve these issues.

COMMITTEE

The OTF committee aims to develop and sustain an internationally governed interoperable open standard for technical communication between Tank Container Industry, by means of definition, improvement, alignment and dissemination.

SUPPORTED PROCESSES

CONTAINER DEPOT

- Redelivery (off-hire)
- Release (on-hire)
- Heating request
- Cleaning & Accompanied Cleaning
- M&R Estimate (repair, quickrepair, modification, surveyor annotations & return authorizations)

- Inspection requests
- Transshipment (status update only)

CONTAINER INSPECTION

- Container Inspection Report

OLDER OTF FILES



Please note that these files are not part of this version of OTF, but are still being maintained in OTF1.3. These formats will be converted to OTF20+ version later.

- Gate passthrough audit
- Heating audit
- Cleaning audit
- Equipment information
- Spare parts order information
- Product record
- Debtor record

CHANGES, UPDATES & ROADMAP

Change requests or other contributions can be sent to the board via e-mail info@opentankformat.org. Please check back regularly for updates.

General Rules

Message Types

- XML
 - utf-8 encoding
 - XML elements are case-sensitive

Filenames

- GUID is recommended
- The .xml extension is expected

Localization

DateTime

- Format=UTC
- Example: *2000-01-01T00:00:00.0000000+01:00*
- More information [here](#)

Currency

- Format=ISO 4217 alphabetic
- Example: *EUR, USD*
- More information [here](#)

Weights

- All Weight fields are accompanied by a Unit field
- Unit code field values are case-insensitive
- Messages containing unsupported units must be bounced

Supported Unit	Unit code value	More information
Kilogram	kg	https://ucum.org/ucum
Liter	l	https://ucum.org/ucum
US Liquid Gallon	gal	Have fun with https://en.wikipedia.org/wiki/Gallon

Temperatures

- All Temperature fields are accompanied by a Unit field
- Unit code field values are case-insensitive

Supported Unit	Unit code value	More information
Celsius	C	https://en.wikipedia.org/wiki/Temperature
Fahrenheit	F	https://en.wikipedia.org/wiki/Temperature

Definitions

Please use the following resources from the repository to find accurate definitions, field types and requirements:

Type / Folder	Folder	File formats	Details
XSD Blueprint	\1_XSD_BluePrint\[version]	.XSD	See conventions below
Development examples	\2_Solution\	Visual Studio project	
Development schemas	\9_Release\[version]\	.XSD, .DLL, .CS	Import into dev solution, use class serialization
Sample files (for testing)	\9_Release\[version]\Samples	.XML, .JSON	

XSD Blueprint conventions



To avoid unsynced double documentation, we direct you towards the XSD Blueprint files for detailed and correct file definitions.

The XSD Blueprint files describe:

- Element Structure
- Element data types
- Element requirements

Filename Conventions

Prefix

Filename prefix	Description
<i>Message_</i>	Message file
[other]	Supporting file

Domain segment

Filename segment	Description
<i>Common_</i>	Domain independent
<i>Container_</i>	Applicable to any container type

<i>TankContainer_</i>	Applicable to <i>only</i> tank containers
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Special

Plural filename may be:

- Enum
- List of objects

Content Conventions

Some elements recur often in various messages

Element	Description
MessageHeaderInfo	General message information
OrderInfo	General order information
ContainerInfo	General container information
Remarks	A list of remarks

XSD Browsing Recommendations

- XSD format is easy to learn ([link](#))
- You may want to use a tool like Notepad++ while browsing the BluePrint files for faster browsing ([link](#))
- Copy and paste segments of XML along with your questions into AI ChatBots for fast answers to questions to speed up your process