EDI Guideline for Suppliers

According to the IT requirements
of ETO GRUPPE

ETO GRUPPE
JOINTLY INNOVATIVE

Actuators and Sensors

Content

Introduction

In addition to quality, nowadays also efficiency and flexibility increasingly determine the competitiveness of a company and therefore become strategically important factors. In the ordering process between ETO and their suppliers data exchange plays a major role in logistics and order processing itself, but is still mostly carried out on paper or by facsimile. This leads to the fact that a large amount of paper documents have to be printed out and manually processed by ETO as well as their suppliers on a daily basis.

In order to avoid this or at least reduce this, ETO intends to perform the data exchange with their customers on an electronic basis in the future. The system for this is called EDI (Electronic Data Interchange) and prevents the manual transfer of data from one electronic system to another – so called media breaks.

In case of data exchange by means of EDI, the data are available faster and causes for errors are mostly impossible due to the fact that there are no media breaks any more. Printing of facsimiles, shipping documents and invoices is not necessary any more, or at least considerably reduced. This is environmentally friendly and protects our resources and finally saves both parties money.

This specification describes the EDI standards used at ETO as well as the system requirements that have to be met by the supplier in order to implement these standards. Implementation of the data exchange by means of EDI is a prerequisite for a long-term collaboration and partnership and simplifies the administrative effort for both parties.

1 Objective, Scope and Contact Persons

1.1 Objective

The objective is to have all suppliers of the ETO GROUP use the data exchange system EDI.

The ultimate goal is to optimize the operational ordering process, including the payment of invoices, for both the supplier and ETO and therefore essentially contribute to minimizing the total costs and in the end maintain the competitiveness of both partners. Furthermore, the information contained in this specification about the exchange of CAD data is intended to facilitate communication.

The objectives of data exchange by means of EDI are:

- Fast data transfer
- Data exchange without vouchers
- Reduction of telephone calls or facsimiles in case of order changes because EDI allows direct information of the suppliers through the system
- Reduction of special measures such as extra tours etc.
- No causes for error due to media breaks (see introduction)

1.2 Scope

This specification applies to all existing ETO GROUP suppliers.

Within the ETO Group, this specification describes the EDI system for all ETO sites.

1.3 Contact Persons

Contact persons responsible for the EDI integration for all ETO sites can be found by clicking the following link:

E-004-Contact Person Ansprechpartner EDI ETO GRUPPE

For the operational day-to-day business, please contact your known contact persons in Materials Requirements Planning, Financial Accounting and Purchasing at the respective ETO sites.

2 How does EDI work?

2.1 General Information

Electronic Data Interchange (EDI) is the electronic transfer of structured data by means of fixed information standards from one computer application to another with minimum human interference.The EDI system therefore allows for data to be extracted from the system of the sender, send them within a few seconds and transfer them to the system of the recipient.

A software - a so-called EDI converter - translates and encrypts the data from the ETO system into a standard format so that the data can be sent to the supplier. When the messages in standard format are received by the supplier´s system, another EDI converter translates and decrypts the data into the supplier´s ERP format, then the data can be processed directly, without any manual intermediate step. This type of data exchange works in both directions.

2.2 Transfer Method at ETO

At ETO, the data are processed from SAP (by using the SAP/XI module) and converted into VDA formats. The data are then transfered directly to the supplier by means of an OFTP protocol via an ISDN data link (point-to-point connection). CAD data are additionally encrypted and can be sent or received optionally also via an ENX connection.

For additional information on the VDA standard, please refer to www.vda.de.

2.3 System Requirements

The basic requirement for communicating via EDI is an ISDN connection and an EDI software which supports the OFTP protocol and processes the data acc. to the VDA standard format and can also ensure data encryption when CAD data are exchanged.

2.4 Steps for Implementing EDI

The following steps are necessary to implement EDI:

- Exchange of ISDN numbers, ODETTE codes and passwords by the IT Departments (please refer to the application forms in Chapter 5)
- Establish a connection according to the known access data
- Test transfer of data
- Transfer check
- Approval for operational implementation
- Provision of communication partners on both sides (for CAD data)

- Continuous monitoring and troubleshooting, where necessary, of the transfered data (refer to Chapter 4)

3 EDI Formats at ETO

The individual VDA formats for the different ordering and delivery types and the exchange of CAD data are described in the following. For additional information on the ordering types used at ETO, please refer to the Logistics Guideline which is available for download on the ETO homepage at Download - Supplier Documents (www.etogruppe.com).

3.1 Individual Orders according to VDA 4925

This method description specifies the order processing via EDI based on the ODETTE message "ORDERR" between European automotive manufacturers and their suppliers as well as the suppliers and their respective sub-suppliers.

EDI for individual orders is currently not used or planned at ETO.

3.2 Order Acceptance according to VDA 4926

This method description specifies the order processing via EDI based on the ODETTE message "REPORD" between European automotive manufacturers and their suppliers as well as the suppliers and their respective sub-suppliers.

EDI for order acceptance of individual orders is currently not used or planned at ETO.

3.3 Schedule Agreement Call-offs according to VDA 4905

So-called schedule agreement call-offs in form of forecasts are primarily used in automotive industry in order to regularly adjust changes in demand such as quantity and delivery date. These call-off data sent via EDI are binding until corrections are made or a new call-off is received. The latest call-off completely replaces the previous one (rolling forecast system).

For deliveries made to ETO according to schedule agreements, kanban or consignment stock methods, the supplier receives these forecasts only in form of call-offs. The VDA format used for these call-offs is the same for all above mentioned ordering types.

The transfered EDI data contain information which are also included in the schedule agreement call-off preprint. The VDA standard preprint "Schedule Agreement call-off" is described in VDA Recommendation 4904. The standard preprint VDA 4904 is only sent to suppliers who are not able to implement EDI.

The call-offs sent by ETO are immediately available to the suppliers in their material management system. This has the following advantages for the supplier:

- No data capturing effort
- Automatic allocation of the ETO material number to the part number and order number of the supplier
- No capturing errors
- the current delivery plan of the supplier
- Comparison of the customer request to "deliveries in transit"

This helps in achieving:

- Better planning reliability (production plan)
- Increased readiness for delivery
- Increased manufacturing flexibility

3.4 Just-In-Time Call-offs according to VDA 4915

This method description specifies the processing of just-in-time call-offs via EDI between automotive manufacturers and their suppliers as well as the suppliers and their respective sub-suppliers.

ETO uses the just-in-time call-off according to VDA 4915 for kanban call-offs only. These are transfered by ETO to the supplier on the basis of the schedule agreement call-off according to VDA 4905.

3.5 Delivery and Transport Data according to VDA 4913

This method description specifies the EDI transfer of delivery note and transport data as well as additional information on the material flow between supplier, external service providers and ETO.

This VDA standard is also used for the data transfer via EDI for withdrawals of goods from a consignment stock to the supplier.

By transferring the delivery and transport data via EDI, the following advantages are achieved:

- Faster provision of delivery and transport data as advance information (material in transit) for ETO; this reduces further inquiries to the suppliers.
- Increased transparency of the material flow (information instead of inventory).
- Increased data security and data quality; this reduces the differences between delivery data and invoice data.

- Reduction of the data capturing effort at ETO due to a faster incoming goods processing by means of scanning the bar code label according to VDA 4902 (see also the information contained in the Logistics Guideline which is available for download at www.etogruppe.com - Download - Supplier Documents).
- Higher quality of inventory management of packaging means; this reduces the work necessary for processing any differences.

3.6 Invoicing and Credit Notes according to VDA 4938 (previously 4906 and 4908)

VDA Recommendation 4938 replaces the previously valid VDA Recommendations 4906 and 4908 for the electronic transfer of invoice data (supplier to customer) or credit notes (customer to supplier).

This recommendation describes the technical, process-related and organizational approach of a strictly electronic exchange of invoicing documents via EDI (EDIFACT). It is intended to enable all parties to create an environment for the exchange of invoicing documents via EDI which complies with the German tax, law and organization requirements.

With the annual taxation law of 2009 – „Steuerbürokratieabbaugesetz“– the German legislation now allows for electronic invoices to be transferred via EDI without the obligation to use digital signatures to ensure authenticity and integrity of the data. The taxation law of 2011 - "Steuervereinfachungsgesetz" - also regulates the exchange of EDI invoicing data on the European scale based on the EU directives 2006/112/EG, 201/45/EG, 94/820/EG and 1999/93/EG.

ETO´s objective is to introduce Self Billing via EDI with a selected number of suppliers.

What makes Self Billing special is that ETO creates the invoicing data and transfers them to the supplier. The basis for this are the valuated goods receipts of ETO. The credit note data received must be examined by the supplier.

The conditions for the application of the Self Billing process are described in the following:

- According to the German Value Added Tax Act an agreement for the exchange of electronic invoicing data between the involved partners must exist which regulates the value added tax compliant transfer and reception of structured electronic invoicing data. Therefore it is necessary to set down in writing this agreement between ETO and the supplier as well as details about the technical equipment.

  This agreement should include:

  - a definition which documents are to be exchanged
  - a specification on the sending and receiving stations as well as their operating hours

- a specification on the technical format of the structured data transfer
- a specification on the scope of testing of the transferred data
- the procedure in case of problems with the data transfer as well as errors

- Reliable, documented and reviewable internal processes must be established which ensure the generation of correct messages by the used electronic data processing (EDP) systems, and which ensure a correct processing of received invoice data. The used internal processes and procedures must also ensure that unauthorized persons cannot change the data, neither deliberately nor accidentally.

  These are in particular:

  - A means of transfer which ensures authenticity and integrity of the data
  - A data exchange format which is able to transfer all necessary data with respect to commercial and taxation legislation and to the business requirements

In case of any differences in price, quantity or formal deviations, the supplier is asked to refer to the contact person in Accounting (see the following link):

E-004-Contact Person Ansprechpartner EDI ETO GRUPPE

EDI for credit notes to the supplier is currently not used or planned at ETO.

3.7 Exchange of CAD Data according to VDA 4950 and 4951

VDA Recommendation 4950 describes the process (preparation, exchange and post-processing) of the exchange of CAx data between companies.

The so-called CAx data include the entire range of digital data which during product development describe the geometry or structure of a product (e. g. parts, assemblies, drawings, equipment, etc.) and are used in the different CAx systems (e. g. Computer Aided Design, -Engineering and -Manufacturing).

There are several CAx systems existing which each have a different focus. Therefore, various CAx systems and applications are used by the individual companies and also within one company, due to technical, commercial or strategic reasons. For this reason it is necessary to adjust and control the asynchronous data exchange between the various systems. Providing support in doing this is the objective of this VDA Recommendation.

VDA Recommendation 4951 describes the agreements as regards processes, formats and contents of files which standardize the exchange of CAD/CAM data and the respective administrative information and therefore make the exchange reliable and safe.
The term "CAD/CAM data exchange" refers to the asynchronous exchange of files by means of offline data exchange (CD, DVD, USB stick) or online data exchange (ISDN, ENX, web, point-to-point connection etc.).

These VDA Recommendations particularly describe the following for the CAD data exchange with ETO:

- Reading and examining the electronic information (ENGDAT message: ENG….001).
- Importing of the data into the relevant directories.
- Unzipping (WinZip) of the data packets which are zipped by default.
- In case of non Pro/E native data (2D DXF, 2D/3D IGES, 3D STEP AP214, VDAFS) converting the data into the CAD format of the recipient.

4 Data Backup

Both parties ensure that the ordering and CAD data transferred via EDI are complete and comply with the relevant VDA standard.

Both parties must back up the received data immediately and check them for correctness, completeness as well as compliance with the data exchange agreement according to the relevant VDA standard formats.

The parties commit themselves to treat the data transferred by the respective other party as confidential and to use them for the intended purpose only. These data may only be made accessible to personnel who are directly involved in the matter and not be distributed to a third party.

5 Forms for the Data Exchange via EDI

For exchanging data with ETO, please use the following forms:

EDI data exchange for ordering process:
D-014-Data Exchange EDI_Datenaustausch EDI

EDI data exchange for CAD data:
E-005-CAD-Data Exchange_CAD-Datenaustausch

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