SAP-EMBEDDED EDI MAPPING APPLICATION

- With SAP-Embedded mapping application you can generate all your EDI files in any format within your ERP system and transfer to your partners.

- You don't need any External & 3rd party EDI solution, such as Seeburger, Microsoft BizTalk, Altova MapForce, Boomi, Adeptia or SAP PI/PO. So you are not dependent on any External EDI Subsystem, company or sofware.

- All incoming EDI files in general formats like ODETTE, VDA, EDIFACT, X12, XML etc. processed via mapping app and as a first step they are converted into SAP's standard IDOC format. Then Idocs are passed to the relevant application and processed via SAP's standard functionality.

- Some file types need to be parsed into multiple idocs, such as DELFOR, DELJIT. Because unlike other EDI formats, SAP "as an example" can process forecast and JIT delivery schedules for only 1 scheduling agreement line. SAP-Embedded EDI mapping application's main program makes this kind of parsing processes without any problem.

- On the other hand, all out going EDI documents are exported as SAP's standard IDOC's and then before transmission SAP-Embedded EDI mapping application process them and convert into other formats like EDIFACT, VDA, ODETTE, X12, XML.

GENERAL EDI FLOW WİTHOUT SAP_ERP-EMBEDDED EDI MAPPING APPLICATION

Electronic Data Interchange

Electronic Data Interchange (EDI) is used to electronically exchange business documents, such as schedule lines, purchase orders, invoices, and so on.

Because of the particularly large volumes of data and very high logistical demands, EDI is now indispensable in logistics for the automobile industry. Just-in-time processing and optimized utilities processes for production require fast reliable data transmission between business partners.

To enable partners to communicate, it is necessary to define the route via which data is exchanged (point-to-point, mailbox, and so on), and the structure and format of the data exchanged.

For this purpose, EDI standards have been defined, which specify the structure and format of the individual business documents. These include the UN/EDIFACT standard, ANSI[1] X.12 or VDA[2], or the ODETTE[3] standard, all of which are used in the automobile industry.

R/3 IDoc Concept

IDoc[4] is a standard SAP format for exchanging data between systems. It can be used to exchange data between R/3 Systems (ALE[5]), and between R/3 Systems and non-SAP systems (for example, an EDI subsystem, or a warehouse management system).

EDI and ALE

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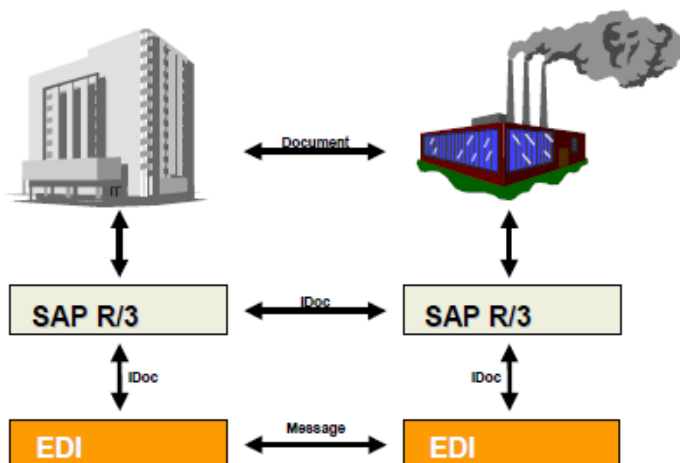
[1] American National Standards Institute – www.ansi.org

[2] Verband der Automobilindustrie – www.vda.de

[3] Organisation for Data Exchange by Teletransmission in Europe – www.odette.org

[4] Intermediate Document

[5] Application Linked Enabling

The format of the IDoc is completely independent of the database structures of the individual business documents; in other words, the IDoc functions as a data container between the application formats and is used by both systems as a "language" in which they can "communicate".

Asynchronous Processing Message Based
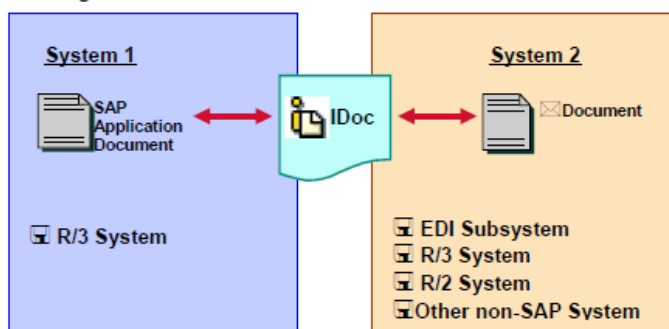
To convert EDI messages to the corresponding IDoc, an EDI subsystem (converter, translator) is required. This system converts the data from the EDI standard to IDoc.

In the IDoc interface, additional settings must be made. These are required for correct IDoc processing and fault-free application document updates. The IDoc interface is designed to operate asynchronously; in other words, the application document update is not directly linked to receipt of the IDoc.

EDI FLOW WITH SAP ERP-EMBEDDED EDI MAPPING APPLICATION
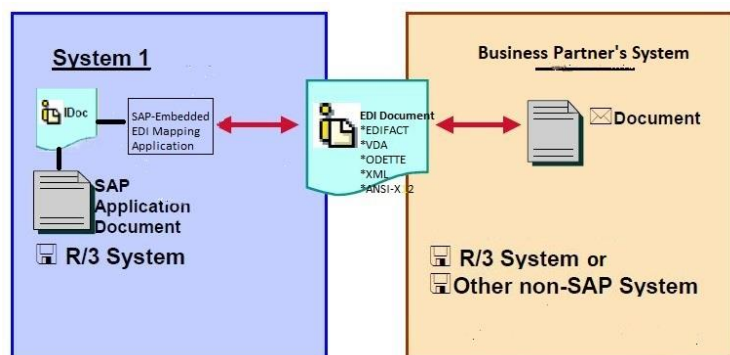
With SAP ERP-Embedded EDI mapping application, you don't need any EDI subsystem outside of your ERP system.

For example, you communicate with one of your business partners via EDIFACT file formats. You send and receive those EDIFACT files and you don't want to deal with more than one system in order to manage your EDI communication files. So, you want to manage all of your EDI messages in your ERP system.

Using Embedded-EDI mapping application,In terms of EDI, it's possible to manage everything within your ERP system. It's simple, stable, secure and easy to search, analyze, compare and find-out issues related with your messages content.

You can get all your inbound files into SAP in original EDIFACT formats from the source file location which your partner gave access, then EDI mapping application will convert all files into IDOC format. You can see, list and display them in Tcode AL11 both as EDIFACT and IDOCS. When it's necessary, EDI Mapping application can parse EDIFACT files into multiple idocs as well, so that they can be processed by SAP's standard applications.

For also Outbound processing, as soon as your outbound IDOC files are generated, EDI mapping application will convert them into EDIFACT format and transfer files into remote destination folder. These IDOC and EDIFACT files both can be listed and displayed by Tcode AL11 as well.

Some of the sample screen shots are below, for both Inbound and Outbound processes.

INBOUND EDI FLOW EXAMPLE

Incoming EDIFACT (or another format) documents are imported directly into relevant directory in SAP server via FTP.

Directory: /CBI/EDI/IN

Usable	Viewed	Changed	Length	File Owner	Lastchange	Lastchange	File Name
			663552	dmpadm	31.08.2024	07:32:16	.
X			549	dmpadm			057_CHB_DELFORD97A_20240831_060305_002.edi
X			556	dmpadm		07:32:13	057_CHB_DELFORD97A_20240831_060305_001.edi
X			5238	dmpadm		07:32:09	057_CHB_DELFORD97A_20240830_231802_025.edi
X			5097	dmpadm		07:32:06	057_CHB_DELFORD97A_20240830_231802_024.edi
X			590	dmpadm		07:32:03	057_CHB_DELFORD97A_20240830_231802_023.edi
X			588	dmpadm		07:32:00	057_CHB_DELFORD97A_20240830_231802_022.edi
X			3858	dmpadm		07:31:57	057_CHB_DELFORD97A_20240830_231802_021.edi
X			3641	dmpadm		07:31:54	057_CHB_DELFORD97A_20240830_231802_020.edi
X			3914	dmpadm		07:31:51	057_CHB_DELFORD97A_20240830_231802_019.edi
X			3828	dmpadm		07:31:48	057_CHB_DELFORD97A_20240830_231802_018.edi
X			5482	dmpadm		07:31:45	057_CHB_DELFORD97A_20240830_231802_017.edi
X			5526	dmpadm		07:31:42	057_CHB_DELFORD97A_20240830_231802_016.edi
X			6149	dmpadm		07:31:39	057_CHB_DELFORD97A_20240830_231802_015.edi
X			4321	dmpadm		07:31:36	057_CHB_DELFORD97A_20240830_231802_014.edi
X			4234	dmpadm		07:31:33	057_CHB_DELFORD97A_20240830_231802_013.edi

Content of edifact file can be seen as text format below

SAP Directories

```
Directory:    /CBI/EDI/IN
Name:         057_CHB_DELFORD97A_20240831_060305_001.edi

UNB+UNOA:2+FOUNDATIONBRAKESSUPP+000108736::638+240831:0500+00000000001326++DELFOR'
UNH+1+DELFOR:D:97A:UN:EDDF04'
BGM+241+6380204Y04295        000506'
DTM+137:20240831:102'
RFF+ALM:6380204Y04295        000505'
DTM+171:20240830:102'
NAD+BY+638::92'
RFF+VA:TR2900034641'
CTA+SC+Fund. Pinzas'
NAD+SE+000108736::92'
GIS+ZZZ'
NAD+DP+638N::92'
LIN+1++0204Y04295:BP::92'
PIA+1+ETRIER BRUT G SMART BR451:MF::92'
QTY+48:0:PCE'
QTY+70:0:PCE'
QTY+3:33:PCE'
SCC+4'
QTY+131:33:PCE'
DTM+2:20250421:102'
RFF+CT:9500001585'
UNT+21+1'
UNZ+1+00000000001326'
```

SAP-Embedded mapping application convert edifact files into Idoc format and they are processed which can be seen via EMFOR tcode.

IDoc Monitor for Incoming Forecast/JIT Delivery Schedules

	Light	IDoc number	StopInd.	Text	Tol	Message Text					
	Sales Doc.	PO Number	Cust. Material	Rel No. New	Rel. Type	Sold-to Party	Plnt			Unload.Poi
>	■	0000000000868720			Scheduling agreement 0030000001 for IDoc 0000000000868720 has been processed
>	■	0000000000868721			Scheduling agreement 0030000001 for IDoc 0000000000868721 has been processed
>	■	0000000000868722			Scheduling agreement 0030000001 for IDoc 0000000000868722 has been processed
>	■	0000000000868723			Scheduling agreement 0030000001 for IDoc 0000000000868723 has been processed
>	■	0000000000868724			Scheduling agreement 0030000001 for IDoc 0000000000868724 has been processed
>	■	0000000000868725			Scheduling agreement 0030000001 for IDoc 0000000000868725 has been processed
>	■	0000000000868726			Scheduling agreement 0030000000 for IDoc 0000000000868726 has been processed
>	■	0000000000868727			Scheduling agreement 0030000000 for IDoc 0000000000868727 has been processed
>	■	0000000000868728			Scheduling agreement 0030000000 for IDoc 0000000000868728 has been processed
>	■	0000000000868729			Scheduling agreement 0030000000 for IDoc 0000000000868729 has been processed
>	■	0000000000868730			Scheduling agreement 0030000000 for IDoc 0000000000868730 has been processed
>	■	0000000000868731			Scheduling agreement 0030000000 for IDoc 0000000000868731 has been processed
>	■	0000000000868732			Scheduling agreement 0030000000 for IDoc 0000000000868732 has been processed
>	■	0000000000868733			Scheduling agreement 0030000000 for IDoc 0000000000868733 has been processed
>	■	0000000000868734			Scheduling agreement 0030000000 for IDoc 0000000000868734 has been processed

OUTBOUND EDI FLOW EXAMPLE

Outgoing IDOCs are exported as text file into SAP directory, then they are converted to EDIFACT (or another format) documents via SAP-Embedded mapping application in the same directory with format extension such as (_EDIFACT)

Directory: /CBI/EDI/OUT

Usable	Viewed	Changed	Length	File Owner	Lastchange	Lastchange	File Name
			442368	dmpadm	01.09.2024	19:57:12	.
X	X		18136	dmpadm			DESADV_05248539_EDIFACT
X			82447	dmpadm		19:56:52	DESADV_05248539
X			5239	dmpadm	31.08.2024	23:08:56	DESADV_05246887_EDIFACT
X			14106	dmpadm		23:08:52	DESADV_05246886_EDIFACT
X			68016	dmpadm		22:58:07	DESADV_05246886
X			27830	dmpadm			DESADV_05246887
X			17330	dmpadm	30.08.2024	22:55:50	DESADV_05246216_EDIFACT
X			79355	dmpadm		22:45:30	DESADV_05246216
X			16927	dmpadm		18:12:50	DESADV_05246215_EDIFACT
X			79867	dmpadm		18:02:41	DESADV_05246215
X			1618	dmpadm	29.08.2024	19:43:51	DESADV_05245475_EDIFACT
X			12897	dmpadm		19:43:48	DESADV_05245474_EDIFACT
X			63378	dmpadm		19:33:27	DESADV_05245474
X			11858	dmpadm			DESADV_05245475

Content of IDOC file can be displayed as below

Content of EDIFACT ASN file can be displayed as below

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