**SAP Integration Suite   
Cloud Integration - Technical Specification  
 iFlow Name : EDI\_850\_TO\_IDOC\_1809\_ORDERS**

Version: 1.0

Author: Generated by AI

Date: 2025-10-08

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# 1. Change History

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Description** |
| 1.0 | 2025-10-08 | Generated by AI | Initial version |

# 2. Overview

This technical specification document for the SAP iFlow EDI\_850\_TO\_IDOC\_1809\_ORDERS serves as a reference point detailing the configuration and properties of the integration flow. It provides visibility into key integration aspects such as namespace mappings, HTTP session handling, logging behavior, and security configurations like CORS settings. Specifically, it documents the sender and receiver endpoints and the IDOC adapter configuration, including transport protocols (HTTP), message protocols (IDoc SOAP), and security settings. The document enables stakeholders to understand the iFlow's design, communication channels, and runtime behavior. Therefore, it supports development, deployment, troubleshooting, and future maintenance activities related to the iFlow.

# 3. High level iFlow Design

The iFlow `EDI\_850\_TO\_IDOC\_1809\_ORDERS` processes messages from a Sender to a Receiver system. It starts with a Start Event, followed by a Content Modifier step which contains a complete EDI 850 payload. The EDI data is then converted to XML format using the EDI to XML Converter, utilizing the X12 schema `ASC-X12\_850\_004010.xsd`. The resulting XML is then mapped using the "MM" message mapping, located at `dir://mmap/src/main/resources/mapping/MM.mmap`. Finally, the transformed message is sent to the Receiver via the End Event.

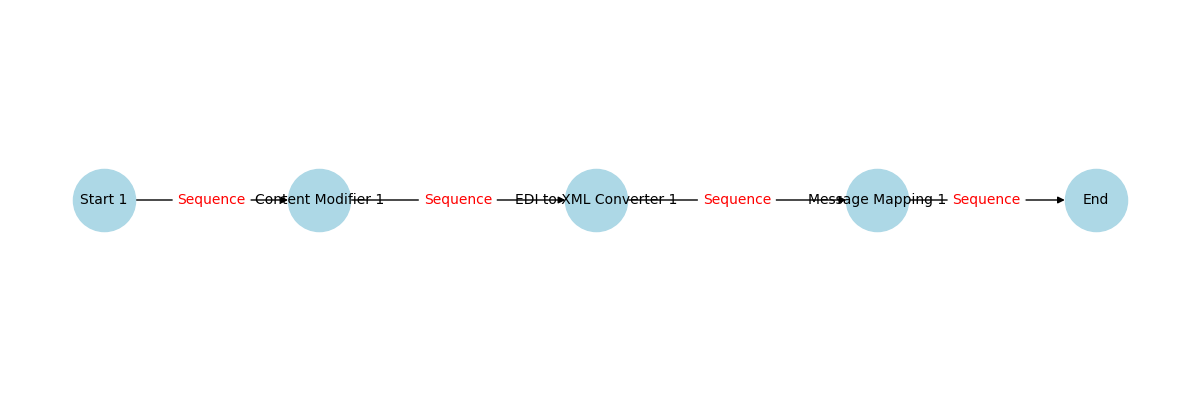


Figure: High level BPMN iFlow message and sequence flow

# 4. Message Flow

The Message Flow "IDOC" (ID: MessageFlow\_69) represents an inbound channel using the IDOC adapter (version 1.4) over HTTP with IDoc SOAP protocol. It originates from Participant\_1 (assumed to be a sender system, identified as "Sender") and terminates at StartEvent\_66, specifying a Sender direction. Authentication is role-based, requiring the "ESBMessaging.send" role. The endpoint address is "/IDOC\_SRI" and the maximum body and attachment sizes are 40KB and 100KB respectively. XML character handling is set to throw exceptions.

|  |  |  |
| --- | --- | --- |
| **Source** | **Target** | **Name** |
| Sender | Start 1 | IDOC |

# 5. Technical Description

## 5.1. Main Integration Process

The iFlow's main integration process, "Integration Process" (Process\_1), starts with a Message Start Event (StartEvent\_66). The flow proceeds to a Content Modifier (CallActivity\_14), configured as an Enricher (version 1.6), which likely adds a large, constant EDI message to the content. This is followed by an EDI to XML Converter (CallActivity\_17, version 2.6) that converts the X12 message using the xsd schema 'ASC-X12\_850\_004010.xsd'. The flow then uses a Message Mapping (CallActivity\_4, version 1.3) using mapping 'MM.mmap', and finishes with a Message End Event (EndEvent\_2). Transaction handling is set to "Not Required", and a transaction timeout of 30 seconds is configured for the process.

|  |  |  |
| --- | --- | --- |
| **Component Name** | **Key** | **Value** |
| Integration Process | Transaction Timeout | 30 |
| Integration Process | Component Version | 1.2 |
| Integration Process | Cmd Variant Uri | ctype::FlowElementVariant/cname::IntegrationProcess/version::1.2.1 |
| Integration Process | Transactional Handling | Not Required |

### endEvent End Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Component Version | 1.1 |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::MessageEndEvent/version::1.1.0 |

### callActivity Content Modifier 1 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Body Type | constant |
| Property Table |  |
| Header Table |  |
| Wrap Content | ISA\*00\* \*00\* \*ZZ\*0011223456 \*ZZ\*999999999 \*990320\*0157\*U\*00401\*000000015\*0\*P\*>~ GS\*PO\*0011223456\*999999999\*950120\*0147\*5\*X\*004010~ ST\*850\*000000001~ BEG\*00\*SA\*95018017\*\*\*950118~ N1\*SE\*UNIVERSAL WIDGETS~ N3\*375 PLYMOUTH PARK\*SUITE 205~ N4\*IRVING\*TX\*75061~ N1\*ST\*JIT MANUFACTURING~ N3\*BUILDING 3B\*2001 ENTERPRISE PARK~ N4\*JUAREZ\*CH\*\*MEX~ N1\*AK\*JIT MANUFACTURING~ N3\*400 INDUSTRIAL PARKWAY~ N4\*INDUSTRIAL AIRPORT\*KS\*66030~ N1\*BT\*JIT MANUFACTURING~ N2\*ACCOUNTS PAYABLE DEPARTMENT~ N3\*400 INDUSTRIAL PARKWAY~ N4\*INDUSTRIAL AIRPORT\*KS\*66030~ PO1\*001\*4\*EA\*330\*TE\*IN\*525\*VN\*X357-W2~ PID\*F\*\*\*\*HIGH PERFORMANCE WIDGET~ SCH\*4\*EA\*\*\*\*002\*950322~ CTT\*1\*1~ SE\*20\*000000001~ GE\*1\*5~ IEA\*1\*000000015~ |
| Component Version | 1.6 |
| Activity Type | Enricher |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::Enricher/version::1.6.1 |

### callActivity EDI to XML Converter 1 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Tradacoms Source Encoding | ISO-8859-1 |
| X12 Source Encoding | ISO-8859-1 |
| Edifact Source Encoding | ISO-8859-1 |
| Tradacoms Header Name |  |
| Tradacoms Conversion Preference | No |
| Tradacoms Edi Schema Source | IntegrationProject |
| Component Version | 2.6 |
| Edifact Header Name |  |
| Edifact Envelope Truncator | true |
| Edifact Decimal Character | fromIncomingPayload |
| Edifact Target Root Element | interchange |
| X12 Edi Schema Source | IntegrationProject |
| X12 Header Name |  |
| X12 Envelope Truncator | false |
| Tradacoms Schema Table |  |
| Edifact Edi Schema Source | IntegrationProject |
| Activity Type | EDItoXMLConverter |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::EDItoXMLConverter/version::2.6.0 |
| X12 Schema Table | <row><cell id='x12SchemaName'>/xsd/ASC-X12\_850\_004010.xsd</cell></row> |
| Edifact Target Encoding | ISO-8859-1 |
| Edifact Schema Table |  |

### startEvent Start 1 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::MessageStartEvent |

### callActivity Message Mapping 1 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Mappinguri | dir://mmap/src/main/resources/mapping/MM.mmap |
| Mappingname | MM |
| Mapping Source Value |  |
| Mapping Type | MessageMapping |
| Mapping Reference | static |
| Mappingpath | src/main/resources/mapping/MM |
| Component Version | 1.3 |
| Activity Type | Mapping |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::MessageMapping/version::1.3.1 |
| Message Mapping Bundle Id |  |

### callActivity Message Mapping 2 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Mappinguri | dir://mmap/src/main/resources/mapping/EDI\_850.mmap |
| Mappingname | EDI\_850 |
| Mapping Source Value |  |
| Mapping Type | MessageMapping |
| Mapping Reference | static |
| Mappingpath | src/main/resources/mapping/EDI\_850 |
| Component Version | 1.3 |
| Activity Type | Mapping |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::MessageMapping/version::1.3.1 |
| Message Mapping Bundle Id |  |

## 5.2. Local Integration Process

The iFlow "Process\_1" executes a sequential integration process. It begins by executing Integration Process "SubProcess\_1." After "SubProcess\_1" completes, the iFlow transforms the message payload using a Content Modifier with ID "ContentModifier\_1," which likely modifies headers or message body content. Subsequently, it invokes a Request Reply step identified as "RequestReply\_1," which suggests a synchronous call to an external system. Finally, the iFlow terminates by sending the modified message to an adapter using the "Receiver\_1" receiver channel.

No process with id='Process\_1' found.

## 5.3. Sender

The iFlow sender is an SAP IDoc system ("IDOC") using the HTTP transport protocol. It uses RoleBased authentication, requiring the `ESBMessaging.send` user role. The endpoint address is `/IDOC\_SRI`, and it utilizes the IDoc SOAP message protocol. The maximum message body size is 40KB, while the maximum attachment size is 100KB. This endpoint's business role is to send IDoc messages into the integration flow.

|  |  |
| --- | --- |
| **Key** | **Value** |
| Component Type | IDOC |
| Description |  |
| Address | /IDOC\_SRI |
| Maximum Body Size | 40 |
| Component N S | sap |
| Maximum Attachment Size | 100 |
| Component Version | 1.4 |
| Name | IDOC |
| Xml Character Handling | throwException |
| Transport Protocol Version | 1.8.1 |
| Component S W C V Name | external |
| System | Sender |
| Transport Protocol | HTTP |
| Cmd Variant Uri | ctype::AdapterVariant/cname::sap:IDOC/tp::HTTP/mp::IDoc SOAP/direction::Sender/version::1.4.4 |
| User Role | ESBMessaging.send |
| Sender Auth Type | RoleBased |
| Message Protocol | IDoc SOAP |
| Message Protocol Version | 1.8.1 |
| Component S W C V Id | 1.8.1 |
| Direction | Sender |
| Client Certificates |  |

## 5.4. Receiver

The ReceiverProperties section of this SAP iFlow XML defines the receiver side of the integration. Currently, this section is empty, indicated by the `ReceiverProperties` tag containing no child elements. This implies that the iFlow is not configured to use a specific receiver channel or communication arrangement directly within this section. Receiver determination and channel selection may be handled dynamically via receiver rules or other configuration points within the iFlow. Without specific receiver channel details defined here, the iFlow might rely on default receiver configurations or dynamic routing. Therefore, no specific receiver component or role can be identified from this XML fragment.

## 5.5. Mappings

The SAP iFlow Mappings section defines two Message Mapping activities: "MM" and "EDI\_850". Both activities utilize static Message Mappings located in the `src/main/resources/mapping/` directory, referenced by their respective names. These mappings are of type `MessageMapping` and use component version 1.3 with a specific flowstep variant (1.3.1). The mapping logic itself is defined within the `.mmap` files referenced by the `mappinguri` property. No specific data transformation details or mapping source values are provided in this XML configuration.

### Mapping Activity 1 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| mappinguri | dir://mmap/src/main/resources/mapping/MM.mmap |
| mappingname | MM |
| mappingSourceValue |  |
| mappingType | MessageMapping |
| mappingReference | static |
| mappingpath | src/main/resources/mapping/MM |
| componentVersion | 1.3 |
| activityType | Mapping |
| cmdVariantUri | ctype::FlowstepVariant/cname::MessageMapping/version::1.3.1 |
| messageMappingBundleId |  |

### Mapping Activity 2 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| mappinguri | dir://mmap/src/main/resources/mapping/EDI\_850.mmap |
| mappingname | EDI\_850 |
| mappingSourceValue |  |
| mappingType | MessageMapping |
| mappingReference | static |
| mappingpath | src/main/resources/mapping/EDI\_850 |
| componentVersion | 1.3 |
| activityType | Mapping |
| cmdVariantUri | ctype::FlowstepVariant/cname::MessageMapping/version::1.3.1 |
| messageMappingBundleId |  |

## 5.6. Security

The iFlow's security configuration disables CORS (`corsEnabled: false`), HTTP session handling (`httpSessionHandling: None`), and basic authentication for the sender (`enableBasicAuthentication: false`). It also prevents sending exceptions to the sender (`returnExceptionToSender: false`) and disables server tracing (`ServerTrace: false`). User authorization is role-based (`senderAuthType: RoleBased`), requiring the "ESBMessaging.send" role. The iFlow utilizes the IDOC adapter with HTTP transport and IDoc SOAP messaging, configured to throw exceptions for XML character handling issues.

|  |  |
| --- | --- |
| **Key** | **Value** |
| Namespace Mapping |  |
| Http Session Handling | None |
| Access Control Max Age |  |
| Return Exception To Sender | false |
| Log | All events |
| Cors Enabled | false |
| Exposed Headers |  |
| Component Version | 1.2 |
| Allowed Header List |  |
| Server Trace | false |
| Allowed Origins |  |
| Access Control Allow Credentials | false |
| Allowed Headers |  |
| Allowed Methods |  |
| Cmd Variant Uri | ctype::IFlowVariant/cname::IFlowConfiguration/version::1.2.4 |

## 5.7. Groovy Scripts

This SAP iFlow, named EDI\_850\_TO\_IDOC\_1809\_ORDERS, processes EDI 850 purchase orders and converts them into IDOC format. The iFlow starts with a `StartEvent\_66`, then uses a `Content Modifier 1` (Enricher) to add sample EDI data to the message. Next, the `EDI to XML Converter 1` converts the EDI message to XML using the ASC-X12 850 schema. After the conversion, the message is mapped via `Message Mapping 1` using the `MM.mmap` mapping and sent to the `EndEvent\_2`.

No Groovy scripts found in the specified folder.

## 5.8. Error Handling & Logging

This SAP iFlow's Error Handling & Logging configuration, as represented by the `<Exceptions>` tag, is currently empty. This indicates no explicit error handling or exception catching mechanisms are defined within the iFlow for handling runtime errors. Consequently, unhandled exceptions will likely propagate to the integration platform's default error handling. There is no custom logging configured for specific errors or events, thus relying on the platform's default tracing level. Developers should implement exception handling within this section to manage errors gracefully and enhance observability.

No exception subprocesses found in the iFlow.

# 6. Version and Metadata

|  |  |
| --- | --- |
| **Key** | **Value** |
| componentVersion | 1.3 |
| ComponentNS | sap |
| ComponentSWCVName | external |
| ComponentSWCVId | 1.8.1 |

The iFlow's metadata indicates it's a component within the `sap` namespace, utilizing version `1.3` of the integration component framework. It's associated with a Software Component Version (SWCV) named `external`. The specific identifier for this SWCV is `1.8.1`, providing a unique reference point for its version. This implies a dependency on or integration with an external system defined by the `external` SWCV. The SWCV version helps manage compatibility and dependency tracking for this iFlow.

# 7. Appendix

The iFlow named "Integration Process" includes several key artifacts. First, a Content Modifier ("Content Modifier 1") enriches the message with a pre-defined EDI message. Next, the EDI to XML Converter ("EDI to XML Converter 1") converts the EDI message, utilizing the X12 850 schema (ASC-X12\_850\_004010.xsd). This iFlow has two message mappings:"MM.mmap" ("Message Mapping 1") and "EDI\_850.mmap" ("Message Mapping 2"). Finally, the flow starts from the `StartEvent\_66` and ends at the `EndEvent\_2`.

|  |  |
| --- | --- |
| **Key** | **Value** |
| mappinguri | dir://mmap/src/main/resources/mapping/MM.mmap |
| mappingname | MM |
| mappingType | MessageMapping |
| mappingReference | static |
| mappingpath | src/main/resources/mapping/MM |
| mappinguri | dir://mmap/src/main/resources/mapping/EDI\_850.mmap |
| mappingname | EDI\_850 |
| mappingType | MessageMapping |
| mappingReference | static |
| mappingpath | src/main/resources/mapping/EDI\_850 |