i95Dev SAP Connect User Manual

Version 1.0

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1. Introduction

i95Dev SAP Connect is a secure, scalable and an efficient way of integrating your Magento e-commerce and SAP systems without impacting your existing workflow. i95Dev SAP Connect is more than just information sync, it helps you increase sales, reduce costs, improve operational efficiency, and provides superior customer experience thus enabling you to take your business to the next level.

The bidirectional information sync results in consistent data across the systems, which helps reduce the manual administrative work, improves efficiency, streamlines order fulfilment, inventory, return and refund, and more.

1.1. About this guide

The objective of this document is to help you understand i95Dev SAP Connect features and its functionality. The document works on the premise that the reader is familiar with Magento and SAP ERP systems.

The manual is divided into the following parts:

1	Introduction	A note about this guide, and terminologies used.
2	Configuration and setup	Instructions to enable and configure i95Dev SAP Connect.
3	Information exchanged between Magento and SAP	List of data synchronized between Magento and SAP.
4	Magento admin dashboard	Changes made in Magento admin screens to view SAP information (like SAP IDs, order status, etc.) associated with a record in Magento.
5	i95Dev message queue report in Magento	About report functionality in Magento to view sync status, and more.

1.2. Terminologies

- **Customer -** Customer details
- **Address -** Address details
- **Product** - Product detail
- **Order** - Order details
- **Invoice** - Invoice details
- **Shipment** - Shipment details
- **Connector** – i95Dev SAP Connect
- **Magento admin** - Magento's admin panel or web store's backend

2. Configuration and Setup

Once i95Dev SAP Connect is installed on your Magento system two tabs, i95Dev Connect Settings and i95Dev Message Queue Report, are added to the store configurations screen. Here you can configure settings related to i95Dev SAP Connect and Message Queue report.

Note - This document is only for your reference. When SAP Connect is installed, the i95Dev team takes care of installation and configuration of the Connector.

i95Dev Connect settings tab is where you can manage all settings related to the connector and has the following four sections.

- i95Dev Extension
- i95Dev Connect Settings
- i95Dev Connect Notifications
- General Contact Info

i95Dev Message Queue Report tab is where you can manage all the settings related to the reporting functionality made available by SAP Connect. The Message Queue report allows you to view the status of data syncing from SAP to Magento, and it also allows you to manually sync the data which did not sync automatically, and more.

2.1. Enabling the Connector

The connector, when installed, is by default in disabled mode. For connector to start synchronizing data between Magento and SAP, it must first be enabled from the store configurations screen.

Follow the following steps to enable the Connector from Magento admin.

1. **Sign in** to your Magento admin dashboard.

2. Click **Store** in the left admin bar, then click **Configurations** in the Settings group.

3. Scroll down and expand **i95Dev Connect** tab in the left navigation pane as shown in Figure 1.

4. Click **i95Dev Connect Settings** and expand the **i95Dev Extension** tab.
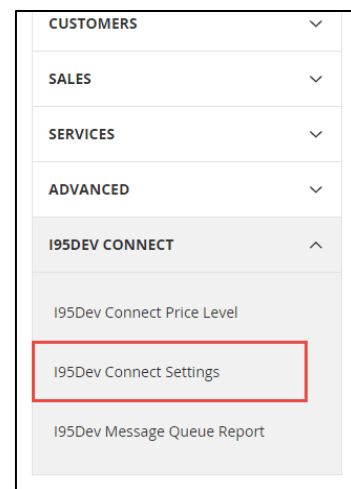
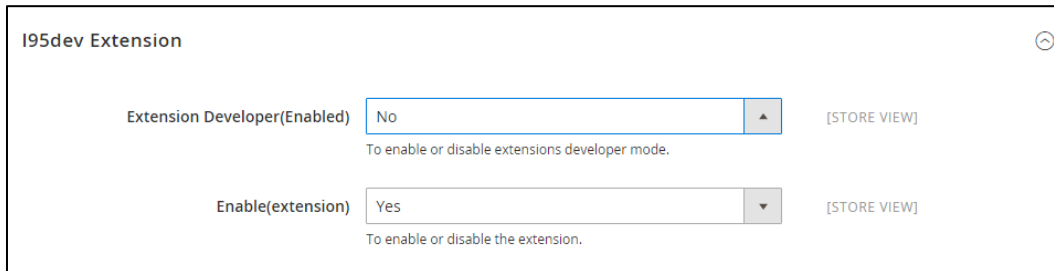**Figure 1: i95Dev Connect Settings in store configurations**

Figure 2: i95Dev Extension tab

5. Select **Yes** in the **Enable** drop-down list.

2.2. Setting up the Connector

1. Select **SAP** in the **Component** drop-down list.

2. In the **Default Tax Class** drop-down list, select a Tax Class that is to be automatically assigned to a Customer Group that has synced from SAP to Magento.

3. In the **Default store** drop-down list, select the default store to which the customer, order and product records must be associated when they have synced from SAP to Magento.

2.3. Setting up Connector notifications

1. In the **E-Mail Confirmations** combo-box select the records (use ctrl key to select more than one options) for which you wish to enable notification.

   a. **Invoice**   When selected, a confirmation email is sent to the customer after an invoice is generated in SAP.

   b. **Shipment**   When selected, a confirmation email is sent to the customer after a shipment is created in SAP.

2. In the **Order Total Mismatch Notification** drop-down list, select **Yes** if you would like to received email in the instance of order total mismatch, else select **No**.

2.4. Enabling Message Queue Report

Message queue report in Magento admin dashboard enables you to view data sync status for records synced from SAP to Magento. It also allows you to manually sync the records which did not sync automatically.

Refer Message Queue Report in Magento for more information.

Follow the following steps to enable message queue report from Magento configuration.

1. Click **Store** in the left admin bar, then click **Configurations** in the Settings group.
2. Scroll down and expand **i95Dev Connect** tab in the left navigation pane.
3. Click **i95Dev Message Queue Report**, as shown in Figure 3, to view the Message Queue Report Configurations screen.
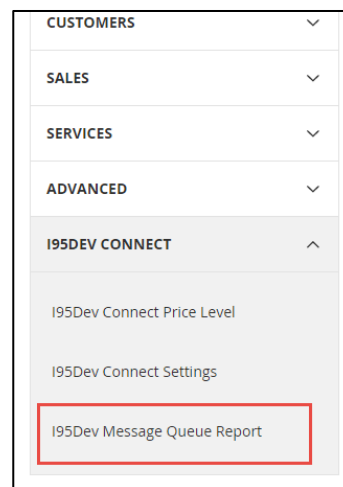4. Select **Yes** in the **Enable (extension)** drop-down list.

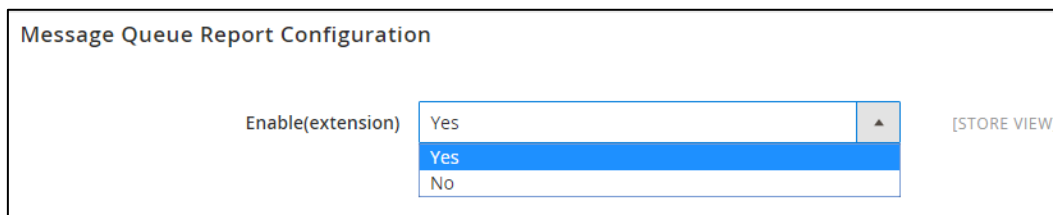**Figure 3: i95Dev Message Queue Report Configuration**

Figure 4: Message Queue Report Configurations

2.5. Implementing Locale

i95Dev SAP Connect by default is implemented in English language which is configured using a CSV file. Follow the following steps to view custom fields and labels in your preferred language:

1. To display custom fields in your preferred language, download the template, add preferred language, and upload the same to Magento FTP as shown below.
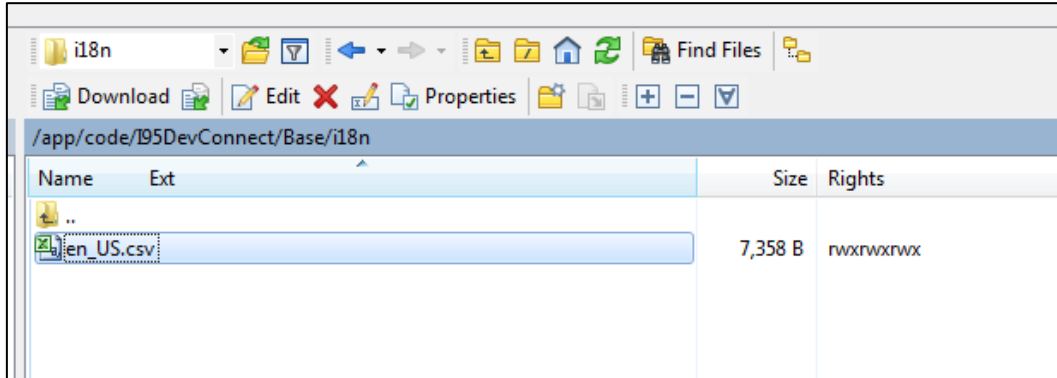
Figure 5: Locale implementation

3. Data sync between Magento and SAP

The Connector by default synchronizes the following information between Magento and SAP.

Element	Magento to SAP	SAP to Magento
Customer	Y	Y
Address	Y	Y
Product	Y	Y
Inventory	N	Y
Order	Y	Y
Shipping	Y	Y
Invoice	Y	Y
Order Status	Y	Y
Customer Group	N	Y
Special Price/ Price Level	N	Y
Credit Limit	Y	Y

4. Magento admin dashboard

In the Magento admin dashboard, you can view SAP information like SAP record ID, order status, etc. for records synced between Magento and SAP.

4.1. Customer

4.1.1. Email Address

Customer email address is mandatory field in Magento, hence customer records created in SAP must have an email address. In cases where an email address in not available, the Connector automatically generates and assigns a dummy email address. The email address generated automatically follows the following format:
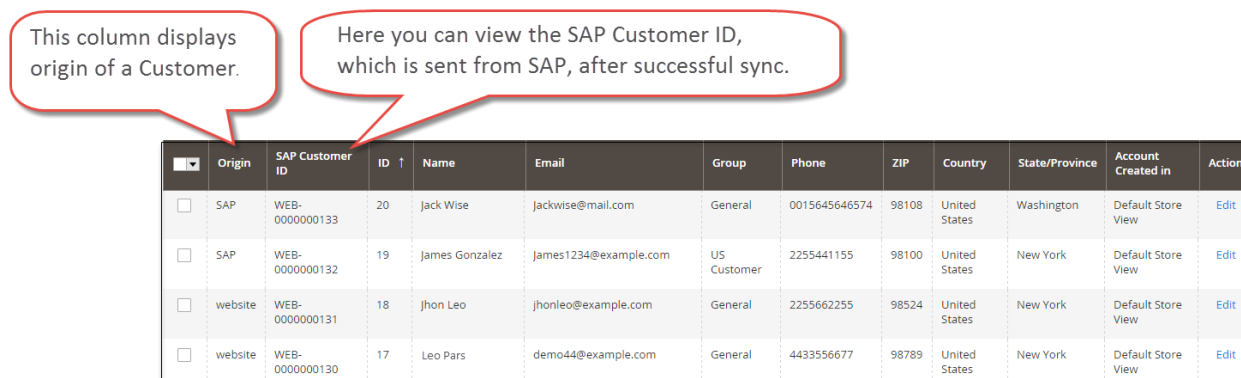
sapcustomerid@companyname.com

In the above email address the **sapcustomerid** is the Customer ID given at the time of Customer creation in SAP and **companyname** is the name of the SAP Company. This email id can be updated later.

4.1.2. Customer grid and information screen

Once a Customer record is synced between Magento and SAP, you can view the SAP Customer ID in Magento admin's Customer information screen.

We add two additional columns to Magento admin's Customer grid, Origin - to identify the originator (the source system where the record was created), and SAP Customer ID – to display the primary identifier of the record in SAP to help correlate the records in Magento and SAP.

This column displays origin of a Customer.

Here you can view the SAP Customer ID, which is sent from SAP, after successful sync.

	Origin	SAP Customer ID	ID ↑	Name	Email	Group	Phone	ZIP	Country	State/Province	Account Created in	Action
☐	SAP	WEB-0000000133	20	Jack Wise	Jackwise@mail.com	General	0015645646574	98108	United States	Washington	Default Store View	Edit
☐	SAP	WEB-0000000132	19	James Gonzalez	James1234@example.com	US Customer	2255441155	98100	United States	New York	Default Store View	Edit
☐	website	WEB-0000000131	18	Jhon Leo	jhonleo@example.com	General	2255662255	98524	United States	New York	Default Store View	Edit
☐	website	WEB-0000000130	17	Leo Pars	demo44@example.com	General	4433556677	98789	United States	New York	Default Store View	Edit

Figure 6: Customer grid in Magento admin

Similarly, the Connector adds an additional SAP Information section in the account Information tab. This section displays customer's SAP Customer ID and Price List assigned (if any).
1. Go to the **Customer View** tab in the **Customer Information** screen.
2. Scroll down to the SAP Information section to view Customer's **SAP Customer ID** and **Price Level**.

SAP Information

SAP Customer ID: WEB-0000000132

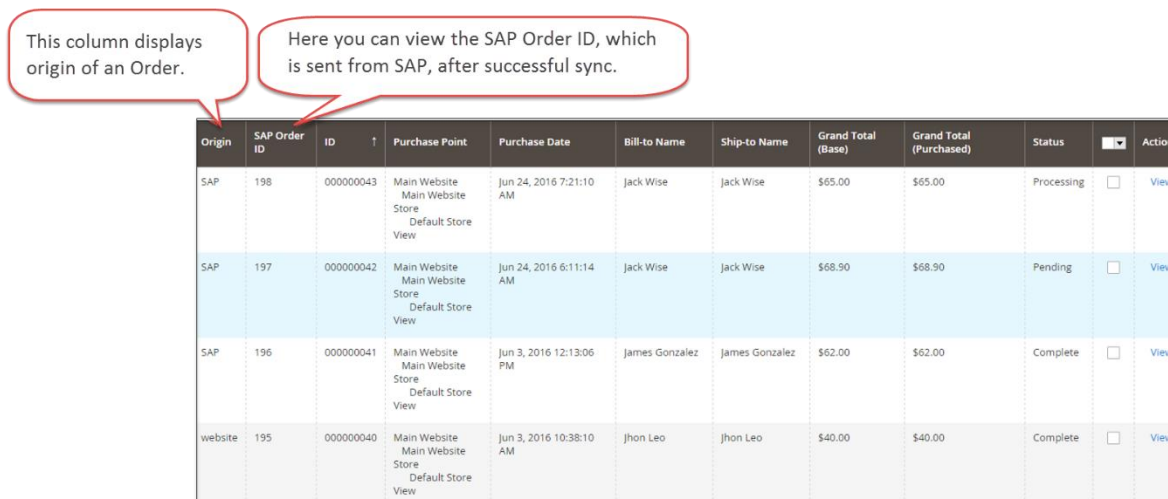**Figure 7: Customer's SAP Information in Magento admin**

4.2. Order

4.2.1. Order workflow

In SAP, there is a work flow for Order fulfillment which has 3 steps – Open Order → Delivery → Invoice.

4.2.2. Order grid and information screen

As with Customer grid, the same two columns are also added to the Order grid – Origin and SAP Order ID.

Figure 8: Order grid in Magento admin

Similar to Customer information page, an additional section, SAP Information, is also added to the Order information page. This section displays SAP Order ID, Order Status and SAP Invoice ID.

The Connector adds an additional SAP Information section in the account Information tab. This section displays customer's SAP Customer ID and Price Level assigned (if any) to the Customer.

1. Go to **Information tab** in the **Order View** screen.
2. Scroll down to the SAP Information section to view Order's **SAP Order ID**, **SAP Order Status** and **SAP Shipment ID**.

SAP Information

SAP Order ID	198
SAP Order Status	Shipped
SAP Shipment ID	146

Figure 9: SAP Information of Order in Magento admin

4.3. Product

4.3.1.   Inventory & Special Prices

For inventory and Special prices, the Connector by default assumes the SAP system as the master. Hence, both the inventory and Special pricing information is synchronized only from SAP to Magento, not the vice versa.

4.3.2.   Product grid and information screen

Unlike Customer and Order grid where we add two columns, in Product grid we add one column – SAP Product Status. Products successfully synced between Magento and SAP have status as "Synced".

> Synced status in this column shows that the Product created in Magento sucessfully synced to SAP.

	ID ↓	Thumbnail	Name	Type	Attribute Set	SKU	Price	Quantity	Visibility	Status	Websites	SAP Product Status	Action
☐	9		Dress	Simple Product	Default	Dress123	$200.00	119.0000	Catalog, Search	Enabled	Main Website	Synced	Edit
☐	10		Sarees	Simple Product	Default	Sarees	$500.00	100.0000	Catalog, Search	Enabled	Main Website	Synced	Edit

Figure 10: Product sync status, from Magento to SAP

5. Message Queue Report in Magento

The Message Queue Report gives an overview of the status of data sync transactions happening from SAP to Magento. The sync status can be viewed for the following entities:

Customer	Product	Order
Address	Special Price	Invoice
Customer Group	Price Level	Shipment

This is a dynamic report; once the record has synced successfully there would be no records in the report section.

5.1. Sync status

The Connector assigns the following status to each record during various stages of the sync process

Pending	Status used for incoming data – once the Connector starts receiving a message (data of an entity) from SAP. At this stage, the data is received by Magento but yet to be synced.
Success	Status used for records which have successfully synced to Magento.
Error	Status used when the Connector encounters an error during the sync process.
Complete	Status used when a record is successfully synced to Magento and the success notification is sent back to the SAP system.

5.2. Manual data sync

For every records that fail to sync to Magento (records with sync status "Error"), the connector attempts to re-sync the record pre-configured number of attempts. In the process, if the record successfully syncs then the status is changed to "Success**"** and then to "Complete" as discussed above. However, if the record fails to sync even after a pre-configured number of attempts, the automated retry process is stopped and the failed data will be removed from the message queue periodically (pre-configured).

Magento administrator can manually sync (after resolving the issue that is causing the automated sync to fail).

5.3. Clean up synced data

To avoid the message queue from getting overwhelmed (to understand and in size), the Connector periodically (pre-defined) removes the data, with sync status "Complete" and "Error", from the message queue.

5.4. Viewing sync report and manually syncing data

Please follow the following steps to view sync report and to manually sync records with sync status Error.
1. **Log in** as administrator in **Magento admin** panel.
2. Click **Reports** in the **Admin sidebar** → click **Message Queue Report** in i95Dev Message Queue group. The system displays the Message Queue Report screen.
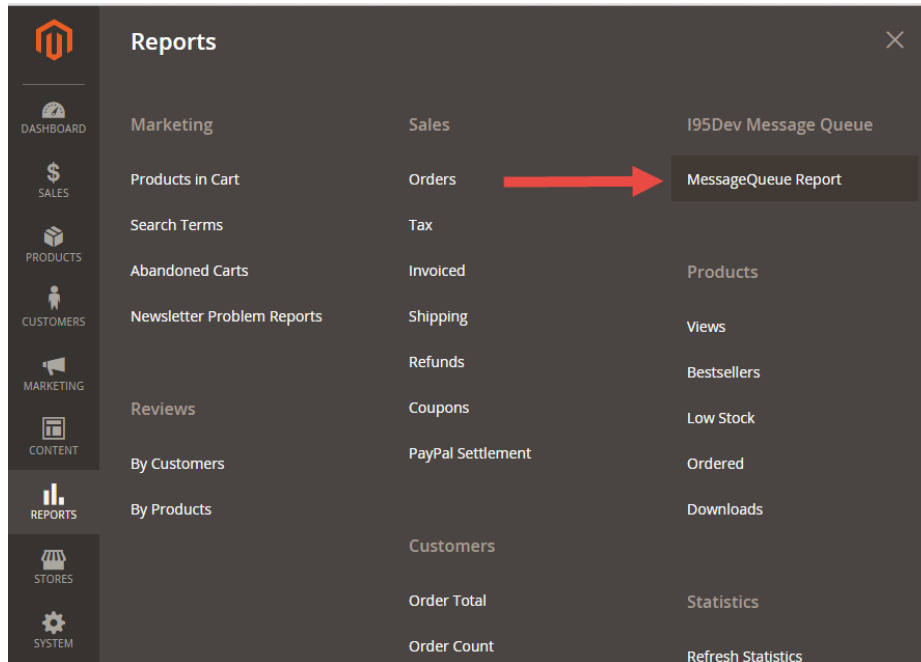
Figure 11: SAP integration Message Queue Report

3. Select the entity type in **Entity Type** drop-down list for which you wish to see the sync report.
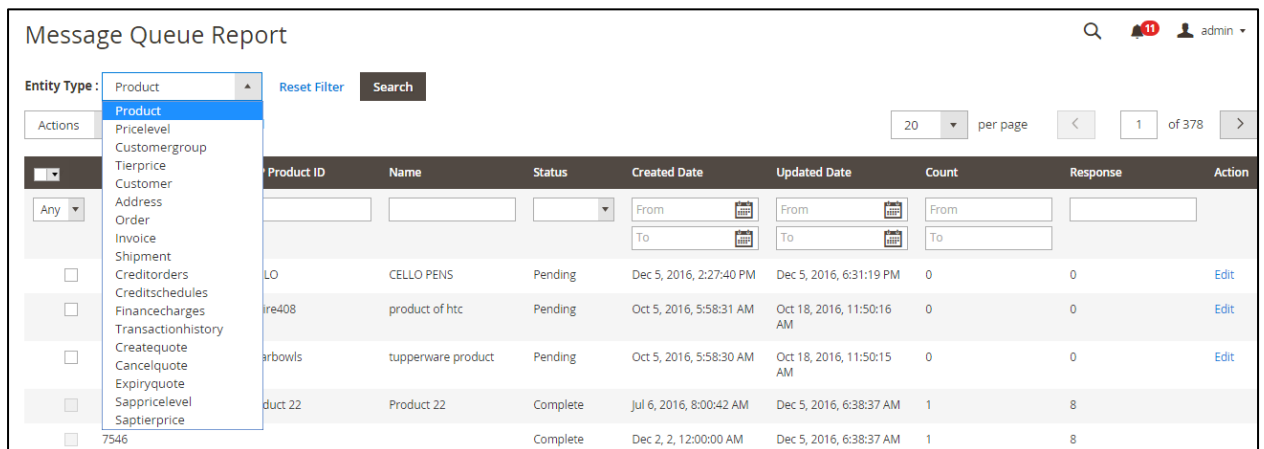

Figure 12: Entity Types in Message Queue Report

4. To view records with sync status Error, select **Error** from the **Status** drop down list and click **Search**.

Figure 13: Entity Status in Message Queue Report

5. Select all records (check box) you wish to sync manually and select **Sync** from the **Action** menu.

6. Click **Submit**.