ShipEngine

Aim

The interface between *Priority* and ShipEngine enables you to ship directly from *Priority* via carriers such as UPS, FedEx and others. Data from shipping documents in *Priority* are transferred to the carrier via the ShipEngine gateway. The interface also returns the shipment's tracking number and packing labels from the carrier directly into the shipping document in *Priority*.

This document describes the setups required to work with the interface, as well as the operations performed when shipping orders.

Setups

Stage I: Registering with ShipEngine

- 1. Ensure that your company is registered as a customer of the relevant carrier(s) and that you have your shipping account number.
- 2. Enter the ShipEngine website (www.shipengine.com) and do the following:
 - I. Click **Sign Up Free** and fill in the necessary information. You will receive a username, password and account number.
 - II. To create your API key, click **API Management** on the menu. Then click **Create New Key**.
 - III. To link each carrier that you work with to your account, click **Carrier Management** on the menu and select each carrier from the list. You will receive a carrier ID for each one.
 - IV. Select a payment plan and activate your account.

Stage II: Recording Weight and Length Units

Aim: To record preliminary definitions in *Priority*, which must be set before running the *Priority* interface with ShipEngine.

- 1. Enter the Part Units form.
- 2. Choose the weight unit you work with (*gram*, *kilogram*, *ounce* or *pound*, in lowercase letters) and flag the **ShipEngine W Unit** field for that unit. Also note the unit flagged as the **Main Weight Unit**.
- 3. Choose the length unit you work with (*centimeter* or *inch*, in lowercase letters) and flag the **ShipEngine L Unit** field.

Note: The Part Units form displays a pre-set list of units provided by the system. You can also add additional units of measure as required. If you do, they must be written in lowercase letters.

- 4. Enter the Unit Conversions form.
- 5. Define a conversion ratio between the unit flagged as the **Main Weight Unit** and the weight unit you flagged in step 2 (gram, kilogram, ounce or pound).
- 6. Define a conversion ratio between the "std length unit" and the length unit you flagged in step 3 (centimeter or inch).

Stage III: Recording ShipEngine Definitions

- 1. Run the Record ShipEngine API Key program. In the input field, record the **API Key** you received from ShipEngine.
- 2. Enter the Packing Crate Types form, and define the Length, Width and Height of the crate types that you work with. (To manually define a new crate type, see Appendix B.)
- 3. Enter the Company Data form and make sure your company's **Street Address** and **Phone Number** are correct. This data will be transmitted via the interface as the sender's address. These data will be transmitted via the interface as the sender's address.

Notes:

- You can define a shipping cost markup that will automatically be added to the shipping cost line in a shipping document. For more details and options on defining a markup, see Appendix A.
- Additional definitions are needed for international shipments, see Appendix F.

Definitions for Carriers

- In the Drivers/Shippers form, define a record for each shipping company (carrier) that you work with when shipping via ShipEngine. For each one, make sure to fill in the ShipEng Carrier ID that you received when signing up on the ShipEngine website. (Refer to the Setups, Stage I section above.)
- 2. For each carrier, run the **Load ShipEngine Service Codes** program from the list of Actions. This will fill in the carrier's service codes in the Shipment Codes form.
- 3. For each carrier, run the **Load ShipEngine Package Codes** program from the list of Actions. This will fill in the shipper's package codes in the Packing Crate Types form.

More Options

• To designate a default shipping method for one or more carriers, enter the Shipment Codes form and, for each carrier, select the desired method as the **Default for Carrier**.

- If you want to send return labels to your customers along with the shipment, in case they need to return the goods, then in the **Return Label Charge** field, choose an option that indicates when you should be charged for the return shipment. If a charge option is selected, then when running the **Ship by ShipEngine** program from the **Customer Shipments** form (in Send Shipment mode), return labels will be generated (in the **Customer Shipments > Attachments** form) as well as the shipment labels.
 - Carrier Default you will be charged according to the shipper's default charge behavior.
 - **On Creation** you will be charged when you create the return label.
 - On Carrier Acceptance- you will be charged when the label is actually used.

Definitions for Customers

1. Enter the Customers form. In the upper-level form and in the Customer Contacts subform, make sure the details of the contact flagged as **Shipment Contact** are correct. This data is transmitted via the interface.

Note: Unless you manually define the contact in the **Customer Shipments** > **Shipping Address** form of the shipping document in question—the customer name will automatically be taken from the **Contact** in the upper-level **Customer Shipments** form. If a contact is not defined there, the **Customer Name** in the **Customer Shipments** form is used instead.

2. In the upper-level form and in the **Customer Sites** subform, make sure your customers' street address and phone numbers are correct. These data are transmitted via the interface.

Note: Unless you manually define a shipping address in the **Customer Shipments** > **Shipping Address** form of the shipping document in question—the address and phone numbers are automatically taken from the upper-level **Customers** form.

More Options

- If you bill some of your customers for shipping, record each of your customers' shipping accounts in the **Accounts at Shippers** subform: record the code of the shipping company in the **Shipping Co. Code** field and the customer's account number (received when signing-up for the carrier). When entering a purchase order, you can select the relevant shipping account.
- Alternatively, you can record the ShipEngine carrier code and carrier account in the **Customer Sites** subform if the customer has different sites and accounts (one account per site).
- You can choose to predefine who will be charged for shipping costs in the Carrier Charge field (in the Customers > Additional Customer Data form). This is useful

when running the **Ship by ShipEngine** program (in Send Shipment mode), and choosing option 5 (**By Customer Definition**) in the **Shipping Charges** field.

More Options - Returns

- You can determine return label policy per customer site, or per customer, instead of per carrier. Define it per customer in the **Return Label Charge** field in the **Customers** form, or per customer site in the **Customer Sites** subform. Choose an option that indicates when you should be charged for the return shipment.
- If you want to create a fixed return address for return labels, different than the shipping warehouse address, record the return address in the **Return Address** subform in the Warehouses form.

Procedure

Stage I: Shipping with ShipEngine

Aim: To send data from a shipping document to ShipEngine and update the shipping document with the tracking number and package labels generated in ShipEngine.

The **Ship by ShipEngine** program can be used in two ways:

1. When you start working with ShipEngine, it is recommended that you review shipping rates with the **Receive Rate Quote** option. This allows you to pick a shipping rate from the options offered by multiple carriers. Consequently, the shipping code is filled in, and the cost of shipping is added to the document.

For details on defining a markup that is automatically added to the shipping cost (in a shipping document based on a sales order), see Appendix A.

2. If you are familiar with ShipEngine codes and rates, you can choose the **Send Shipment** option and manually specify the Shipment Code in the shipping document.

In this case, if you wish to charge the recipient (i.e., the customer or delivery site) for shipping, you will have to add the charge manually to the shipping document. To do so, record the charge on a new line in the **Shipped Items** subform of the Customer Shipments form. (You may use the predefined part number **Shipment** to record this shipping charge.

Note: You may only use valid ShipEngine shipment codes generated by the **Load ShipEngine Service Codes** program.

Once a shipping code is specified in the shipping document, you can send it to ShipEngine.

To send a shipping document:

1. Enter the Customer Shipments form and record the details of the shipment.

- 2. If the Manual Gross Weight field is blank, record the weight of the shipment.
- 3. Record the **Crate Type**.
 - You may only use valid ShipEngine crates generated by the Load
 ShipEngine Package Codes program or .those defined (in the Packing Crate Types form) with valid ShipEngine package codes.
 - For shippers that support multi-package shipments: If you do not work with packing slips, you can use the **Crates in Shipment** subform to record multiple crates included in a single shipment. See Appendix C.
- 4. Select the desired carrier in the **Shipper/Driver Number** field.

Note: If you select a carrier, and then choose to view rate quotes, the system will display rates offered only by this carrier. To view rate quotes from all relevant carriers, leave the **Shipper/Driver Number** blank. The system suggests rate options for shippers with a **ShipEngine Carrier** code recorded in the Drivers/Shippers form.

- 5. Select **Ship by ShipEngine** from the list of Actions.
- 6. Select **Receive Rate Quote**. A form opens with optional rates.
- 7. Select a rate and exit the form. You will return to the shipping document.
- 8. The **Shipment Code** and **Shipper/Driver Number** (if not already specified) are automatically filled in, and the cost of shipping is added to the document.
- 9. You can edit the shipping address, in the **Shipping Address** subform. If the address is a place of residence, select the **Residential** checkbox to update ShipEngine with this information.
- 10. Change the document's status to Final.
- 11. Rerun the program and select **Send Shipment**.
- 12. In the input screen, select the party to be charged by the carrier for shipping fees:
 - Specify **1** if you are paying shipment fees.
 - Specify 2 to charge the customer. If you choose this option, make sure the carrier recorded in the Driver/Shipper field in the shipping document is the same as the carrier defined for the customer and that the customer has a carrier account number (both are recorded in the Accounts at Shippers form, a subform of the Customers form).
 - Specify 3 to charge the delivery site. If you choose this option, make sure the carrier details are defined in the Shipping Address form (a subform of Customer Shipments).
 - Specify 4 to record the account manually. If you choose this option, another input screen will open in which to record the third party's details.

- Specify 5 to charge according to customer definitions in the Carrier Charge field, found in the Additional Customer Data subform of the Customers form.
- 13. Indicate whether you want to print the shipping labels (Select Printer) upon completion of the program.

Results

- The **Tracking Number** assigned by the carrier is updated in the shipping document. This number will be displayed on printouts of the document, thereby facilitating tracking of your shipment. If the shipping document is based on one or more packing slips, the tracking number is copied to those slips as well.
- If you recorded multiple crates in the **Crates in Shipment** subform, the **Tracking Number** is filled in automatically for each crate in the shipment.
- Printing labels are included in the **Attachments** form (subform of the **Customer Shipments** form) and are printed (if the printing option was selected). Return labels are included as well if a charge option was selected in the Customer Sites subform, the Customers form, or the Drivers/Shippers form (in the **Return Label Charge** field for the document's shipper).
- Several log screens in the system document transmissions to ShipEngine and any errors that returned.

Notes:

- If you work with multiple crates, labels will be created for each crate. The name of the label in the Attachment subform will be the crate number as shown in the Crates in Shipment subform.
- If you need to generate return labels and you already ran the **Ship by ShipEngine** program, you can run the Create Return Shipping Labels program to generate return labels for that specific shipping label.
- If you want to run the **Ship by ShipEngine** program only in **Send Shipment** mode, see Appendix E.

Stage II: Canceling a Shipping Document

- 1. Enter the Customer Shipments form and retrieve the shipping document that you want to cancel.
- 2. Select **Cancel ShipEngine Shipment** from the list of Actions.

Result

The Tracking Number and printing labels are deleted from the document.



Stage III: Tracking a Shipment via ShipEngine

You can track a shipment by running a report that lists the delivery statuses of the shipment. You can only track a shipment if its **Tracking Number** appears in the Customer Shipments form.

To track a shipment via ShipEngine:

- 1. In the Customer Shipments form, retrieve the shipment you want to track.
- 2. From the Actions menu, run the Package Tracking ShipEngine program.

Result

An HTML report appears in a new web page listing the delivery statuses of the shipment.

Appendix A: Defining a Shipping Cost Markup

If a markup is defined in a **Shipping Markup** field in the Sales Orders form, the markup is added to the shipping expenses coming from ShipEngine when running the **Ship by ShipEngine** action (in Receive Rate Quote mode) from a shipping document. This is only relevant for a shipping document that is based on a sales order.

The markup percentage or amount is automatically recorded in the sales order according to the hierarchy mentioned below, but can be revised if necessary.

When you open a shipping document based on the order, the markup is copied into the shipping document (in the Customer Shipments > **Shipped Items** form). It appears there for informational purposes only.

Note: If the shipping document is based on more than one sales order, the markup must be the same for each order.

Examples

- If the original shipping cost from ShipEngine is \$10, and a 10% markup is specified in the **Shipping Markup (%)** field, then after you run the **Ship by ShipEngine** action, the shipping cost line in the shipping document will be updated to \$11.
- If you want to indicate a markup amount instead of a percentage, use the Shipping Markup (Amt) field instead. For example, if the shipping cost from ShipEngine is \$10, and you specify a \$1 markup amount, the shipping cost line will be updated to \$11.

Options for Defining a Markup

A shipping markup can be defined for the following:

- Customer (in the Customers > Additional Customer Data form)
- Shipment code (defined in the Shipment Codes form for the shipper specified in the Shipper/Driver No. field)



• Shipper (in the Drivers/Shippers form)

Hierarchy

The markup is inherited by the sales order in the following hierarchy:

- If a markup is defined for the customer, it is taken from the markup definition in the Customers > Additional Customer Data form.
- If none is defined there, it is taken from the default shipment code for the shipper (in the Shipment Codes form).
- If none is defined there, it is taken from the markup defined for the shipper (in the Drivers/Shippers form).

Appendix B: Defining a New Crate Type

You can manually define a new crate type.

Note: To work with the ShipEngine interface, you must fill in a valid package code, which is the code for this shipper's crate type, as defined by ShipEngine. Therefore, it is recommended that you automatically load codes by running the **Load ShipEngine Package Codes** program (from the Actions menu in the Drivers/Shippers form). (Refer to Stage II: Recording ShipEngine Definitions above.)

To manually define a new crate type for documents sent via ShipEngine:

- 1. In the Packing Crate Types form, in the **Crate Type Code** field, specify a code to represent the new crate type.
- 2. In the **Crate Type Desc.** field, provide a brief name or description of the crate type.
- 3. In the **Crate Weight** field, specify the weight of this crate type when empty.

Note: This weight will be used to calculate the gross weight of packed crates of this type.

- 4. In the **Unit of Weight** field, specify the unit of measure in which crates of this type are weighed.
- 5. In the **ShipEngine CrateCode** field, specify the valid code for this shipper's crate type as defined by ShipEngine. If needed, you can define a generic crate type that is not related to any carrier. In this case leave this field empty.
- 6. Define the **Length**, **Width** and **Height** of this crate type.

Note: The system automatically multiplies the length, width, and height and then divides the sum by the value of the **IVolumeCoef** constant in the Logistic Constants form. This result then populates the **Crate Volume** field in the Packing Crate Types

form. However, you may revise the volume manually. (This value is used to calculate the volume of packed crates of this type.)

- 7. Use the **Shipper/Driver No.** field to assign this crate type to a shipper.
- 8. Use the **Capacity** field to designate the number of parts that this crate type generally holds, designated in buy/sell units.

Note: If capacity is dependent on the specific part being packed, use the subform instead.

Appendix C: Recording Multiple Crates in a Single Shipment

If you support multi-package shipments but do not work with packing slips, you can record multiple packages (crates) included in the current shipment by using the **Crates in Shipment** form (a subform of the **Customer Shipments** form). You can only define crates in this form when the crate type has not been defined for the whole shipment (i.e., the **Crate Type** field in the upper-level form is empty).

To record multiple crates:

- 1. In the Customer Shipments form, retrieve the shipment.
- 2. In the **Crates in Shipment** subform, in the **Crate Number** field, specify a unique number assigned to the current crate within the shipment.

Note: This information will appear on the printout of the shipping document.

3. In the **Crate Type Code** field, select the code of the crate type used to pack the goods.

Note: The drop down list displays the crate types defined in the Packing Crate Types form linked to the shipper/driver specified in the upper-level form and crate types that are not related to any carrier (the ShipEngine CrateCode field is blank).

- 4. The **Length**, **Width**, and **Height** fields display the values defined for the crate type, but they can be revised. If you manually specify a value for one dimension, you must manually specify the other two dimensions.
- 5. In the **Manual Gross Weight** field, specify the actual weight of the crate.
- 6. Return to the upper-level form and continue defining the shipping document as per Stage III: Shipping with ShipEngine.

Appendix D: Creating a Manifest

A manifest is a document used by a carrier that includes one barcode for one or more shipment items. The carrier can scan the barcode and process all the shipment items at once, instead of scanning each item separately.

If your carrier requires a manifest and your service provider does not provide one, you can use the Create a Manifest procedure in Priority.

In order to see a list of the carriers that require a PDF manifest, see the ShipEngine website.

To create a manifest in Priority:

- 1. From the **Inventory Transactions** menu, select **Sales Inventory Transactions > ShipEngine Manifests** and run the Create Manifests program.
- 2. Choose a **Shipper/Driver No.** and a **Date** in the program dialog.
- 3. Select OK.
- 4. The Choose Shipments for Itemization query form will open. All the shipping documents that match the query will appear. You can omit documents you do not want using F7, and exit the form.

Result:

The manifest will open as a PDF file. You may print the file and provide it to your carrier.

Note: For future reference, you can access a link to the PDF files of previously generated manifests by searching by carrier and date in the Manifests form.

Appendix E: Add Shipping Charges in Send Shipment Mode

You can run the **Ship by ShipEngine** program in **Send Shipment** mode and have the system automatically add a shipment cost line when necessary, according to your definitions.

Settings

Set the **Adjust Ship. Charges** field in the Drivers/Shippers form to 1 or 2, according to your preference:

• 1 - Adds a shipping cost line to a shipping document if the company is charged for the shipment. Markup (% or amount), if defined, is added to the shipping document only if there is a shipping cost line.

• 2 - Adds a shipping cost line to a shipping document if the company is charged for the shipment. Markup (% or amount), if defined, is always added to the shipping document as a shipping cost line, even if no ShipEngine shipping charge is applicable (in which case only markup amount may be added).



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Procedure

When running the **Ship by ShipEngine** program from a customer shipment, choose **Send Shipment** and fill in the details in the dialog as specified in step 11 of the Stage I: Shipping with ShipEngine procedure above.

Results

- If the customer is not paying the shipping charges, and adjust shipping charges is predefined as 1 or 2, a shipping cost line will be added to the shipping document (and markup will be added, if defined).
- If the customer is paying the shipping charges, and adjust shipping charges is predefined as 1, a shipping cost line will not be added to the shipping document (and markup will not be added, if defined).
- If a shipping cost line was previously setup, it will be deleted at this point.
- If the customer is paying the shipping charges and adjust shipping charges is predefined as 2, a shipping cost line will only be added if markup is defined (and will contain the markup only). Otherwise no line will be added.

Appendix F: International Shipping

When you run the **Ship by ShipEngine program** for international shipping, the system automatically recognizes the shipment as international by comparing the country code of the shipment with the country code of the shipping warehouse or the country code from the Company Data form.

Therefore, make sure the **Country** field is defined in the **Shipping Address** subform in each shipping document, and that the **Country Code** in the Countries form and the Company Data form is filled accordingly.

For each and every one of the parts that participate in the customs process, you must provide a **commodity code** and a **country of origin** in the Financial Parameters for Parts form.



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