Locations

Order Routing allows you to view your existing fulfillment locations on the Locations page of the interface, but they are also sorted into groups (sets of similar fulfillment locations that are bundled together) that are managed through the Routes page.

⚠️ Note that changes to Order Routing settings may not immediately take effect when processing orders. It may take up to 15 minutes for updates to be reflected in the system while the cache refreshes.

View and Manage Locations

All locations within a catalog are listed on the Locations page.

You can use the checklist in the table below to select multiple locations and then use the dropdown menu to perform bulk actions on them.

- Deactivate or activate locations.
  - Note that active/inactive statuses are catalog-specific (not group-specific).
- Add or remove locations from their assigned location groups.
- Create a new group with the selected locations.

View and Manage Location Groups

Location groups are displayed as part of each route's summary on the Routes page. The groups are prioritized from the top down, meaning that the topmost group will be considered first when assigning orders.
1. Click the arrow icons to move a group higher up in the list and rearrange their priorities.

To view more detailed information about the location groups in a route, click **View # groups** from the route summary. This will display the following information and actions.

- **Group Rank**: The order will first attempt to assign to the group ranked #1, then #2, and so on.
- **Group Details**: View locations within the group by clicking on the group name.
- **Group Active/Inactive**: If the group ranked #1 is inactive, it will be skipped during assignment.
- **Filters**: Each of the filters applied to the group are listed, as well as the button to add/remove filters.
- **Edit**: Use the icons to change the group name and basic information, duplicate it, or delete it.
- **Match Actions**: View and change the actions that should be taken when the group is determined to be a match for the order (can fulfill entire order), a partial match (can fulfill some of the order items), or no match (cannot fulfill any items in the order).

Create a New Group

To create a new group within a route:

1. Go to the **Routes** page of Order Routing.
2. Click **Add Group** in the top right of a route.

![Add Group button](image)

3. Enter the group **Name** and **Description**.

   ![Add Group form](image)

4. Configure the primary and secondary sorting options to determine how to prioritize locations within a group. In the event of a tie using the primary sort, the secondary sort will determine which location is preferred.

   - **Rank**: Allows manually prioritized locations by numeric rank.
   - **Distance**: Prioritizes locations closest to the shipping address.
   - **Velocity**: Based on maximum LTD (Life to Date) inventory values of the order items at each location candidate. Prioritizes locations with lower values to improve product turn and reduce markdowns by assigning orders to locations with the slowest moving inventory.
- **Carrier Cost:**Queries FedEx to get the actual shipping cost and prioritize locations with the lowest costs. Note that this does not calculate based on the rates of any other carriers.

- **Load Balanced:**Distributes order assignments evenly among locations.

5. Indicate whether this should be the default group that new locations are automatically added to or not.

6. Select which route the group should be applied to. Selecting multiple routes will copy the group to each.

7. Set any fulfillment restrictions to limit the number of shipments, items, or dollar amounts that can be fulfilled by this group per hour, day, week, or month.
   - These limits enable location holds and ensure that the locations will be able to handle the fulfillment load in a given amount of time. If a location has reached the fulfillment limit then no more shipments will be assigned to it.
   - The time period is calculated from the current moment, rather than by the calendar. For example, if you set a limit for 500 orders per day then a location can only fulfill up to 500 orders within the past 24 hours from that moment. If you selected 1 hour then it would look back one hour ago from now.

8. Click **Continue**.

If locations were not already selected before initiating group creation, you are able to add locations on the next page of the group creation form.

1. Select one or multiple locations by selecting the checkbox.

2. Click **Continue**.
The next page allows you to add filters. If no filters are desired, just click **Continue**. To select and/or create filter(s), complete the following steps.

1. Select existing filter(s) if applicable, or click **New Filter**.
2. If creating a new filter:
   - Enter new **Filter Name**.
   - Select **Type**: Set up a custom value or choose an existing data point.
   - Select **Filter Attribute**: The parameter to base the filter on.
   - Select **Logic**.
   - Select **Comparison Property** or **Custom Value**.
3. Click **Continue**.

Finally, you must configure the group's after-actions. For more information about after-action behavior, see the **How Assignment Works** section.

1. Select the preferred behavior that Order Routing should take in the event of only finding partial inventory for an order available in this location group.
2. Select the behavior that Order Routing should take if there is no available inventory for an order in this group.
3. Click **Save Group** to finalize your group creation.

**Edit Group Locations**

You can view and edit group details by clicking **Edit** next to a group name when viewing a route on the Routes page. This will allow you to add new locations to the group or perform actions on the existing locations.

If you want to add locations to the group:

1. Click **Add locations** in the top right of the group details.
2. A list of existing locations will be displayed.
3. Select locations from the list to populate the Selected Locations list on the far right, and click **Add Location to Group** once all desired locations have been chosen.

If you want to edit locations:

1. Select at least one location using the checkbox in the table.
2. Expand the **Edit locations** dropdown and select the action you want to perform on the selected location(s). A common use of this is to place a location on hold (and then remove it from the hold). This will temporarily prevent any shipments from being assigned to that location, without fully deactivating the location.

![Edit locations dropdown](image)

**Edit Group Filters**

When viewing the routing details on the Routes page, the applied filters are listed in each group entry. Here you can remove or add filters to an existing group.

1. Go to the **Routes** page of Order Routing.
2. Click **View # groups** under a route to see its group details.
3. Click **Add Filter** under a group’s filter list.
4. The pop-up that appears will display a list of all existing filters, including the brief description of their effect. Select as many new filters to apply as desired, or deselect the filters that are currently applied.
5. Click **Save** to confirm the filter selections.

![Add/Remove filter](image)

**Edit Group Logic**

You should define logic to determine which behaviors Order Routing follows in different scenarios, depending on how much available inventory for the order was found within the current location group.

1. Go to the **Routes** page of Order Routing.
2. Click **View # groups** under a route to see its group details.

3. Click **Edit** next to the current after-actions in the group details view.

4. Select your behavior options in the after-actions chart. For an explanation of what these scenarios and options mean, see the How Assignment Works section below.

5. Click **Save** when your selections are complete.

**How Assignment Works**

When a group is being considered for assignment, order routing considers the locations within the group, the available inventory in each of those locations, and any filters set in the group. Then it will determine whether the group is a match (can fulfill entire shipment), a partial match (can fulfill some of the items), or no match (cannot fulfill any items). If the group cannot fulfill the entire shipment, then there are several possible actions that can be taken.

The most common use case is splitting the shipment by line item or quantity by assigning available items to a location, then continuing to the next group to assign the remaining items to another location.

In the event of a partial match, in which some inventory is available within the location group but not the entire order, it is possible to split the order between multiple locations. If split by line item, the entire quantity of a line item will always be assigned to another location. Splitting by quantity would allow some inventory of one line item to be assigned to one location, and the remaining quantity assigned to another.

If the **No Split** option is chosen, then the middle row of options (**In Case of a Split**) will be greyed out because it is not applicable. If splitting is enabled, then the middle row of options will set the preferred behaviors for the case where no location in the group can fulfill the remaining items in the order:

- **Continue to Next Group**: Try to assign the remaining items to a location in the next group.
- **Send Remaining Items to Customer Care**: Send the items that can't be fulfilled in this group to Customer Care.
- **Send Remaining Items to Backorder**: Send the items that can't be fulfilled in this group to backorder, to be
furnished at a later date when a location in this group has available inventory.

- **Cancel Remaining Items:** Cancel the items that can't be fulfilled in this group.

If a shipment has been split, then **Restart Attempt for Partial Assignment** determines where Order Routing will attempt to assign the remaining items.

These options are:

- **Start Over at Beginning:** Go back to the highest priority location group and try to assign the remaining items to a location in that group.
- **Current Group:** Try to assign the remaining items to any location within the current group that the split occurred in. If no location can fulfill the items, then move on to the next group.
- **Group Rank:** Try to assign the items to locations in the next group of the ranking order.

**Ship-to-Home Consolidation**

However, if you have locations enabled for STH Consolidation then specific logic is followed to determine how to consolidate shipments instead:

- If a full match is not available, Order Routing will check whether any of the suggested routing locations are enabled for STH consolidation as a partial match. If so, then it will assign the parent shipment to the first consolidation location it finds instead of performing the usual after-action (such as splitting). It will then create transfers to fulfill all of the missing items from transfer-enabled locations. Thus, one single shipment will be sent to the customer from the consolidated location.
- If no locations have STH consolidation enabled, or there are not locations enabled to provide transfers, then it will proceed with the standard process of splitting the shipment.
- If an item is unavailable or on backorder, then a separate STH shipment will be created and reassigned for future delivery so that it does not block the available items from being consolidated and shipped. Likewise, any items that can’t be successfully routed or is rejected from the parent location will follow the configured after-action logic such as being canceled or sent to Customer Care as a separate STH shipment.

When a shipment is being consolidated, it cannot be manually reassigned. There is no direct way to reassign the parent STH shipment through either manual or auto-assignment once the shipments have been created.

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**STH Consolidation is currently not supported with Future inventory.** If you have both of these features enabled, STH Consolidation will not work because Order Routing will attempt to use Future inventory instead of creating a transfer.