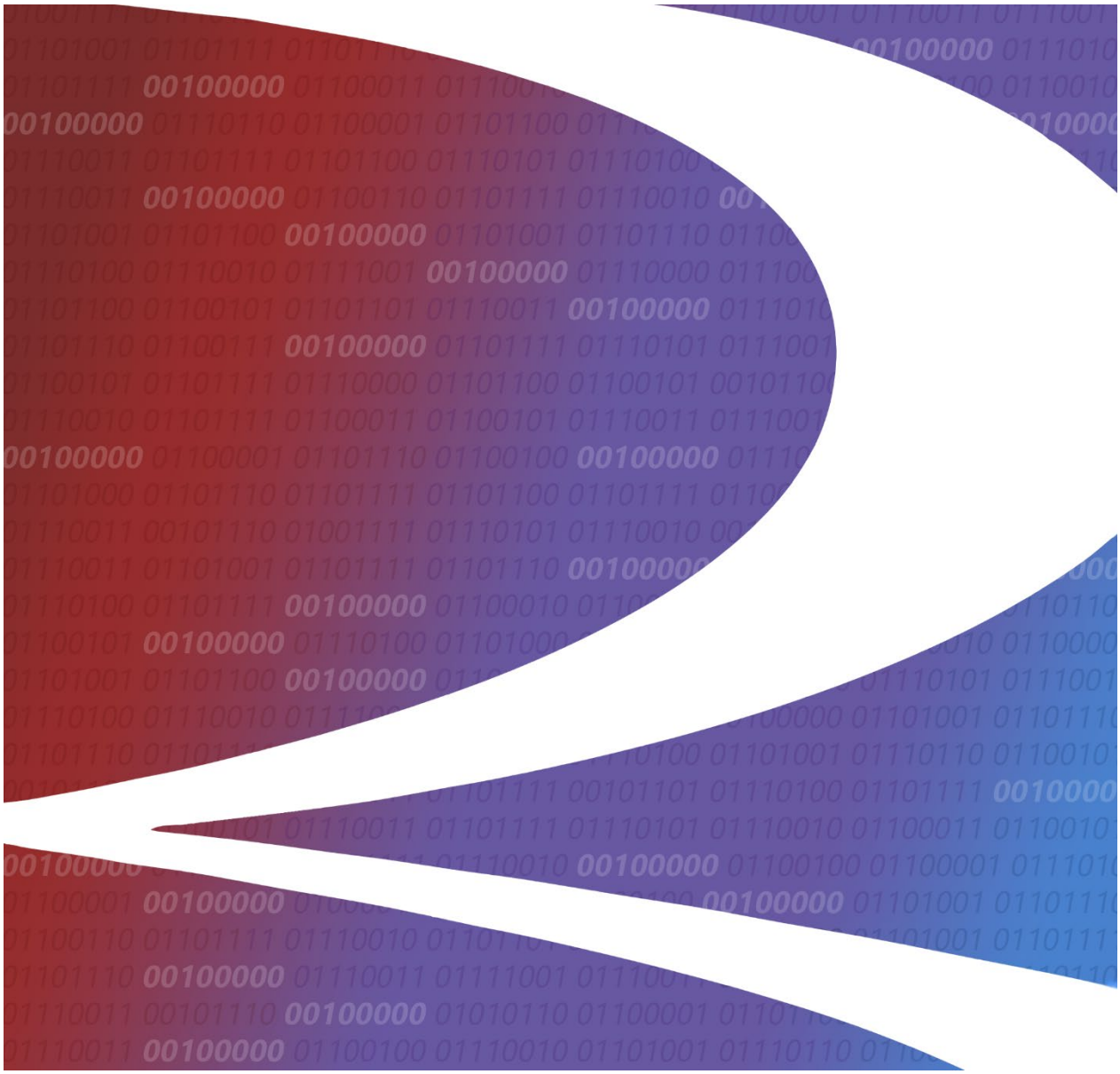

Railinc Messaging Console User Guide

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Welcome to Railinc Messaging Console

System Overview

The Railinc Messaging Console (RMC) is a web-based application that enables customers to view their messages that are sent and received through the Railinc network, retrieve information about their message routing configurations and usage patterns, and look up information about trading partners. All functions can be performed from the application menu bar on most pages (Exhibit 2).

The Railinc Message Console (RMC) allows authorized external users to:

- Search and retrieve messages from inbound (to Railinc) or outbound (from Railinc) logs.
- Download and retransmit messages.
- View Railinc Messaging System (RMS) message routing.
- Drill-down on aggregated (hourly) message statistics.
- Set up notifications. Alerts are sent to users when selected criteria are met. For example, alerts can be sent when no SWETA/SW421 messages have been received within the last hour.

Railinc Contacts

The Railinc Customer Success Center provides reliable, timely and high-level support for Railinc customers. Representatives are available to answer calls and respond to e-mails from 7:00 a.m. to 7:00 p.m. Eastern time, Monday through Friday, and provide on-call support via pager for all other hours to ensure support 24 hours a day, 7 days a week.

Contact us toll-free by phone at (877) RAILINC (1-877-724-5462) or send an e-mail directly to csc@railinc.com.

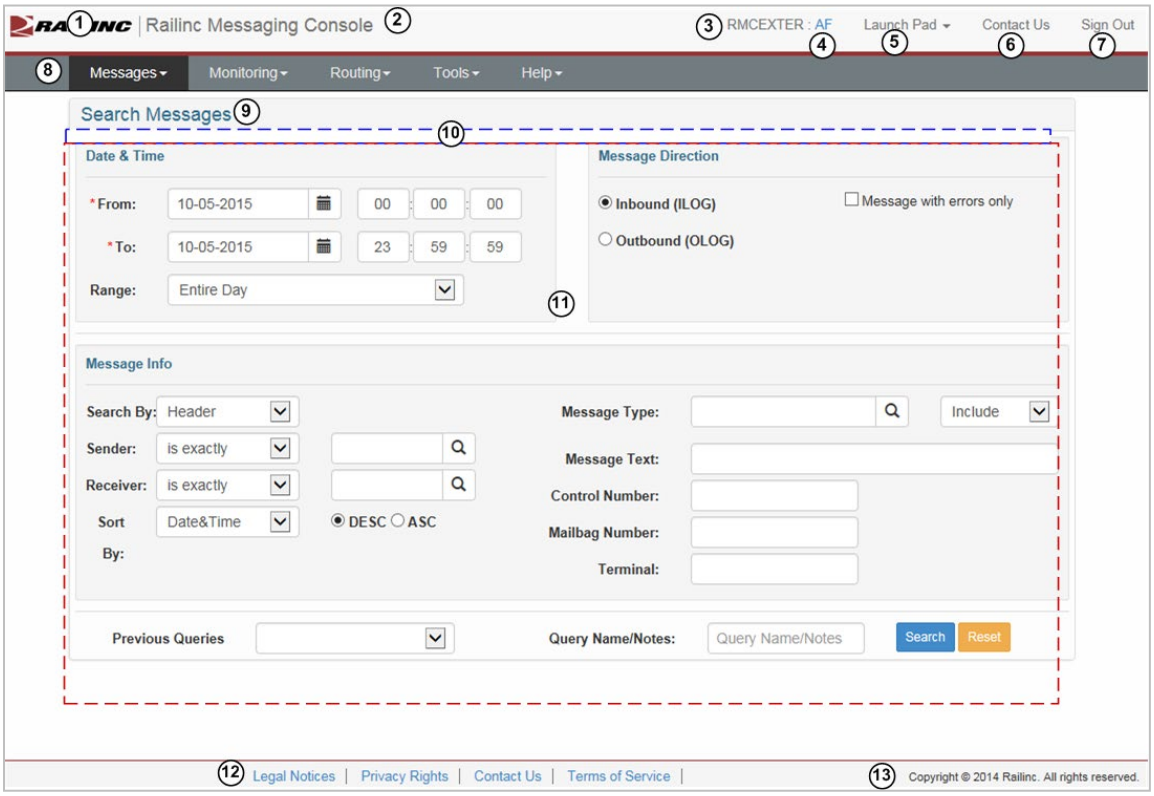
General User Interface and System Requirements

General user interface information (typical keyboard selection equivalents and shortcuts), as well as system requirements are available in the *Railinc UI Dictionary*.

RMC Interface

Each page in a Railinc web application has the same structure.

Exhibit 1. RMC Page Layout



1 **Logo**—Railinc logo. Logo is link to the Railinc corporate website.

2 **Application Title**—Name of the application. This is also a link to the Home page of the application.

3 **User ID**—Logged in user.

4 **Company**—Company user is representing. For individuals representing several roads. Selecting this link while logged on opens the Select Company page, to reselect the company on whose behalf the user will be working—without logging out.

5 **Launch Pad**—Link where the user can click to go directly to the SSO Launch pad, or hover over to display a dual drop-down menu to switch to other authorized Railinc applications (left side) or go to the SSO User Services functions (right side), e.g., change passwords, request other applications, etc.

6 **Contact Us**—Opens a page of contact information (local road, Railinc support).

7 **Sign Out**—Logs out of current application and returns to the Railinc SSO login page.

8 **Application Menu**—The top of the Railinc page displays the application menu options. The options on this menu allow you to perform the various functions of the application.

9 **Page Title**—The title of the specific application task page.

10 **Message Area**—Area under the page title which displays messages as needed (shown outlined with blue dashes). Also found here are breadcrumb navigation links, allowing users to quickly return to previously viewed screens.

11 **Page content area**—The area of the page where tasks are executed (shown outlined with red dashes). These vary and may include a number of different elements, which are described in the next sections.

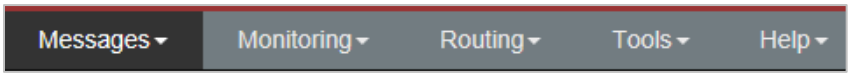
12 **Legal Links**—This area at the bottom left of each page contains links to applicable legal notices, privacy rights, terms of service, and the Contact Us link.

13 **Copyright**—This area at the bottom right of each page shows copyright information.

RMC Application Menu

Exhibit 2 shows the RMC application menu.

Exhibit 2. RMC Application Menu



The RMC application menu provides the following functions:

Exhibit 3. RMC Application Menu Functions

Menu Item	Function
Messages	Opens the Messages menu (Exhibit 6).
Monitoring	Opens the Monitoring menu (Exhibit 34).
Routing	Opens the Routing menu (Exhibit 43).
Tools	Opens the Tools menu (Exhibit 47).
Help	Opens the Help menu (Exhibit 55)

Getting Started

The RMC application is accessed using the Railinc Single Sign On (SSO), which can be accessed from the Railinc portal at http://www.railinc.com. The SSO log in is located at the upper right of the page. Refer to Register to Use Railinc SSO on page 4.

Register to Use Railinc SSO

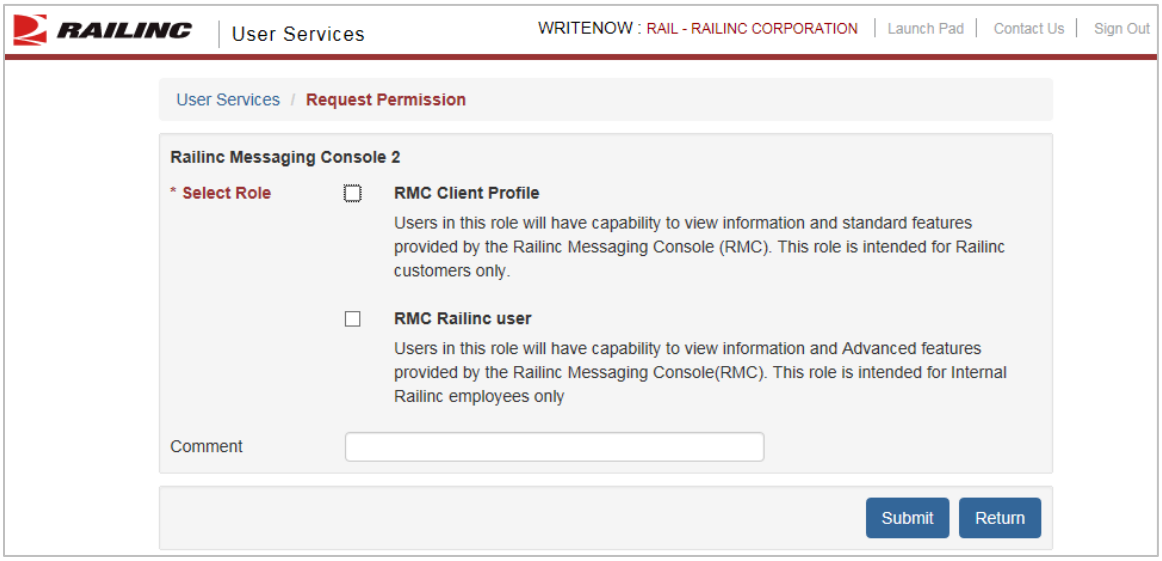
Each RMC user must register to use Railinc Single Sign On. It is beyond the scope of this document to describe the use of Railinc Single Sign On. Refer to *Railinc SSO and Launch Pad User Guide*. This User Guide is available as a PDF download at www.railinc.com. Select the icon in the Account Access window to view.

Once SSO registration is complete, the user must request access to RMC within SSO.

Requesting RMC Access

After authorization to use Railinc SSO is received, the user must request general access to RMC following instruction in the *Railinc SSO and Launch Pad User Guide*.

Exhibit 4. SSO Request Permission to RMC



The user must select the RMC Client Profile role, enter an optional comment and **Submit** the request.

When e-mail notification of approved access to RMC is received, the user can log on and begin using RMC. Refer to Logging In on page 5.

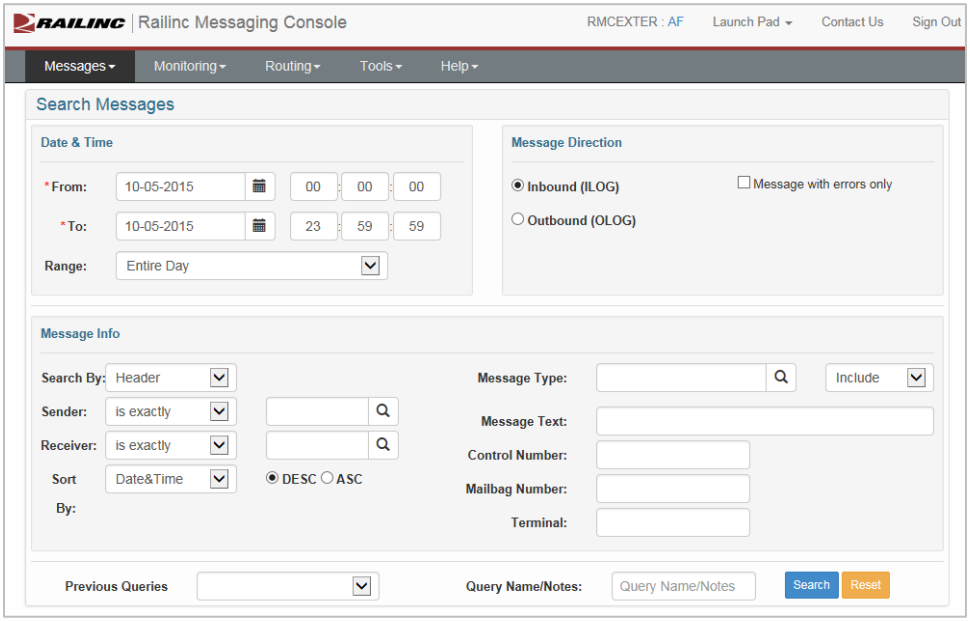
Note: Access to functions for specific companies within RMC is handled by the Railinc RMC administrator who has the authorization to approve user's RMC tasks (and menu items). Other tasks can be performed by Railinc RMC administrators only.

Logging In

To log into RMC:

1. Open the browser.
2. Open the Railinc portal at http://www.railinc.com.
3. Log in to SSO. The Launch Pad is displayed.
4. Select **Railinc Messaging Console**. The RMC Search Messages page is displayed (Exhibit 5).

Exhibit 5. Search Messages



Note: If the user is authorized to act on behalf of more than one company, the Company Selection pop-up is displayed

5. The user can choose to execute a search, or select another menu item (Exhibit 3).

Logging Off

On any RMC page, select the **Sign Out** link at the upper right of the page. The Railinc SSO login page is displayed.

Messages

Here are descriptions of the processes to search and extract messages, as well as to view a message summary and performance statistics.

Exhibit 6. Messages Menu

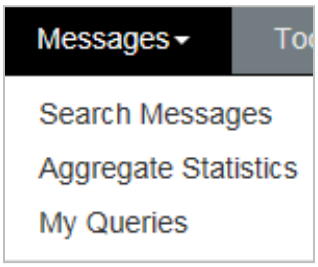


Exhibit 7 describes the tasks available on the Messages menu.

Exhibit 7. Messages Menu Items and Descriptions

Menu Item	Description
Search Messages	Allows the user to search for, and download messages.
Aggregate Statistics	Allows the user to access aggregated message statistics.
My Queries	Allows the user to view and reuse previous queries.

Search Messages

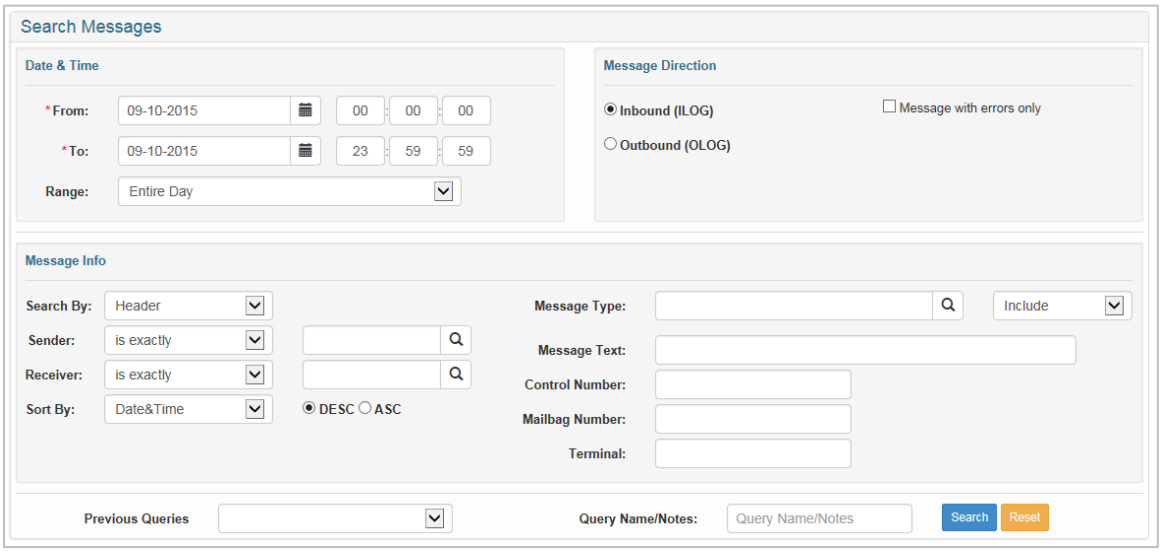
RMC provides the ability to search for messages transmitted through the Railinc Message Switch (RMS) using various search criteria. RMC also shows a summary of messages transmitted through RMS.

> **Note:** To re-run a previously ran search, select it from the Previous Queries dropdown at the bottom of the page. The input fields will be filled with the previously specified parameters and can be re-run by selecting **Search**.

To search for messages.

1. On the navigation menu, select **Messages** > **Search Messages**. The Message Research page is displayed (Exhibit 8).

Exhibit 8. Search Messages



2. Complete the available Date/Time fields.

   - **Date From/To***—Required fields. Use the available input fields to specify the start and end date and time for your message search parameters. If desired, use the calendar tool to select specific dates. Both fields default to today's date. Limit is 14 days for queries.
   - **Range**—Use the drop-down to select messages within a certain time range. Valid values include:

This drop-down allows users to set the time range without having to enter two specific times. Values starting with "Last" end at the current time on the current day. The time range becomes *dynamic*, that is, times change when the user selects **Search** so the time range is current. Changing either the start or ending time makes the time range *static*. The rest of the values are static. Early morning is midnight to 6 AM, Late morning is 6 AM to noon, Afternoon is noon to 6 PM, and Evening is 6 PM to midnight. When a range is selected, the hours included are displayed in the time fields.

Note: The default range is entire day.

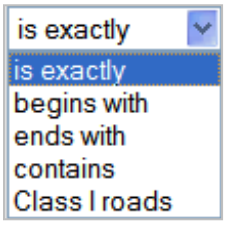
3. Select **Message Direction** options:

   - **Inbound (ILOG)** — Look for inbound (to Railinc) messages (default).
   - **Outbound (OLOG)**—Look for outbound (from Railinc) messages.
   - **Messages with Errors only**—Select check box to only include messages with errors (applies to Inbound (to Railinc) messages only)

4. Select **Message Info** options:

   - **Search By**—Select **Header** or **GS Header**. A **Header** refers to Interchange Control header, often called ISA header. Every header has a trailer. For an ISA header , the trailer is IEA. A **GS Header** refers to the header in the GS segment, called GS header. The trailer here is called GE. (see Appendix A – Messaging Details for details on message content).
   - **Sender**—This can be any valid roadmark. Results include messages that were sent by the road. A Boolean operator can also be used for partially known roadmarks (Exhibit 9).

Exhibit 9. Sender/Receiver Boolean Operators



is exactly—the Sender/Receiver roadmark must exactly match the value specified (e.g., CSX will only find messages whose sending roadmark is exactly CSX).

begins with—the Sender/Receiver roadmark must begin with the value specified (e.g., CSX will find all messages whose sending roadmark starts with CSX, including CSXT).

ends with—the Sender/Receiver roadmark must end with the value specified (e.g., XT will find all messages whose sending roadmark ends with XT, including CSXT).

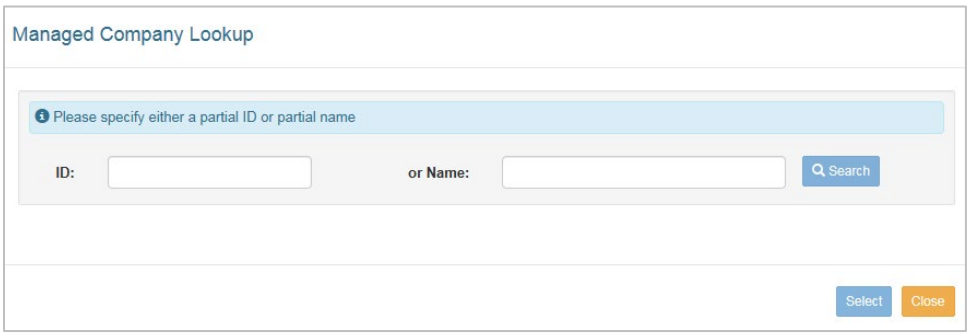
contains—the Sender/Receiver roadmark must contain the value specified (e.g., SX will find all messages whose sending roadmark contains SX including CSXT).

Class I roads—the Sender/Receiver roadmark must be a Class I railroad.

Note: Wildcards (using %, not *) are also allowed. Refer to Step 2.b on page 35.

Select the lookup icon ( ) to search for roadmarks (Exhibit 10).

Exhibit 10. Managed Company Lookup



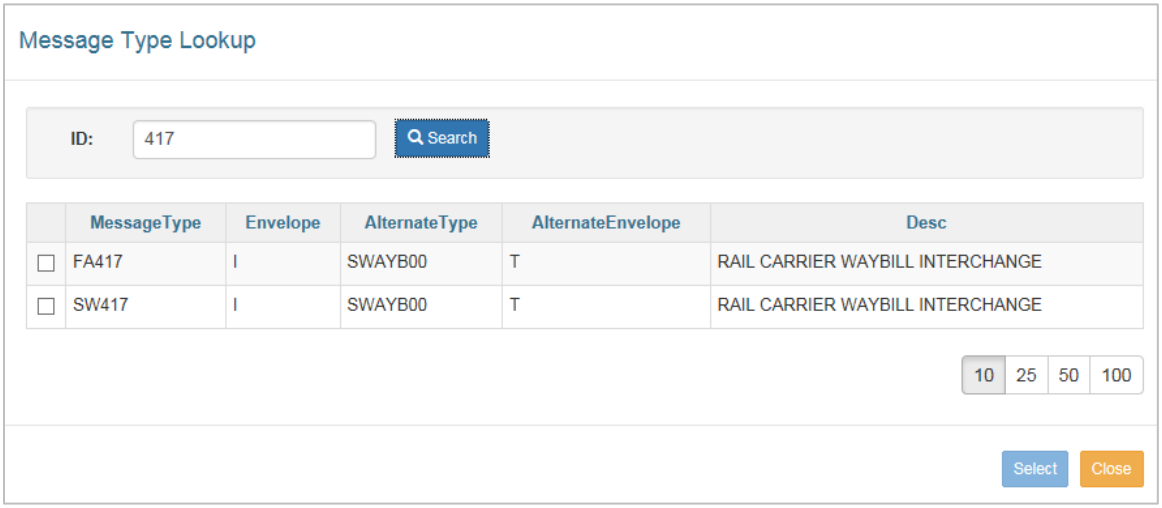
Enter either an **ID** or the **Name** of the roadmark and select **Search**. Select one of the listed results to highlight it and then click the Select button or double-click a result to have that roadmark fill the field on the Search Messages page.

Receiver—This can be any valid roadmark. Results include messages that were received by the road. Use Boolean Operator as needed (Exhibit 9) or wildcards. Select the lookup icon ( ) to search for roadmarks (Exhibit 10).

- **Sort By—**Select how the results will be sorted by default (date&time, Control Number, Sender, Receiver, Type, Length or Terminal). Select the DESC or ASC radio button to have the results sorted in either descending or ascending order based on the selected sort category.

- **Message Type**—This can be one or more valid message types, separated by commas. The search is not case sensitive and abbreviated types are allowed. For example, 'sw41' results in all messages whose message type start with 'SW41' including SW417, SW418, etc. Select the lookup icon ( ) to search for a message type (Exhibit 11). Wildcards (using %, not *) are also allowed. Refer to Step 2.b on page 35.

Exhibit 11. Message Type Lookup



In this example, 417 was entered and two message types were listed after selecting **Search**.

Check the boxes for the message types wanted and select **Select**. The selected message types are included in the Message Type field. Use the dropdown to select to ***include*** or ***exclude*** the indicated message types.

- **Message Text**—This can be any text contained within the message, including the message payload. For example, it is possible to search for car initial and number using this field. Wildcards (using %, not *) are also allowed. Refer to Step 2.b on page 35.

- **Control Number**—A valid TRAIN II or ISA control number as specified in the message header.

- **Mailbag Number**—A data set that consists of a header and trailer, actual EDI message data, and provides destination and processing information for an interconnected entity such as a VAN.

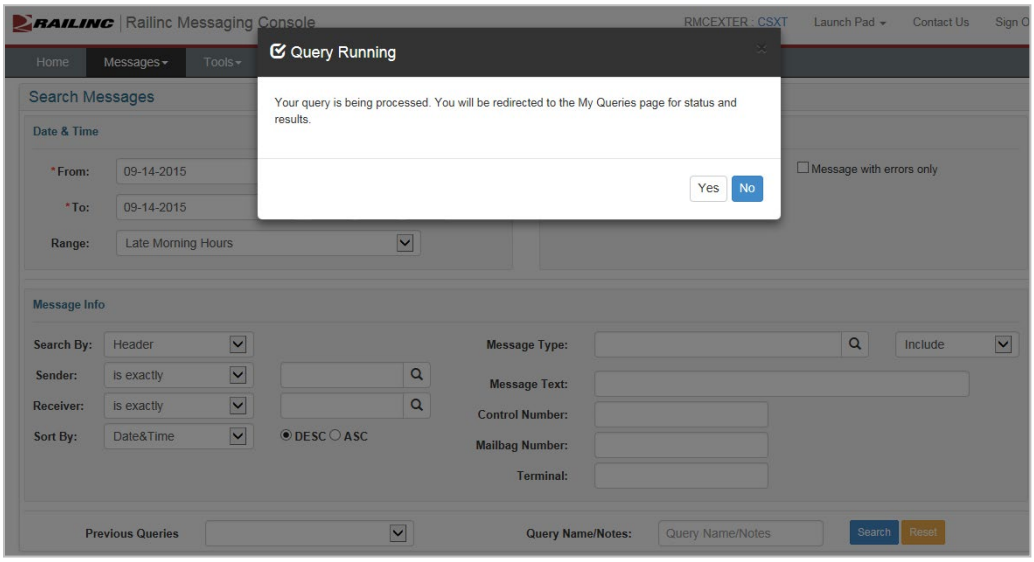
- **Terminal**—A unique ID assigned to a terminal inside of the messaging system which is used to route information between railroads. Following a successful search, details on the Terminal ID are available by scrolling over the Terminal ID column on the Search Results page (Exhibit 15).

5. Use the **Previous Queries** dropdown to pull up and re-run previously run queries. This will change any already entered query input field, other than then Range.

6. Input a **Query Name/Notes** as a way to identify a query. This makes it easier to identify it if it needs to be re-run. Once ran, the query will appear with the given name in the Previous Queries drop-down.
   Note: If a query if not given a specific name, it will be identified by default by the date and time that it has been processed.

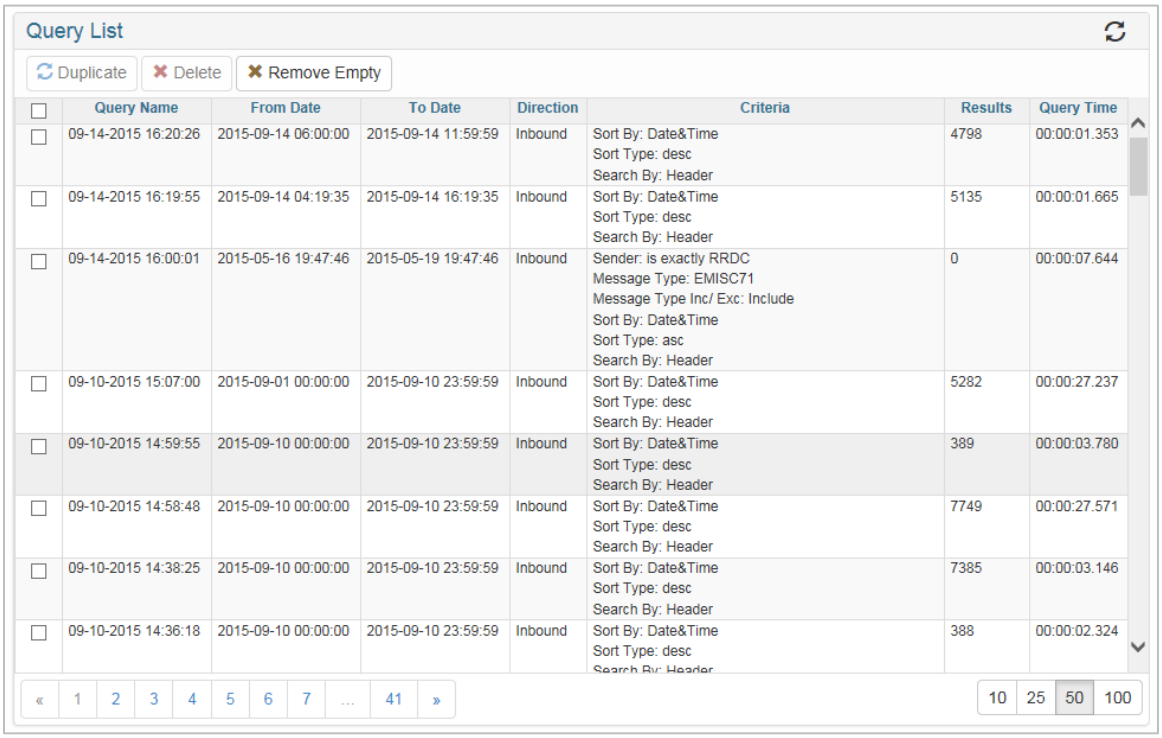
7. When all criteria have been set, select **Search**. A Query Running pop-up is displayed (Exhibit 12).

Exhibit 12. Search Messages (with Query Running pop-up)



8. Select **Yes** to clear the panel or wait until the query is finished. The user is automatically redirected to the Query List page (Exhibit 13).

Exhibit 13. My Queries/Query List (with query results)



The latest/newest query is at the top of the list. Except for the checkbox at the left, the entire row is a link the user can select to view details of the search (**Note:** Queries with Count = 0 have no link.).

Note: Large queries can require more time to complete. *Processing* is displayed in the Result Count field of the My Queries page during that time. The refresh icon can be selected in order to check on the completion of query processing; however, the screen will update automatically once the processing is complete.

9. Navigate the results. If there are multiple pages of output records, page navigation links appear at the top and bottom of the results screen. Use the controls described in Exhibit 14 to locate messages. The same navigation options also appear on the Search Results page (Exhibit 15).

Exhibit 14. Message Navigation Controls

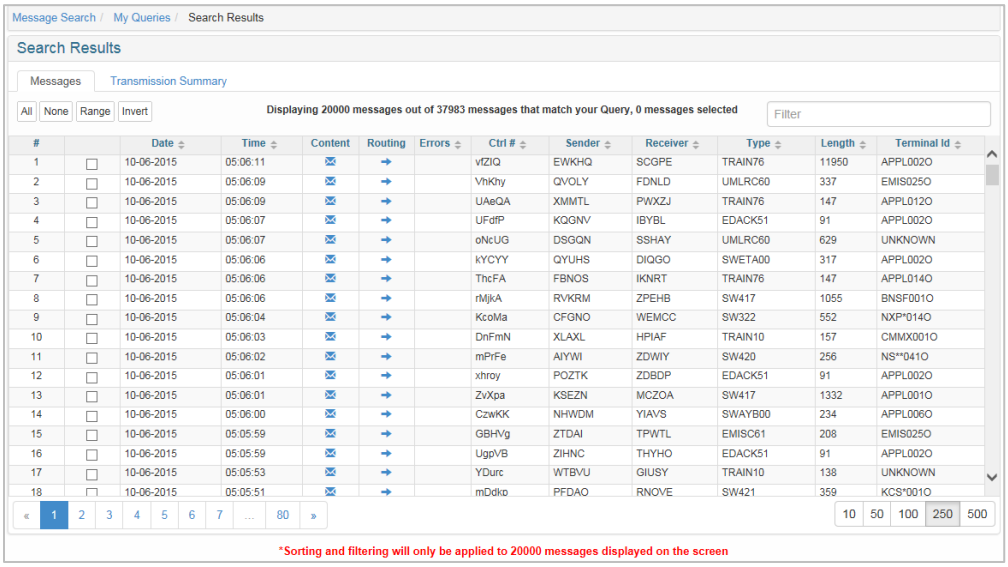
10. Perform one of the following actions:

a. **Duplicate:** Select a listed query and then **Duplicate** to redo/adjust a query. The Search Message page is displayed with the parameters of the selected query. As needed, modify the settings and rerun.

b. **Delete:** Select a listed query and then **Delete** to remove that query from the list. A confirmation message is displayed. To confirm, select **Yes**. The selected query is deleted.

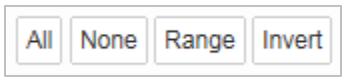
c. To view details of a query, select a row with indicated query results. The Search Results page is displayed (Exhibit 15). The default number of messages displayed is 250.

Exhibit 15. Search Results



11. A group of message selection buttons appear at the top of the page (Exhibit 16). Select messages for further message action buttons to appear (Exhibit 17). These links act against the currently shown page only.

Exhibit 16. Message Selection Buttons



Here is an overview of the message selection buttons (Exhibit 16):

All—Selects all messages on the currently shown page.

None—Deselects the entire list on the currently shown page.

Range—Use to select all messages between two individually selected messages on the currently shown page.

Invert—Reverses the existing selections (unchecked becomes checked, and checked becomes unchecked) on the currently shown page.

Exhibit 17. Message Action Buttons

Here is an overview of the message action buttons (Exhibit 17):

Retransmit—Retransmits selected messages on the currently shown page.

Download/Extract—Downloads selected messages on the currently shown page.

12. Perform one of the following actions:

    a. Select the **Content icon** next to a displayed message to view the full content of that message. See Viewing Messages on page 14.

    b. Select the **Routing icon** next to a displayed message to view the routing information for that message. See Viewing Message Routing on page 16.

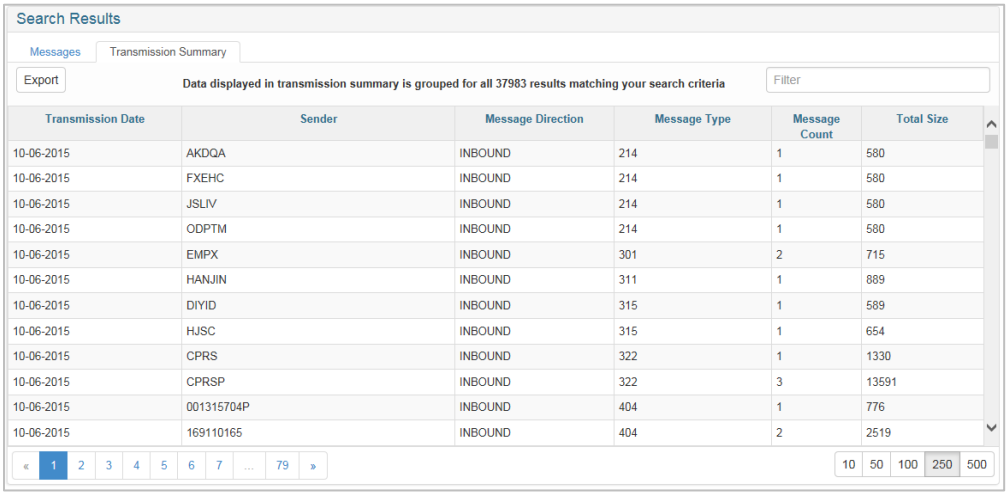
    c. Select either the **Error icon** or the **Warning icon** next to messages with errors or warnings to view those errors or warnings. See Viewing Errors on page 16.

    d. Check one or more displayed messages and select **Download** to download the messages. Use the selection links (Exhibit 16) as appropriate. See Downloading Messages on page 17.

    e. An option is available to retransmit messages. Select one or more displayed messages (refer to Exhibit 16) and select **Retransmit** to retransmit the messages. Refer to My Queries on page 19.

    f. Select the **Transmission Summary** tab to view a summary of all returned messages (Exhibit 18).

Exhibit 18. Transmission Summary



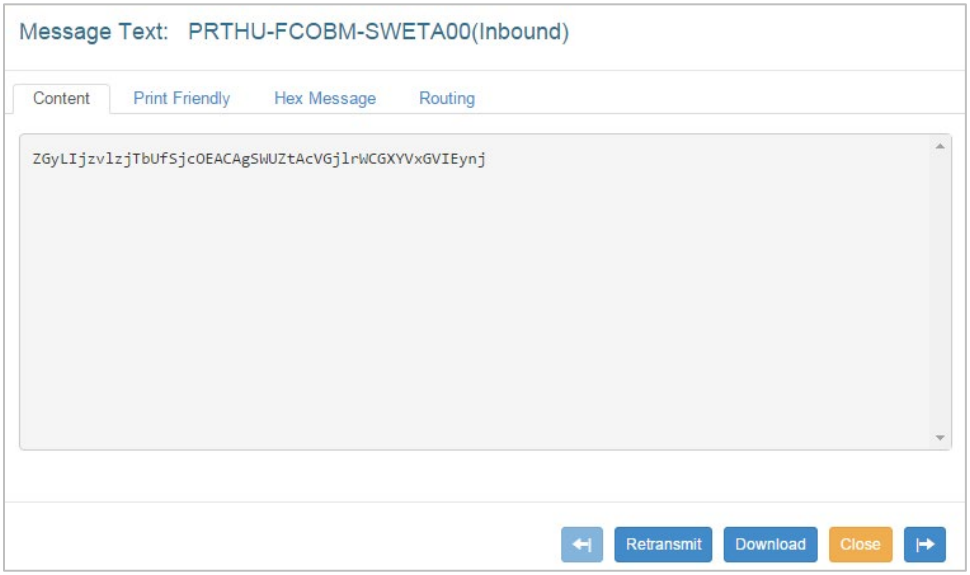
The results displayed on the Transmission Summary page can be exported. To do this, select the **Export** button. Transmission summary statistics are downloaded into Excel.

Viewing Messages

Here is how to view message content following a successful message search (Exhibit 15):

1. From the Search Results page (Exhibit 15) select the Content icon next to a displayed message to view the full content of that message. The Message Text-Content panel opens (Exhibit 19).

Exhibit 19. Message Text (Content Tab)



2. Perform one of the following actions:

   a. Select another tab to view other message data.

      - **Print Friendly**—to view the message in a print friendly format (Exhibit 20).
      - **Hex**—to view the transmitted message in hex format (Exhibit 21).
      - **Routing**—to view the routing history for the transmitted message (Exhibit 22). External users can see only one side (messages they sent or messages they received).

   b. Use the **Previous** or **Next** button to view the next message details from the results list.

      Note: The current tab selection is maintained when going to another message.

3. When finished viewing, select **Close** (or the **X**) to close the message text panel and return to the Search Results list (Exhibit 15).

Exhibit 20. Message Text (Print Friendly Tab)

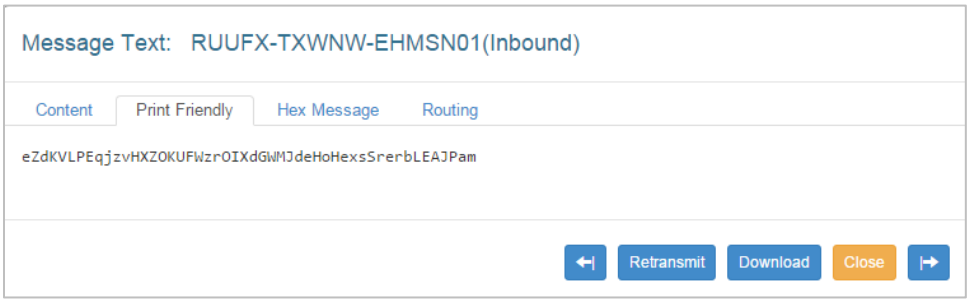


Exhibit 21. Message Text (Hex Tab)

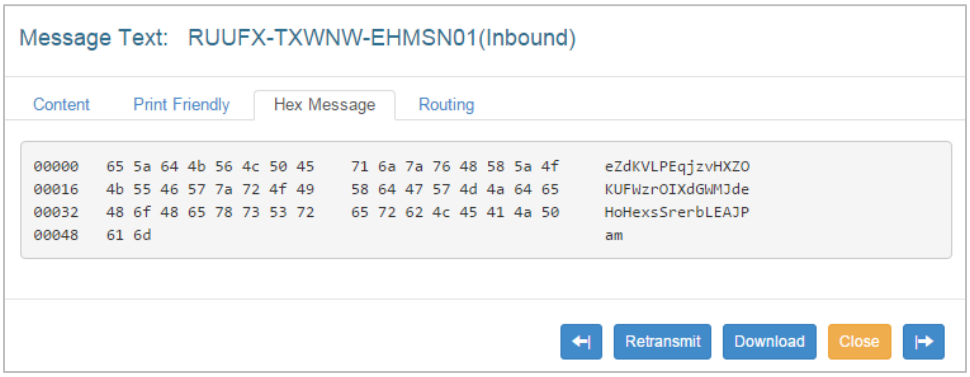
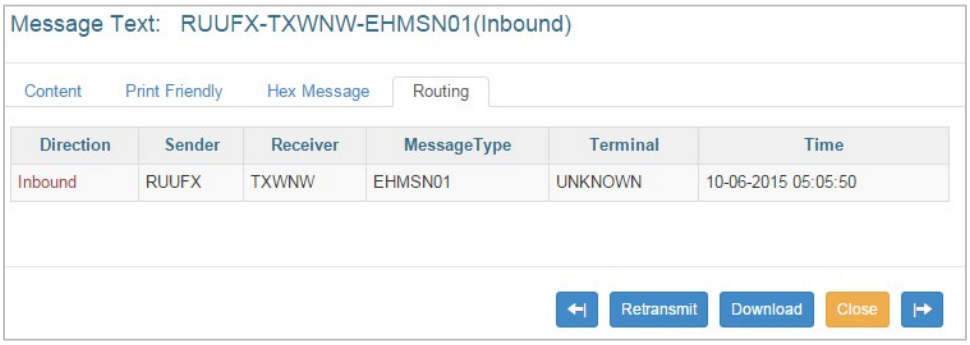


Exhibit 22. Message Text (Routing Tab)



Viewing Message Routing

To view message routing:

1. From the Search Results page (Exhibit 15) select the Route icon next to a displayed message to view the view the routing information for that message. The Message Text panel opens (same as Exhibit 22).

2. View other tabs as needed, and when finished, select **Close**.

Viewing Errors

The system provides the ability to query messages that had errors. This includes viewing warnings and rejection information generated for the inbound (to Railinc) message.

To view error and warning messages:

1. Execute a successful search for messages that include errors (see Step 3 on page 8).

2. From the Search Results page (Exhibit 15) select either the Error icon or the Warning icon beside a message. The Message Text panel (Route tab) is displayed with the received errors displayed at the bottom.

3. Select **Close** to close the Message Text panel.

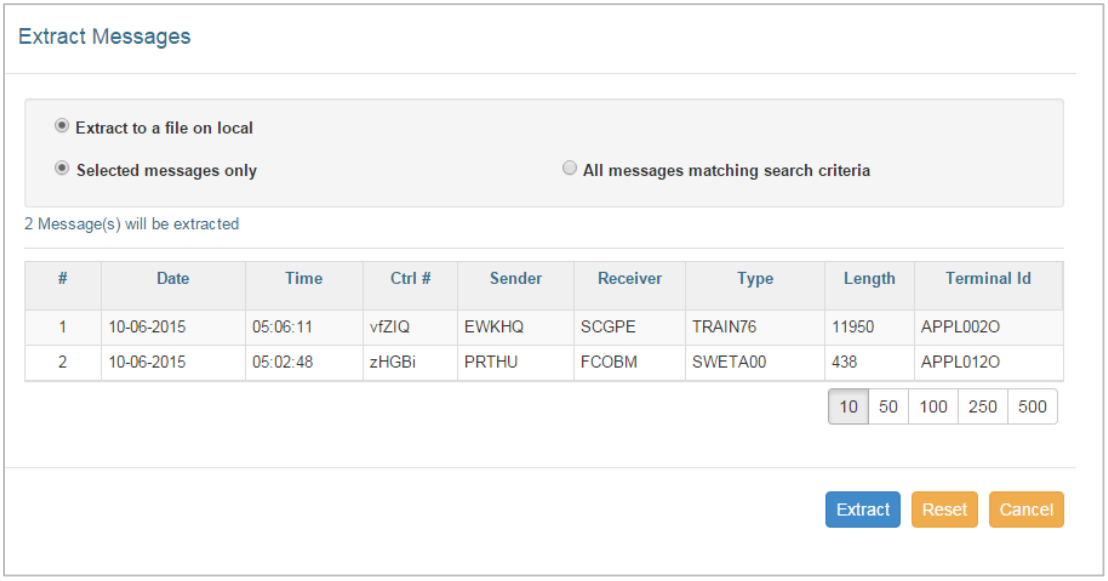
Downloading Messages

Messages can be downloaded as text files to either the local computer (PC) or to an FTP site. To download messages:

1. Following a successful search for messages, from the Search Results page (Exhibit 15), select one or more displayed messages (refer to Step 11 on page 12).

2. Select **Download/Extract**. The Extract Messages panel opens showing the selected messages (Exhibit 23).

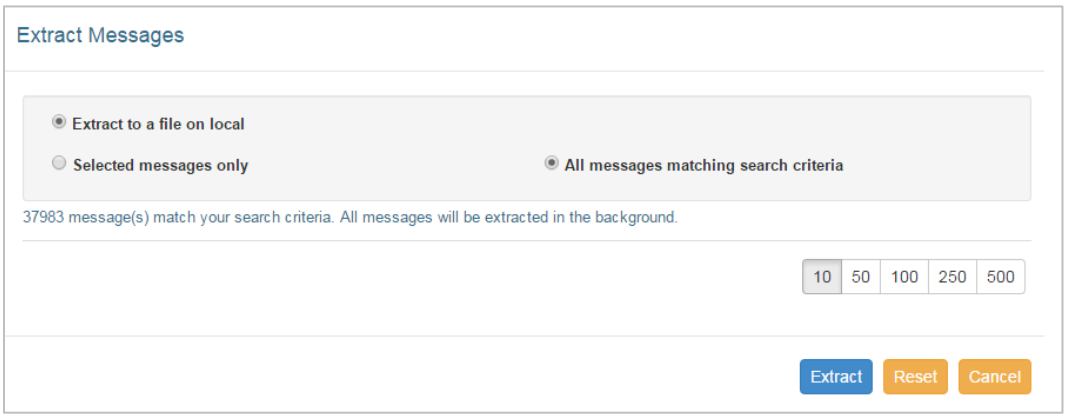
Exhibit 23. Extract Messages (Selected messages only)



3. The Extract to a file on local is selected by default and cannot be unselected. This allows you to save messages to your computer.

4. Either retain the default selection for downloading the **Selected messages only** or select **All messages matching search criteria** to include all messages in your query. A summary of download statistics is displayed (Exhibit 24).

Exhibit 24. Extract Messages (All messages matching search criteria)



5. With either desired option chosen, select the **Extract** button. The downloaded message is opened as a local file. Save as needed.

Retransmitting Messages

Note: Users cannot retransmit more than 500 messages at one time.

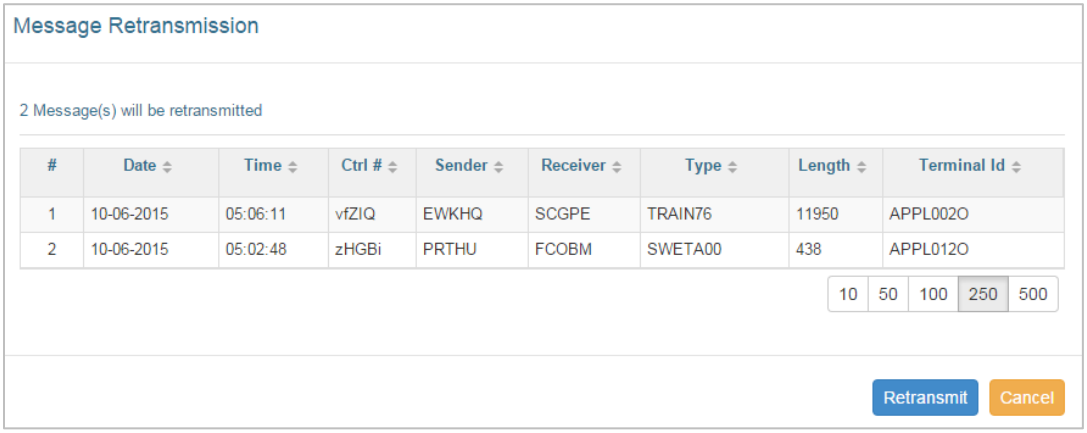
Retransmission allows users to retransmit messages that might have been lost or discarded during a specific time period.

To retransmit messages.

1. Following a successful search for messages, from the Search Results page (Exhibit 15), select one or more displayed messages (refer to Step 11 on page 12).

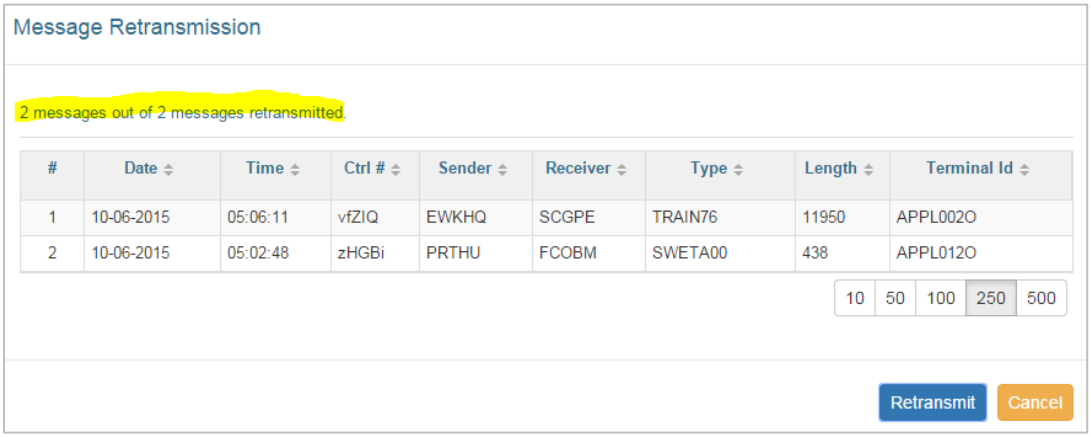
2. Select **Retransmit**. The Message Retransmission panel opens (Exhibit 25).

Exhibit 25. Message Retransmission



3. Select **Retransmit** to retransmit the displayed messages. A message appears displaying the results of the retransmission (Exhibit 26).

Exhibit 26. Message Retransmission (success message)

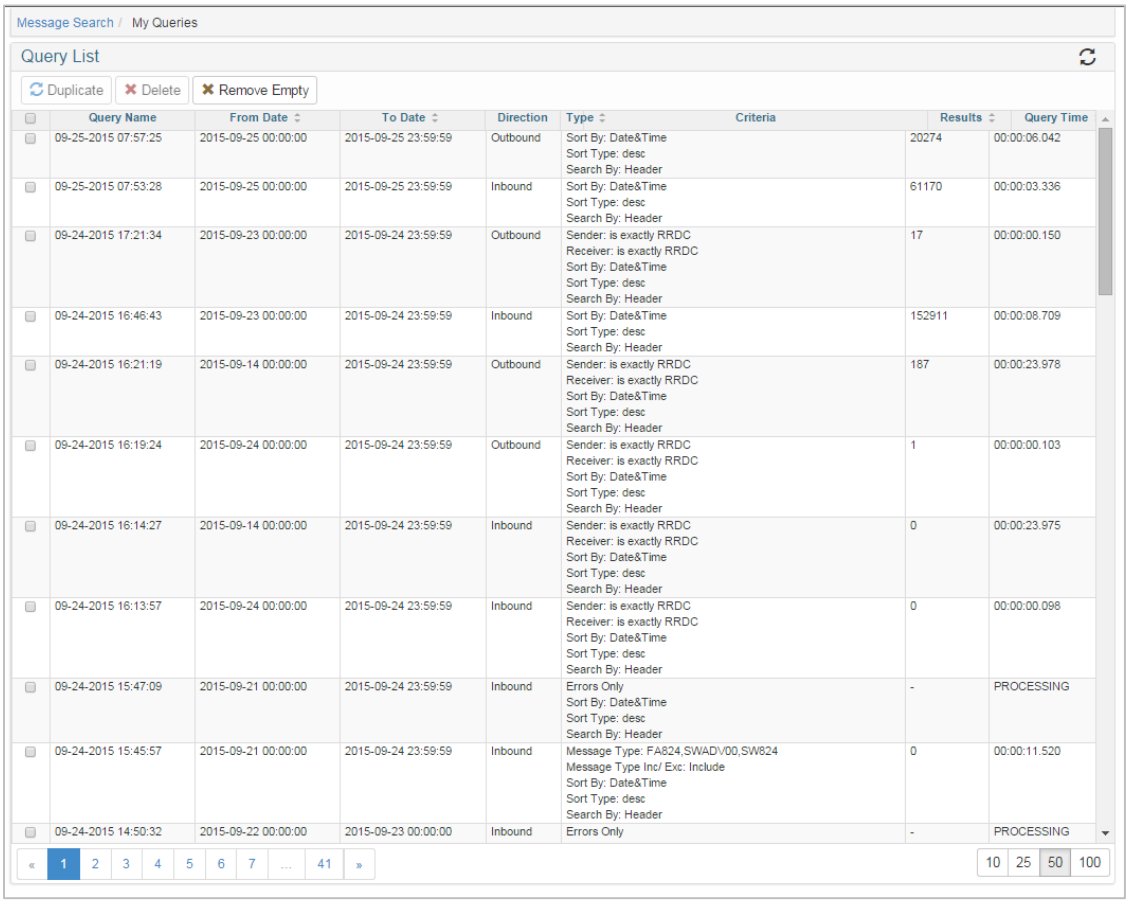


4. Select **Cancel** to close the panel and return to the Search Results page.

My Queries

The My Queries function provides a list of the user's executed queries.

Exhibit 27. Query List



Tasks available on this page include:

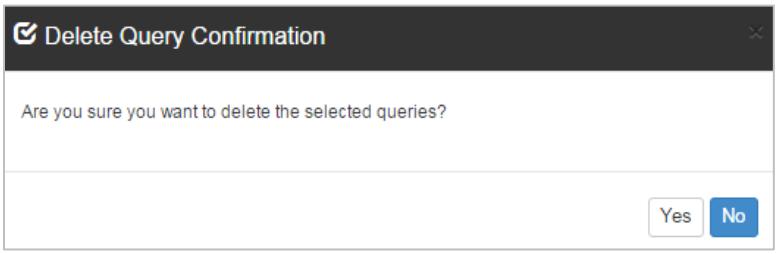
- **View query details**— Except for the checkbox at the left, the entire row is a link the user can select to view details of the search. **Note:** Queries with Count = 0 have no link. Refer to Viewing Messages on page 14.
- **Delete Query**
- **Duplicate Query**
- **Remove Empty**

Delete Query

To delete a query:

1. Check the box beside the query and select **Delete**. A confirmation panel is displayed (Exhibit 28).

Exhibit 28. Confirm Delete Queries



2. If unsure about the deletion, select **No**. Otherwise, select **Yes** to delete the query.

Duplicate Query

To duplicate and reuse a query:

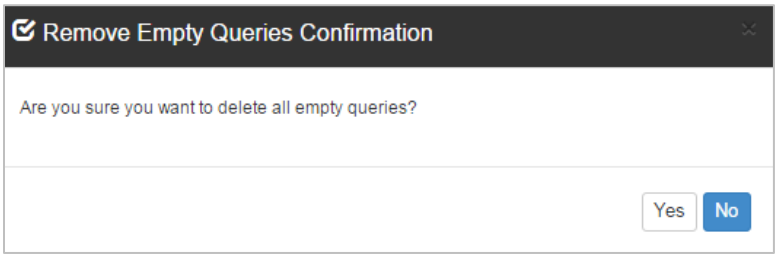
1. Check the desired query.
2. Select **Duplicate**. The Search Message page is displayed with the existing criteria (similar to Exhibit 8).
3. Adjust criteria as needed and select **Search**. Refer to Exhibit 8.

Remove Empty

When a query brings back zero results, it still shows up in the Query List. To remove empty results:

1. Select the **Remove Empty** button. A confirmation message is displayed (Exhibit 29).

Exhibit 29. Confirm Remove Empty



2. If unsure about removing empties, select **No**. Otherwise, select **Yes** to remove the empties. The Query List page is refreshed and the empty queries are removed.

Aggregate Statistics

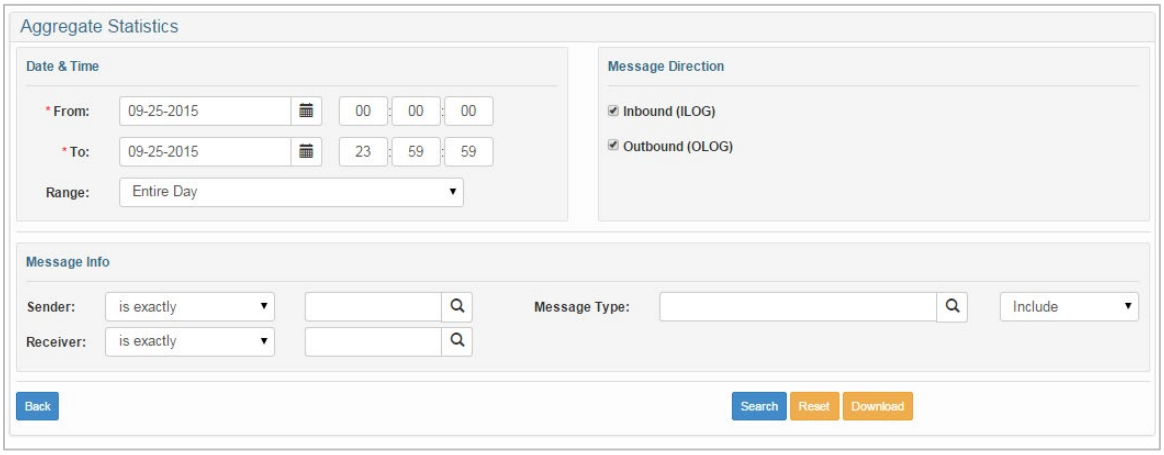
Once an hour, RMC compiles message statistics and saves them to the statistics table. Statistics are grouped into 10 minute increments by sender, receiver, message type, terminal ID, and direction (inbound or outbound relative to RMS). These statistics are available for viewing from the Aggregate Statistics page. The displayed aggregate statistics include data from within 365 days from the current day.

Viewing Aggregate Statistics

To view message aggregate statistics:

1. From the application menu, select **Messages>Aggregate Statistics**. The Aggregate Statistics page is displayed (Exhibit 30).

Exhibit 30. Aggregate Statistics



2. Enter the Date From and To fields.

3. Enter optional fields to narrow the output statistics:

   a. Set Time Range (default is entire day). Refer to Step 2 on page 7.

   b. Message Direction (Inbound (to Railinc)/Outbound (from Railinc)—default is both directions.

   c. Sender (default is blank). Refer to Step 4 on page 8.

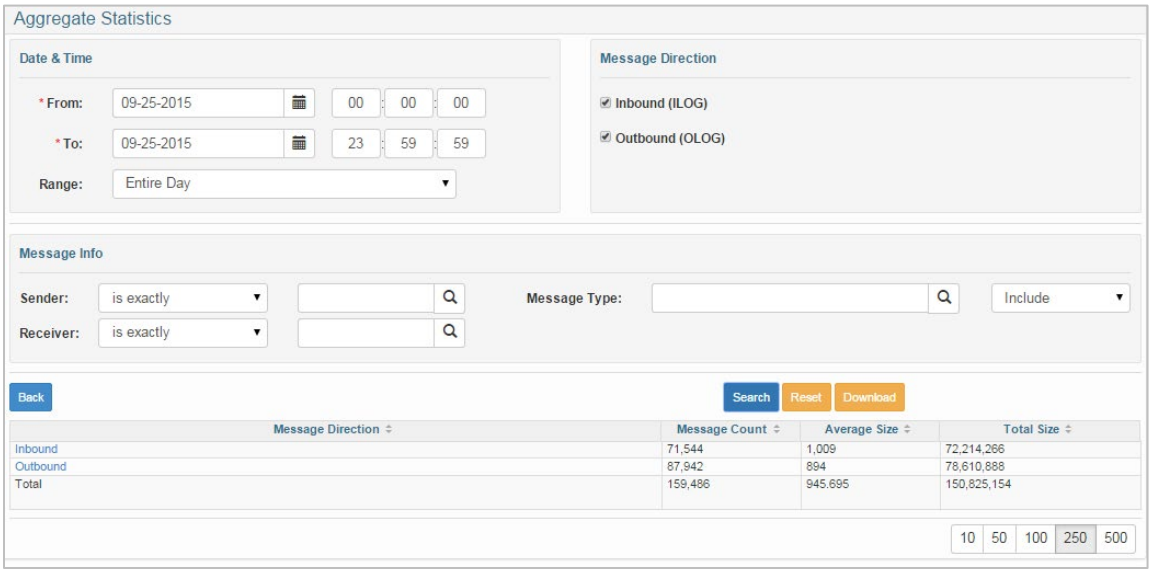
   d. Receiver (default is blank). Refer to Step 4 on page 8.

   e. Message Type (default is blank). Refer to Step 4 on page 8.

   f. Include/Exclude: Use this to select whether to include or exclude the entered message types (default is include).

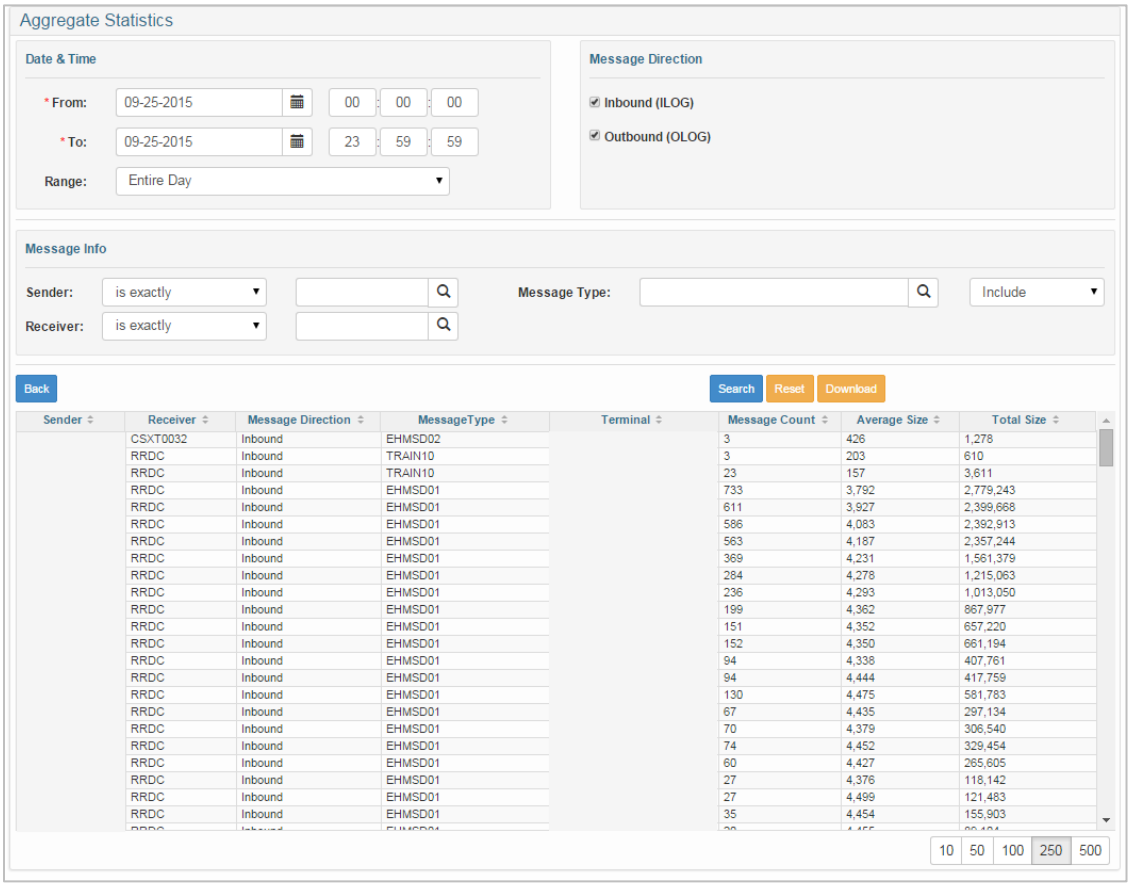
4. When criteria have been set, select **Search**. The Aggregate Statistics page is redisplayed with the summary results at the bottom.

Exhibit 31. Aggregate Statistics (showing summary results)



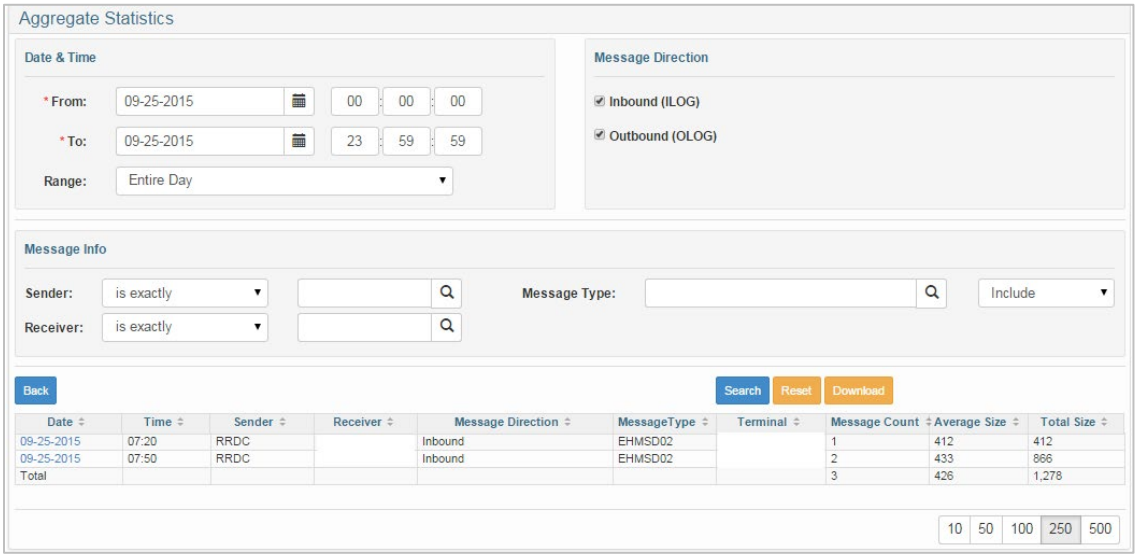
If both directions had been selected, the data is initially divided into Inbound (to Railinc) and Outbound (from Railinc) counts. To view the breakdown of either set of data, select the **Inbound** or **Outbound** link. A breakdown sorted by Sender is displayed (Exhibit 32).

Exhibit 32. Aggregate Statistics (Inbound Details)



The breakdown is alphabetic by Sender. To view actual messages, select the link for a Sender. The Aggregate Statistics for that selected sender are shown (Exhibit 33). Use the **Back** button to go back and select a different direction.

Exhibit 33. Message Summary Results (Inbound Details for one Sender)



Use the **Back** button to go back and select a different Sender.

Note: Date links open a page similar to Search Results to allow the user to view details of individual messages (refer to Exhibit 15).

Downloading Aggregate Statistics

Execute a search for statistics as described in Viewing Aggregate Statistics on page 21. When the Summary is displayed, select **Download**. A dialog box opens to allow either saving or directly opening the extracted information. The downloaded data is the raw data from the statistics table, not the data shown on the screen (as if the user drilled down to the lowest level). It can be saved in CSV format and opened by MS Excel.

See Downloading Messages on page 17.

Monitoring

The Monitoring menu allows users to manage notifications.

Exhibit 34. Monitoring Menu

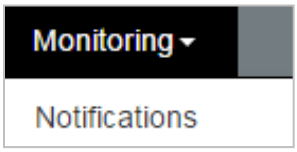


Exhibit 35 describes the task available on the Messages menu.

Exhibit 35. Monitoring Menu Items and Descriptions

Menu Item	Description
Notifications	Allows the user to manage notifications for messages.

Notifications

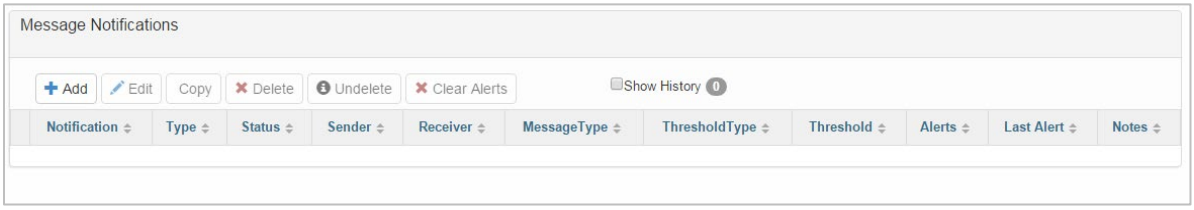
RMC can be configured to send alerts via e-mail when events occur. RMC currently supports volume events in production. It also supports message trends, that is, if the volume of messages is greater or lesser than a previous time period.

Notifications can be especially useful when establishing messaging with a new trading partner as part of the testing process. When the test period is successfully completed and message counts verified, the notification can be disabled or deleted.

To work with notifications:

1. In RMC, select **Monitoring>Notifications**. The Message Notifications page is displayed (Exhibit 36).

Exhibit 36. Message Notifications



The page shows existing notifications for the user. Tasks that can be performed include:

View—View notification details.

Add—Add a new notification.

Edit—Change an existing notification.

Delete—Remove a notification.

Undelete—Brings back any previously deleted notifications.

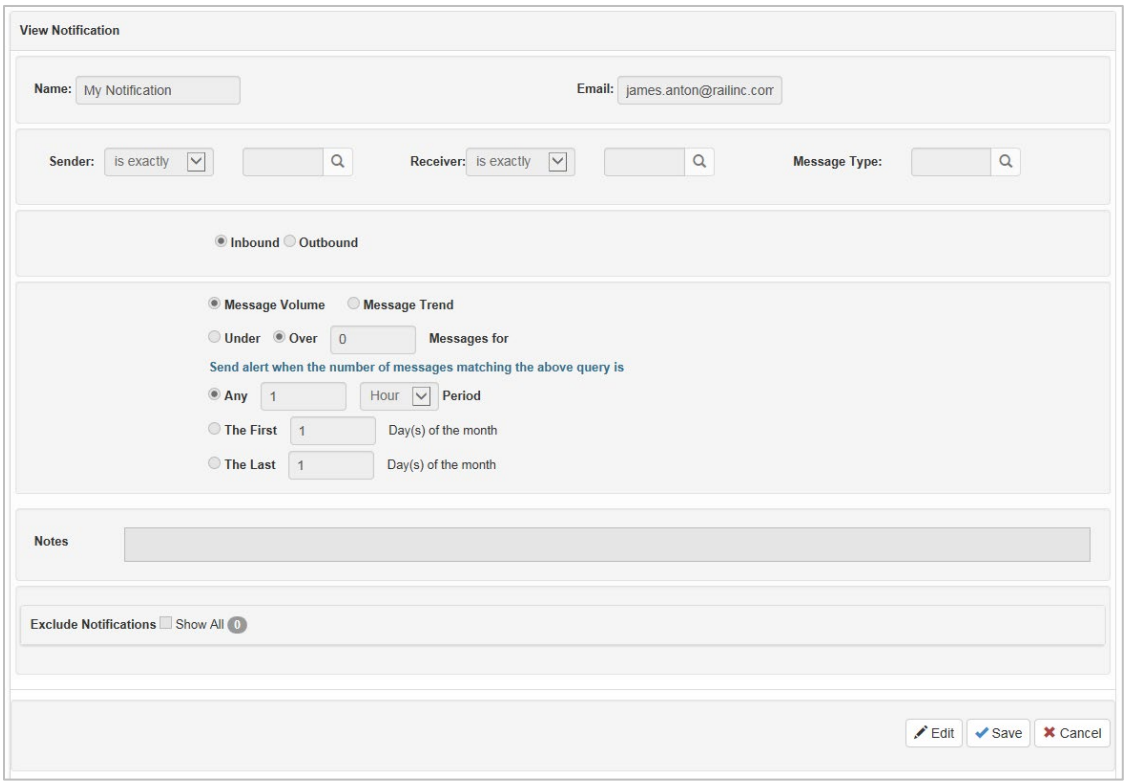
Clear Alerts—Clear alerts generated by notifications.

Viewing Notifications

To view details of a notification:

1. On the Message Notifications page (Exhibit 36), select the hyperlinked notification name that you want to view. The View Notification page is displayed (Exhibit 37).

Exhibit 37. View Notification



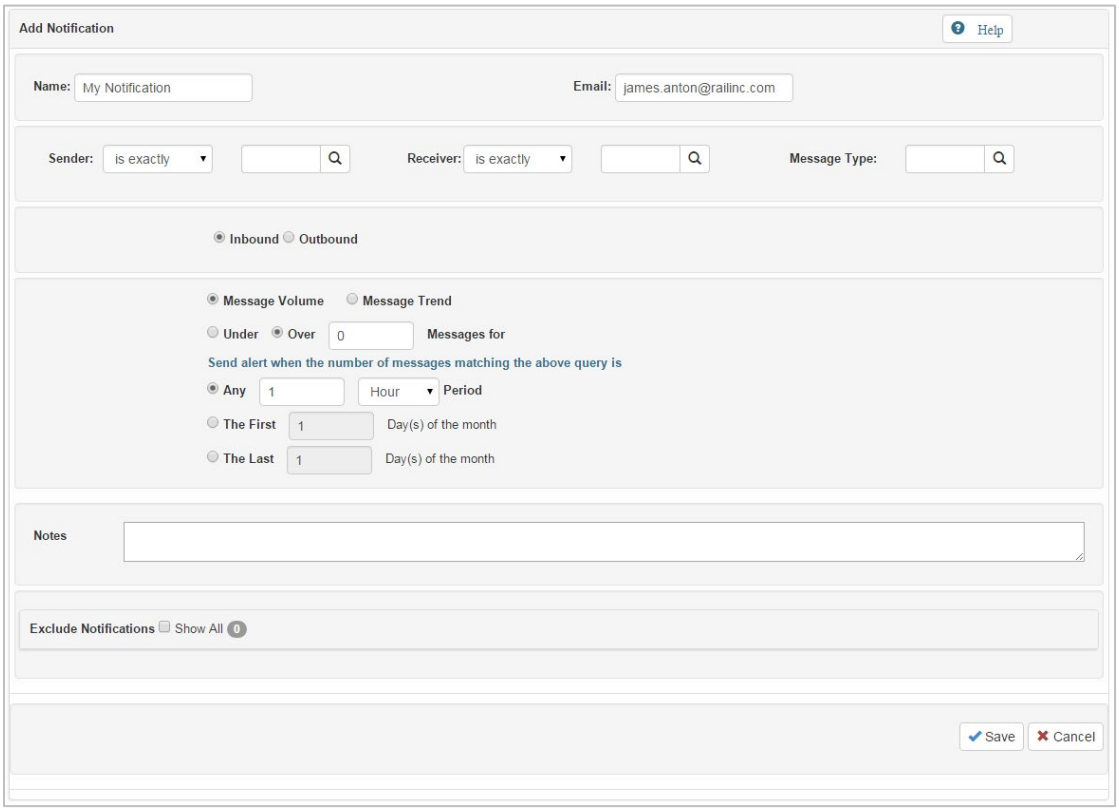
2. As needed, the shown notification details can be edited (see Viewing/Editing Notifications).

Adding Notifications

To add a notification:

1. On the Message Notifications page (Exhibit 36), select **Add**. The Add Message Notification Details page is displayed (Exhibit 38).

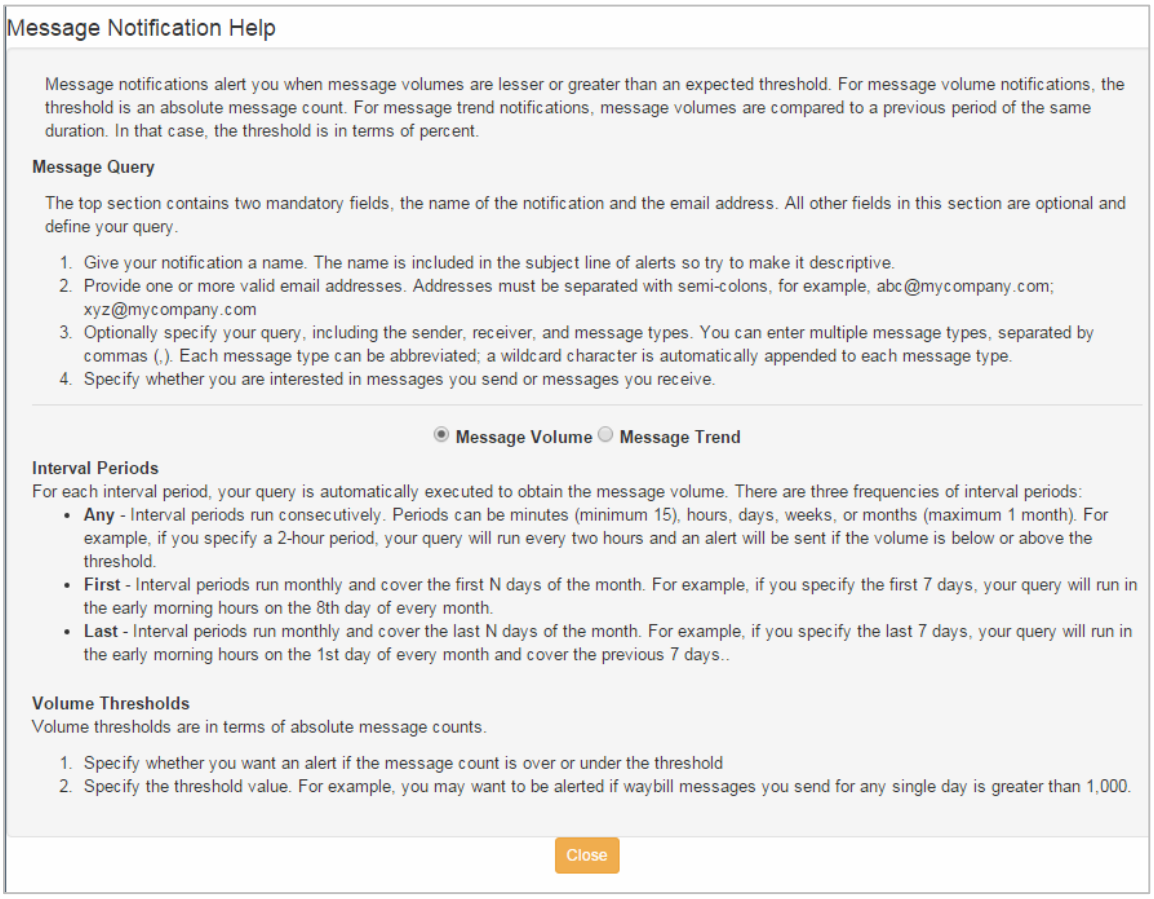
Exhibit 38. Add Notification (with default settings)



2. Configure the notification. For help with configuration, select the **Help** link. A help panel with complete instructions opens (Exhibit 39).

Note: The Help panel has radio buttons in the center for Message Volume and Message Trends. By default, help is shown for Message Volume. For help with message trending configuration, select the Message Trends radio button. The instructions are modified.

Exhibit 39. Notification Help



This panel remains open until closed (select **Close** or **X**).

Note: Make the name chosen for the notification something that indicates the purpose of the notification.

3. When the fields are completed (name and e-mail address are mandatory), select **Apply** to save the new notification and remain on the details page. Select **OK** to save the new notification and return to the Message Notifications page. The new notification is added to the list of notifications.

   RMC checks each specified interval period. It runs the query specified and obtains a message count. If that count is under or over the threshold, depending on selected configuration, RMC sends an alert.

Viewing/Editing Notifications

To view or edit RMC notifications:

1. On the Message Notifications page (Exhibit 36), and select the link for the notification, or select the radio button beside the notification and select **Edit**. The Message Notification Details page is displayed (similar to Exhibit 38).

2. As needed, make modifications to the displayed notification details.

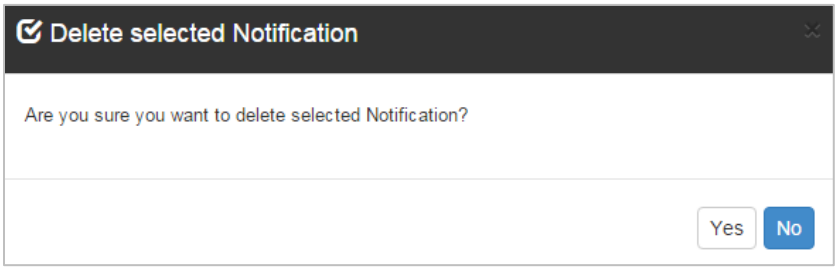
3. Select **Apply** to save changes and to remain on the details page. Select **OK** to save notification changes and return to the Message Notifications page.

Deleting Notifications

To delete RMC notifications:

1. On the Message Notifications page (Exhibit 36), select the radio button beside the notification and select **Delete**. A confirmation panel is displayed (Exhibit 40).

Exhibit 40. Delete Notification Confirmation



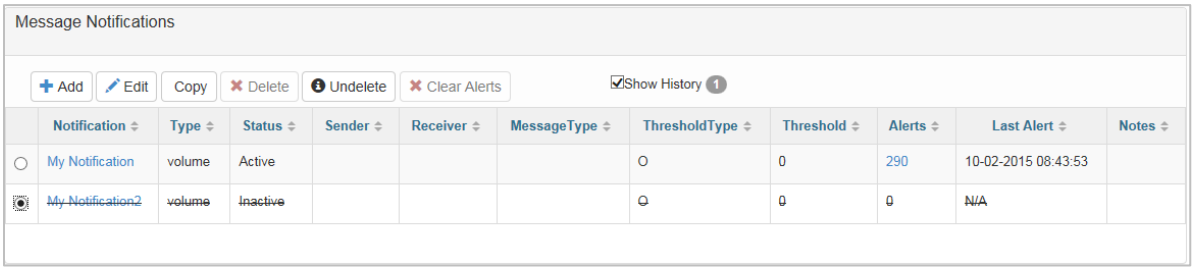
2. If unsure about the deletion, select **No**. Otherwise select **Yes**. The panel closes and the Message Notification page is refreshed and the notification is removed.

Undeleting Notifications

To undelete previously deleted RMC notifications:

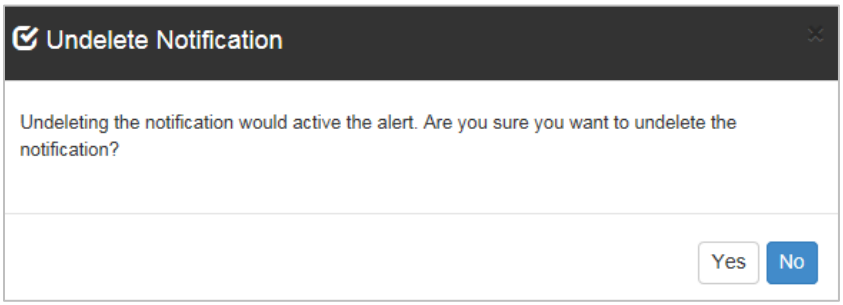
1. On the Message Notifications page (Exhibit 36), select the show history check box to display any previously deleted notifications. The notifications appear with a line through the listing (Exhibit 41).

Exhibit 41. Message Notifications (with deleted notification selected)



2. Select **Undelete**. A confirmation message is displayed (Exhibit 42).

Exhibit 42. Undelete Notification



3. If unsure about the undeletion, select **No**. Otherwise select **Yes**. The panel closes and the Message Notification page is refreshed and the line indicating that the notification had been deleted is removed. The notification can now be viewed and edited.

Clearing Notification Alerts

To clear RMC notification alerts (reset the counter to zero for a specific alert):

1. On the Message Notifications page (Exhibit 36), select the radio button beside the notification and select **Clear Alerts**. The Alerts counter is set to zero.

Routing

Exhibit 43. Routing Menu

Exhibit 44 describes the tasks available on the Routing menu.

Exhibit 44. Routing Menu Items and Descriptions

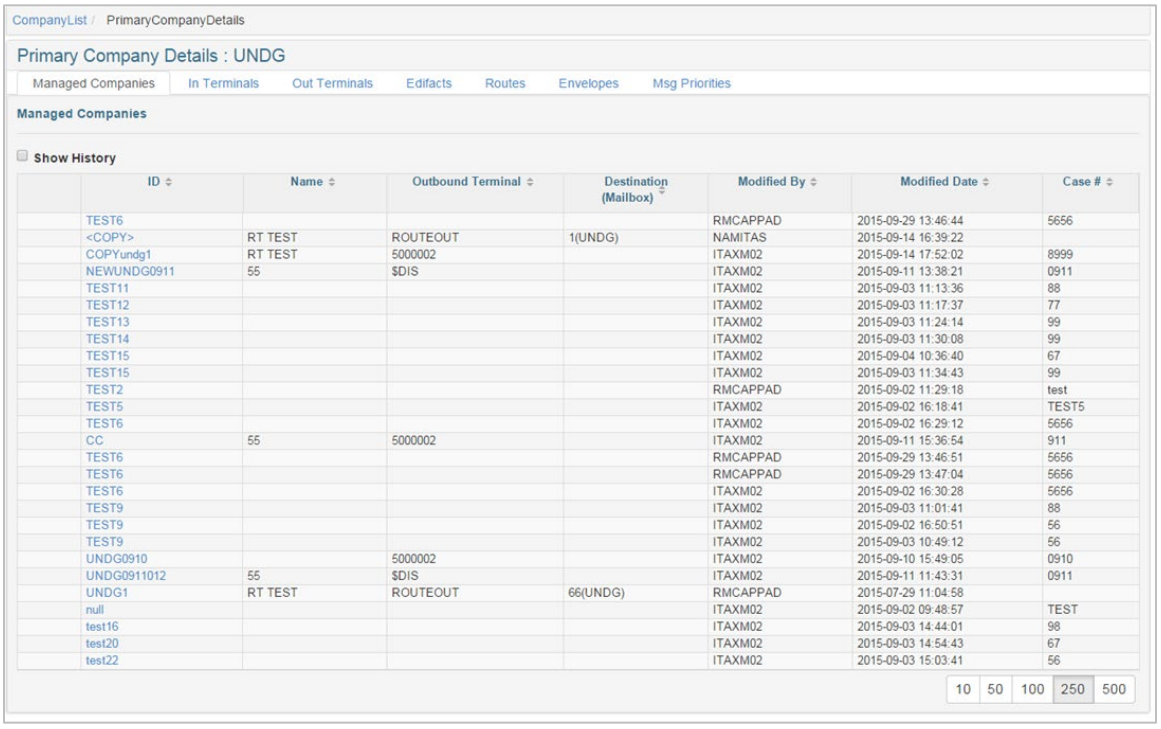
Menu Item	Description
Company List	Allows the user to view trading partner routing information.

Company List

To view company routing profiles:

1. In RMC, select **Routing** > **Company List**. The Primary Company Details page is displayed (Exhibit 45).

Exhibit 45. Primary Company Details



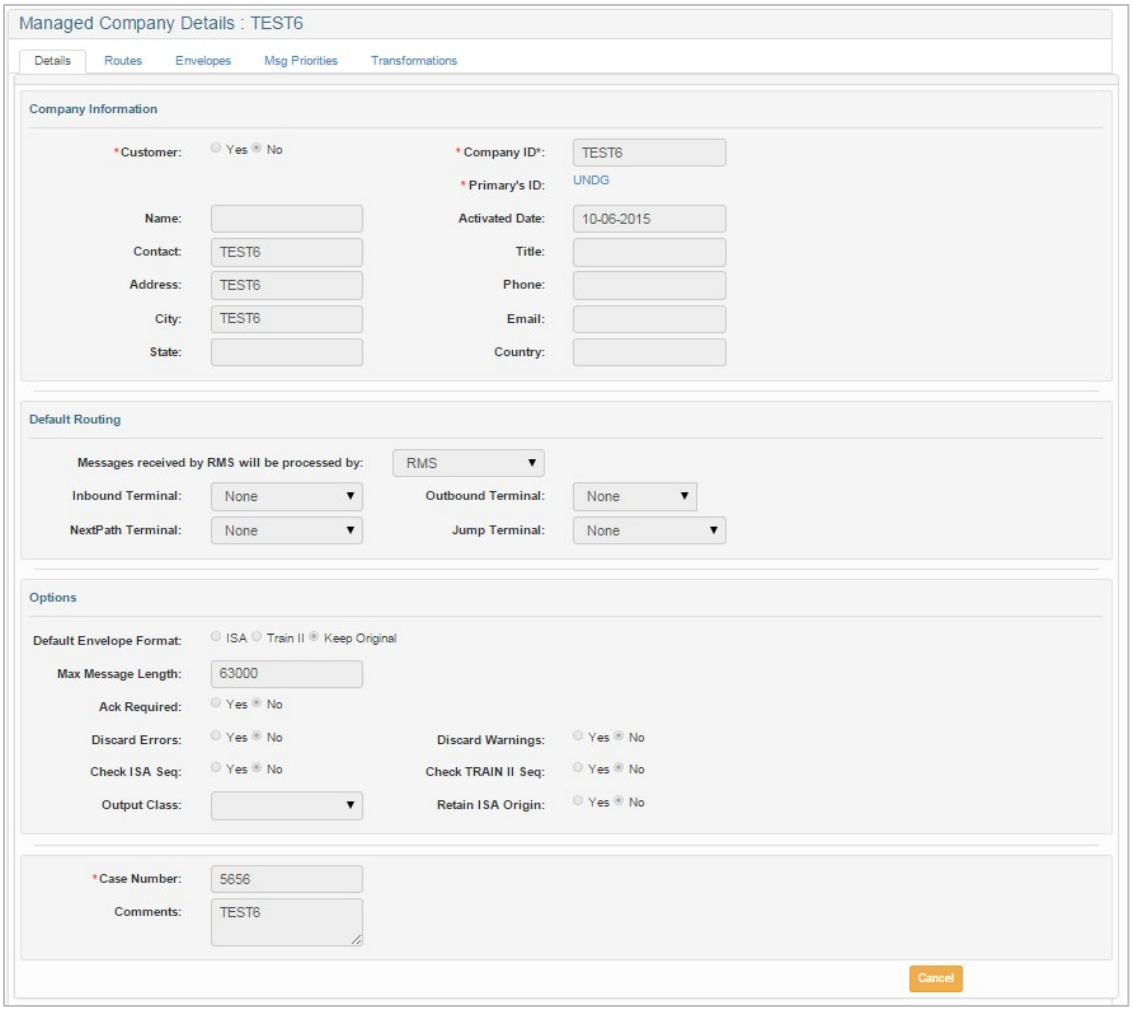
ID	Name	Outbound Terminal	Destination (Mailbox)	Modified By	Modified Date	Case #
TEST6				RMCAPPAD	2015-09-29 13:46:44	5656
<COPY>	RT TEST	ROUTEOUT	1(UNDG)	NAMITAS	2015-09-14 16:39:22	
COPYundg1	RT TEST	5000002		ITAXM02	2015-09-14 17:52:02	8999
NEWUNDG0911	55	$DIS		ITAXM02	2015-09-11 13:38:21	0911
TEST11				ITAXM02	2015-09-03 11:13:36	88
TEST12				ITAXM02	2015-09-03 11:17:37	77
TEST13				ITAXM02	2015-09-03 11:24:14	99
TEST14				ITAXM02	2015-09-03 11:30:08	99
TEST15				ITAXM02	2015-09-04 10:36:40	67
TEST15				ITAXM02	2015-09-03 11:34:43	99
TEST2				RMCAPPAD	2015-09-02 11:29:18	test
TEST5				ITAXM02	2015-09-02 16:18:41	TEST5
TEST6				ITAXM02	2015-09-02 16:29:12	5656
CC	55	5000002		ITAXM02	2015-09-11 15:36:54	911
TEST6				RMCAPPAD	2015-09-29 13:46:51	5656
TEST6				RMCAPPAD	2015-09-29 13:47:04	5656
TEST6				ITAXM02	2015-09-02 16:30:28	5656
TEST9				ITAXM02	2015-09-03 11:01:41	88
TEST9				ITAXM02	2015-09-02 16:50:51	56
TEST9				ITAXM02	2015-09-03 10:49:12	56
UNDG0910		5000002		ITAXM02	2015-09-10 15:49:05	0910
UNDG0911012	55	$DIS		ITAXM02	2015-09-11 11:43:31	0911
UNDG1	RT TEST	ROUTEOUT	66(UNDG)	RMCAPPAD	2015-07-29 11:04:58	
null				ITAXM02	2015-09-02 09:48:57	TEST
test16				ITAXM02	2015-09-03 14:44:01	98
test20				ITAXM02	2015-09-03 14:54:43	67
test22				ITAXM02	2015-09-03 15:03:41	56

The following tabbed information might be available for the Owner:

- **Managed Companies** (default tab)—displays existing managed companies (select a link of a Company ID to view trading partner details and routing settings). Refer to the Managed Company Details page (Exhibit 46).
- **In Terminals**—Shows the owner's list of inbound terminals
- **Out Terminals**—shows the owner's list of outbound terminals
- **Edifact**—Shows the owner's EDIFACT partners, if any exist
- **Routes**—shows the owner's message routing. Owner's message routing acts as a default to its trading partners' message routing.
- **Envelopes**—show the owner's envelope preferences. Owner's envelope preferences act as a default to its trading partners' envelope preferences.
- **Msg Priorities**—shows the owner's message priorities. Owner's message priorities act as a default to its trading partners' message priorities.

Note: No actions are available on these tabs, unless the user has Routing Profile Edit permission. See My Permissions on page 38.

Exhibit 46. Trading Partner Details (for selected partner link)



2. No actions are available on this page or its tabs, unless the user has Routing Profile Edit permission. See My Permissions on page 38 .

   The following tabbed information might be available for the Trading Partner:

   - Details
   - Routes
   - Envelopes
   - Msg Priorities
   - Transformations

3. Select **Cancel** to return to the Primary Company Details page.

Tools

Exhibit 47. Tools Menu

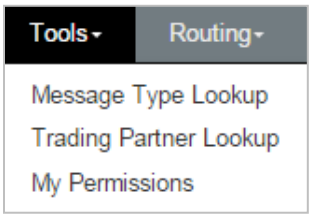


Exhibit 48 describes the tasks available on the Tools menu.

Exhibit 48. Tools Menu Items and Descriptions

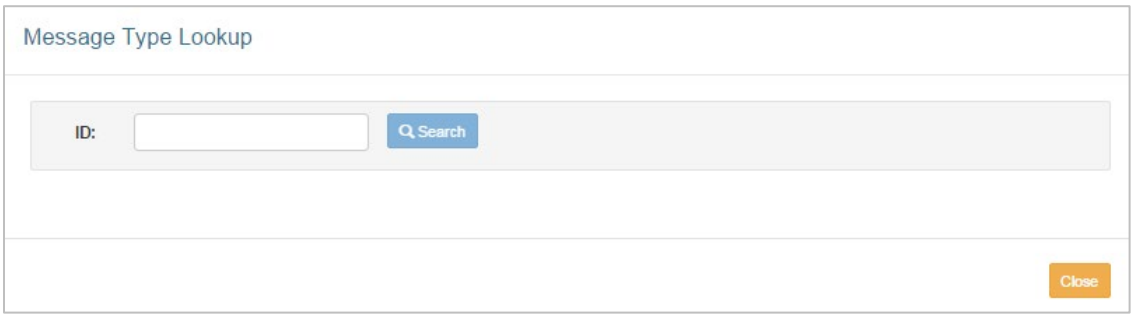
Menu Item	Description
Message Type Lookup	Allows the user to search for message types (Exhibit 49).
Trading Partner Lookup	Allows the user to look up trading partners (Exhibit 51).
My Permissions	Allows the user to view and request RMC permissions (Exhibit 54).

Message Type Lookup

To look up message types:

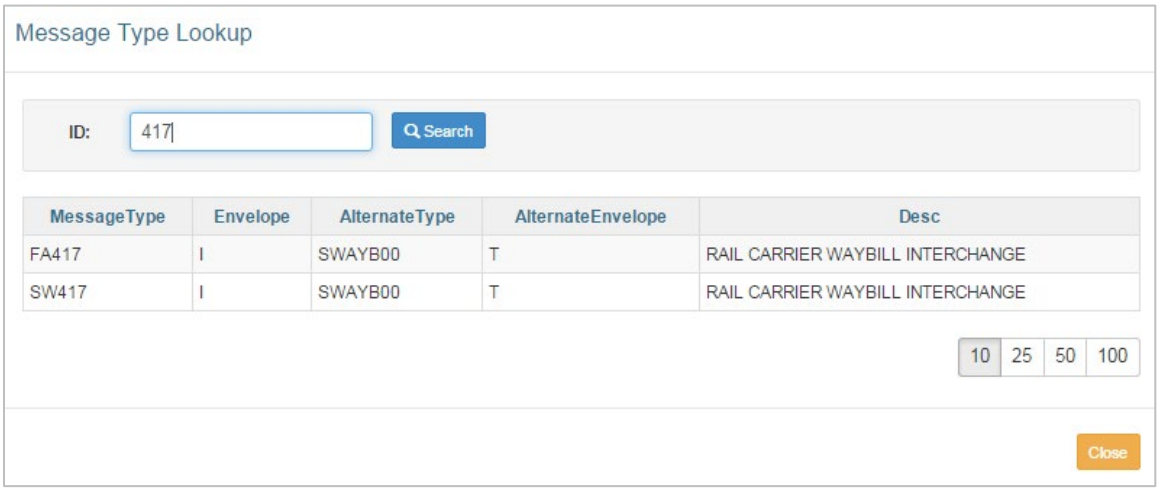
1. In RMC, select **Tools** > **Message Type Lookup**. The Message Type Lookup pop-up opens (Exhibit 49).

Exhibit 49. Message Type Lookup



2. Enter the ID of a message type in the available ID input field.
   a. Partial input is allowed.
   b. Wildcards (%) are allowed. Refer to Step 2.b on page 35.
3. Select **Search**. Search results are displayed (Exhibit 50).

Exhibit 50. Message Type Lookup (Search Results)



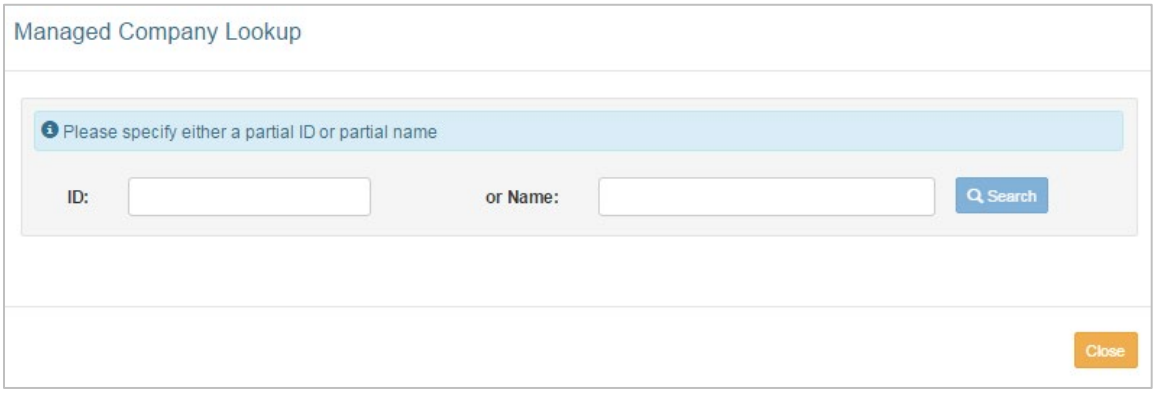
Trading Partner Lookup

When adding a new trading partner, a user needs to look up the partner to determine whether the partner exists in RMC. A lookup can also verify correct company name spelling or the company's ID.

To look up trading partners:

1. In RMC, select **Tools** > **Trading Partner Lookup**. The Managed Company Lookup panel opens (Exhibit 51).

Exhibit 51. Managed Company Lookup



2. Enter the ID or Name of a trading partner in the available input fields.

   a. Partial input is allowed.

   b. Wildcards (using a percent sign %, *not* an asterisk *) can be used to confine the search, or to refine it in either or both fields. For example:

      - **%BB%** in the ID field produces a list with IDs beginning, ending, or containing the letters BB together.

- **%OIL%** in the Name field produces a list of all IDs that have OIL somewhere in their name.
- **%BB%** in the ID field and **%OIL%** in the name field produces a list of partners with IDs beginning, ending, or containing the letters BB together, and that also have the word OIL in their name.
- **%R%J%** in the ID field produces a list with IDs containing both characters R and J (in that order) at the beginning, end, middle, or separated by other characters.

3. Select **Search**. Search results are displayed (Exhibit 52 and Exhibit 53).

Exhibit 52. Managed Company Lookup (ID search results)

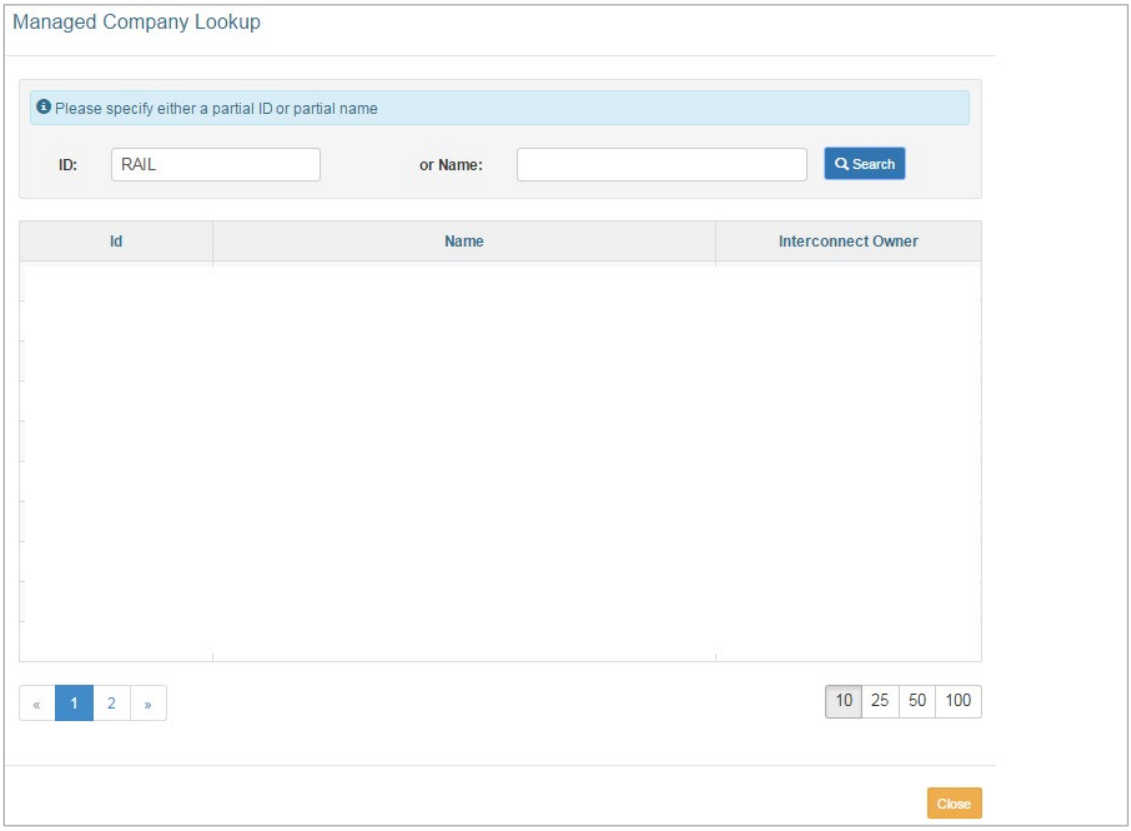
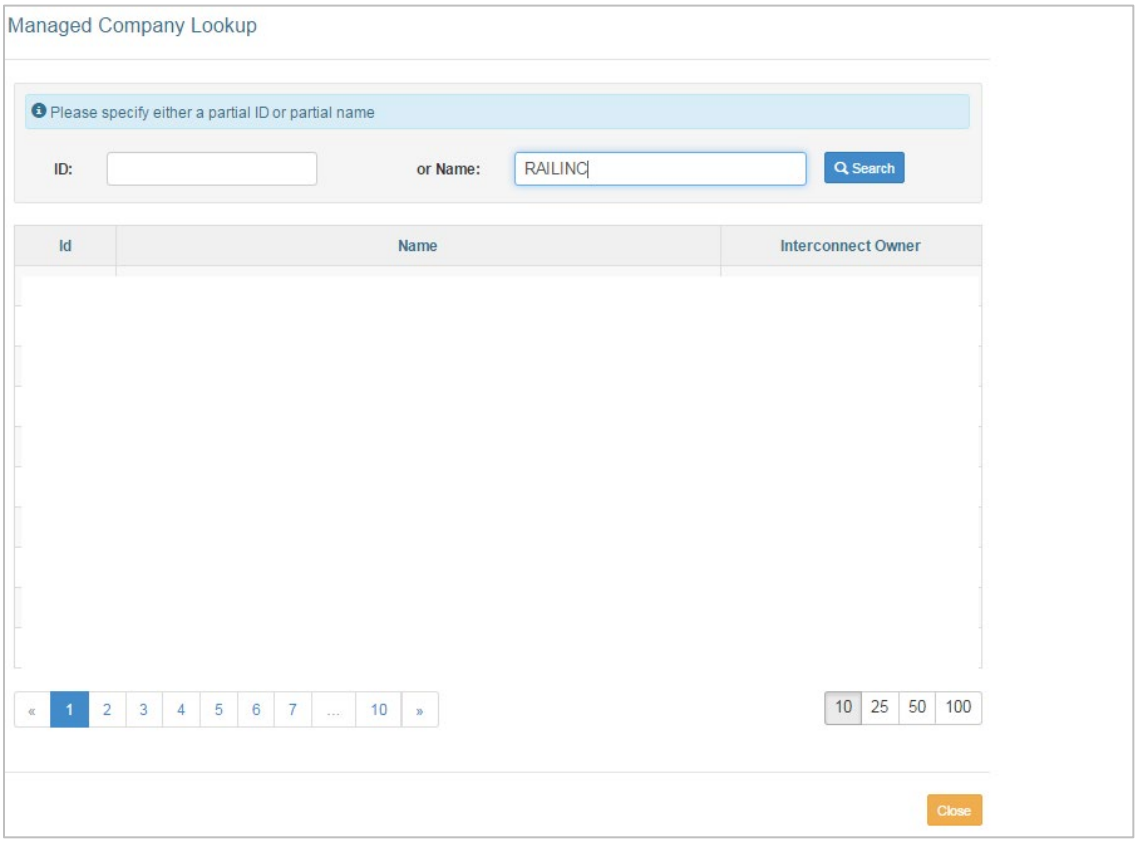


Exhibit 53. Trading Partner Lookup (Name search results)



No actions are available on these results panels.

4. Select **Close** to exit the lookup.

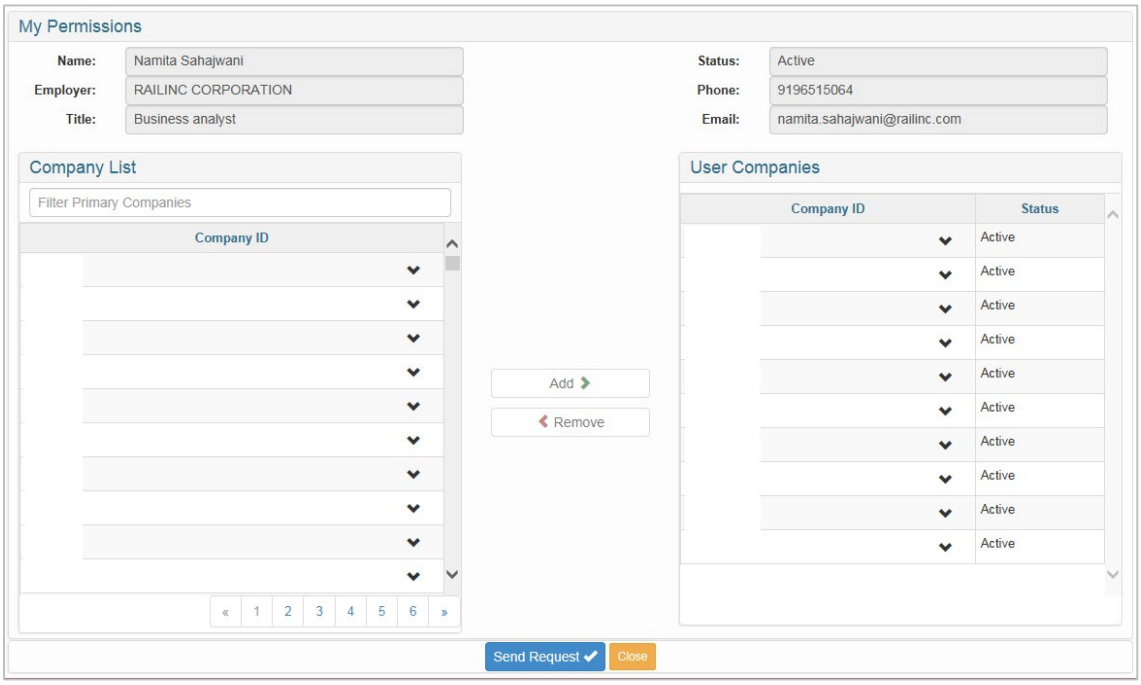
My Permissions

Note: Permissions can only be granted by the Railinc RMC application administrator, and requesting permission does NOT imply automatic approval.

To manage permissions:

1. In RMC, select **Tools** > **My Permissions**. The My Permissions panel opens (Exhibit 54). The companies listed on the left of the page represent all the companies that you could request access to and those on the right are all the companies that have already accepted requests for access.

Exhibit 54. My Permissions

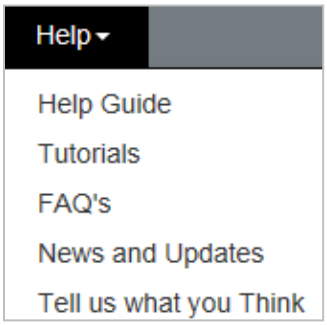


2. The drop arrow next to each listed company can be selected to reveal full details of the company, including if they manage multiple other Company IDs.
3. The Filter Primary Company input field can be used to filter the number of displayed Company IDs.
4. To ***add*** a request to access another company, select its Company ID from the list on the left and then select the **Add** button. The Company ID appears on the left with a status of "initiated". To submit the request for permission, select the **Send Request** button. A message appears stating that your request has been sent and the status changes to "pending." An email is sent to the indicated company for their review and approval.
5. When in the "initiated" status, a Company ID can be removed from the list on the right prior to sending the request. To ***remove*** the Company ID, select it from the list on the right and then select the **Remove** button. The company reappears on the list on the left.

Help

When the user selects Help, the Help menu opens (Exhibit 55).

Exhibit 55. Help Menu

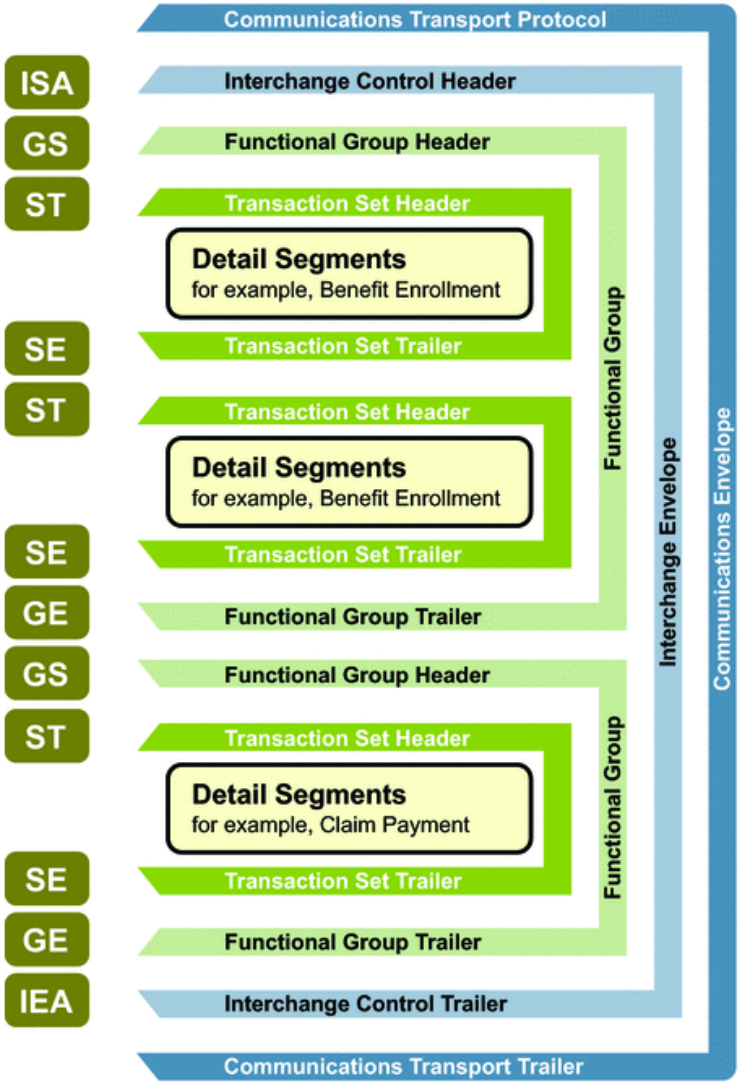


- Select **Help Guide** to open the RMC User Guide in a new window. When finished using the Guide, close the extra Window.
- Select **Tutorials** to access tutorials on how to perform the functions of RMC.
- Select **FAQs** to access a list of frequently asked questions and answers.
- Select **New and Updates** to review details on upcoming product releases.
- Select **Tell Us What You Think** to initiate an email to send to Railinc. Use this email to submit suggestions for improvements or general comments about RMC.

Appendix A – Messaging Details

This appendix provides an overview of the parts of a messages that can be viewed using RMC.

Exhibit 56. X12 997 (Functional Acknowledgment) Segment Table



Interchange Envelopes (ISA/IEA)

The Interchange Envelope, often referred to as the "outer envelope," is the wrapper for all the data to be sent in one transmission. It can contain multiple Functional Groups. This characteristic means that transactions of different types can be included in the Interchange Envelope, with each type of transaction stored in a separate Functional Group.

The Interchange Envelope is defined by the header and trailer; the Interchange Control Header (designated ISA) appears at the beginning, and the Interchange Control Trailer (designated IEA) appears at the end.

As well as enveloping one or more Functional Groups, the ISA and IEA segments include:

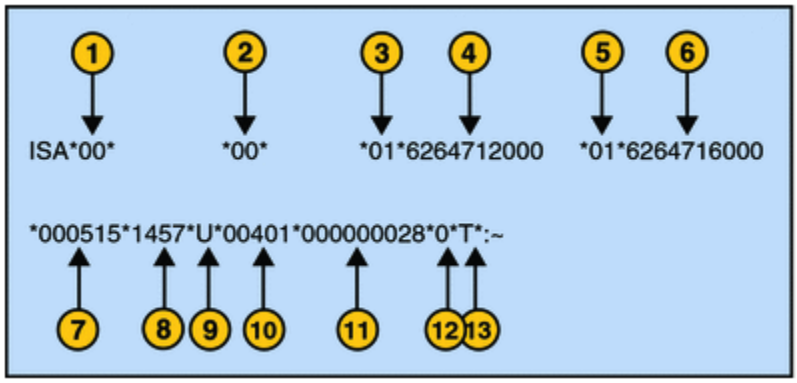
- Data element separators and data segment terminator
- Identification of sender and receiver
- Control information (used to verify message was correctly received)
- Authorization and security information, if applicable

The sequence of information transmitted is:

- ISA
- Optional interchange-related control segments
- Actual message information, grouped by transaction type into Functional Groups
- IEA

See Exhibit 57 and Exhibit 58

Exhibit 57. Example of an Interchange Header (ISA)

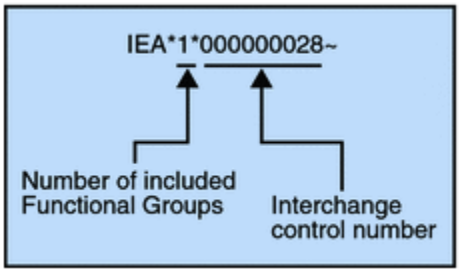


The following list describes the ISA segments shown in Exhibit 57:

1. Authorization Information Qualifier
2. Security Information Qualifier
3. Interchange ID Qualifier
4. Interchange Sender ID
5. Interchange ID Qualifier
6. Interchange Receiver ID
7. Date
8. Time
9. Repetition Separator
10. Interchange Control Version Number

11. Interchange Control Number
12. Acknowledgment Requested
13. Usage Indicator

Exhibit 58. Example of an Interchange Trailer (IEA)



Functional Groups (GS/GE)

Functional Groups, often referred to as the "inner envelope," are made up of one or more Transaction Sets, all of the same type, which can be batched together into one transmission. The Functional Group is defined by the header and trailer segments.

The Functional Group Header (designated GS) segment appears at the beginning, and the Functional Group Trailer (designated GE) segment appears at the end. Many Transaction Sets can be included in the Functional Group, but all local transactions must be of the same type.

Within the Functional Group, each Transaction Set is assigned a functional identifier code, which is the first data element of the header segment. The Transaction Sets that constitute a specific Functional Group are identified by this functional ID code.

The GS segment contains:

- Functional ID code (the two-letter transaction code; for example, PO for an 850 Purchase Order, HS for a 270 Eligibility, Coverage, or Benefit Inquiry) to indicate the type of transaction in the Functional Group
- Identification of sender and receiver
- Control information (the Functional Group control numbers in the header and trailer segments must be identical)
- Date and time

The GE segment contains:

- Number of Transaction Sets included
- Group control number (originated and maintained by the sender)

Exhibit 59. Example of a Functional Group Header (GS)

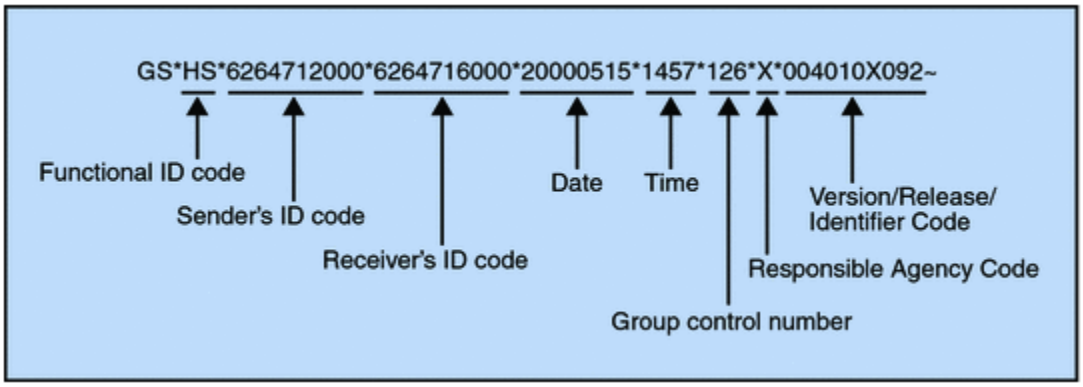
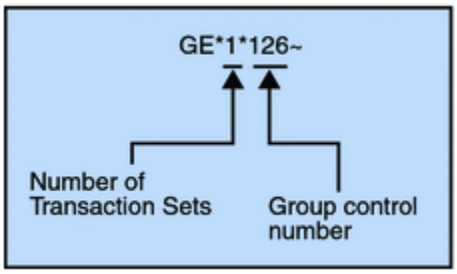


Exhibit 60. Example of a Functional Group Trailer (GE)



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