

MSRB Real-Time Transaction Reporting System (RTRS) Manual

Version 3.8, November 2022



Revision History

Version	Date	Description of Changes	
1.0	January 2005	Initial Version	
2.0	June 2005	Added Discrepancy error code and error code review and response section added	
2.5	November 2005	Added Dealer Data Quality - Summary Report	
2.6	June 2006	Added Dealer Data Quality Detail Report	
2.7	August 2007	Updated expanded hours for RTRS Web	
2.8	November 2007	Added Dealer Data Quality – Summary of Correspondent's Trades Report	
2.9	August 2008	Updated extended deadline for Dealer Data Quality - Summary Report enhancement	
3.0	November 2012	Added Regulatory Dollar Price field for Inter-Dealer trades; Added date range field for Discrepancy Error Report and Destination Code Report; Updated RTRS Fields Appendix	
3.1	April 2013	Removed detailed instructions for the former Form RTRS application.	
3.2	August 2015	Updated the Resources and Support section to reflect the change in hours of operation for Email Support.	
3.3	June 2016	Updated to reflect the user navigation changes to the MSRB.org homepage, MSRB Gateway Login and Main Menu pages.	
3.4	July 2016	 Updated to reflect changes to data reporting requirements (see MSRB Notices 2015-07 and 2016-09): Expanded the application of the existing list offering price and takedown indicator to include distribution participant dealers and takedown transactions that are not at a discount from the list offering price. Eliminated the requirement for dealers to report yield on customer trade reports and, instead, enabling the 	

Version	Date	Description of Changes
		 MSRB to calculate and disseminate yield on customer trades. Established a new indicator for customer trades involving non-transaction-based compensation arrangements. Established a new indicator for inter-dealer transactions executed with or using the services of an alternative trading system (ATS).
3.5	May 2018	Updated to reflect changes to RTRS Web interface.
3.6	November 2018	Updated to provide information on the new Price Variance Alert History feature.
3.7	June 2021	Updated to reflect NASDAQ Subscriber Services contact information.
3.8	November 2022	Updated to reflect UI/UX changes to the MSRB.org homepage, updated links as appropriate for the revised MSRB.org website.

Resources and Support

Contact the MSRB MSRB Support Phone: 202-838-1330 Email: <u>MSRBsupport@msrb.org</u>. Live support: 7:30 a.m. – 6:30 p.m. ET. E-mail support: 7:00 a.m. – 7:00 p.m. ET.

MSRB Corporate Office

Municipal Securities Rulemaking Board 1300 I Street NW, Suite 1000 Washington, DC 20005 Phone: 202-838-1500 MSRB Website: <u>www.msrb.org</u> EMMA Website: <u>emma.msrb.org</u>

Core Operational Hours

7:00 a.m. to 7:00 p.m. ET on business days*

*Excludes weekends and holidays identified on the <u>Systems Holiday Schedule</u> and planned or unplanned outages as communicated on the <u>MSRB Systems Status</u> webpage.

RTRS System Hours

The RTRS "Business Day," on which dealers are required by Rule G-14 to submit trade reports within 15 minutes of execution, begins at 7:30 a.m. and ends at 6:30 p.m. ET. However, RTRS accepts and disseminates any trade reports received between the RTRS "window" hours of 6:00 a.m. and 9:00 p.m. ET. Trade reports submitted to RTRS after 9:00 p.m. will not be processed by RTRS but will be pended for processing and dissemination at 6:00 a.m. the next business day.¹

The open message will be the first message sent and it will be published at approximately 6:00 a.m. each business day. Unmasked trades and other MSRB updates to trade messages will be published shortly after the open message is published and no earlier than 6:00 a.m. RTRS begins publishing real-time trade reports each business day no later than 7:00 a.m. or as soon after that time as real-time trade messages are reported by dealers. The real-time feed continues to publish until all inbound messages and MSRB modifications have been processed for the day, which will be no earlier than 9 p.m. (All times are Eastern Time.)

Comprehensive Trade Files and Replay Files are normally available 24 hours a day, seven days a week. However, due to maintenance activities, files may be unavailable outside of core operational hours.

Related MSRB Rules and Resources

- <u>Rule G-14</u>
- Rule G-14 Interpretive Guidance
- <u>Rule G-14 Compliance Resources</u>

https://msrb.org/Rules-and-Interpretations/MSRB-Rules/Informational/IF-1

¹ Facility For Real-Time Transaction Reporting and Price Dissemination (The "Real-Time Transaction Reporting System" or "RTRS")

Overview

About the MSRB

The MSRB protects investors, state and local governments and other municipal entities, and the public interest by promoting a fair and efficient municipal securities market. The MSRB fulfills this mission by regulating the municipal securities firms, banks and municipal advisors that engage in municipal securities and advisory activities. To further protect market participants, the MSRB provides market transparency through its Electronic Municipal Market Access (EMMA®) website, the free, official repository for information on all municipal bonds. The MSRB also serves as an objective resource on the municipal market and provides extensive education and outreach to market stakeholders. The MSRB is a self-regulatory organization governed by a board of directors that has a majority of public members, in addition to representatives of regulated entities. The MSRB is overseen by the Securities and Exchange Commission and Congress.



This symbol appears within this manual to call out important information or directions.

This resource is for informational purposes only and should be considered in conjunction with the applicable MSRB rules and any related interpretations. The complete text of all MSRB rules and interpretations is available at https://msrb.org/Rules-and-Interpretations/MSRB-Rules.

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All products or brand names mentioned in this manual are trademarks or registered marks of their respective holders.

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Introduction

The purpose of the MSRB's Real-time Transaction Reporting System (RTRS) is to increase price transparency in the municipal securities market and enhance the surveillance database and audit trail used by enforcement agencies.

RTRS Web is a reporting mechanism for submitting, modifying and canceling customer transactions and inter-dealer regulatory-only (IDRO) transactions, as well as for modifications to regulatory data on inter-dealer transactions. This document explains how to use RTRS Web to fulfill MSRB transaction reporting requirements.

Transactions in Securities Subject to Mandatory Transaction Reporting

Inter-dealer transactions eligible for clearance and settlement through a registered clearing agency must be reported through the Real-Time Trade Matching (RTTM) environment (see MSRB Rule G-12 (f)² for further details). Reporting inter-dealer transactions through RTTM satisfies the MSRB Rule G-14 reporting requirement for inter-dealer transactions. Any customer transaction in a security eligible for CUSIP number assignment by CUSIP Global Services must be reported to the MSRB. IDRO transactions must be reported to the MSRB by a clearing firm (see MSRB Rule G-14 RTRS Procedures³ for further details). Inter-dealer, customer and IDRO transactions are subject to the 15-minute reporting requirement (as of January 31, 2005⁴), with exceptions as noted in MSRB Rule G-14.

MSRB Rule G-14 on Transaction Reporting requires that every dealer obtain an executing broker symbol, if one has not already been assigned, from National Association of Securities Dealers Automated Quotations (NASDAQ). NASDAQ will assign executing broker symbols to all dealers including bank dealers. NASDAQ Subscriber Services can be reached at 212-231-5180, option 3. When calling NASDAQ Subscriber Services for an executing broker symbol, dealers should state that they need the symbol for use in reporting transactions in municipal securities to the MSRB. If dealers experience difficulties in obtaining executing broker symbols, then they can send an e-mail to subscriber@NASDAQ.com.

² Uniform Practice, MSRB Rule G-12 (f),

https://msrb.org/Rules-and-Interpretations/MSRB-Rules/General/Rule-G-12

³ Reports of Sales or Purchases, MSRB Rule G-14,

https://msrb.org/Rules-and-Interpretations/MSRB-Rules/General/Rule-G-14

⁴ Real-time Transaction Reporting: Rule G-14, MSRB Notice 2005-02 (January 10th, 2005) <u>https://msrb.org/Real-Time-Transaction-Reporting-Rule-G-14</u>

Part 1: Access to RTRS Web

Logging in to EMMA Dataport to access RTRS Web can be done from the EMMA homepage or <u>www.msrb.org</u>.

Log in from the EMMA Home Page

From the EMMA homepage at <u>https://emma.msrb.org</u>, click the **EMMA Dataport** tab.



Then click the Log in to MSRB Gateway button.

Electronic Municipal Market Acc Aservice of the MSRB	ess		Search by CL	EMMA Help Contact Us ISIP, Description, State, etc. Advanced Search	
Browse Issuers	Tools and Resources 🝷	Market Activity 👻	MyEMMA [®] 🕶	EMMA Dataport	
EMMA Dataport	Document Submission				
Overview Submissions by Dealers Submissions by Municipal Advisors	EMMA Dataport now featu improvements to the cont Read more about the chan	res an enhanced user interfac inuing disclosure submission p ges.	e and process for issuers.	Access EMMA Dataport to Submit Documents	
 Submissions by Indirection Actions Submissions by Issuers Submissions by Obligated Persons MSRB Subscription Services MSRB System Status 	Municipal securities dealers, municipal advisors, issuers, obligated persons and their designated agents provide the Municipal Securities Rulemaking Board (MSRB) with electronic documents to be posted on EMMA. EMMA Dataport is the utility through which submissions of documents and related information are made to MSRB Market Transparency Programs. For information about how to make specific submissions, please click on the applicable link below. For time sensitive issues call MSRB Support at or send an email to MSRBsupport@msrb.org.			Log in to MSRB Gateway Don't have an account? Register > Management of the second seco	
	 Submissions by Dealers Submissions by Municipa Submissions by Issuers Submissions by Obligate 	al Advisors d Persons		Free Online Learning Log in to MuniEdPro® to take the MSRB's interactive course on continuing disclosure obligations under SEC Rule 15c2-12.	
			-	Watch government finance professionals explain how they use EMMA.	

Log in to MSRB Gateway

From the MSRB Gateway landing page, enter your User ID and Password, and click Login.

III MSRB Municipal Securities Rademaking Board	MSRB Home Contact and Suppor
Log into MSRB Gateway	Wetcome to MSRB Gateway, the secure access point for all MSRB applications including EMMA. Click here for guidance on user account management and information about the MSRB Gateway. To return to MSRB org from within the MSRB Gateway application, click on the MSRB Home link at the top right corner of the page. If you are experiencing login or other system reliated problems, please check the Systems Stokus Page for more information. If you need additional help, please check the Systems Stokus Page for more information. If you need additional help, please contact the MSRB via email at GatewaySupport@minb org or by phone at 202-655-1330. MAR Access Online Training about Submitting to EXMAR. The MSRB recommends not bookmarking this page.
MSR8 Gateway Manual	

From the MSRB Gateway Main Menu click the **RTRS Web Interface** link under **Market Transparency Systems** section.

MSRB Gateway Main Menu Welcome to MSRB GatewayI Your User Account has the following access rights:	
Market Transparency Systems Access MSRB systems to submit documents and data related to municipal market activity and political contributions.	
Dealer System Outage Reporting RTRS Web Interface - Production System Rule G-37 Submission EMMA Dataport	
Dealer Feedback System Transaction Data Request Form	



If the **RTRS Web Interface** link does not appear, expand the **Account and Organization Management** option and click on **View Account Administrators** and contact one of the listed individuals to request access to RTRS Web.

Permissions

RTRS Web determines your user permissions according to the privileges granted by your firm's Account Administrator. Users associated with the same firm may have different privileges, as assigned by the firm's Account Administrator:

Permission	Description		
	View, modify, submit, and cancel transactions.		
RTRS Web	Includes the ability to run RTRS Web reports.		
	View transactions and the compliance status and		
RTRS Web	error codes assigned to each transaction.		
View Only	Includes the ability to run RTRS Web reports.		

Access to Report, View and/or Update Trades

Trade access is determined in RTRS Web by the following:

- Type of firm with which a User ID is associated: a dealer or service bureau; and
- Type of transaction being accessed: an inter-dealer, customer or IDRO transaction.

For any transaction, the submitter of the transaction may be different than the actual dealer who effected the transaction. Dealers have access to any trade they submitted or effected. Certain non-dealer agents (Service Bureaus) are able to see only the trades that they submitted on behalf of dealers. Only clearing brokers can report or update IDRO trades.

All dealers have an ongoing obligation to report trade information promptly, accurately and completely. The dealer may employ an agent for the purpose of submitting transaction information; however, the primary responsibility for the timely and accurate submission remains with the dealer that effected the transaction.

A dealer that submits inter-dealer municipal securities transactions for comparison, either for itself or on behalf of another dealer, has specific responsibility to ensure that transaction reporting requirements are met with respect to those aspects of the comparison process that are under the submitter's control.⁵

⁵ Reports of Sales or Purchases, <u>https://msrb.org/Rules-and-Interpretations/MSRB-Rules/General/Rule-G-14</u>

Part 2: Navigating RTRS Web

Key functions of RTRS Web include submitting transactions, viewing and modifying recent transactions, and searching for transactions. After a trade submission, RTRS Web provides detailed information regarding your transaction submission, any compliance errors that may have occurred, your current transaction reporting status, as well as your transaction reporting history.

This section describes how to navigate the RTRS Web interface.



Hover over links and headers to view a short description, if available.

Main Navigation

The menu bar is static on all RTRS Web pages, so that the primary functions of the system can be easily accessed from any webpage.

MSRB RT'RS Web Real-Time Transaction Reporting System		MSRB Home Contact and Support Return to Gateway Logout Quick Search CUSIP Advanced Search
Submit New Trade View Trades	Access Reports	Welcome JDOE, MSRB4
Submit Customer Trade	Trade Management View Rejected Messages	RTRS Resources = EMMA® = MSRB.org = Dealer Outage Report = Dealer Feedback System
Q Advanced Search	Price Variance Alert History	RTRS Web Tutorials Manuals and Specifications
Reports	Discrepancy Error Code Report	Daily Trades Modified
RTRS DQ Summary-Clearing Broker	Destination Code Report	
	Report of Correspondents	

Menu Bar Links	Functions		
RTRS Web Masthead	Used to navigate to the RTRS Web homepage		
Submit New Trades	 New Customer Trade – Report a new customer transaction New IDRO Trade – Report a new IDRO transaction 		
View Trades	 Trade Management – View your recent transaction activity, along with regulatory status and error code information Error Code Review and Response – View your recent transaction activity by error code or error code category, along with status and error code information Unapplied Messages – View messages that were rejected by RTRS 		
Access Reports	View various reports for transactions reported by and for your firm.		

The Masthead links at the top right side of the RTRS Web home page are also static throughout RTRS Web.

Masthead Links	Functions
MSRB Home	Used to navigate to the MSRB.org home page
Contact and	Used to navigate to the page where users can contact the
Support	MSRB for questions and clarification
Return to	Used to navigate to the MSRB Gateway Main Menu
Gateway	
Log Out	Used to log out of RTRS Web
Quick Search	Input desired information to locate transaction information
	quickly
Advanced Search	Execute a detailed search of your reported transactions to
	narrow search results

Homepage Links

The middle section of the homepage of RTRS Web homepage provides shortcuts to common activities.

Homepage Links	Function
Submit Customer trade	Report a new customer transaction
Trade Management	Navigate to the Trade Management screen
Error Code Review and	View and search for transactions with error
Response	codes
View Rejected Messages	View unapplied message activity from the
view Rejected Messages	prior month up to the current business day
Advanced Search	Access to input desired information to locate
Auvanceu Search	transaction information quickly
Submit IDRO trade	Report a new IDRO transaction
Price Variance Alert History	View history of Price Variance Alerts that were
Frice variance Alert history	sent to your firm
Poports	View reports for transactions reported by and
	for your firm

The RTRS Resources links that are accessible on the right side of the RTRS Web homepage provide ease of navigation and access to information to assist with the use of RTRS Web and submission of trade data.

Click **System Status to** view the current status of RTRS and other MSRB systems as well as the MSRB system holiday schedule.

Search Results

After using the Search box in the upper right of RTRS Web, the criteria entered for the search is retained at the top of the results page, while the number of transactions returned is displayed at the bottom. To sort the data, click the column heading of the data element once for ascending order and twice for descending.

To view the complete information on a specific transaction, click on the XREF for that transaction to navigate to the Trade Information screen. For the most current information, use the **Refresh Activity** link at the top of the results page.

The result of your search criteria is limited to 100 pages and 10,000 transactions. RTRS Web search result pages can display 100 transactions on a page. Use the **Next Page** and **Previous Page** buttons to scroll through the results.

Status Symbols

The below status symbols identify the status (regulatory or otherwise) of the transaction.

Message	lcon
Satisfactory	0
Unsatisfactory	0
Questionable	?
Canceled	8
Reversed	O
Trade Reversal	۲
Message Status Pending	
Message Rejected	۲

Part 3: Enter a New Customer Transaction

To enter a new customer transaction, select **Customer Trade** from the Submit New Trades drop-down menu or click on the link **Submit Customer Trade** from the shortcut link on the screen.

Real-Time Transaction Reporting System		MSRB Home Contact and Support Return to Gateway Logout Quick Search CUSIP Advanced Search
Submit New Trad	Access Reports	Welcome JDOE, MSRB4.
Customer Trade IDRO Trade Submit Customer Trade	Trade Management	RTRS Resources = EMMA®
		Dealer Outage Report
Error Code Review and Response	View Rejected Messages	Dealer Feedback System
-	-	RTRS Web Tutorials
	-	 Manuals and Specifications
Q Advanced Search	Submit IDRO Trade	
Price Variance Alert History		

Once you select either option, a blank New Customer Trade screen appears. At a minimum, update all of the required fields indicated by asterisks. Data requirements may be different for each type of trade. See MSRB Rule G-14 for requirements on submitting a customer trade. A list of data elements and their data entry validations, categorized by transaction type – customer, IDRO or inter-dealer are provided in the <u>Appendix</u>.

Submit New Trade	View Trades	Access Reports		Welcome JDOE,
Customer Trade				
* XREF			* Option to Buy/Sell	~
* CUSIP			* Capacity	~
* Trade Date			* Par (Face Amount)	
* Time of Trade (Military ET)	(mm/aa/yyyy)		* Dollar Price	
	(hh:mm:ss)		Yield (%)	
* Settlement Date		Unknown	Commission (\$)	
* Submitter/Effecting Broker	Submitter ID & EBS ~		Weighted Average Price	No 🗸
			Special Condition Indicator	No condition below applies
				Not special price
				No condition below applies
Use this information for my nex	kt trade.			
Use this information for my ne:	kt trade.			Not special price V No condition below applies V

If during your entry, you want to clear the screen and start over, click the **Clear** link.

To facilitate quick and easy transaction submission when you have more than one trade to enter with similar data, check the **Use this information for my next trade** box on the bottom left of the screen prior to submitting your trade. Your data will be saved and automatically copied to the next transaction page. You will be required to enter a new External Dealer Control Number (XREF), as this must be unique to each transaction.

Once you have completed your entry, click the **Submit Trade** button to submit your transaction. Once data entry validation checks are passed, a confirmation pop-up with your unique message submission number will be displayed.

Part 4: Enter a New IDRO Transaction

To enter a new IDRO transaction, either select **Submit New Trades** from the menu bar and then **IDRO Trade** from the drop-down or select the link **Submit IDRO Trade** from the short-cut link on the screen.

MSRB RTRS Web Real-Time Transaction Reporting System		MSRB Home Contact and Support Return to Gateway Logout Quick Search CUSIP Advanced Search
Submit New Trade View Trades	Access Reports	Welcome JDOE, MSRB4.
Customer Trade IDRO Trade IE+	Trade Management	RTRS Resources ■EMMA®
Error Code Review and Response	View Rejected Messages	 MSRB.org RTRS Web Tutorials Manuals and Specifications
Q Advanced Search	Submit IDRO Trade	_
Price Variance Alert History		
Reports		
RTRS DQ Summary-Effecting Broker	Discrepancy Error Code Report	Daily Trades Modified
RTRS DQ Summary-Clearing Broker	Destination Code Report	
	Report of Correspondents	

Once you select one of the IDRO options, a blank IDRO Trade screen appears. At a minimum, you must complete all required fields as indicated by asterisks. Data requirements may be different for each type of trade. See MSRB Rule G-14 for required data elements for submission of an IDRO trade. A list of data elements and their data entry validations, categorized by transaction type – customer, IDRO or inter-dealer are provided in the <u>Appendix</u>.

If during your entry, you want to clear the screen and start over, click the Clear link.

To facilitate quick and easy transaction submission when you have more than one trade to enter with similar data, check the **Use this information for my next trade** box on the bottom left of the screen prior to submitting your trade. Your data will be saved and automatically copied to the next transaction page; you are required to enter a new External Dealer Control Number (XREF) as this must be unique to each transaction.

Once you have completed your entry, click the **Submit Trade** button to submit your transaction. RTRS Web first affirms that you have passed the data entry validation checks and if so, displays a confirmation pop up with your unique message submission number.

MSRB RTF Real-Time Transaction Re	RS Web		MSR Quick	B Home Contact and Support Return to Gateway Logout Search CUSIP Advanced Search
Submit New Trade	View Trades	Access Reports		Welcome JDOE, MSRB4.
IDRO Trade				
* XREF			* Option to Buy/Sell	~
* CUSIP			* Capacity	Principal V
* Trade Date	(mm/dd/saas)		* Contra Capacity	Agent v
* Time of Trade (Military ET)	(mnvda/yyyy)		* Par (Face Amount)	
* Settlement Date	(hh:mm:ss)	Unknown	* Dollar Price Yield (%)	
* Submitter/Effecting Broker	Submitter ID & EBS 🗸		Weighted Average Price	No 🗸
* Contra Effecting Broker			Special Condition Indicator	No condition below applies
				Not special price
				No condition below applies
Use this information for my nex	t trade.			
Submit Trade <u>Clean</u>				
* Required fields. Dollar price ca	n be omitted for when-issued	trades if yield is provided and sett	lement date is not known.	

Part 5: Trade Management

The Trade Management screen allows you to view your trading activity and compliance results. To reach the Trade Management screen, either select **View Trades** from the menu bar and then **Trade Management** from the drop-down or select **Trade Management** from the shortcut link on the screen.

M SRB RT	RS Web		MSRB Home Contact and Support Return to Gateway Logout Quick Search CUSIP
Real-Time Transaction	Reporting System		Advanced Search
Submit New Trade	View Trades	Access Reports	Welcome JDOE, MSRB4.
	Trade Management		
Submit Custor	Error Code Review and Response	Trade Management	RTRS Resources
E +	Rejected Messages		EMMA®
			MSRB.org
Error Code Re	eview and Response	View Rejected Messages	Dealer Outage Report
			RTRS Web Tutorials
		_	Manuals and Specifications
Q Advanced Sea	arch	Submit IDRO Trade	
Price Variance	Alert History		
Reports			
RTRS DQ Summary	-Effecting Broker	Discrepancy Error Code Report	Daily Trades Modified
RTRS DQ Summary	-Clearing Broker	Destination Code Report	
		Report of Correspondents	

Filters are located at the top of the screen to facilitate easy selection and viewing of your transactions. The filters have been pre-defined for the most common search criteria. You may, however always use the Quick Search feature to access transactions outside of these pre-defined filter criteria.

MSRI Real-Time T	B RTR Transaction Re	SV porting	Veb System					Q	MSRE uick :	B Home Conta Search CUSIP	ct and Support Retu	um to Gateway Logou
Submit New	Trade	v	/iew Trades		Access R	eports					V	Welcome JDOE, MSRB
Show me All trac	egement Las	st update	d 1/8/2018 at 9:5 iy status	7 AM. <u>Re</u>	fresh Activity	Prior busine	ss day 🗸	for AAAA v	and	Any Submitter	D V Filter Trad	Export Trade Data
Trade Status∳											1	
	COBIL A	B/S≑	Trade Type♦	EBS≑	Par Value 	Price 🌲	Yield≑	XREF	\$	Trade Date 🔻	Settlement Date	Submission Date
0	644614C72	B/S≑ B	Trade Type≑ IDRO	EBS AAAA	Par Value 500,000	Price 	Yield∳ -	XREF RW08XREF01	\$	Trade Date	Settlement Date 01/27/2018	Submission Date 01/05/2018
0	644614C72 163597GZ4	B/S∉ B S	IDRO Inter-Dealer	EBS AAAA AAAA	Par Value\$ 500,000 50,000	Price 107.694 99.912	Yield∳ -	XREF RW08XREF01 RW06XREF01	\$	Trade Date 01/05/2018 01/05/2018	Settlement Date 01/27/2018 01/27/2018	Submission Date 01/05/2018 01/05/2018
0 0 0	644614C72 163597GZ4 644614C72	B/S∉ B S B	Trade Type♦ IDRO Inter-Dealer Customer	EBS AAAA AAAA AAAA	Par Value♦ 500,000 50,000 500,000	Price ♦ 107.694 99.912 107.694	Yield∳ - -	XREF RW08XREF01 RW06XREF01 RW07XREF01	\$	Trade Date 01/05/2018 01/05/2018 01/05/2018	Settlement Date 01/27/2018 01/27/2018 01/27/2018	Submission Date 01/05/2018 01/05/2018 01/05/2018
0 0 0	644614C72 163597GZ4 644614C72 123456AB1	B/S♦ B S B S	Trade Type IDRO Inter-Dealer Customer Inter-Dealer	EBS\$ AAAA AAAA AAAA AAAA	Par Value 500,000 50,000 500,000 50,000	Price ↓ 107.694 99.912 107.694 99.912	Yield ∳ - - -	XREF RW08XREF01 RW06XREF01 RW07XREF01 RW19-MISCXREF		Trade Date 01/05/2018 01/05/2018 01/05/2018 01/05/2018	Settlement Date 01/27/2018 01/27/2018 01/27/2018 01/27/2018 01/28/2018	Submission Date 01/05/2018 01/05/2018 01/05/2018 01/05/2018
0 0 0 0	644614C72 163597GZ4 644614C72 123456AB1 123456AB	B/S♦ B S B S S	IDRO IDRO Inter-Dealer Customer Inter-Dealer Inter-Dealer	EBS AAAA AAAA AAAA AAAA AAAA	Par Value 500,000 50,000 500,000 500,000 500,000 50,000 50,000	Price 107.694 99.912 107.694 99.912 99.912 99.912	Yield ♣ 	XREF RW08XREF01 RW06XREF01 RW07XREF01 RW19-MISCXREF RW19-MISCXREF	€	Trade Date ↓ 01/05/2018 01/05/2018 01/05/2018 01/05/2018 01/05/2018 01/05/2018	Settlement Date 01/27/2018 01/27/2018 01/27/2018 01/27/2018 01/28/2018 01/28/2018	Submission Date 01/05/2018 01/05/2018 01/05/2018 01/05/2018 01/05/2018

The filters that have been pre-defined for managing your transactions are as follows:

Transaction types

Effecting Broker Symbol (EBS)

Submitter ID

Status

- Submission Date Time Frames
- Select the desired filter criteria, then click the **filter trades** button to view a list of transactions that match your criteria. The Trade Management page provides some of the basic information about your transaction including:

Regulatory Status Icon

- CUSIP
- B/S
- Transaction Type
- EBS
- Par Value
- Price
- Yield (For when- issued trades only)
- XREF
- Trade Date
- Settlement Date
- Submission Date

Refer to the <u>Appendix</u> for additional information about the fields and the validation logic.

Part 6: Error Code Review and Response

The Error Code Review and Response screen functions similarly to the Trade Management screen, except that you can filter trade activity and compliance results by error code.

To reach the Error Code Review and Response screen, either select **View Trades** from the menu bar and then **Error Code Review and Response** from the drop-down or select **Error Code Review and Response** from the shortcut link on the screen.

Real-Time Transaction R	RS Web Reporting System		Quick Search CUSIP
Submit New Trade	Vie(Access Reports	Welcome JDOE, MSRB4.
Submit Custon	Trade Management Error Code Review and Response Rejected Messages	Trade Management	RTRS Resources ■EMMA® ■MSRB.org
Error Code Rev	view and Response	View Rejected Messages	Dealer Outage Report Dealer Feedback System RTRS Web Tutorials Manuals and Specifications
Q Advanced Sea	rch	Submit IDRO Trade	
S Price ∨ariance	Alert History		

Filters are located at the top of the screen to facilitate easy search and viewing of your transactions.

MSRI Real-Time T	B RTF	RS V	Veb System						MSI Quicl	RB Home Con k Search CUS	tact and Support Retu	um to Gateway Logout
Submit New	Trade	v	ïew Trades		Access R	eports						Welcome JDOE, MSRB4
Error Code Show me All tr with error code	Review an ade types N913	d Resp	ONSE Last upo	Any Sut	2018 at 10:06 Al omitter ID v submitted w	M. <u>Refresh /</u> rithin Last (Activity 30 days te range	✓ t	0		Filter Trad Clear Filter	Export Error Codes
Show 10 ~ e	ntries									Se	arch within list:	
Trade Status∉	CUSIP 👙	B/S∉	Trade Type♣	EBS♣	Par Value∉	Price 🌢	Yield∉	XREF		Trade Date _▼	Settlement Date	Submission Date
0	880558EK3	S	Customer	AAAA	10,000	103.935	4.20	RW20N913	XREF1	01/08/2018	01/28/2018	01/08/2018
Displaying 1 to 1 o	f 1 results										Ρ	revious 1 Next

The filters that have been pre-defined for reviewing and responding to your transactions are as follows:

- Transaction types
- Submitter ID
- Submission Date Time Frames
- Effecting Broker Symbol (EBS)
- Error Code
- Submission Date Range

Click the **view all** link next to the error code field in the filter bar to filter transactions by a specific error code.

Error Code Review and Response	
Show me All trade types v for AAAA v and Any So with error code N913 view all AND	Ibmitter ID Image: submitted within Prior business day O submitted within the date range to

Select the desired filter criteria then click the **filter trades** button to view a list of transactions that match your criteria.

The Error Code Review and Response page provides some of the basic information about your transaction including:

- Trade Status Icon
- B/S (Buy or Sell)
- EBS
- Price
- XREF
- Settlement Date

- CUSIP
- Transaction or Trade Type
- Par Value
- Yield
- Trade Date
- Submission Date

Refer to the <u>Appendix</u> for additional information about the fields and the validation logic.

Part 7: Search for a Transaction

There are two ways to search for a trade in RTRS Web: 1) Quick Search or 2) Advanced Search, both of which are located at the top of every RTRS Web screen.

MSRB Home	Contact ar	d Support Return to Gateway Logout
Quick Search	CUSIP ▼ CUSIP XREF	Advanced Search
	TID	Welcome JDOE, MSRB4.

You can use the Quick Search option to search for a transaction by CUSIP, XREF or TID. You can use the Advanced Search option to search for a transaction by more specific criteria. Although you may enter or leave some criteria blank, either the CUSIP, trade date, instruct submission date or recent submission date is always required.

Real-Tin	KB K ne Transacti	I KS on Reporti	Web ng System					Quid	ck Search CUSIF	2 🗸	Advanced
Submit N	ew Trade		View Trades		Access	Reports				W	/elcome JDOE,
Advance	d Search	😧 Last up	odated 3/5/2018 a	t 3:58 PM.	Refresh Activit	¥				Export Advance	ced Search Res
Effecting B	roker: AAAA	ANI	D Submitter ID:	Any Submi	tter ID 🔽						
CUSIP:					Submission	0					
Trade D	ate:	03/01/2018	to 03/05/2018		Instruct	t	0	AND/OR Recent	e . t	0	
Additional	Criteria										
Par (Fac	e Amount):	Equals	~	¢			Buy/Se	ell:	Any 🗸		
Dollar P	rice:	Equals	~	\$			Specia	I Condition Indicator:	Any	•	~
Final Mo	iney:	Equals	~	\$					Any		~
Settlem	ent Date:		to						Any		~
Trade Ty	pe:	Any	~				Regula	tory Status:	Any	~	
Trade S	atus:	Cancele	ed 🗆 DKed 🗆	Reversed			Match	Status:	Any ~		
Search	Clear Filte	rs									
/ 10 🗸 er	tries								Sea	rch within list:	
de Status‡	CUSIP	♦ B/Sŧ	Trade Type∉	EBS≑	Par Value∉	Price 🏺	Yield∉	XREF \$	Trade Date∉	Settlement Date \$	Submission
0	163597GZ4	s s	Inter-Dealer	AAAA	50,000	99.912		RW01XREF04	03/05/2018	03/25/2018	03/05/20
0	644614C72	t B	IDRO	AAAA	500,000	107.694	×	RW03XREF06	03/05/2018	03/25/2018	03/05/20
0	644614C72	B	Customer	AAAA	500,000	107.694		RW02XREF06	03/05/2018	03/25/2018	03/05/20
•	118217AP3	s s	Inter-Dealer	AAAA	135,000	91.421	6.48	RW05XREF01	03/05/2018	03/25/2018	03/05/20
۲	118217AP3	в В	Inter-Dealer	AAAA	135,000	91.421	6.48	RW05XREF06	03/05/2018	03/25/2018	03/05/20
0	880558EK3	3 S	Customer	AAAA	10,000	103.935	4.20	RW20N913XREF1	03/05/2018	03/25/2018	03/05/20
0	880558EK3	s s	Inter-Dealer	AAAA	50,000	99.912	-	RW18Q33FXREF2	03/05/2018	03/25/2018	03/05/20
-	163597GZ4	s s	Inter-Dealer	AAAA	50,000			RW01XREF03	03/05/2018	03/25/2018	03/05/20
0						00.040		DW01VDEE02	03/05/2018	02/05/20149	02/05/20
0	163597GZ4	s s	Inter-Dealer	AAAA	50,000	99.91Z		RVV0 IAREFUZ	03/03/2010	03/25/2016	03/05/20

The Advanced Search in the screenshot above, for example, returned all inter-dealer transactions with Effecting Broker "AAAA" that were bought between trade dates 03/01/2018 and 03/05/2018.

The criteria for searching transactions are below:

- Effecting Broker
- Submitter ID
- CUSIP
- Trade Date
- Instruct Submission Date
- Recent Submission Date
- Par
- Dollar Price
- Yield

- Final Money
- Settlement Date
- Buy/Sell
- Special Conditional Trade
- Transaction Type
- Regulatory Status
- Canceled, DKed or Reversed
- Memo or Pending
- Match Status

Refer to the <u>Appendix</u> for additional information about the fields and the validation logic.

Part 8: View an Existing Transaction

Select a transaction from the Trade Management or Error Code Review and Response screens. To display the transaction details, click the XREF on the transaction you wish to view.

MSRI Real-Time T	B RTF iransaction Re	S V	Veb System						Quick	Search CUSIF		Advanced Sear
Submit New	Trade	v	/iew Trades		Access R	Reports					١	Velcome JDOE, MS
Trade Mana	igement La	in An	ed 1/8/2018 at 9:5 ny status	57 AM. <u>Re</u>	efresh Activity	Prior busin	ess day 🔨	for AAAA	/ an	d Any Submitter	ID V Filter Trad	Export Trade Data
how 10 v er	ntries									Sea	rch within list:	
iow <u>10</u>	cusip 🗍	B/S≢	Trade Type ≢	EBS∦	Par Value≢	Price ≜	Yield≢	XREF	₹	Sear Trade Date _▼	rch within list: Settlement Date∳	Submission Date
now <u>10</u> ⊻ er Trade Status ♦	CUSIP \$	B/S∉ B	Trade Type∉ IDRO	EBS. AAAA	Par Value	Price ♣ 107.694	Yield≢ -	XREF RW08XREF0	\$ 1	Sear Trade Date 01/05/2018	rch within list: Settlement Date∉ 01/27/2018	Submission Date
iow <u>10</u> ver Trade Status∳ €	tries CUSIP ♦ 644614C72 163597GZ4	B/S∳ B S	Trade Type∳ IDRO Inter-Dealer	EBS AAAA AAAA	Par Value∳ 500,000 50,000	Price ♦ 107.694 99.912	Yield≜ - -	XREF RW08XREF0 RW06XREF0	\$ 1 1	Sear Trade Date 01/05/2018 01/05/2018	rch within list: Settlement Date 01/27/2018 01/27/2018	Submission Date 01/05/2018 01/05/2018
ow 10 ⊻ er Trade Status≑ 2 ©	CUSIP # 644614C72 163597GZ4 644614C72 644614C72	B/S∳ B S B	Trade Type∳ IDRO Inter-Dealer Customer	EBS AAAA AAAA AAAA	Par Value∳ 500,000 50,000 500,000	Price ♦ 107.694 99.912 107.694	Yield≜ - -	XREF RW08XREF0 RW06XREF0 RW07XREF0		Sear Trade Date 01/05/2018 01/05/2018 01/05/2018	within list: Settlement Date\$ 01/27/2018 01/27/2018 01/27/2018	Submission Data 01/05/2018 01/05/2018 01/05/2018
iow 10 v er Trade Status C C C	CUSIP 644614C72 163597GZ4 644614C72 23456AB1	B/S∳ B S B S	Trade Type IDRO Inter-Dealer Customer Inter-Dealer	EBS\$ AAAA AAAA AAAA AAAA	Par Value∳ 500,000 50,000 500,000 500,000 500,000 50,000	Price ♦ 107.694 99.912 107.694 99.912	Yield≢ - - - -	XREF RW08XREF0 RW06XREF0 RW07XREF0 RW19-MISCXRE	¢ 1 1 1 <u>1</u>	Trade Date 01/05/2018 01/05/2018 01/05/2018 01/05/2018	Settlement Date 01/27/2018 01/27/2018 01/27/2018 01/27/2018 01/27/2018	Submission Date 01/05/2018 01/05/2018 01/05/2018 01/05/2018
Iow 10 v er Trade Status 0 0 0 0 0 0	CUSIP 644614C72 163597GZ4 644614C72 123456AB1 123456AB 123456AB	B/S∳ B S B S S	Trade Type∳ IDRO Inter-Dealer Customer Inter-Dealer Inter-Dealer	EBS\$ AAAA AAAA AAAA AAAA AAAA	Par Value ∲ 500,000 50,000 500,000 500,000 500,000 50,000 50,000 50,000	Price ◆ 107.694 99.912 107.694 99.912 99.912 99.912	Yield ↓ - - - -	XREF RW08XREF0 RW06XREF0 RW07XREF0 RW19-MISCXR8 RW19-MISCXR8	♦ 1 1 1 1 5F1 5F2	Sear Trade Date 01/05/2018 01/05/2018 01/05/2018 01/05/2018	Active Active Settlement Date 01/27/2018 01/27/2018 01/27/2018 01/27/2018 01/27/2018 01/27/2018 01/28/2018 01/28/2018 01/28/2018	Submission Date 01/05/2018 01/05/2018 01/05/2018 01/05/2018 01/05/2018 01/05/2018 01/05/2018

You are directed to the Trade Information screen. The Trade Information screen displays the transaction details for that trade. It also provides the regulatory status (i.e. satisfactory, questionable or unsatisfactory) and any compliance issues with the transaction as found by the MSRB.

The overall status of the transaction can be found in the top of the page, just below the Trade Information label. Each transaction displays the status symbol and the regulatory notice for the transaction where any error code received by the transaction is displayed.

Trade Information		
Trade report satisfactory		
* Time of Trade (Military ET)	10:07:06 (hh:mm:ss)	Reversal Control Numbe
* Participant Capacity	Principal ~	Service Bureau ID: Regulatory Control Numl
Contra Capacity	Principal 🗸	* Regulatory Dollar Price

Inter-Dealer Trade ID: RW14Q33FXREF10, AAAA Last updated 03/06/2018 at 10:12:42 AM.

The Trade Information screen provides the most current view of the transaction, as reported by the dealer according to the MSRB.

For inter-dealer transactions, the Transaction Information tab is separated into two sections: Regulatory Reporting Information and Comparison Information.

The upper section applies to regulatory-only reporting data.

Submit New Trade	View Trades	Access Reports		Welcome JDOE, I	MSRB4.
Inter-Dealer Trade ID: F	W14Q33FXREF10, AA	AA Last updated 03/06/2018 at 10:12:42 AM.			
Trade Information				Back to Trade Management	Next Trade
Inde report satisfactory					
* Time of Trade (Military ET	10:07:06 (hh:mm:ss)	Reversal Control Number:			
* Participant Capacity	Principal ~	Service Bureau ID: Regulatory Control Number: 2	2018030600007500		
Contra Capacity	Principal ~	* Regulatory Dollar Price:	99.92		
Weighted Average Price	No 🗸				
Special Condition Indicator	No condition below applies	~			
	Not special price	~			
	No condition below applies	V			
* Message Sender ID:	9888 ~				

The Regulatory Reporting Information section provides some of the basic information about your transaction including:

- Time of Trade
- Participant Capacity
- Contra Capacity
- Weighted Average Price
- Special Condition

- Message Sender ID
- Reversal Control Number
- Service Bureau ID
- Regulatory Control Number
- Regulatory Dollar Price

The lower section applies to comparison data that is used both for clearing and settlement, as well as for regulatory reporting.

XREF:	RW14Q33FXREF10	Par (Face Value):	50000
Previous XREF:		Dollar Price:	103.935
Clearing ID:	9888	Accrued Interest:	111.11
Trade Reporting Indicator:	Cash/Bilateral	Final Money (\$):	20345.75
QSR/Target QSR:		Yield (%):	
Issue Type:		Concession (\$):	
Buy/Sell:	Sell	Settlement Type Indicator:	Settlement Indicator¿Reporting-only
Contra:	0226	Extended Settlement:	
Trade Date:	03/06/2018	Reversal Indicator:	No
Settlement Date:	03/26/2018	Market of Execution:	OTMU
CUSIP:	880558EK3	Sender Reference Number :	RW14-Q33F-07
RTTM ID:	RW14Q33FTID10	Lateness Indicator:	No
RTTM Match TID:	RW14Q33FTID9	Instruct Received Date/Time	: 03/06/2018 10:07:06
Memo/Pending:		Effecting Broker:	AAAA
DK Status:		Contra Effecting Broker:	NFSC
Modify Trade Clear			

The Comparison Information section provides some of the basic information about your transaction including:

- XREF
- Previous XREF
- Clearing ID
- Trade Reporting Indicator
- QSR/Target QSR
- Issue Type
- Buy/Sell
- Contra
- Trade Date
- Settlement Date
- CUSIP
- RTTM ID
- RTTM Match ID
- Memo/Pending
- DK Status
- Par (Face Value)

- Dollar Price or Yield for whenissued trades.
- Accrued Interest
- Final Money
- Yield
- Concession
- Settlement Type Indicator
- Extended Settlement
- Reversal Indicator
- Market of Execution
- Sender Reference Number
- Lateness Indicator
- Instruct Receive Date/Time
- Effecting Broker
- Contra's Effecting Broker

Refer to the <u>Specifications for Real-Time Reporting of Municipal Securities Transactions</u> on MSRB.org for additional information regarding the inter-dealer fields listed above.

Part 9: View Message History

To see a history of all the messages relating to the current transaction you have in view, Scroll down to the bottom of the page. You will be able to view a list of messages that are associated with the transaction sorted by the time the message was received in descending order. The most recent message at the top of the list corresponds with the most current information viewable on the Trade Information screen.

Aessage History													
Trade Status	Received Date/time	Record Type	B/S	EBS	Par	Price	Yield	XREF	Settlement Date	User ID	Message Sender ID	Medium	Lateness Indicator
O	03/06/2018 10:07:06	Modified	S	AAAA	50,000	99.92	-	RW14Q33FXREF10	03/26/2018	SYST	9888	Interactive Messaging	No
0	03/06/2018 10:07:06	Matched Due to Exact Match	S	AAAA	50,000	101.20	-	RW14Q33FXREF10	03/26/2018	SYST	9888	RTTM Event Message	No
Ø	03/06/2018 10:07:06	Instruct	S	AAAA	50,000	101.20	-	RW14Q33FXREF10	03/26/2018	SYST	9888	Interactive Messaging	No
<													>
/stem Status									© 2018 Munic	ipal Securit	ies Rulemaking I	Board (251.12.171.1	168.4.184)

The transaction fields displayed for message history are listed below:

- Transaction Status
- Received Date and Time
- Record Type
- B/S (Buy or Sell)
- EBS
- Par Value
- Price

- Yield
- XREF
- Settlement Date
- User ID
- Message Sender ID
- Message Medium
- Lateness Indicator

Refer to the <u>Appendix</u> for additional information about the fields and the validation logic.

Part 10: Modifying an Existing Transaction

Select a transaction to modify from the Price Variance Alert History, Trade Management or Error Code Review and Response search options. To display the transaction, click on the XREF of the transaction desired and you will be directed to the Trade Information screen.

As a user with RTRS Web update permission, you will be able to modify the transaction. The transaction is presented in edit mode with the modify trade button displayed at the bottom. As a user with RTRS Web view only rights, you are not able to modify the transaction, but you can view the transaction.

MSRB RTRS Real-Time Transaction Repo	S Web		Quick Sea	Advanced Search	
Submit New Trade	View Trades	Access Reports			Welcome JDOE, MSRB4
Inter-Dealer Trade ID: R	W14Q33FXREF4, AA	AA Last updated 03/07/2018 a	t 10:19:30 AM.	Back to Adva	anced Search Results Next
Trade report questionable					
Error Codes: Q33F - QUEST Seller and	d buyer Regulatory Dollar Pric	e differ by more than 50 cents			
* Time of Trade (Military ET) * Participant Capacity Contra Capacity Weighted Average Price Special Condition Indicator	10:07:06 (hh:mm:ss) Principal > Principal > No >	Y	Reversal Control Number: Service Bureau ID: Regulatory Control Number: * Regulatory Dollar Price:	2018030600007100 101.20	
* Message Sender ID:	Not special price No condition below applies 9888	V			
XREF: Previous XREF:	RW14Q33FXREF4		Par (Face Value): Dollar Price:	50000 103.935 111.11	
Trade Reporting Indicator:	Cash/Bilateral		Final Money (\$):	20345.75	

You may modify any of the data elements that are not set to view-only. View-only data elements are presented in light gray type, whereas modifiable elements are in black type.

Certain fields have limited access based on the type of transaction, either an inter-dealer, customer, or IDRO.

Once you have cleared the edits, click the **modify trade** button to submit your changes. RTRS Web first affirms that you have passed the data entry validation checks and if so, displays a confirmation pop-up with your unique message submission number. If you have failed one or more of the data entry checks, the data fields that have failed, along with the reason appear on the screen. To resubmit, correct the errors and click the **modify trade** button.

If you choose not to correct the errors, you may navigate back to the Trade Management screen and continue with no modifications being made to the transaction. Modifications are only made if you receive the confirmation pop-up.

Part 11: Cancel an Existing Transaction

Select a transaction on any of the following: Search features, Trade Management or Error Code Review and Response screens. To display the transaction, click on the XREF of the transaction desired and you will be directed to the Trade Information screen.

As a user with RTRS Web update permission rights, you will be able to cancel transactions. With the transaction in edit mode, the cancel trade button is displayed. As a user with the RTRS Web view only permission right, you are not able to cancel the transaction, but you can view the transaction.

Lateness Indicator:	No	Service Bureau ID:			
Instruct Received Date/Tin	ne: 03/06/2018 10:07:06	Sender Reference Number: RW02-CUST-05			
Trade Reporting Indicator:	Cash/Bilateral	Regulatory Control Number: 201803060000			
Market of Execution:	OTMU	Previous XREF:			

Note that only customer and IDRO transactions may be canceled via RTRS Web. Inter-dealer transactions may only be canceled via FICC.

Once you have determined the transaction you would like to cancel, click the **cancel trade** button to submit your request. RTRS Web requires that you affirm that you want to cancel the transaction. Click the **OK** button on the pop-up screen to cancel your transaction. RTRS Web will then display a confirmation pop up with your unique message submission number. A transaction is only canceled if the confirmation screen appears.

If you click **Cancel** on the confirmation pop up screen, you are directed to the Transaction Information screen.

Part 12: Rejected Messages

cThe Rejected Messages screen allows you to view rejected message activity from the prior month up to the current business day. To reach the Rejected Messages screen, either select **Rejected Messages** from the View Trades drop-down or select **View Rejected Messages** on the home screen.

MSRB RT] Real-Time Transaction F	RS Web Reporting System	Quie	Quick Search CUSIP Advanced Search					
Submit New Trade	View Trades	Access Reports	Welcome JDOE, MSRB4.					
Submit Custon	Trade Management Error Code Review and Response Rejected Messages	Trade Management	RTRS Resources ■ EMMA® ■ MSRB.org					
Error Code Re	view and Response	View Rejected Messages	Dealer Outage Report Dealer Feedback System RTRS Web Tutorials Manuals and Specifications					
Q Advanced Sea	rch	Submit IDRO Trade						
₽rice Variance	Alert History							

Unapplied messages include messages that were submitted by or on behalf of the user's firm and rejected by the RTRS system and therefore not applied to any current transaction report within RTRS.

For a customer transaction, if a modify message for a customer transaction report is received, but the instruct message cannot be found based on the control numbers provided, that modify message will be rejected by RTRS and the modify message will appear on the Rejected Messages screen.

MSRE Real-Time T	WSRB RTRS Web Real-Time Transaction Reporting System Quick Search CUSIP ~											
Submit New Trade View Trades					Access Rej	ports					Welcome JDOE, MSRB4.	
Rejected Me Show me Rejecte Rejecte Show 10	Rejected Messages Last updated 3/7/2018 at 2:10 PM. Refresh Activity About this report. I Export Rejected Messages Show me Rejected Messages All trade types submitted within Prior business day for AAAA and Any Submitter ID Filter Trades Clear Filters Show 10 Destination Code 01 Only Search within list: Search within list: Search within											
Trade Status	CUSIP 👙	B/S∉	Trade Type 🌲	EBS∳	Par Value ♦	Price	Yield≑	XREF ≜	Trade Date 🔻	Settlement Date 🖨	Submission Date 崇	
۲	74526LCZ4	В	Inter-Dealer	AAAA	110,000	-	-	RW10XREF04	03/06/2018	03/06/2018	03/06/2018	
۲	745160QA2	в	IDRO	AAAA	155,000	-	-	RW10XREF02	03/06/2018	03/06/2018	03/06/2018	
0	163597GZ4	в	Customer	AAAA	10,000	100.356	-	RW10XREF06	03/06/2018	03/06/2018	03/06/2018	
Displaying 1 to 3 of	3 results									ł	Previous 1 Next	

For an inter-dealer transaction, if a match of a comparison-only submission or "step out" trade occurs it is considered a **Destination Code 01 Only** trade. RTTM will forward to RTRS a match record for the step-out submission, and if the match record cannot be applied to any previously received instruct, because the instruct message was sent to RTTM only, that match record will be stored as Destination Code 01 only.

For further information about step out submissions, see MSRB Notice 2005-22.6

For a list of reasons that a transaction message could be rejected, refer to the <u>Specifications for</u> <u>Real-time Reporting of Municipal Securities Transactions</u>.

THE MSRB Real-Time Tran	RTRS asaction Repo	S We orting Syste	b em				Q	uick Searcl	CUSIP	v	Advanced Search
Submit New Tra	de	View	Trades	Acces	s Reports					١	Velcome JDOE, MSRB4.
Rejected Messages Last updated 3/7/2018 at 2:10 PM. <u>Refresh Activity</u> About this report.											
Show me Rejected	Messages Messages	✓ All tra	de types 🗸 🗸	submitted withi	n Prior busines	s day 🗸 fo	r AAAA 🗸	and Any S	Submitter ID	✓ Filter Trade	es <u>Clear Filters</u>
Show 10	n Code 01 Only	y							Searc	h within list:	
Trade Status 🖨	CUSIP 🜲	B/S♦ Tr	ade Type ♦ E	BS♦ Par Val	ue 🛊 🛛 Price 🌲	Yield≑	XREF	Trade	Date 🚽 🛛 S	Settlement Date	Submission Date 🜲
0	4526LCZ4	B Int	ter-Dealer A	AAA 110,00	0 -	-	RW10XREF04	03/06/2	2018	03/06/2018	03/06/2018

⁶ "Notice on Comparison of Inter-dealer Deliveries That Do Not Represent Inter-dealer Transactions – "Step Out" Deliveries: Rules G-12(f) and G-14," MSRB Notice 2005-22 (April 1st, 2005), <u>http://www.msrb.org/Rules-and-Interpretations/Regulatory-Notices/2005/2005-22.aspx?n=1</u>.

The filters for searching rejected and destination code 01 only messages are as follows:

- Type of message
- Transaction types
- Submission Date Time Frames
- Effecting Broker Symbol (EBS)
- Submitter ID

Once you have chosen filter criteria, click the **Filter Trades** button to view a list of messages that match the criteria.

The Rejected Messages screen provides the following information about the transaction message:

- Transaction Status
- CUSIP
- B/S (Buy or Sell)
- Transaction Type
- EBS
- Par Value
- Price
- Yield
- XREF
- Trade Date
- Settlement Date
- Submission Date

Refer to the Appendix for additional information about the fields and the validation logic.

Part 13: Export Data

Search results can be exported from Trade Management, Error Code Review and Response pages or Quick Search features in RTRS Web.

To export a list of trades, use the filter criteria at top of the page to return desired list of trades, and click **Export Trade Data** from the top of the page above the results. Next, click **Save** and input the desired file name and file location then click **Save** again.

MSRB RTRS Web Real-Time Transaction Reporting System	Quic	k Search CUSIP V Advanced Search
Submit New Trade View Trades	Access Reports	Welcome JDOE, MSRB4.
Trade Management Last updated 3/7/2018 a Show me All trade types v in Any status	2:28 PM. <u>Refresh Activity</u> Opening Trade_Management_MSRB4.xlsx	X Any Submitter ID V Filter Trades Clear Filters
Show 10 v entries	You have chosen to open: Trade_Management_MSRB4.xlsx which is: Microsoft Excel 97-2003 Worksheet (10.0 KB) from: https://wrka-dv-sd-29	Search within list:
644614C72 B IDRO	What should Firefox do with this file?	3/06/2018 03/26/2018 03/06/2018
644614C72 B Customer	Open with Microsoft Excel (default)	3/06/2018 03/26/2018 03/06/2018
8 163597GZ4 S Inter-Deale	Do this <u>a</u> utomatically for files like this from now on.	3/06/2018 03/26/2018 03/06/2018
880558EK3 S Customer		3/06/2018 03/26/2018 03/06/2018
880558EK3 S Inter-Deale	OK Cancel	3/06/2018 03/26/2018 03/06/2018
557250E60 B Customer	AAAA 100,000 99.25 - <u>RW02XREF04</u>	03/06/2018 03/26/2018 03/06/2018



When you export a list of trades from the Trade Management screen, you receive a file with one line for each transaction in the list. The export does not include error code information.

A	A1 \checkmark : \checkmark \checkmark f_{\ast} RTRS Export												
	A	В	с	D	E	F	G	н	I	J			
1	RTRS Export	Export Date Time:	3/7/2018 14:28:38										
2	CUSIP	Trade Date Time	Par (Face Amount)	Buy/Sell	Settlement Date	Received Date Time	Clearing ID	Effecting Broker	Capacity	Dollar Price			
3	880558EK3	3/6/2018 10:07:06	10,000.00	Sell	3/26/2018	3/6/2018 10:27:06	9888	AAAA	Principal	103.935			
4	880558EK3	3/6/2018 10:27:06	50,000.00	Sell	3/26/2018	3/6/2018 10:07:06	9888	AAAA	Principal	103.935			
5	557250E60	3/6/2018 10:09:06	100,000.00	Buy	3/26/2018	3/6/2018 10:07:06	9888	AAAA	Principal	99.250			
6	557250E60	3/6/2018 10:09:06	100,000.00	Buy	3/26/2018	3/6/2018 10:07:06	9888	AAAA	Principal	99.250			
7	880558EK3	3/6/2018 10:07:06	50,000.00	Sell	3/26/2018	3/6/2018 10:07:06	9888	AAAA	Principal	103.935			
8	880558EK3	3/6/2018 10:07:06	50,000.00	Sell	3/26/2018	3/6/2018 10:07:06	9888	AAAA	Principal	103.935			
9	709223YQ8	3/6/2018 10:06:06	10,000.00	Buy	3/26/2018	3/6/2018 10:07:06	9888	AAAA	Agent	0.000			
10	880558EK3	3/6/2018 10:07:06	50,000.00	Sell	3/26/2018	3/6/2018 10:07:06	9888	AAAA	Principal	103.935			
11	880558EK3	3/6/2018 10:07:06	50,000.00	Sell	3/26/2018	3/6/2018 10:07:06	9888	AAAA	Principal	103.935			
12	880558EK3	3/6/2018 10:07:06	50,000.00	Sell	3/26/2018	3/6/2018 10:07:06	9888	AAAA	Principal	103.935			
13	880558EK3	3/6/2018 10:07:06	50,000.00	Sell	3/26/2018	3/6/2018 10:07:06	9888	AAAA	Principal	103.935			
14	644614C72	3/6/2018 10:06:06	500,000.00	Buy	3/26/2018	3/6/2018 10:07:06	9888	AAAA	Principal	107.694			
15	118217AP3	3/6/2018 10:06:06	135,000.00	Buy	3/26/2018	3/6/2018 10:07:06	9888	AAAA	Principal	0.000			
16	163597GZ4	3/6/2018 10:06:06	50,000.00	Sell	3/26/2018	3/6/2018 10:07:06	9888	AAAA	Principal	103.935			
17	644614C72	3/6/2018 10:06:06	500,000.00	Buy	3/26/2018	3/6/2018 10:07:06	9888	AAAA	Principal	107.694			
18	557250E60	3/6/2018 10:06:06	100,000.00	Buy	3/5/2018	3/6/2018 10:07:06	9888	AAAA	Principal	99.250			
19	644614C72	3/6/2018 10:06:06	500,000.00	Buy	3/26/2018	3/6/2018 10:07:06	9888	AAAA	Principal	107.694			
20	118217AP3	3/6/2018 10:06:06	135,000.00	Sell	3/26/2018	3/6/2018 10:07:06	9888	ΑΑΑΑ	Principal	0.000			

Exports are in .xlsx format and can be opened in Microsoft Excel or any similar program.

When you export a list of trades from the Error Code Review and Response screen, you receive a file with a line item for each error code per transaction in the list. In the example below, the error code is **N913** – Late trade reported after deadline was chosen.

MSRB Home Contact and Support Return to C TI MSRB RT'RS Web Real-Time Transaction Reporting System A												
Submit New Trade	View Trades				Welcome JDOE, MSRB4							
Error Code Review a Show me All trade types with error code N913	Filter Trad <u>Clear Filte</u>	Export Error Codes										
Show 10 v entries					Sea	rch within list:						
Trade Status	♦ B/S♦ Trade Type	♦ EBS♦ Par Value♦	Price ≜ Yield ₹	XREF \\$	Trade Date▼	Settlement Date	Submission Date $\underline{\!\!\!\!\!\!}^{\mathbb{A}}_{\!$					
880558EK	3 S Customer	AAAA 10,000	103.935 4.20	RW20N913XREF1	01/08/2018	01/28/2018	01/08/2018					
Displaying 1 to 1 of 1 results						Ρ	revious 1 Next					

TT MSR Real-Time	BRT	RS We	D m			Q	uick S	earch CUSIP	~		Advanced S	Q Bearch
Submit Nev	w Trade	View	Trades	Access Re	eports					Welco	ome JDOE,	MSRB4.
Error Code Show me All with error cod Show 10 v Trade Status 2 Displaying 1 to 1	e Review Itrade types Itrade ty	for AAAA view B/S\$ Track	e Last updated 1/ Opening You ha What de Type 4	/31/2018 at 3:43 PM ig Error_Code_Review_ ave chosen to open: Error_Code_Review_F which is: Microsoft Ex from: https://wrka-dv : should Firefox do witt)Qpen with Microsoft) Save File] Do this automatically	I. <u>Refresh Activity</u> Response_MSRB4. Response_MSRB4 cel 97-2003 Worksi -sd-29 h this file? oft Excel (default) y for files like this f	/ xlsx xlsx heet (6.9 KB) rom now on.	×	Search ade Date▼ 5 1/31/2018	Fit Cl o within lis Settlement 02/20/20	Exp ter Trades ear Filters t: □ Date\$ Su 18 Previou	bmission D 01/31/2018 Is 1 1	des ate∳ lext
	- 왕· - 왕 Wi 로 코 트 Me	ap Text Numb erge & Center * \$ *	er ▼ % , % .00 Con	nditional Format as Chec	nal Bad k Cell Explan	Good atory Input	Neutra Linked	Calculation		nsert Delete Form	↓ Fill →	Sort &
G.	Alignment	rs.	Number 5	natting + Table +		Styles				Cells	Cical -	Filter *
≀S Export												
AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ			AK
Previous XREF TID		Match TID	Reg ID	Message Sender ID 9888	Reversal Indicator	Reversal Control Number	MEOR	Market of Execution	Error Code N913	Error Description	on orted after de	adline

Part 14: Print Data

You may print data from the Report of Correspondents page only. On this screen, there is a small printer icon in the top right corner of the screen.

Only the data elements displayed on the screen are printed, not the underlying data of the transaction. All Result Set Views print only the records shown. For example, if 1-50 out of 100 records are displayed, only the first 50 shown will print.

MSRB RT Real-Time Transaction	RS Web Reporting System		Quick Search CUSIP 🗸	Q Advanced Search
Submit New Trade	View Trades	Access Reports		Welcome JDOE, MSRB4.
Report of Correspond	Jents Report generated on 3/7/20	018 at 4:22 PM	About t	his report O Back to Reports
EBS	Com	pany Name		÷
AAAA	MSRE	34		
AAZZ	MSRE	34		
ABCD	MSRE	34		
Displaying 1 to 3 of 3 results				Previous 1 Next

Part 15: Reports

The Reports section of RTRS Web provides functionality based on transactions submitted by and for your firm.

To access the reports, select **Reports** from the menu bar or select **Reports** from the short-cut links on the homepage.

Submit New Trade	View Trades	Access Reports	Welcome .DOF 1
ports			
Dealer Data Quality Re	eports		Other Reports
Summary Report date: January 2018 Detail Report date: January 2018	Run Report Downlo Download Report	Discrepancy Error Code Report Run Report Destination Code Report Run Report Report of Correspondents	
Summary Report date: January 2018	Run Report Downlo	Run Report Daily Trades Modified Run Report	
uggested Se	earches	d/or Submitter ID: Any	Submitter ID 🗸
iow me:			Lamon
All trades sub All trades sub All trades sub All trades sub	mitted today tha mitted today tha mitted today tha	t were submitted late. t received unsatisfactory t were rejected by RTRS	y error codes. S.

There are three categories of reports available: RTRS Data Quality Report, Other Reports and Suggested Searches.

RTRS Data Quality Reports

RTRS Data Quality Reports are available on or about the first business day after the 15th of each month, covering transactions reported during the preceding month and including changes made to those trades for the 15 days following the last day of the month. Each monthly report contains data for the firm for the requested period, data for the firm for the prior period and data for the industry for the requested period. For instructions on how to use the reports, see the Users Guides to Dealer Data Quality Reports.⁷

RTRS Dealer Data Quality – Effecting Broker Summary Report

The RTRS Dealer Data Quality – Effecting Broker Summary Report describes a firm's transaction reporting data with regards to status, match rate, lateness and timeliness of reporting, and number of changes to reported data. The Effecting Broker Summary Report displays statistics about inter-dealer trades affected by a correspondent dealer, regardless of which dealer cleared the trades, and statistics about customer trades effected by the correspondent.

The Summary Report can be viewed in a one-month version. To obtain the one-month report, select the month desired from the drop-down and click **run report**. To obtain the twelve-month report, click on the **Download 12-Month Report** link.

Re	ports
[E	Dealer Data Quality Reports
	Summary Report date: November 2017 V Run Report Download 12-Month Report
	Detail Report date: November 2017 V Download Report

⁷ Users Guides to Dealer Data Quality Reports <u>http://www.msrb.org/msrb1/TRSweb/RTRS/guides/DetailReportUserGuide.asp</u>

RTRS Dealer Data Quality – Effecting Broker Detail Report

The RTRS Dealer Data Quality – Effecting Broker Detail Report identifies specific trades that are counted in each category of the Dealer Data Quality – Summary report. The report provides a list of trades that are included in each of the categories in the Summary report. The report also provides details on trades that received unsatisfactory error codes and trades that were reported with Special Condition Indicators.

To view the report, select the desired month, click **download report** and save the file to your computer.

Reports
Dealer Data Quality Reports Effecting Broker
Summary Report date: November 2017 V Run Report Download 12-Month Report
Detail Report date: November 2017 V Download Report



The report is provided in Microsoft Excel format. You can then open the report in Microsoft Excel or any program that can open .xlsx files.

RTRS Dealer Data Quality – Clearing Broker Summary Report

The RTRS Dealer Data Quality – Clearing Broker Summary Report describes a firm's transaction reporting data with regards to status (satisfactory/questionable or unsatisfactory, match rate, lateness and timeliness of reporting, and number of changes to reported data.

The Clearing Broker Summary Report displays statistics about trades cleared by the dealer. The Summary Report can be viewed in a one month or 12-month version. To obtain the one-month report, select the month desired from the drop-down and click **run report**. To obtain the 12-month report, click **Download 12-month report**.

Clearing Broker	
Summary Report date: November 2017 V Run Report Download 12-Month Report	
Detail Report date: November 2017 V Download Report	

RTRS Dealer Data Quality – Clearing Broker Detail Report

The RTRS Dealer Data Quality – Clearing Broker Detail Report identifies specific trades that are counted in each category of the Dealer Data Quality – Summary report. The report provides a list of trades that are included in each of the categories in the Summary report. The report also provides details on trades that received unsatisfactory error codes and trades that were reported with Special Condition Indicators.

To view the report, select the desired month, click **download report** and save the file to your computer.

Clearing Broker
Summary Report date: November 2017 V Run Report Download 12-Month Report
Detail Report date: November 2017 V Download Report

Other Reports

Discrepancy Error Code Report

The Discrepancy Error Code Report provides a list of inter-dealer transactions where the information submitted by your firm differs from the information submitted by the contra-side firm, resulting in a Q19F, Q22F, Q33F or Q55A error code. For a listing and description of the error codes, refer to the <u>Specifications for Real-time Reporting of Municipal Securities</u> <u>Transactions</u>.

The Discrepancy Error Code Report is generated on a real-time basis, meaning you can generate a report to show all trades for a specified time-period that received a Q19F, Q22F, Q33F or Q44F error code.

To begin, select an EBS or a Submitter ID from the filter bar. Next, select a date range using the Match Date between calendars and click **run report**.

MSRB RT Real-Time Transaction	RS Web Reporting System		MSRB Home Quick Search	Contact and Support	Return to Gateway Logout
Submit New Trade	View Trades	Access Reports			Welcome JDOE, MSRB4.
Discrepancy Error Co	ode Report Last updated 3/15/2	2018 at 3:38 PM. <u>Refresh Activity</u>		About this re	eport 🛛 Back to Reports
Select an EBS AAAA	✓ and Submitter ID: Any Subm	itter ID 🔽 and a Match Date betw	een: 03/01/2018 to 03/15/2018	Run Report <u>Clear Fi</u>	<u>lters</u>
Q19F Q22F (Q33F Q55A				Export Report

If you have modified or reversed a transaction after the time and date of match, this updated information does not appear in the report.

The Discrepancy Error Code Report contains four tabs – one for each of the error codes included. Use the links at the top of the page and after each section title to navigate up and down to the desired section of the report. Because different fields are relevant for each tab, the headings vary between the four tabs. The four tabs are as follows:

Q19F: Accrued interest different on buyer and seller sides

This section lists inter-dealer trades where the accrued interest submitted by your firm differs from the accrued interest submitted by the contra-party. Data shown in column A (Your Accrued Interest) should match data shown in column B (Contra Accrued Interest).

Q22F: Seller and Buyer times of trade differ by more than 15 minutes

This section lists inter-dealer trades where the time of trade submitted by your firm differs from the time of trade submitted by the contra-party by more than 15 minutes. Data shown in column A (Your Time of Trade) should match data shown in column B (Contra Time of Trade).

Q33F: Regulatory dollar price you indicated is not the same value as the regulatory dollar price on the matching side

This section lists inter-dealer trades where the regulatory dollar price submitted by your firm differs from the regulatory dollar price submitted by the contra-party. Data shown in column A (Your Submission Information) should match data shown in column B (Other Side Submission Information – Contra Effecting Broker).

Q55A: Seller and buyer alternative trading system special condition indicator differ

This section lists trades where the Alternative Trading System (ATS) indicator submitted by your firm differs from the ATS indicator submitted by the contra-party.

Destination Code Report

The Destination Code Report provides a list of inter-dealer transactions where both your firm and the contra-party firm submitted to RTTM Only (DEST01), in addition to trades where there was a destination code discrepancy (RTTM Only (DEST01) versus RTTM and RTRS (DEST01/02)) between your firm and the contra-party firm. For further information on destination code mismatches, refer to MSRB Notice 2005-22.⁸

The Destination Code Report is generated on a real-time basis, meaning you can generate a report to show all trades matched on the current date up to the time the report is generated.

⁸ "Notice on Comparison of Inter-dealer Deliveries That Do Not Represent Inter-dealer Transactions – "Step Out" Deliveries: Rules G-12(f) and G-14," MSRB Notice 2005-22 (April 1st, 2005), <u>http://www.msrb.org/Rules-and-Interpretations/Regulatory-Notices/2005/2005-22.aspx?n=1</u>.

To generate this report, select from the **Show me** drop-down, Destination Code 01 only, select an EBS or a Submitter ID and a time period from the filter bar at the top then click **Filter Trades.**

MSRB RT Real-Time Transaction	RS Web Reporting System			Quick Search	CUSIP V	Advanced Search	
Submit New Trade	View Trades	Access Re	eports			Welcome JDOE, MSRB4.	
Rejected Messages	Rejected Messages Last updated 1/8/2018 at 10:08 AM. Refresh Activity About this report • Export Rejected Messages Show me Destination Code 01 Only • All trade types • submitted within Prior business day • for AAAA • and Any Submitter ID • Filter Trades Clear Filters						
Show $10 \sim \text{entries}$					Search within list:		
Trade Status	♣ B/S♣ Trade Ty	pe∉ EBS∉ Par Value ∉	Price≜ Yield≜	XREF 👙 Trade D	ate 🗸 Settlement Date 👙	Submission Date	
S 64966MR	T8 S Inter-Dea	er AAAA 20,000	- 2.09	RW13XREF01 01/05/20	01/28/2018	01/05/2018	
Displaying 1 to 1 of 1 results						Previous 1 Next	

The results include the data available at the time and date of match. If you have modified or reversed a transaction after the time and date of match, this updated information does not appear in the report.

Report of Correspondents

The Report of Correspondents is intended for use by NSCC participant firms and non-participant firms that submit for other dealers. The report provides a list of effecting broker symbols and firm names that have indicated that they submit transactions through the requested Submitter ID.

The Report of Correspondents is generated on a real-time basis. This means that all firms that have, prior to the time of request, indicated to the MSRB that they submit transactions through the requested Submitter ID are included on the report.

To generate this report, click on the **Report of Correspondents** link and you will be directed to the page.

Real-Time Transaction	RS Web Reporting System		Quick Search CUSIP	× Q Advanced Search
Submit New Trade	View Trades	Access Reports		Welcome JDOE, MSRB4.
Report of Correspond	dents Report generated on 3/15/2	2018 at 3:44 PM	Search within list:	About this report 9 Back to Reports
EBS	Com	pany Name		
AAA	MSRE	34		
AAZZ	MSRE	34		
ABCD	MSRE	34		
Displaying 1 to 3 of 3 results				Previous 1 Next

Suggested Searches

Suggested Searches provides quick and easy access to the Trade Management, Error Code Review and Response or Unapplied Message screens on recent trade activity.

Suggested Searches
Select an EBS: AAAA v and/or Submitter ID: Any Submitter ID v
Show me:
 All trades submitted today that were submitted late. All trades submitted today that received unsatisfactory error codes. All trades submitted today that were rejected by RTRS. Filter Trades
System Status

All trades submitted today that were submitted late

Selecting this option provides the Error Code Review and Response screen with filters set for the selected EBS and/or Submitter ID, current business day, and the N913-Late Trade Submitted after Deadline error code. This filter shows all late trades submitted for the current business day.

All trades submitted today that received unsatisfactory error codes

Selecting this option provides the Trade Management screen with filters set for the selected EBS and/or Submitter ID, current business day, and unsatisfactory status. This filter shows all unsatisfactory trades submitted for the current business day.

All trades submitted today that were rejected by RTRS

Selecting this option provides rejected messages with filters set for the selected EBS and/or Submitter ID, and current business day. This filter shows all rejected trades submitted for the current business day.

Exporting Reports

Reports can be viewed on the RTRS Web screen and exported to Microsoft Excel. The reports can also be printed as displayed on-screen or from the export files. The Microsoft Excel files provide data in the format made available to FINRA examiners. Although the actual data provided in the on-screen and Microsoft Excel file formats is the same, the Microsoft Excel format displays the data slightly different from the format displayed on the RTRS Web screen.

Where applicable, 12-month reports are only available in a Microsoft Excel file and cannot be displayed online. When downloading the file, do not change the name of the file prior to saving.

Part 16: Price Variance Alert History

The Price Variance Alert History page allows you to view all alerts that the MSRB sent to your firm by email. A Price Variance Alert email is generated when a price reported to the RTRS system is notably different from one or more prices reported by other dealers for the same security within the same time period.

Sample Price Variance Alert email:

Tue : Price Variance Alert () If there are problems with how this message is displayed, click here to view it in a web browser.								
This email is to alert you that an automated review of transactions reported to RTRS has indicated that the price(s) reported by your firm for the transactions identified below are notably different than prices reported by other dealers for the same security during the same time period. The variance is being identified for your convenience. Your firm may wish to review the transaction(s) to ensure the information being disseminated by RTRS reflects the transaction(s) as intended. If there is an error, please promptly modify the price by following the applicable procedures set out in the <u>Specifications for Real-Time Reporting of Municipal Securities Transactions.</u> Any price variance that is not modified will be considered accurately reported.								
TradeType	CUSIP	Trade Date/Time	XREF					
Inter-Dealer 555333HT5 10/30/2018 11:08:06 AM AAA1B23456C1								
The Real-Time Transaction Reporting System is a service of t PLEASE DO NOT REPLY. This is a system-generated email. © 2018 Municipal Securities Rulemaking Board	Inter-Dealer 555333HT5 10/30/2018 11:08:06 AM AAA1B23456C1 The Real-Time Transaction Reporting System is a service of the Municipal Securities Rulemaking Board. MSRB HSRB HSRB <t< td=""></t<>							

The Price Variance Alert History page accommodates users who may not have received the Price Variance Alert emails or who wish to review the email history in one place. The alerts displayed were sent to your firm only and will not reflect subsequent updates.



If, as a result of reviewing a trade report that was identified in a Price Variance Alert email, you determine that the reported price is incorrect, you should modify the applicable price. If you do not modify the prices of the trades sent to you, they will be considered accurate. When you log into RTRS web, you will be able to view your Price Variance Alert History by clicking on **Price Variance Alert History**.

MSRB RTRS Web		MSRB Home Contact and Support Return to Gateway Logout
Real-Time Transaction Reporting System Submit New Trade View Trades	Access Reports	Advanced Search Welcome JDOE, MSRB4
Submit Customer Trade	Trade Management	RTRS Resources
Error Code Review and Response	View Rejected Messages	Entitives MSRB.org Dealer Outage Report Dealer Feedback System
Advanced Search	S Price Variance Alert History	RTRS Web Tutorials Manuals and Specifications
REPORTS	Discrepancy Error Code Report	Daily Trades Modified
RTRS DQ Summary-Clearing Broker	Destination Code Report	

Once you access the Price Variance Alert History page, you will be able to view a list of alerts that were sent to you for up to four years. Taking action, such as modifying the price of those trades, (which cannot be done from this page) will **NOT** remove them from your alert history.

Real-Tim	ne Transa	ction Reporting	g System					Quick Search	CUSIP V	Advanced Search
Submit N	ew Trade		View Trades	;	Access R	eports				Welcome JDOE, MSRE
Veriene		Listen								
variand		HISTORY Last	undated 11/9/	2018 at 11:03 AM	4					About this page
e vanane		Thotory Last	upuated 11/5/	2010 00 11:00 7 0						About this page
10 vananc	Itries			2010 41 11.00 74					Search within I	list:
10 vendric CUSIP	tries B/S	Trade Type	EBS	Par Value	Price	Yield	XREF	Trade Date	Search within I Settlement Date	Submission Date
10 • en CUSIP	erries B/S S	Trade Type Customer	EBS AAAA	Par Value 140,000	Price 80.459	Yield -	XREF AAA1A0001AAA	Trade Date 10/31/2018	Search within I Settlement Date 11/01/2018	Submission Date
10 ▼ en CUSIP 11111CK1 12222BB2	Itries B/S S B	Trade Type Customer Customer	EBS	Par Value 140,000 30,000	Price 80.459 86.634	Yield - 5.256	XREF AAA1A0001AAA BBB280002BBB	Trade Date 10/31/2018 10/30/2018	Search within I Settlement Date 11/01/2018 11/01/2018	Submission Date 10/31/2018 10/30/2018
10 ▼ en CUSIP 1111CK1 2222BB2 2222BB2	tries B/S S B S	Trade Type Customer Customer Inter-Dealer	EBS AAAA AAAA AAAA	Par Value 140,000 30,000 30,000	Price 80.459 86.634 86.884	Yield - 5.256 5.235	XREF AAA1A0001AAA BBB2B0002BBB CCC3C0003CCC	Trade Date 10/31/2018 10/30/2018 10/30/2018	Search within I Settlement Date 11/01/2018 11/01/2018 11/01/2018	Submission Date 10/31/2018 10/30/2018 10/30/2018
10 v en CUSIP 1111CK1 2222BB2 2222BB2 1111CK1	etries B/S S B S B	Trade Type Customer Customer Inter-Dealer Inter-Dealer	EBS AAAA AAAA AAAA AAAA AAAA	Par Value 140,000 30,000 140,000	Price 80.459 86.634 86.884 81.711	Yield - 5.256 5.235 -	XREF AAA1A0001AAA BBB280002BBB CCC3C0003CCC DDD4D0004DDD	Trade Date 10/31/2018 10/30/2018 10/30/2018 10/30/2018	Search within I Settlement Date 11/01/2018 11/01/2018 11/01/2018 11/01/2018 11/01/2018 11/01/2018	Submission Date 10/31/2018 10/30/2018 10/30/2018
10 ▼ en CUSIP 11111CK1 22222BB2 22222BB2 11111CK1 33333LO3	tries B/S B S B S S	Trade Type Customer Customer Inter-Dealer Inter-Dealer Inter-Dealer	EBS AAAA AAAA AAAA AAAA AAAA AAAA AAAA	Par Value 140,000 30,000 30,000 140,000 25,000	Price 80.459 86.634 86.884 81.711 108.638	Yield - 5.256 5.235 - 3.600	XREF AAA1A0001AAA BBB280002BBB CCC3C0003CCC DDD4D0004DDD EEE5E0005EEE	Trade Date 10/31/2018 10/30/2018 10/30/2018 10/30/2018 10/30/2018 10/20/2018	Search within I Settlement Date 11/01/2018 11/01/2018 11/01/2018 11/01/2018 10/30/2018	Submission Date 10/31/2018 10/30/2018 10/30/2018 10/30/2018 10/30/2018 10/20/2018

You can search through your alert history via the **Search within list** option; you can search for any value under any of the fields displayed on the page. Like the **Trade Management** page, you can also navigate to the **Trade Information** page by clicking on one of the **XREF** values listed on your alert history. In addition to the **XREF** link, clicking on any of the **CUSIP** values listed on this page will open a secondary page on *MSRB's EMMA Portal* with details for the selected security.

Refer to the Appendix for additional information about the fields and validation logic.

Appendix: RTRS Fields

The following is an alphabetical list of transaction fields with the corresponding transaction type and validation logic for entry and modification via RTRS Web.

Field Name	Transaction Type	Validation Logic
Buy/Sell (B/S)	Customer and IDRO	Select transactions for which you are the buyer, the seller, or select the any option to disregard this value in your search.
Buy/Sell Indicator	Customer and IDRO	Enter Buy or Sell for customer and IDRO transactions
Canceled, DKed or Reversed	Customer and IDRO	Regulatory status of transactions that were canceled or reversed. Select DK to search for inter-dealer transactions that have been marked by RTTM as DKed. Select Canceled to search for inter-dealer, customer, or IDRO transactions that have been canceled. Select Reversed to search for inter-dealer transactions that have been reversed. Use the Canceled, DKed or Reversed option to search for transactions that have been marked as any of the above. Select the any option to disregard this value in your search.
Capacity/Contra- Capacity or Participant Capacity	Customer and IDRO	Select Agent or Principal
Commission	Customer and IDRO	Total dollar amount of commission.
Contra Effecting Broker	IDRO and Inter-dealer	Effecting broker symbol for the counter-part of the effecting dealer on the transaction.

Field Name	Transaction Type	Validation Logic
		Select from a list of effecting broker symbols registered with the MSRB for your firm, or from a list of effecting broker symbols that your firm submits for.
CUSIP	Customer and IDRO	Enter the 9-digit CUSIP of the transaction you want to search for. A partial CUSIP may be used for searching, e.g., 123456 will return all CUSIPs beginning with the characters 123456.
Customer Trades	Customer	Indicates trades between dealers and customers.
Dollar Price	All	Dollar price is required on all regular way customer and IDRO transaction for which it can be calculated. Either dollar price or yield is required for when- issued trades.
		Enter the dollar price as less than, greater than, or equal to the value on the transaction you want to select.
		For inter-dealer transactions, enter the price at which the trade is effected.
Effecting Broker		Effecting broker symbol for the Effecting dealer on the transaction.
Symbol (EBS)	All	Select from a list of effecting broker symbols registered with the MSRB for your firm, or from a list of effecting broker symbols that your firm submits for.
Error Code	All	Input an error code to display all transactions that have received the inputted error code.
Error Code Category	All	Select an error code category to display all transactions that have received an error from the selected category.

Field Name	Transaction Type	Validation Logic
Final Money	Inter-dealer	Enter the final money as less than, greater than or equal to the value on the transaction you want to select.
Inter-dealer Regulator-only (IDRO) Trades	IDRO	Indicates a trade when an introducing broker effects a trade for a customer against the principal position of its clearing broker.
Inter-dealer Trades	Inter-dealer	Indicates trades between dealers.
Lateness Indicator	Inter-dealer	Indicates whether or not the message was received by the MSRB late
Matched	Inter-dealer	Shows transactions reported to the MSRB that have been matched to the contra-side by RTTM
		Select Memo to search for transactions that have been placed by RTTM in memo status. Select Pending to search for transactions that have been placed by RTTM in pending status.
Memo or Pending	All	Use the Memo or Pending option to search for transactions that have been placed in either status. Select the any option to disregard this value in your search.
Message Medium	All	RTRS Web, RTTM Web, Interactive Messaging, RTTM Event Message
Message Sender ID	Inter-dealer	If the user is the submitter of the transaction, select the user's Submitter ID. If a user has more than one Submitter ID, then the user must choose which submitter to use for this transaction.

Field Name	Transaction Type	Validation Logic
		If the user is the effecting dealer of the transaction and did not submit on their own behalf, then select the user's EBS.
		If a user has more than one EBS, the user must choose which EBS to use for this transaction.
Par Value (Face	All	The amount of principal that must be paid at maturity. The par value is also referred to as the "face amount" of a security.
value)		Enter the par value as less than, greater than, or equal to the value on the transaction you want to select. Par must reflect face amount, not units for all transactions.
Price	All	The amount to be paid for a bond, usually expressed as a percentage of par value
Questionable	Inter-dealer	Regulatory status of transactions that received questionable error codes, meaning that the transaction needs to be reviewed and edited if necessary.
Regulatory Price Dollar	Inter-dealer	Mandatory for trades submitted with final money as well as for trades effected on the basis of dollar price when settlement date is not known and submitted without final money.
		Omit when issued trades effected on the basis of yield when settlement date is not known and submitted without final money.
Regulatory Status	All	Select satisfactory , unsatisfactory , or questionable to search on those specific regulatory states, or select the any option to disregard this value in your search.
Satisfactory	All	Regulatory status of transactions that did not receive any error codes, meaning that the transaction was

Field Name	Transaction Type	Validation Logic
		received by RTRS and met the regulatory requirements.
Sender Message Number	All	SEME from the message
Settlement Date	All	Enter the settlement date as less than, greater than, or equal to the date on the transaction you want to select. This field must be a valid date and greater than the Trade date.
		For inter-dealer transactions, this field indicates the settlement date of transaction or initial settlement date of offering.
		Part A indicates if the transaction has an exception to the standard 15 minute reporting rule.
Special Condition Indicator – Part A	All	Select no condition applies, EOD-LOP/TD (End of Day – List Offering Price), EOD-Variable Rate,/Auction Rate/CP (Commercial Paper), EOD- Ineligible on trade date or EOD- Resubmission of RTTM cancel
Special Condition Indicator – Part B	All	Part B indicates if the transaction has a special condition that affects the Price. Select not special price, traded flat, or away from market price (other reason)
Special Condition Indicator-Part C	Customer	Select no condition applies or Non-transaction-based compensation arrangements (NTBC) if the customer trade did not include a mark-up, mark-down or commission

Field Name	Transaction Type	Validation Logic
	Inter-dealer and IDRO	Select Alternative Trading System (ATS) if the inter- dealer trade was executed with or using the services of an alternative trading system with Form ATS on file with the SEC. A list of ATSs with Form ATS on file with the SEC is available on the SEC's website at <u>www.sec.gov/foia/docs/atslist.htm</u>
Special/Conditional Trade	All	Select the transactions that were tagged with a specific value or select the any option to disregard this value in your search.
Status	All	Includes regulatory status and match status.
Submission Date Time Frames	All	Includes pre-defined time frames to filter your transactions. Note that specific date range searches are available from the Advanced Search screen.
Submission Date/Range	All	Input a specific date or date range to display all transactions submitted within the inputted date range.
Submitted	All	Regulatory status that indicated the total number of transactions submitted within the time period. This does not include any transaction reports that were rejected by the MSRB.
Submitter ID	All	Select from a list of Submitter IDs registered with the MSRB for your firm.
Time of Trade	All	For all transactions, the time is entered in military eastern time and must be a valid time using the format: hh:mm:ss. The time of transaction may not be modified to be greater than the time of transaction submitted on the original instruct message. For example, if the Trade Date and Time is submitted originally as 01/01/2004 at 00:13:00, the time may be

Field Name	Transaction Type	Validation Logic
		modified to be earlier than 00:13:00 on that day but not later.
Trade Date	Customer and IDRO	This field must be a valid date, must not be in the future and must be within a 90-day period from the current day.
Transaction/Trade Type	All	Select the values of customer, inter-dealer, or IDRO to search on those specific transaction types, or select the any option to disregard this value in your search. Display only inter-dealer transactions, only customer transactions, only IDRO transactions, or all transaction types.
Transactions Submitted in the Prior Week	Transactions Submitted in the Prior Week	Reflects any transaction where the instruct message for that transaction was received by RTRS in the 7 days prior to the current day (non-inclusive).
Transactions Submitted Today	Transactions Submitted Today	Reflects any transaction where the instruct message for that transaction was received by RTRS within the current day.
Unmatched	Inter-dealer	Shows transactions reported to the MSRB that have not been matched to the contra-side by RTTM.
Unsatisfactory	Customer	Regulatory status of transactions that received unsatisfactory error codes, meaning that the transaction did not meet reporting requirements in some manner.
User ID	All	Included if message was transacted via the RTRS Web or RTTM Web
Weighted Average Price	All	Select Yes or No for all customer transactions.

Field Name	Transaction Type	Validation Logic
XREF	Customer and IDRO	External Dealer Control Number is a 16-character control number for Customer and IDRO transactions.
Yield	All	This field is only used for "when issued" trades effected on the basis of yield submitted without final money. Leave this field blank for transactions effected on the basis of dollar price.