Web API Specifications for the

TRACE Treasury Securities

File Downloads

Version 1.0

October 17, 2016

Revision History

Version/Date	Changes Made
Version 1.0 October 17, 2016	• Original version of specification

Introduction

The FINRA TRACE Reporting and Quotation Service is a system developed which consolidates the various fixed income and equity reporting facilities FINRA currently maintains (e.g., TRACE, ADF, OTC Equity Reporting, etc…) into a single platform. The secure web interface offers member firms enhanced reporting and data retrieval functionality.

The Download site for Treasury securities supports clients via a Web Application Programming Interface (API) to download security master files, and daily lists.

This document pertains specifically to Treasury securities reference data. This document outlines the parameters and values for each available Treasury securities file. The data in each of these files is current as of the time of download.

Access to the file domain

Treasury securities file downloads use the NASDAQ Web Security Framework (NWSF) for authentication (proper client authorization for access to particular files must be in place). In order to access the site and download files, a user needs to present a valid NWSF account/password and client certificate with access to the application.

The data contained in these files are maintained by FINRA Operations. For questions concerning the data, or to subscribe to receive these files, please contact FINRA Operations at (866) 776-0800 or FINRAOperations@finra.org. For technical questions or issues accessing the files, please contact FINRA Product Management at (866) 899-2107 or FINRAProductManagement@finra.org.

Protocol

FINRA's API download site provides access to files using standard HTTP Secure (https) protocol. It is a combination of the Hypertext Transfer protocol and the TLS protocol to provide encrypted communications and secure identification. The URL https://download.finratraqs.org is the domain where the files reside. In order to access file reference data users should refer to the query strings detailed in this specification. Examples of actual download query strings are available in later sections of this specification.

File availability – all times are approximate

*Indicates user must include a date in the query; historical information can be accessed on a rolling date basis up to one year from the date the files were published via the API.

File	When Available
Treasury Securities Security Master	Real time starting at 7:00 a.m. ET and throughout the day until 8:00 p.m. ET
Daily List	Real time starting at 8:00 a.m. ET and throughout the day until 8:00 p.m. ET
Daily List Delta	Real time starting at 8:00 a.m. ET and throughout the day until 8:00 p.m. ET
Participant	Real time starting at 8:00 a.m. ET and throughout the day until 8:00 p.m. ET
US Agreements	Real time starting at 8:00 a.m. ET and throughout the day until 8:00 p.m. ET
Daily List Participant	Real time starting at 8:00 a.m. ET and throughout the day until 8:00 pm. ET

NOTE: Users may attempt to access the files on non-business days; however, due to server maintenance which occurs on weekends and other non-business days it is possible the user will not have immediate success in access the data during these days.

URL Parameters

Parameter	Parameter Options
action	**DOWNLOAD** - provide the complete file. **DELTA** – provide the changes since the last time the user downloaded the file. Delta files are supported for Security Daily List and Participant Daily List but not for the Security Master, Participant List, US Agreements.

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Parameter	Parameter Options
Facility	**TRACE**
File	**TSMASTER – Security Master File** for Treasury securities **DAILYLISTTS – Security Daily List** for Treasury Securities **PARTICIPANT – Participant List** (current participants with active authorizations for the specified facility) **PDAILYLIST – Participant Daily List** (additions/deletions/changes to the Participant List of the specified facility) **TSUSA –US Agreements Treasury Securities**
day	A date, for example: 1/2/2017. Date is used for Daily List requests.

File	Query Parameters
Treasury Master	action= DOWNLOAD &file=TSMASTER&facility=TRACE
Treasury Security Daily List	action=DOWNLOAD&file=DAILYLISTTS&facility=TRACE
Treasury Security Daily List delta (See note 1)	action=DELTA&file=DAILYLISTTS&facility=TRACE
Treasury Security Daily List for a specific day	action=DOWNLOAD&file=DAILYLISTTS&facility=TRACE&day=7/10/2017
TRACE Participant List	action=DOWNLOAD&file=PARTICIPANT&facility=TRACE
TRACE Participant Daily List	action=DOWNLOAD&file=PDAILYLIST&facility=TRACE
TRACE Participant Daily List delta (see note 1)	action=DELTA&file=PDAILYLIST&facility=TRACE
TRACE Treasury Security US Agreements	action=DOWNLOAD&file=TSUSA&facility=TRACE

NOTE: All requests are categorized and recorded. When a DELTA request is made, the time of the previous request is used to determine the items that appear in the DELTA results. The time used for the previous request is the time of request minus five minutes. This ensures that no updates are missed but it can mean items from a previous request may appear in the next DELTA request. Systems should be coded with this in mind. File Definitions - All files are pipe delimited

Treasury Securities Security Master Files

Field Name (Header)	Description	Comments	Maximum Length
SYM_CD	FINRA assigned Symbol		14
CUSIP_ID	CUSIP	This field will be blank for firms that do not have a CUSIP license in place.	9
BSYM_ID	Bloomberg Symbol		12
SUB_PRDCT_TYPE	Sub-Product Type Code	Valid values are: BILL – *Treasury Bill* NOTE – *Bonds and Notes* STRP – *Strips* TIPS - *TIPS*	5
ISSUER_NM	Issuer Name		80
SCRTY_DS	Security Description		80
CPN_RT	Coupon Rate	Decimal format	27 (19 after decimal)
CPN_TYPE_CD	Coupon Type Code	*Please see Appendix 1 for a list of Coupon Type Code / Descriptions*	10
MTRTY_DT	Maturity Date	YYYYMMDD format.	
GRADE	Grade	H – High Yield; I – Investment Grade	1
RESERVED2	Filler	Blank field - reserved for future use.	
RESERVED3	Filler	Blank field - reserved for future use.	
IND_144A	144A Indicator	Y = Indicates a 144A security N = Not a 144A security	1
DISSEM	Trade Report Disseminator Indicator	Y = Indicates trade reports will be disseminated N= Indicates trade reports will not be disseminated	1
Benchmark Start Date		YYYYMMDD format.	
Benchmark End Date		YYYYMMDD format.	

Treasury Securities Daily List (for Securities)

Field Name (Header)	Description	Comments	Maximum Length
DAILY_LIST_DT	Daily List Date	YYYYMMDD format.	
DAILY_LIST_TIME	Daily List Time	HH:MM:SS	
DAILY_LIST_EVENT_CD	Daily List Event Type	Valid values are: SA *Security Add* SD *Security Delete* SC *Security Change*	2
DAILY_LIST_RSN_CD	Daily List Reason	Reason for the addition, deletion or change. This field may be blank. *Please see Appendix 2 for a list of Daily List Reason Codes / Descriptions*	5
CMMNT_TX	Event Comment	Free form text field entered by FINRA Operations. May be blank.	30
EFCTV_DT	Effective Date	Reflects effective date for the event affected in the record.	
PROD_TYPE	Product Type	Constant "TS".	
SYM_CD	FINRA Symbol		14
CUSIP		This field will be blank for firms that do not have a CUSIP license in place.	9
BSYM_ID	Bloomberg Symbol		12
SCRTY_DS	Security Description		250
ISSUER_NM	Issuer Name		255
CPN_RT	Coupon Rate	Decimal format	27 (19 after decimal)
MTRTY_DT	Maturity Date	YYYYMMDD format.	
SUBPROD_TYPE	Sub-Product Type	Valid values are: BILL – *Treasury Bill* NOTE – *Bonds and Notes* STRP – *Strips* TIPS - *TIPS* Note: Changes to Sub-Product values will be administered by a	5

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Field Name (Header)	Description	Comments	Maximum Length
		Delete then Add Daily List event.	
NEW_SYM_CD	New Symbol	Applicable to Change Event Types only. Will be blank on Add and Delete Events.	14
NEW_CUSIP	New CUSIP	Applicable to Change Event Types only. Will be blank on Add and Delete Events.	9
NEW_BSYM_ID	New Bloomberg Symbol	Applicable to Change Event Types only. Will be blank on Add and Delete Events.	12
NEW_SCRTY_DS	New Security Description	Applicable to Change Event Types only. Will be blank on Add and Delete Events.	250
NEW_ISSUER_NM	New Issuer	Applicable to Change Event Types only. Will be blank on Add and Delete Events.	255
NEW_CPN_RT	New Coupon Rate	Applicable to Change Event Types only. Will be blank on Add and Delete Events.	27 (19 after decimal)
NEW_MTRTY_DT	New Maturity Date	Applicable to Change Event Types only. Will be blank on Add and Delete Events.	
NEW_SUBPROD_TYPE	New Sub Product Type	Applicable to Change Event Types only. Will be blank on Add and Delete Events.	5

TRACE Participant List

Field Name (Header)	Description	Comments	Maximum Length
mpid	Market Participant Identifier	FINRA identifier assigned to the participant	6
dba_nm	Firm Name		64

TRACE Participant Daily List

Field Name (Header)	Description	Comments	Maximum Length
list_dt	Daily List Date	MMDDYYYY format	
effective_dt	Effective Date	MMDDYYYY format	
cd_description	Event Type	Valid values are: Participant Addition Participant Deletion Participant Change	
old_mpid	Market Participant Identifier		6
old_dba	Firm Name		64
new_mpid	New Market Participant Identifier		6
new_dba	New Firm Name		64
rf_cd	Reporting Facility	Value will always be TRACE	

Treasury Securities US Agreements File

Field Name (Header)	Description	Comments	Maximum Length
MPID	MPID of the Client	FINRA identifier assigned to the participant.	6
AGRMT_EFCTV_DT	Effective Date for the agreement with the client	Format is YYYYMMDDHHMMSS	14
AGRMT_XPRTN_DT	End date for agreement with the client	Format is YYMMDDHHMMSS	12
UNFRM_SRVC_AGRMT_MP_ID	MPID of client with who agreement is based	FINRA identifier assigned to the participant.	6
US_GIVEUP_DROP_FL	Give Up firm receives drop copies of transaction messages	Y or N.	

Example Requests

Example 1 - Get the current TRACE Participant List

This request retrieves the current list of TRACE authorized Participants:

https://download.finratraqs.org/DownloadHandler.ashx?action=DOWNLOAD&file=PARTICIPANT&facility=TRACE

Ex ample 2 - Get the TRACE Participant Daily List for 7/10/2017

This request retrieves the list of changes to TRACE authorized Participants published on 5/1/2017 (*note 7/10/2017 is used as an example. Any specific date may be used*):

https://download.finratraqs.org/DownloadHandler.ashx?action=DOWNLOAD&file=PDAILYLIST&facility=TRACE&day=7/10/2017

Example 3 - Get today's TRACE Participant Daily List (no day provided)

This request retrieves the current day's cumulative list of changes to TRACE authorized Participants:

https://download.finratraqs.org/DownloadHandler.ashx?action=DOWNLOAD&file=PDAILYLIST&facility=TRACE

Example 4 - Get changes to the TRACE Participant Daily List since the last download (no day provided)

This request retrieves the latest list of changes to TRACE authorized Participants since the last user download of the Participant List:

https://download.finratraqs.org/DownloadHandler.ashx?action=DELTA&file=PDAILYLIST&facility=TRACE

Example 5 - Get the current Treasury Security Master file

This request retrieves the current list of all Treasury securities eligible for trade reporting:

https://download.finratraqs.org/DownloadHandler.ashx?action=DOWNLOAD&file=TSMASTER&facility=TRACE

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Example 6 - Get today's TS Daily List (no day provided)

This request retrieves the current day's cumulative list of changes to all the Treasury Security Master data.

https://download.finratraqs.org/DownloadHandler.ashx?action=DOWNLOAD&file=DAILYLISTTS&facility=TRACE

Data Sample Results – Some to be given in later version.

Treasury Securities Security Master File illustrating the header and footer - TBD

Treasury Securities Daily List File illustrating the header and footer - TBD

TRACE Participant Daily List File illustrating the header and footer.

```
list_dt|effective_dt|cd_description|old_mpid|old_dba|new_mpid|new_dba|rf_cd
09/09/2010|09/09/2010|Participant Addition|||HRBC|hurleyf test HRBC mppweb|OTCE
09/09/2010|09/09/2010|Participant Addition|ABNE|ABNE TEST|||TRACE
09/09/2010|09/09/2010|Participant Addition|ABNF|ABNF TEST|||TRACE
09/09/2010|09/09/2010|Participant Addition|ABNB|ABN AMRO CLEARING CHICAGO LLC|||TRACE
09/09/2010|09/09/2010|Participant Addition|ABNC|ABNC TEST|||TRACE
…
[snip]
…
09/09/2010|09/09/2010|Participant Deletion|AALC|THRIVENT INVESTMENT MANAGEMENT CO2|||TRACE
Footer - Count: 00000014, Facility:TRACE,  File Created: 20100910120732
```

TRACE Participant List File illustrating the header and footer.

```
mpid|dba_nm
AAAA|TEST
ABLE|NATIXIS BLEICHROEDER INC.
ABNA|ABN AMRO SECURITIES (USA) LLC
ABNB|ABN AMRO CLEARING CHICAGO LLC
ABNC|ABNC TEST
ABND|ABND TEST
ABNE|ABNE TEST
ABNG|ABNG TEST
ABPI|PAVEK INVESTMENTS INC.
…
[snip]
…
QUAL|QUAYLE & CO. SECURITIES
ROCK|ROCKWELL GLOBAL CAPITAL LLC
SCHO|SCHOFF & BAXTER, INC.
TMBR|TIMBER HILL LLC
UBSS|UBS SECURITIES LLC
WONG|A B WONG CAPITAL LLC
WTCO|WILLIAMS TRADING LLC
Footer - Count: 00000089, Facility: TRACE, File Created: 20100910121322
```

Appendices

Note all codes/descriptions in the following appendices are subject to updates as necessary.

Appendix 1 – Treasury Securities Coupon Type Codes and Descriptions

Coupon Type Code	Coupon Type Description
DSC	Discount/Zero Coupon
FIX	Fixed Coupon
FLT	Floating Coupon
RNG	Range Coupon
STR	Stripped Coupon
TBP	To Be Priced Coupon
UNK	Unknown
VAR	Variable Coupon

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Appendix 2 - Daily List Update Reason Codes and Descriptions

Update Reason Code	Update Reason Description
blank	*No reason given*
MOT	Moved from OTCE
DNY	Delisted from NYSE
DAX	Delisted from AMEX
DAR	Delisted from ARCA
DNQ	Delisted from NASDAQ
DEX	Delisted from Exchange
ISV	Ineligible – Sovereign
ICD	Ineligible – CD
ICR	Ineligible – Currency
IMM	Ineligible – Money Market
ITR	Ineligible – Treasury
IAI	Ineligible – Accredited Investor
IRS	Ineligible – Other
BR	Bankruptcy
LIQ	Liquidation
CAL	Called
RED	Redeemed
EXC	Exchanged
CAN	Cancelled
A/M	Acquisition/Merger
MAT	Matured
LNY	Listed on the NYSE
LAR	Listed on the NYSE ARCA
LAX	Listed on AMEX
LNQ	Listed on NASDAQ
LCB	Listed on CBOE
ROB	Reportable to the OTCBB
RON	Reportable on the OTC NBB
RMS	Reportable to the MSRB
12J	12(j) Registration Revoked by the SEC
RNC	Regulatory Non Compliance
OTH	Other *

*where OTH is used, please refer to the Event Comments field in the file (CMMNT_TX) for additional information.

Programmatic Access example (C#, .NET)

The following is a code excerpt to illustrate how to use the MPP Download site programmatically. If you are going to access the site with an application the first step is to download the NWSF client certificate using your web browser. Install it in the browser then export the certificate from the browser, saving the certificate to a location on the machine as an X905 certificate (.cer).

Example using the TS Security Master:

```csharp
string Action = "DOWNLOAD";
string file = "TSMASTER";
string facility = "TRACE";

string site =      "https:// download.finratraqs.org/DownloadHandler.ashx";
string query = string.Format("{0}?action={1}&file={2}&facility={3}", site,
                                Action, file, facility);

// Create request
HttpWebRequest webRequest = WebRequest.Create(query) as HttpWebRequest;

// Get cert and add to request
X509Certificate Cert =
      X509Certificate.CreateFromCertFile("C:\\MPP\\cert\\mpp_cert.cer");

webRequest.ClientCertificates.Add(Cert);
webRequest.Method = "GET";


// Add nwsf user/password to request

NetworkCredential nwCredentials = new NetworkCredential("user", "pwd");
webRequest.Credentials = nwCredentials;

// Make the request
HttpWebResponse Response = (HttpWebResponse)webRequest.GetResponse();

// Fiddle with the header in the response to get the file name

int pos = Response.Headers["Content-Disposition"].IndexOf("TRACE");

string Filename = Response.Headers["Content-Disposition"].Substring(pos);

// Create a file to save it in ..
StreamWriter sw = new StreamWriter("C:\\MPP\\files\\" + Filename, false);

StreamReader sr = new StreamReader(Response.GetResponseStream(),
                          Encoding.Default);
int cnt;
char [] ReadBuf = new char[1024];

while ((cnt = sr.Read(ReadBuf, 0, 1024)) != 0)
{
  sw.Write(ReadBuf);
}
```