FINRA.

Web API Specifications for the

TRACE Securitized Products

File Downloads

Version 6.1
August 20, 2024

Table of Contents

Revision History

Version	Date	Changes Made
Version 1.1	April 20, 2011	• Clarification regarding access to files in Protocol section • Listed times for production access to files • Effective Date populated for security additions as well as deletes and changes • "MDYS_RTNG" field changed to "Reserved 3" • Grade field will not contain data; it will be blank filled • 144A field will be "Y or "N" and not blank filled • Appendix 1 - Amended Sub-Product Asset Codes
Version 1.2	June 23, 2011	• Appendix 1 - Amended Sub-Product Asset Codes • Maximum Field Lengths included in file tables
Version 2.0	January 23, 2012	• Participant Daily List - list_dt format changed to MMDDYYYY format • Participant Daily List - effective_dt format changed to MMDDYYYY format • Participant Daily List - cd_description values changed to: Participant Addition Participant Deletion Participant Change Sub Product Asset Code – Added SMBA
Version 3.0	March 20, 2012	• Include a Daily List Timestamp in all Daily List events • Include BSYM (Bloomberg Symbol) in Master File • Include BSYM and NEW BSYM in Daily List Files • Include Tranche ID and New Tranche ID in Daily List Files •
Version 3.1	July 6, 2012	• Modify Appendix 1 - TBA Sub Product Asset Codes and Descriptions
Version 3.2	September 4, 2012 (In production November 5, 2012)	• Addition of Closing Price File for TBA Sub Product
Version 3.2	production date modified to November 12, 2012	
Version 3.3	December 21, 2012	• Added TBA Coupon Code R (Fixed Rate Reverse)
Version 3.4	February 1, 2013	• Changed TRAQS references to TRACE
Version 4.0	March 25, 2013 (In production July 22, 2013)	• Added RDID Master File for MBS securities • Added RDID Daily List File for MBS securities • Amended Closing Price File to distinguish between MBS and non-MBS securities • Amended MBS Security Master File

Version	Date	Changes Made
		• Amended MBS Daily List File
Version 4.1	June 17, 2013 (In production July 22, 2013)	• Added Appendix 8 to include cross referenced Agency values • Added Agency values N, T • Modified Amortization Type to be a one –byte field – associated values in Appendix 7 • Modified Mortgage Product values field to be a one byte field • Added Mortgage Product values H, # • Deleted Mortgage Product values B, D, L, N, P, U
Version 4.2	December 16, 2013 (In production February 10 , 2014)	• Added Agency value R to represent Ginnie 1 Serial Notes (Puerto Rico)
Version 4.3	December 29, 2014 (In production April 27, 2015)	• Include ABS closing prices in the CLOSSP file for ABS trades which were disseminated during the trading day • Added SP 144A trade closing report query (CLOSSP144A) to allow clients to receive closing prices for ABS 144A securities which have been disseminated during the trading day • Added ABSX sub product code for ABS non-disseminated securities • Added Master File query for ABSX sub product code securities • Added ABSX sub product code for Sub Product Asset Codes/Descriptions • Added ABSX sub product code to Coupon Type Code/Descriptions
Version 4.4	March 3, 2015 (In production June 1, 2015)	• Amended production date for the software release
Version 4.5	April 22, 2015 (In production June 1, 2015)	• Added US Agreements File
Version 4.6	April 7, 2016	• Added Sub-Product Asset codes
Version 4.7	May 25, 2016	• Added a Sub-Product Asset code
Version 4.8	August 3, 2016	• Added a Sub-Product Asset code
Version 4.9	October 18, 2016	• Changes to support trades (where quantity >= $1 Million) under the new CMO sub product. Added 4 new files 2 weekly and 2 monthly • Closing files will now include CMOs where quantity < $1 million • Appendix 6 – added codes "D" and "U".
Version 4.9a	November 11, 2016	• Added First Settlement Date to Security Master • Added First Settlement Date and New First Settlement Date Daily List
Version 4.9b	January 20, 2017	• Added CMO Weekly and Monthly File availability • Updated CMO Weekly and Monthly file Example Requests • Updated the Heading for CMO Weekly and Monthly file for Standard Price Deviation • Updated CMO Weekly and Monthly Sample Results

Version	Date	Changes Made
		• Updated Daily List and Security Master Sample Results
Version 5.0	March 27, 2017	• Added/Deleted Sub-Product Asset codes
Version 5.1	December 3, 2018	• Added value "U" for Issuing Agency values in Appendix 8
Version 5.2	May 15, 2023	• Updated BSYM_ID definition
Version 6.0	April 29, 2024	• Removed certificate references and added new M2M API information • New string URL – starts with apidownload
Version 6.1	August 20, 2024	• Added new Requesting a File with an Access Token section • Updated username description in Requesting and Access Token section • Added an 's' to the http in the Programmatic Access Example

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 Securitized Products supports clients via a Web Application Programming Interface (API) to download security master files, daily lists, and market aggregate information.

This document pertains specifically to <u>Securitized Products reference data.</u> This document outlines the parameters and values for each available Securitized Products file. The data in each of these files is current as of the time of download.

FINRA has implemented the various products it supports in phases; Securitized Products (SP)[1] was the first one to deliver reference data via an API. This document outlines the parameters and values for each available SP file. The data in each of these files is current as of the time of download.

Access to the Download API

Clients who wish to programmatically access the API must request a Refresh Token via the TRAQS Website with their OKTA profile login. This Refresh Token will be used to obtain an Access Token. This Access Token will use a "Bearer Token," which will allow clients to request the API files without having to collect credentials.

The Refresh Token is valid for 6 months. The Access Token expires every hour (3600 seconds). It is the client's responsibility to programmatically request a new Access Token when it expires using the Refresh Token.

To access TRAQS, a username, password, and NASDAQ Multi-Factor Authentication (MFA) is required. To establish a TRAQS username, please consult your Super Account Administrator (SAA) and use the Participant Data Management (PDM) system.

The data contained in the API files are maintained by FINRA Operations. For questions concerning the data, PDM, or to access the files, please contact FINRA Operations at (866) 776-0800 option 2 or FINRAOperations@finra.org. For technical questions or issues accessing the files, please contact FINRA Client and System Management at FINRA-TSCSM@finra.org.

Data is compiled from multiple sources, including but not limited to Refinitiv, S&P, Moody's, and Black Knight Technologies.

---

[1] As stated in Regulatory Notice 10-55 (October 2010), effective May 16, 2011, member firms will be required to report trades in asset-backed securities, mortgage-backed securities and other similar securities, collectively defined hereinafter as Securitized Products (SP), to TRACE.

Access to the File Domain

SP 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 Security and RDID Masters, Daily Lists and Participant Lists are maintained by FINRA Operations. For questions concerning the data in these files, 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.

Data is compiled from multiple sources, including but not limited to Refinitiv, S&P, Moody's, and Black Knight Technologies.

Acquiring the Refresh Token in TRAQS

1. Log into TRAQS and authenticate using MFA.
2. Click **API** from the **Main Menu**.
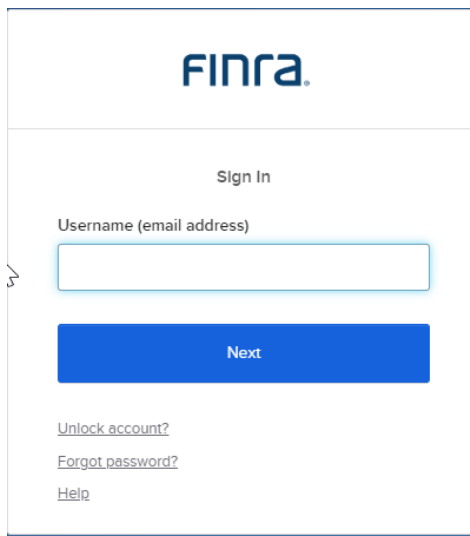
3. Click **Programmatic** from the **Download Menu** (this is where the Refresh Token is obtained).
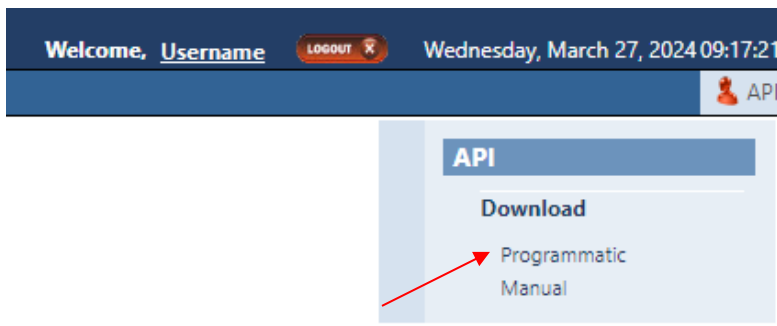
4. Click **Get Token** from the **API Download Programmatic screen**.
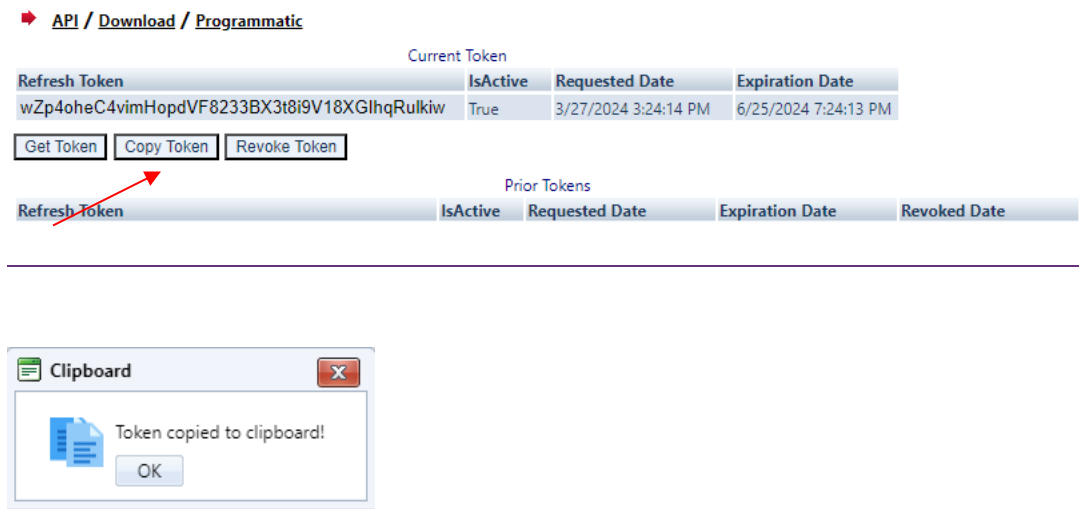
5. After requesting the Refresh Token, the system will ask you to **Authenticate** again. If successful, the user will be brought back to the API Download Programmatic screen and the Refresh Token information will be populated under the "Current Token" portion of the screen.

6. Click **Copy Token** and paste the **Refresh Token** into your script.

7. Add code to your script to request an **Access Token.**
8. Upon logging into the API domain from your application, your application will request a new Access Token from the TRAQS download server.
9. Your application will apply the new Access Token to the download API request call.
10. On success, the requested data will be returned to your application.

11. The user has the ability to Revoke the current Refresh Token at any time, by clicking **Revoke Token**. This will inactivate the current Refresh Token and it will move to the Prior Token portion of the screen.

➡ **API / Download / Programmatic**

Current Token

Refresh Token	IsActive	Requested Date	Expiration Date	
wZp4oheC4vimHopdVF8233BX3t8i9V18XGlhqRulkiw	True	3/27/2024 3:24:14 PM	6/25/2024 7:24:13 PM	

[Get Token] [Copy Token] [Revoke Token]

Prior Tokens

Refresh Token	IsActive	Requested Date	Expiration Date	Revoked Date

➡ **API / Download / Programmatic**

Current Token

Refresh Token	IsActive	Requested Date	Expiration Date	

[Get Token] [Copy Token] [Revoke Token]

Prior Tokens

Refresh Token	IsActive	Requested Date	Expiration Date	Revoked Date
wZp4oheC4vimHopdVF8233BX3t8i9V18XGlhqRulkiw	False	3/27/2024 3:24:14 PM	6/25/2024 7:24:13 PM	3/27/2024 3:41:17 PM

12. If the current Refresh Token is expired, click **Get Token** which will generate a new Refresh token and the expired Refresh Token will move to the Prior Token portion of the screen.

➡ **API / Download / Programmatic**

Current Token

Refresh Token	IsActive	Requested Date	Expiration Date	
r7W5gnX_FLzliq-HPAm06dcJvIBhXUWNzKFnJH31Rts	True	3/27/2024 3:51:26 PM	6/25/2024 7:51:26 PM	

[Get Token] [Copy Token] [Revoke Token]

Prior Tokens

Refresh Token	IsActive	Requested Date	Expiration Date	Revoked Date
wZp4oheC4vimHopdVF8233BX3t8i9V18XGlhqRulkiw	False	3/27/2024 3:24:14 PM	6/25/2024 7:24:13 PM	3/27/2024 3:41:17 PM

Note: Users will be notified via email 15 days prior to **Refresh Token** expiration. You cannot download the API files if the **Refresh Token** or **Access Token** are expired. Refresh Tokens that expire will need to be requested manually following step 3 above and updated in your script.

Requesting An Access Token

To programmatically request a new Access Token, clients will send a POST request to https://apidownload.finratraqs.org/refresh

In the body of the request, you will need to supply values to the following required parameters.

refreshtoken – refresh token request from the TRAQS website

username – the TRAQS username **NOT** the email address ~~the NWSF username was used to initially request the legacy API.~~

This will return the following sample JSON response:

{

    "token_type": "Bearer",

    "expires_in": 3600,

    "access_token": "eyJraWQiOiIwVlRIdEFidXZFOUVzVkNkNGtYS3FIYXU5ZWJqbHRRbENSMXc4MGJPTTgwIiwiYWxnIjoiUlMyNTYifQ.eyJ2ZXIiOjEsImp0aSI6IkFULklhY3FWeDFSOUs3dmVNWGhFU09iOEhNNHZEaGE0ElQ1Fma2pEQVlzOXM4R0kub2FyNnFoFzd2hxbGR0RzV4cUoweDYiLCJpc3MiOiJodHRwczovL21wcC10ZXN0Lm5hc2RhcS5jb20vb2F1dGgyL2RlZmF1bHQiLCJhdWQiOiJhcGk6Ly9kZWZhdWx0IiwiaWF0IjoxNzEyNTkyOTY5LCJleHAiOjE3MTI1OTY1NjksImNpZCI6IjBvYTV3bHA0ZXF4c05PWlRqMHg3IiwidWlkIjoiMDB1cWwwybXltZWhqcQ250bzMweDYiLCJzY3AiOlsib2ZmbGluZV9hY2Nlc3MiXSwiYXV0aF90aW1lIjoxNzExMDc2NDM1LCJzdWIiOiJsdWlzLmJhGxlbmFbmFzZGFxLmNvbSIsInFjX3VzZXJuYW1lIjpbImJhG xlbmFsIiwibGJhGxlbmEiLCJsYmFsbGVuYTEiLCJiYWxsZW5hbDEiLCJsdWlzYmFsIiwiYmFsbGxpaXMiLCJsdWJhbGwiLCJiYWxsbmZzYYJdfQ.FuBh5F0gdLLUxeJbSkfXxpqVDuIjCEi22hn5P9_nexbEJjstAueWYe8T3mVoyGdmJa9-jdMwsj_OodJeqk0E-4J9tpXZ1roc609K4lk5BM1wQDxlgZp2ToWbbYI-VQYQ_49cZxFGX_6ih43TrsmQcA_lQoeYRrTzThET5NH_Q5RIQxKmkYiWXQRmXu0mhwjnc74jCjBY8t96tLoy-3OwDCP-k_Fz7UNqCUIv1MtWqcp3zWgfhPsvswV4eRfj2iSgEwH_A4acpkxTSMWmauXbCeliMfFdnyrQR1sA055-9WH9pJ-c2MsB4cpNRO9n0tC3SKWD5l6aFTgE1KiLnIvPKQ",

    "scope": "offline_access",

    "refresh_token": "Zr0_0q3fSmXJXhHNQWs7YBXyt-OFftUMIqywc8VIxHI"

}

The Access Token will be in the JSON response.

Requesting a File with an Access Token

To programmatically request a file, clients will send a request to the specified API URL request – e.g. https://apidownload.finratraqs.org/DownloadHandler.ashx?action=DOWNLOAD&file=PARTICIPANT&facility=TRACE [apidownload.finratraqs.org] (see URL Parameters and Example Request sections for more information).

The following must be considered when sending the request:
1. All API file requests must be a secure request using https.
2. The API Request must use Authorization Bearer as the authentication type. Therefore, your header in your request but include "Authorization: Bearer <Access Token>" (see Requesting an Access Token section).
3. All API files request must be a POST request, and include following the parameters in the body of the request:
    - username=<assigned username> (<assigned username> is the assigned TRAQS username **NOT** the email address).

Example request using CURL

```
curl -s -OJ -X POST
--url
"https://apidownload.finratraqs.org/DownloadHandler.ashx?action=DOWNLOAD&file=PARTICIPANT&fac
ility=TRACE [apidownload.finratraqs.org]

--header "Authorization: Bearer
"eyJraWQiOiIwVlRIdEFidXZFOUVzVkNkNGtYS3FIYXU5ZWJqbHRRbENSMXc4MGJPTTgwIiwiYWxnIjoiUlMyNTYifQ.e
yJ2ZXIiOjEsImp0aSI6IkFULklhY3FWeDFSOUs3dmVNWGhFU09iOEhNNHZEaGE1Q1Fma2pEQVlzOXM4R0kub2FyNnFzd2
hxbGR0RzV4cUoweDYiLCJpc3MiOiJodHRwczovL21wcC10ZXN0Lm5hc2RhcS5jb20vb2F1dGgyL2RlZmF1bHQiLCJhdWQ
iOiJhcGk6Ly9kZWZhdWx0IiwiaWF0IjoxNzEyNTkyOTY5LCJleHAiOjE3MTI1OTY1NjksImNpZCI6IjBvYTV3bHA0ZXF4
c05PWlRqMHg3IiwidWlkIjoiMDB1cWwybXltZWhqcQ250bzMweDYiLCJzY3AiOlsib2ZmbGluZV9hY2Nlc3MiLSwiYXV0a
F90aW1lIjoxNzExMDc2NDM1LCJzdWIiOiJsdWlzLmJhbGxbmFAbmFzZGFxLmNvbSIsInFjX3VzZXJuYW1lIjpbImJhbG
xlbmFzIiwibGJhbGxlbmEiLCJsYmFsbGVuYTEiLCJiYWxsZW5hbEiLCJsdWlzYmFsIiwiYmFsbGx1aXMiLCJsdWJhbGw
iLCJiYWxsbmZzYyJdfQ.FuBh5F0gdLLUxeJbSkfXxpqVDuIjCEi22hn5P9_nexbEJjstAueWYe8T3mVoyGdmJa9-
jdMwsj_OodJeqk0E-4J9tpXZ1roc609K4lk5BM1wQDxlgZp2ToWbbYI-
VQYQ_49cZxFGX_6ih43TrsmQcA_lQoeYRrTzThET5NH_Q5RIQxKmkYiWXQRmXu0mhwjnc74jCjBY8t96tLoy-3OwDCP-
k_Fz7UNqCUIv1MtWqcp3zWgfhPsvswV4eRfj2iSgEwH_A4acpkxTSMWmauXbCeliMfFdnyrQR1sA055-9WH9pJ-
c2MsB4cpNRO9n0tC3SKWD5l6aFTgE1KiLnIvPKQ",

"
--data "username=Finrausr"
```

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://apidownload.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

File	When Available
All Security Masters (ABS,ABSX, CMO, TBA, MBS etc.)	Real time starting at 7:00 a.m. ET and throughout the day until 8:00 p.m. ET
RDID Master	Real time starting at 7:00 a.m. ET and throughout the day until 8:00 p.m. ET
Security Daily List for Securitized Products	Real time starting at 7:00 a.m. ET and throughout the day until 8:00 p.m. ET
Security Daily List Delta for Securitized Products	Real time starting at 7:00 a.m. ET and throughout the day until 8:00 p.m. ET
RDID Daily List	Real time starting at 7:00 a.m. ET and throughout the day until 8:00 p.m. ET
RDID Daily List Delta	Real time starting at 7:00 a.m. ET and throughout the day until 8:00 p.m. ET
Participant	Real time starting at 7:00 a.m. ET and throughout the day until 8:00 p.m. ET
Participant Daily List	Real time starting at 7:00 a.m. ET and throughout the day until 8:00 p.m. ET
Participant Daily List Delta	Real time starting at 7:00 a.m. ET and throughout the day until 8:00 p.m. ET
US Agreement files	Real time starting at 7:00 a.m. ET and throughout the day until 8:00 p.m. ET
Weekly cumulative file for CMO 144A securities	Files are on a delay of 3 business days following the last business day of the week, and will be available the morning of the 4th business day
Weekly cumulative file for CMO Non-144A securities	Files are on a delay of 3 business days following the last business day of the week, and will be available the morning of the 4th business day
Monthly cumulative file for CMO 144A securities	Files are on a delay of 3 business days following the last business day of the month, and will be available the morning of the 4th business day
Monthly cumulative file for CMO Non-144A securities	Files are on a delay of 3 business days following the last business day of the month, and will be available the morning of the 4th business day

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, Participant Daily List, and RDID Daily List. **NOT** for the Security Masters, RDID Master, Participant List or US Agreements.
facility	**TRACE**
file	**ABSMASTER** – ABS Security Master **ABSXMASTER –** ABS (Non-disseminated securities) Security Master **CMOMASTER** – CMO Security Master **TBAMASTER** – TBA Security Master *MBS Security Master, available as subsets (based on the issuing Agency):* **MBSSMBA** – MBS Security Master, Small Business Administration (SBA) **MBSFHLM** – MBS Security Master, Federal Home Loan Mortgage Corporation (Freddie Mac) **MBSFNMA** – MBS Security Master, Federal National Mortgage Association (Fannie Mae) **MBSGNM1** – MBS Security Master, Government National Mortgage Association (Ginnie Mae 1) **MBSGNM2** – MBS Security Master, Government National Mortgage Association (Ginnie Mae 2) **MBSRDID** – RDID Master File **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) **DAILYLISTSP** – Security Daily List for Securitized Products **DAILYLISTSPRDID** – RDID Daily List **CMOWKLY144A –** Weekly cumulative file for CMO 144A securities where quantity >= $1 Million **CMOWKLYNON144A –** Weekly cumulative file for CMO Non-144A securities where quantity >= $1 Million **CMOMTHLY144A –** Monthly cumulative file for CMO 144A securities where quantity >= $1 Million **CMOMTHLYNON144A –** Monthly cumulative file for CMO Non-144A securities where quantity >= $1 Million **CLOSSP** – Closing Report File (including CMO trades where quantity < $1 Million) **CLOSSP144A** – Closing Report File for securities classified as ABS 144A securities (including CMO 144A trades where quantity < $1 Million) **SPUSA** – Securitized Products US Agreements
day	A date, for example: 6/1/2011. Date is only used for Daily List, RDID Daily List, CMO Weekly and CMO Monthly, and Closing Report requests. If no date is specified on a <u>Daily List or Closing report</u> request then the current day is assumed.

File	Query Parameters
SP ABS Master	action=DOWNLOAD&file=ABSMASTER&facility=TRACE
SP ABSX Master	action=DOWNLOAD&file=ABSXMASTER&facility=TRACE
SP CMO Master	action=DOWNLOAD&file=CMOMASTER&facility=TRACE
SP TBA Master	action=DOWNLOAD&file=TBAMASTER&facility=TRACE
SP MBS Master – SBA	action=DOWNLOAD&file=MBSSMBA&facility=TRACE
SP MBS Master – Freddie Mac	action=DOWNLOAD&file=MBSFHLM&facility=TRACE
SP MBS Master – Fannie Mae	action=DOWNLOAD&file=MBSFNMA&facility=TRACE
SP MBS Master – Ginnie Mae 1	action=DOWNLOAD&file=MBSGNM1&facility=TRACE
SP MBS Master – Ginnie Mae 2	action=DOWNLOAD&file=MBSGNM2&facility=TRACE
SP MBS RDID Master	action=DOWNLOAD&file=MBSRDID&facility=TRACE
SP TRACE Participant List	action=DOWNLOAD&file=PARTICIPANT&facility=TRACE
SP TRACE Participant Daily List	action=DOWNLOAD&file=PDAILYLIST&facility=TRACE
SP TRACE Participant Daily List delta (see note 1)	action=DELTA&file=PDAILYLIST&facility=TRACE
SP TRACE Security Daily List	action=DOWNLOAD&file=DAILYLISTSP&facility=TRACE
SP TRACE Security Daily List delta (See note 1)	action=DELTA&file=DAILYLISTSP&facility=TRACE
SP TRACE Security Daily List for a specific day	action=DOWNLOAD&file=DAILYLISTSP&facility=TRACE&day=5/16/2011
SP MBS RDID Daily List delta (see note 1)	action=DELTA&file=DAILYLISTSPRDID&facility=TRACE
SP MBS RDID Daily List for a specific day	action=DOWNLOAD&file=DAILYLISTSPRDID&facility=TRACE&day=7/22/2013
CMO Weekly 144A for a specific week	action=DOWNLOAD&file=CMOWKLY144A&facility=TRACE&day=8/26/2016
CMO Weekly Non-144A for a specific week	action=DOWNLOAD&file=CMOWKLYNON144A&facility=TRACE&day=8/26/2016
CMO Monthly 144A for a specific month	action=DOWNLOAD&file=CMOMTHLY144A&facility=TRACE&day=8/1/2016
CMO Monthly Non-144A for a specific month	action=DOWNLOAD&file=CMOMTHLYNON144A&facility=TRACE&day=8/1/2016

File	Query Parameters
SP Closing Report	action=DOWNLOAD&file=CLOSSP&facility=TRACE
SP Closing Report for ABS Securities classified as 144A	action=DOWNLOAD&file=CLOSSP144A&facility=TRACE
SP TRACE US Agreements	action=DOWNLOAD& file=SPUSA&facility=TRACE

NOTE 1: 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 two 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

Securitized Products Security Master

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	FIGI/Financial Instrument Global Identifier		12
POOL_NB	Pool Number	Used in MBS Master Files. Will be blank on ABS, ABSX, CMO and TBA Master Files.	6
MSTR_DEAL_ID	Master Deal ID	Used in ABS, ABSX, and CMO Master Files. Will be blank on MBS and TBA Master Files.	50
TRNCH_NB	Tranche ID	Used in ABS, ABSX, and CMO Master Files. Will be blank on MBS and TBA Master Files.	20
SUB_PRDCT_TYPE	Sub-Product Type Code	Valid values are: ABS _Asset-Backed Securities_ ABSX _Asset Backed Securities (non-dissemination)_ CMO _Collateralized Mortgage Obligations_ MBS _Mortgage-Backed Securities_ TBA _To Be Announced_	5
SCRTY_SBTP_CD	Sub-Product Asset Code	_Please see Appendix 1 for a list of Sub Product Asset Code / Descriptions_	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 2 for a list of Coupon Type Code / Descriptions_	10
INTRS_TYPE_CD	Interest Type Code	Used in ABS, ABSX, and CMO Master Files. Will be blank on MBS and TBA Master Files. _Please see Appendix 3 for a list of Interest Type Code / Descriptions_	10

Field Name (Header)	Description	Comments	Maximum Length
TRD_RPT_EFCTV_DT	Trade Report Effective Date	YYYYMMDD format.	
MTRTY_DT	Maturity Date	YYYYMMDD format. Used in ABS, ABSX, CMO and MBS Master Files. Will be blank on TBA Master Files.	
TBA_STLMT_CD	TBA Settlement Month	Two digit value representing the month. Used in TBA Master Files. Will be blank on ABS, ABSX, CMO and MBS Master Files. *Please see Appendix 4 for a list of TBA Settlement Codes / Months*	
GRADE	Grade	Will be blank filled	1
RESERVED3	Filler	Blank field - reserved for future use.	
IND_144A	144A Indicator	Y = Indicates a 144A security N = Not a 144A security	1
RESERVED2	Filler	Blank field - reserved for future use.	
DSMTN_SYM_ID	RDID	Used in MBS Master Files. Can have special characters. Will be blank on ABS, ABSX, CMO, and TBA Master Files.	25
FIRST_STLMT_DT	First Settlement Date	YYYYMMDD format. Used in CMO Master Files. Will be blank on ABS, ABSX, TBA and MBS Master Files.	

Securitized Products TRACE Security Daily List

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 5 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 "SP".	
SYM_CD	FINRA Symbol		14
CUSIP		This field will be blank for firms that do not have a CUSIP license in place.	9
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. Valid for ABS, ABSX, CMO and MBS securities. Will be blank on TBA securities.	
TBA_STLMT_CD	TBA Settlement Month	Two digit value representing the month. Used in Sub-Product Type TBA if there is a change to Settlement Month. *Please see Appendix 4 for a list of TBA Settlement Codes / Months*	
BSYM_ID	FIGI/Financial Instrument Global Identifier		12
POOL_NB	Pool Number	Valid for MBS securities only.	6

Field Name (Header)	Description	Comments	Maximum Length
		Will be blank on ABS, ABSX, CMO and TBA securities.	
TRNCH_NB	Tranche ID	Used on ABS, ABSX, and CMO securities. Will be blank on MBS and TBA securities.	20
SUBPROD_TYPE	Sub-Product Type	Valid values are: ABS *Asset-Backed Securities* ABSX *Asset Backed Securities (non-dissemination)* CMO *Collateralized Mortgage Obligations* MBS *Mortgage-Backed Securities* TBA *To Be Announced* Note: Changes to Sub- Product values will be administered by a Delete then Add Daily List event.	5
TRD_RPT_EFCTV_DT	Trade Report Effective Date	YYYYMMDD format. Will be blank on Delete Event Types.	
FIRST_STLMT_DT	First Settlement Date	YYYYMMDD format. Will be blank on Delete Event Types Used in CMO securities. Will be blank on ABS, ABSX, TBA and MBS securities.	
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_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)

Field Name (Header)	Description	Comments	Maximum Length
NEW_MTRTY_DT	New Maturity Date	Applicable to Change Event Types only. Will be blank on Add and Delete Events.	
NEW_TBA_STLMT_CD	New TBA Settlement Month	Applicable to Change Event Types only. Will be blank on Add and Delete Events.	
NEW_BSYM_ID	New FIGI/Financial Instrument Global Identifier	Applicable to Change Event Types only. Will be blank on Add and Delete Events.	12
NEW_POOL_NB	New Pool Number	Applicable to Change Event Types only. Will be blank on Add and Delete Events.	6
NEW_TRNCH_NB	New Tranche ID	Used on ABS, ABSX, and CMO securities. Will be blank on MBS and TBA securities.	20
NEW_SUBPROD_TYPE	New Sub Product Type	Applicable to Change Event Types only. Will be blank on Add and Delete Events.	5
NEW_TRD_RPT_EFCTV_DT	New Trade Report Effective Date	Applicable to Change Event Types only. Will be blank on Add and Delete Events.	
NEW_FIRST_STLMT_DT	New First Settlement Date	YYYYMMDD format. Will be blank on Delete Event Types	
DSMTN_SYM_ID	RDID	Used on MBS securities. Addition events only. Can include special characters. Will be blank on ABS, ABSX, CMO, and TBA securities.	25

Securitized Products 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

Securitized Products 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: PA Participant Addition PD Participant Deletion PC 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	

Securitized Products Closing Report

Field Name (Header)	Description	Comments	Maximum Length
SYM_CD	FINRA assigned Symbol	This field will be blank for MBS securities	14
CUSIP_ID	CUSIP	This field will be blank for firms that do not have a CUSIP license in place. This field will be blank for MBS securities.	9
BSYM_ID	FIGI/Financial Instrument Global Identifier	This field will be blank for MBS securities.	12
SUB_PRODUCT		TBA; ABS; CMO; MBS	5
HIGH_PRICE	High Price		10
LOW_PRICE	Low Price		10
CLOSING_PRICE	Closing Price		10
TRADE_DATE	Trade Date for the record's prices	Closing price date in mm/dd/yyyy format	

Field Name (Header)	Description	Comments	Maximum Length
DSMTN_SYM_ID	Reference Data Identifier (MBS only)	This field will only be populated for MBS securities. Can include special characters.	25

Securitized Products MBS RDID Master

Field Name (Header)	Description	Comments	Maximum Length
DSMTN_SYM_ID	RDID	Ticker for each MBS security. Can include special characters.	25
base_sym_id	Agency	Issuing Agency. Refer to Appendix 8 for details.	10
prpty_type_cd	Mortgage Product	Type of underlying mortgage. Refer to Appendix 6 for details.	1
amrtn_type_cd_	Amortization Type	Refer to Appendix 7 for details.	1
cpn_rt	Coupon	Term coupon of the pool.	8
orgnl_term_lm_	Original Maturity	Pool maturity in months.	6
wac_rt	Weighted Average Coupon		8
wam_lm	Weighted Average Maturity		8
wala_lm	Weighted Average Loan Age		6
updtd_wghtd_avg_loan_am	Average Loan Size		6
orgnl_wgh	Loan to Value		6

Securitized Products MBS RDID Daily List

Field Name (Header)	Description	Comments	Maximum Length
DAILY_LIST_DT	Daily List Date	YYYYMMDD format.	
DAILY_LIST_TIME	Daily List Time	HH:MM:SS format.	
DAILY_LIST_EVENT_CD	Daily List Event Type	Valid values are: *RDID Add*	
DSMTN_SYM_ID	RDID	Ticker for each MBS security. Can include special characters.	25
base_sym_id	Agency	Issuing Agency. Refer to Appendix 8 for details.	10
prpty_type_cd	Mortgage Product	Type of underlying mortgage. Refer to Appendix 6 for details.	1
amrtn_type_cd_	Amortization Type	Refer to Appendix 7 for details.	1
cpn_rt	Coupon	Term coupon of the pool.	8
orgnl_term_lm_	Original Maturity	Pool maturity in months.	6
wac_rt	Weighted Average Coupon		8
wam_lm	Weighted Average Maturity		8
wala_lm	Weighted Average Loan Age		6
updtd_wghtd_avg_loan_am	Average Loan Size		6
orgnl_wgh	Loan to Value		6

Securitized Products TRACE US Agreements

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.	

CMO Weekly Cumulative 144A and Non-144A

Field Name (Header)	Description	Comments	Maximum Length
CUSIP_ID	CUSIP	This field will be blank for firms that do not have a CUSIP license in place.	9
SYM_CD	FINRA assigned Symbol		14
BSYM_ID	FIGI/Financial Instrument Global Identifier		12
ISSUER_NM	Issuer Name		80
SCRTY_DS	Security Description		80
CPN_RT	Coupon Rate	Decimal format	27 (19 after decimal)
MTRTY_DT	Maturity Date	YYYYMMDD format	
NUM_TRADES	Number of Trades	The values are: 5-10, 11-25, 26+	5
TOTAL_QTY_OPB	Total Quantity (Original Principal Balance)		10 (Displayed in Millions)
HIGH_PRICE	High Price		3v6 (10 bytes)
LOW_PRICE	Low Price		3v6 (10 bytes)
MEDIAN_PX	Median Price		3v6 (10 bytes)
VWAP_PX	VWAP Price		3v6 (10 bytes)
PX_STAND_DEV_VW	Price Standard Deviation (Volume Weighted)		3v6 (10 bytes)

CMO Monthly Cumulative 144A and Non-144A

Field Name (Header)	Description	Comments	Maximum Length
CUSIP_ID	CUSIP	This field will be blank for firms that do not have a CUSIP license in place.	9
SYM_CD	FINRA assigned Symbol		14
BSYM_ID	FIGI/Financial Instrument Global Identifier		12
ISSUER_NM	Issuer Name		80
SCRTY_DS	Security Description		80
CPN_RT	Coupon Rate	Decimal format	27 (19 after decimal)
MTRTY_DT	Maturity Date	YYYYMMDD format	
NUM_TRADES	Number of Trades	The values are: 5-10, 11-25, 26+	5
TOTAL_QTY_OPB	Total Quantity (Original Principal Balance)		10 (Displayed in Millions)
HIGH_PRICE	High Price		3v6 (10 bytes)
LOW_PRICE	Low Price		3v6 (10 bytes)
MEDIAN_PX	Median Price		3v6 (10 bytes)

Field Name (Header)	Description	Comments	Maximum Length
VWAP_PX	VWAP Price		3v6 (10 bytes)
PX_STAND_DEV_VW	Price Standard Deviation (Volume Weighted)		3v6 (10 bytes)

Example Requests

Example 1 - Get the current SP TRACE Participant List
This request retrieves the current list of TRACE authorized Participants:

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

Example 2 - Get the SP TRACE Participant Daily List for 5/16/2011
This request retrieves the list of changes to TRACE authorized Participants published on 5/16/2011 (*note 5/6/2011 is used as an example. Any specific date may be used*):

https://apidownload.finratraqs.org/DownloadHandler.ashx?action=DOWNLOAD&file=PDAILYLIST&facility=TRACE&day=5/16/2011

Example 3 - Get today's SP TRACE Participant Daily List (no day provided)
This request retrieves the current day's cumulative list of changes to TRACE authorized Participants:

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

Example 4 - Get changes to the SP 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://apidownload.finratraqs.org/DownloadHandler.ashx?action=DELTA&file=PDAILYLIST&facility=TRACE

Example 5 - Get the current SP CMO Security Master File
This request retrieves the current list of all CMO Securities for Securitized Products:

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

Example 6 - Get the current SP Fannie Mae Security Master File
This request retrieves the current list of all Fannie Mae MBS Securities:

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

Example 7 - Get today's SP TRACE Security Daily List (no day provided)

This request retrieves the current day's cumulative list of changes to all the Securitized Products Security Masters (ABS, CMO, MBS and TBA data is contained in one file):

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

Example 8 – Get the SP Closing Report (no day provided)

This request retrieves the closing prices for SP securities.

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

Example 9 – Get the SP MBS RDID Master File

This request retrieves the RDID's for all MBS securities assigned an RDID.

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

Example 10 – Get the SP MBS RDID Daily List (no day provided)

This request retrieves the current day's cumulative list of RDID additions.

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

Example 11 - Get the CMO Weekly Cumulative Non-144A for week ending 8/26/2016

This request retrieves the data published on 9/1/2016, generated for the week that ended on 8/26/2016, for non-144A CMO securities. *Note: 8/26/2016 is used as an example. Any specific date may be used, but the date must reflect the last Friday calendar date of the specified week*:

https://apidownload.finratraqs.org/DownloadHandler.ashx?action=DOWNLOAD&file=CMOWKLYNON144A&facility=TRACE&day=8/26/2016

Example 12 - Get the CMO Weekly Cumulative 144A for week ending 8/26/2016

This request retrieves the data published on 9/1/2016, generated for the week that ended on 8/26/2016, for 144A CMO securities. *Note: 8/26/2016 is used as an example. Any specific date may be used, but the date must reflect the last Friday calendar date of the specified week*:

https://apidownload.finratraqs.org/DownloadHandler.ashx?action=DOWNLOAD&file=CMOWKLY144A&facility=TRACE&day=8/26/2016

Example 13 - Get the CMO Monthly Cumulative Non-144A for month ending 8/31/2016

This request retrieves the data published on 9/7/2016, generated for the month that ended on 8/31/2016 for non-144A CMO securities. *Note: 8/1/2016 is used as an example*: *Any specific month may be used, but the date must reflect the first day <u>calendar</u> date of the specified month.*

https://apidownload.finratraqs.org/DownloadHandler.ashx?action=DOWNLOAD&file=CMOMTHLYNON144A&facility=TRACE&day=8/1/2016

Example 14 - Get the CMO Monthly Cumulative 144A for month ending 8/31/2016

This request retrieves the data published on 9/7/2016, generated for the month that ended on 8/31/2016 for 144A CMO securities. *Note: 8/1/2016 is used as an example: Any specific month may be used, but the date must reflect the first day <u>calendar</u> date of the specified month.*

https://apidownload.finratraqs.org/DownloadHandler.ashx?action=DOWNLOAD&file=CMOMTHLY144A&facility=TRACE&day=8/1/2016

Sample Results

Securitized Products 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
```

Securitized Products Security Daily List File Illustrating the Header and Footer

```
DAILY_LIST_DT|DAILY_LIST_TIME|DAILY_LIST_EVENT_CD|DAILY_LIST_RSN_CD|CMMNT_TX|EFCTV_DT|
PROD_TYPE|SYM_CD|CUSIP|SCRTY_DS|ISSUER_NM|CPN_RT|MTRTY_DT|TBA_STLMT_CD|BSYM_ID|P
OOL_NB|TRNCH_NB|SUBPROD_TYPE|TRD_RPT_EFCTV_DT|FIRST_STLMT_DT|NEW_SYM_CD|NEW_CU
SIP|NEW_SCRTY_DS|NEW_ISSUER_NM|NEW_CPN_RT|NEW_MTRTY_DT|NEW_TBA_STLMT_CD|NEW_
BSYM_ID|NEW_POOL_NB|NEW_TRNCH_NB|NEW_SUBPROD_TYPE|NEW_TRD_RPT_EFCTV_DT|NEW_F
IRST_STLMT_DT|DSMTN_SYM_ID
20170118|11:02:12|SA|BLK||20170118|SP|SEQG4443026|81746TBA2|SEQMT  171 I1 SEQUOIA
MORTGAGE TRUST 2017-1 (I1)||SEQUOIA MORTGAGE
TRUST|0.00000000000000000000|20470225||||I1|CMO|20170118|20170131||||||||||||||
20170118|11:08:27|SA|BLK||20170117|SP|SEQG4443027|81746TBB0|SEQMT  171 I2 SEQUOIA
MORTGAGE TRUST 2017-1 (I2)||SEQUOIA MORTGAGE
TRUST|0.00000000000000000000|20470225||||I2|CMO|20170117|20170131||||||||||||||

[snip]
...
20170118|10:19:54|SC|||20170118|SP|JPM3288961|073877AQ5|BSABS  05SD1 IB Sub Seq Flt BEAR
STEARNS ASSET BACKED SECURITIES TRUST 2005-SD (IB)||BEAR STEARNS ASSET BACKED SECS I
LLC|3.75611000000000000000|20430825||BBG0008F7XD3||IB|CMO|20110516|20050208|JPM328896
1|073877AQ5|BSABS  05SD1 IB Sub Seq Flt BEAR STEARNS ASSET BACKED SECURITIES TRUST 2005-SD
(IB)|BEAR STEARNS ASSET BACKED SECS I
LLC|3.75611000000000000000|20430825||BBG0008F7XD3||IB|CMO|20430820|20170413|
20170118|10:20:09|SC|||20170118|SP|JPM3288958|073877AF9|BSABS  05SD1 IM3 Sub Seq Flt BEAR
STEARNS ASSET BACKED SECURITIES TRUST 2005-SD (IM3)||BEAR STEARNS ASSET BACKED SECS I
LLC|1.57611000000000000000|20430825||BBG0008F7WR0||IM3|CMO|20110516|20050208|JPM328
8958|073877AF9|BSABS  05SD1 IM3 Sub Seq Flt BEAR STEARNS ASSET BACKED SECURITIES TRUST 2005-
SD (IM3)|BEAR STEARNS ASSET BACKED SECS I
LLC|1.57611000000000000000|20430825||BBG0008F7WR0||IM3|CMO|20430820|20170120|

[snip]
...
20170118|11:10:12|SD|OTH|inactivated|20170118|SP|WEFIF4153482|U9700TAE7|Class  C Reg S
WFLD 2014-MONT (C)||Westfield Mortgage
Trust|3.87996000000000000000|20310810||||C|CMO|20140808||||||||||||||||
20170118|11:11:28|SD|IS||20170118|SP|WRBC4184426|U96282AF2|Flt  WFRBS 2014-C25 (F)||WFRBS
COMMERCIAL MORTGAGE
TRUST|0.00000000000000000000|20471115||||F|CMO|20141113||||||||||||||||
Footer - Count: 00001556,  Facility: TRACE, File Created: 20170118111412
```

Securitized Products Security Master File Illustrating the Header and Footer

```
SYM_CD|CUSIP_ID|BSYM_ID|POOL_NB|MSTR_DEAL_ID|TRNCH_NB|SUB_PRDCT_TYPE|SCRTY_SBTP_C
D|ISSUER_NM|SCRTY_DS|CPN_RT|CPN_TYPE_CD|INTRS_TYPE_CD|TRD_RPT_EFCTV_DT|MTRTY_DT|T
BA_STLMT_CD|GRADE|RESERVED3|IND_144A|RESERVED2|DSMTN_SYM_ID|FIRST_STLMT_DT
|30289YAA2|||2016-KF26|A|CMO||FREMF|FREMF 16KF26 A Sr Seq Flt FREMF 2016-KF26 Mortgage
Trust|1.143670000000000000|FLT|WACCAP|20161219|20261025||||N|||20161223
|30289YAG9|||2016-KF26|B|CMO||FREMF|FREMF 16KF26 B Sub Seq Flt FREMF 2016-KF26 Mortgage
Trust|5.873670000000000000|FLT|WACCAP|20161219|20261025||||N|||20161223
|30289YAJ3|||2016-KF26|C|CMO||FREMF|FREMF 16KF26 C Sub Seq Flt FREMF 2016-KF26 Mortgage
Trust|11.373670000000000000|FLT|WACCAP|20161219|20261125||||N|||20161223
|30289YAC8|||2016-KF26|XI|CMO||FREMF|FREMF 16KF26 XI Sr Excess Vari FREMF 2016-KF26
Mortgage Trust|0.593290000000000000|VAR|IONTL|20161219|20261125||||N|||20161223
|30289YAE4|||2016-KF26|XP|CMO||FREMF|FREMF 16KF26 XP Sr Vari FREMF 2016-KF26 Mortgage
Trust|0.000000000000000000|VAR||20161219|20260725||||N|||20161223
|30289YAL8|||2016-KF26|R|CMO||FREMF|FREMF 16KF26 R Sub Resid Vari FREMF 2016-KF26
Mortgage Trust|0.000000000000000000|VAR||20161219|20261125||||N|||20161223
AAAT3638648|000292AB8|BBG0009ZFZ26||2007-2|A2|CMO|WHLN|AAA TR 2007-2|AAAT 072 A2 Sr
Flt AAA TRUST 2007-2|0.772700000000000000|FLT||20110516|20460125||||Y|||20070822
AAAT3938718|000292AC6|BBG0009ZFZ44||2007-2|A3|CMO|WHLN|AAA TR 2007-2|AAAT 072 A3 Sr
Flt AAA TRUST 2007-2|0.954210000000000000|FLT||20121130|20460125||||Y|||20070822
ABCD3845359|000743AB0|BBG0009T41Y2||ABCLO 2007-1A|SUB|CMO||ABCLO 2007-1 LTD|FIX
ABCLO 2007-1A||||20120420|20210415||||Y|||
…
[snip]
…
ZUNI3515456|98981YAA0|BBG0007KPZF6||2006-OA1|A1|CMO|WHLN|ZUNI MTG LN TR 2006-
OA1|ZUNI 06OA1 A1 Sr ZUNI MORTGAGE LOAN TRUST 2006-
OA1|2.584140000000000000|FLTWAC||20110516|20360825||||N|||20060629
ZUNI3515457|98981YAE2|BBG0007KR1H7||2006-OA1|B1|CMO|WHLN|ZUNI MTG LN TR 2006-
OA1|ZUNI 06OA1 B1 Sub Vari ZUNI MORTGAGE LOAN TRUST 2006-
OA1|2.756420000000000000|VAR||20110516|20360825||||N|||20060629
Footer - Count: 00282074, Facility: TRACE, File Created: 20170118103502
```

Securitized Products 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
```

CMO Weekly Cumulative 144A/Non-144A File Illustrating the Header and Footer

```
CUSIP_ID|SYM_CD|BSYM_ID|ISSUER_NM|SCRTY_DS|CPN_RT|MTRTY_DT|NUM_TRADES|TOTAL_QTY_
OPB|HIGH_PRICE|LOW_PRICE|MEDIAN_PX|VWAP_PX|PX_STAND_DEV_VW
00764MGV3|AEGS3277518|BBG0009R7GY0|AEGIS ASSET BACKED SECS TR|AABST 054 IA4 Sr Seq Flt
AEGIS ASSET BACKED SECURITIES TRUST 2005-4|1.126110000000000000|20351025|11-
25|37|120.400000|90.800000|110.200000|106.989574|7.831086
00764MGJ0|AEGS3277522|BBG0009R7FG2|AEGIS ASSET BACKED SECS TR|AABST 054 M3 Mezz Seq Flt
AEGIS ASSET BACKED SECURITIES TRUST 2005-
4|1.256110000000000000|20351025|26+|108|121.230000|90.800000|111.250000|106.712001|7.9
44195
04542BQA3|ASSK3277707|BBG0009TTB37|ASSET BACKED FUNDING CORP|ABFC 05OPT1 M1 Mezz Seq
Flt ABFC ASSET-BACKED CERTIFICATES, SERIES 2005-OPT1|1.216110000000000000|20350625|11-
25|27|116.170000|91.520000|101.330000|104.136666|5.940669
073877AX0|JPM3288683|BBG0008PQ6Y6|BEAR STEARNS ASSET BACKED SECS I LLC|BSABS 051 M3 Sub
Seq Flt BEAR STEARNS ASSET BACKED SECURITIES TRUST 2005-
11|3.156110000000000000|20350325|5-
10|9|97.700000|90.100000|93.850000|93.865303|2.501470
073877CJ9|JPM3288689|BBG0009QMPS2|BEAR STEARNS ASSET BACKED SECS I LLC|BSABS 052 M6 Sub
Flt BEAR STEARNS ASSET BACKED SECURITIES TRUST 2005-2|6.006110000000000000|20350625|5-
10|7|87.700000|81.100000|84.950000|84.831468|2.170197

[snip]

Footer - Count: 00000012, Facility: TRACE, File Created: 20170118154915
```

CMO Monthly Cumulative 144A/Non-144A File Illustrating the Header and Footer

```
CUSIP_ID|SYM_CD|BSYM_ID|ISSUER_NM|SCRTY_DS|CPN_RT|MTRTY_DT|NUM_TRADES|TOTAL_QTY_
OPB|HIGH_PRICE|LOW_PRICE|MEDIAN_PX|VWAP_PX|PX_STAND_DEV_VW
00764MGA9|AEGS3277506|BBG0009QDHL7|AEGIS ASSET BACKED SECS TR|AABST 053 N1 Sub Seq Vari
AEGIS ASSET BACKED SECURITIES TRUST 2005-
3|4.75000000000000000000|20350825|26+|70|116.170000|30.000000|108.560000|97.981950|32.83
9526
00764MGB7|AEGS3277507|BBG0009QDHN5|AEGIS ASSET BACKED SECS TR|AABST 053 N2 Sub Seq Vari
AEGIS ASSET BACKED SECURITIES TRUST 2005-
3|6.00000000000000000000|20350825|26+|217|116.170000|40.000000|108.560000|99.700631|27.0
85145
00764MGW1|AEGS3277516|BBG0009R7GG0|AEGIS ASSET BACKED SECS TR|AABST 054 P Sub Vari
AEGIS ASSET BACKED SECURITIES TRUST 2005-4|0.00000000000000000000|20351025|11-
25|52|116.170000|21.000000|101.414900|95.350361|38.127948
073877BE1|JPM3288685|BBG0008PQ818|BEAR STEARNS ASSET BACKED SECS I LLC|BSABS 051 BIO Sub
Vari IONtl BEAR STEARNS ASSET BACKED SECURITIES TRUST 2005-
1|0.00000000000000000000|20350325|5-10|9|97.070000|90.010000|93.535000|93.539597|2.312295
073877CL4|JPM3288691|BBG0009QMQ19|BEAR STEARNS ASSET BACKED SECS I LLC|BSABS 052 BIO
Sub Excess Vari BEAR STEARNS ASSET BACKED SECURITIES TRUST 2005-
2|0.00000000000000000000|20350625|5-10|7|87.070000|81.010000|84.545000|84.436166|1.992635
76110GX30|RESCU3494111|BBG0007VTM21|RESIDENTIAL ACCREDIT LNS INC MTG PASS T|RALI
02QS16 B1 Sub Fix RALI TRUST 2002-QS16|5.75000000000000000000|20171025|11-
25|207|55.100000|4.320000|14.320000|20.535606|16.738990
76110HRR2|RESCU3494532|BBG0008TNXW4|RESIDENTIAL ACCREDIT LNS INC MTG PASS T|RALI
04QA1 SB Sub RALI Trust. 2004-QA1|0.00000000000000000000|20340325|11-
25|180|118.000000|45.340000|45.380000|56.735000|22.695045

[snip]
...
Footer - Count: 00000012, Facility: TRACE, File Created: 20170118155722
```

Appendices

Please note all codes/descriptions in the following appendices are subject to continual updates as necessary.

Appendix 1 - Sub-Product Asset Codes and Descriptions

Sub-Product Code	Sub Product Asset Code	Sub Product Asset Description
MBS	POOL	Agency Pass-through Securities
		SBA pools
	GNM1	Ginnie Mae 1
	GNM2	Ginnie Mae 2
TBA	GD	For Good Delivery
	NGD	Not For Good Delivery
CMO	AGRI	CMO Agriculture MBS
	TRAN	CMO Tranches
	WHLN	CMO Whole Loan
	HLOC	Home Equity Lines of Credit
	HOME	Home Equity Loans
	AGNM	Net Interest Margin
	CRSK	CMO Credit Risk Sharing
	HREM	Home Equity Conversion Mortgage REMIC
	CMBS	Commercial Mortgage Backed Security
ABS	ALEA	Auto Lease Loans
	AFLP	Auto Floor Plan/Wholesale Loans
	AUTO	Auto Installment Loans
	RECR	Recreational Vehicle Loans
	BIKE	Motorcycle Lease
	SBA	Small Business Administration
	CARD	Credit Card Receivables
	STUD	Student Loan
	MANU	Manufactured Housing Loan
	AIRL	Aircraft Lease
	BOAT	Marine Loans
	BUSL	ABS Business Loans
	CNSL	Consumer Loans
	CONT	ABS Container Backed Securities
	DPR	Diversified Payment Rights
	TXLN	Tax Lien
	EQIP	Equipment Backed Loan
	EXIM	Export/Import Bank Loan
	NIM	Net Interest Margin Securities
	OTHR	Asset Backed Tranches
	RVMG	Reversed Mortgage
	UTIL	Utility Standard Cost Securitizations

Sub-Product Code	Sub Product Asset Code	Sub Product Asset Description
	CTSR	Catastrophe ABS
	LOTT	Lottery ticket ABS
	PNSN	Pension Securitization
	PSNL	Personal Loan ABS
	RENT	Rent ABS
	RINS	Reinsurance ABS
	TMSH	Timeshare ABS
	MHSG	Military Housing
ABSX	CBO	Collateralized Bond Obligation
	CDO	Collateralized Debt Obligation
	CFO	Collateralized Fund Obligation
	CLO	Collateralized Loan Obligation
	CMBS	Commercial Mortgage Backed Security

Appendix 2 - Coupon Type Codes and Descriptions

Sub Product	Coupon Type Code	Coupon Type Description
ABS	ARB	Ascending Rate
ABS	CFLT	Complex Floater
ABS	DRB	Descending Rate
ABS	FIX	Fixed
ABS	FLT	Floater
ABS	FLTFX	Floater to Fixed
ABS	FLTVAR	Floater to Variable
ABS	FLTWAC	Floater to WAC
ABS	FXFL	Fixed to Floater
ABS	FXVAR	Fixed to Variable
ABS	FXWAC	Fixed to WAC
ABS	INV	Inverse Floating Rate
ABS	STRFLT	Structured Floater
ABS	STRINV	Structured Inverse Floater
ABS	TFLT	Toggle Floater
ABS	TINV	Toggle Inverse
ABS	VAR	Variable
ABS	WGTSUB	Weighted Average of Subordinate
ABSX	ARB	Ascending Rate
ABSX	CFLT	Complex Floater
ABSX	DRB	Descending Rate
ABSX	FIX	Fixed
ABSX	FLT	Floater
ABSX	FLTFX	Floater to Fixed
ABSX	FLTVAR	Floater to Variable
ABSX	FLTWAC	Floater to WAC

Sub Product	Coupon Type Code	Coupon Type Description
ABSX	FXFL	Fixed to Floater
ABSX	FXVAR	Fixed to Variable
ABSX	FXWAC	Fixed to WAC
ABSX	INV	Inverse Floating Rate
ABSX	STRFLT	Structured Floater
ABSX	STRINV	Structured Inverse Floater
ABSX	TFLT	Toggle Floater
ABSX	TINV	Toggle Inverse
ABSX	VAR	Variable
ABSX	WGTSUB	Weighted Average of Subordinate
CMO	ARB	Ascending Rate
CMO	CFLT	Complex Floater
CMO	DRB	Descending Rate
CMO	FIX	Fixed
CMO	FLT	Floater
CMO	FLTFX	Floater to Fixed
CMO	FLTVAR	Floater to Variable
CMO	FLTWAC	Floater to WAC
CMO	FXFL	Fixed to Floater
CMO	FXVAR	Fixed to Variable
CMO	FXWAC	Fixed to WAC
CMO	INV	Inverse Floating Rate
CMO	STRFLT	Structured Floater
CMO	STRINV	Structured Inverse Floater
CMO	TFLT	Toggle Floater
CMO	TINV	Toggle Inverse
CMO	VAR	Variable
CMO	WGTSUB	Weighted Average of Subordinate
MBS	A	ARM
MBS	B	BALLOON
MBS	G	GPM
MBS	H	GEM
MBS	L	LEVEL PAY
MBS	T	TPM
MBS	W	BIWEEKLY
TBA	A	ARM
TBA	B	BALLOON
TBA	G	GPM
TBA	H	GEM
TBA	L	LEVEL PAY
TBA	R	FIXED RATE REVERSE
TBA	T	TPM
TBA	W	BIWEEKLY

Appendix 3 - Interest Type Codes and Descriptions

Interest Type Code	Interest Type Description
IOET	Ioette
IONTL	Interest Only Notional
PNTL	Partial Notional
PO	Principal Only
POHYB	Hybrid Principal Only
STPCLL	Step-Up on Call
STPCLWAC	Step-Up on Call Subject to WACCAP
STPDT	Step-Up on Date
STPDTWAC	Step-Up on Date Subject to WACCAP
STPRLY	Step-Up on Earliest Call or Date
STPRYWAC	Step-Up on Earliest Call or Date, Subject to WACCAP
WACCAP	WAC Cap

Appendix 4 - TBA Settlement Codes and Months

TBA Settlement Code	Month
01	January
02	February
03	March
04	April
05	May
06	June
07	July
08	August
09	September
10	October
11	November
12	December

Appendix 5 - 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

Update Reason Code	Update Reason Description
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.

Appendix 6 – RDID Mortgage Product Values

Value	Description
C	Co-Op
H	Home Improvement Loans
M	Multi-Family
S	Single Family
#	SBA; unknown
D	Project
U	Unknown

Appendix 7 - Amortization Type Values

Value	Description
A	ARM
B	Balloon Mortgages
W	BiWeekly Mortgages
Y	Buydown Mortgages
D	Discount Mortgages
H	Growing-Equity Mortgages
G	Graduated-Payment Mortgages
L	Level-Payment Mortgages
T	Tiered-Payment Mortgages
R	Reverse Mortgages

Appendix 8 – Issuing Agency Values

Value	Description
G	GNM1
N	GNM2
F	FNMA
M	FMCC
S	SMBA
T	Test
R	Ginnie 1 – Serial Notes Puerto Rico
U	UMBS

Programmatic Access Example(curl)

The following is a code excerpt to illustrate how to use the MPP Download site programmatically.

Example using the TBA Security Master

```bash
#!/bin/bash

URL_REFRESH=https://apidownload.finratraqs.org/refresh [apidownload.finratraqs.org]
URL_DOWNLOAD=https://apidownload.finratraqs.org/DownloadHandler.ashx?action=DOWNLOA
D&file=TBAMASTER&facility=TRACE [apidownload.finratraqs.org]
USER_NAME="Finrausr"
FAILEDSTATUS="HTTP/1.1 401 Token is inactive or expired."
FAILEDREFRESHSTATUS="Refresh Token is invalid or has expired."

update_tokens(){
                # Get a new access token
                # install jq command - sudo apt-get install jq
                tmp="$(mktemp)"
                curl -s -X POST --url "${URL_REFRESH}" \
                            --header "content-type: application/x-www-form-
urlencoded" \
                            --data
"username=${USER_NAME}&refreshtoken=${refresh_token}" > "${tmp}"

                read failedrefreshstatus < <(cat "${tmp}" | tr -d '\r')

                #check if refresh token is invalid
                if [ "${failedrefreshstatus}" = "${FAILEDREFRESHSTATUS}" ] ; then

                    echo "${failedrefreshstatus}"
                            echo ""
                            exit 1
                fi

                read refresh_token < <( cat "${tmp}" | jq .refresh_token | tr -d
'"' )
                read access_token < <( cat "${tmp}" | jq .access_token | tr -d '"' )
                #echo "${refresh_token}" > refresh_token.txt

                echo "Requested new access token cached"
                echo ""

                echo "${access_token}" > access_token.txt
                rm -f "${tmp}"
}

# The Refresh Token
read refresh_token < refresh_token.txt

echo "Your refresh token is ${refresh_token}"
echo ""

# The Access Token
access_token=""

if [ -f "access_token.txt" ]; then
```

```
                read access_token < access_token.txt
fi

echo "Your current access token: ${access_token}"
echo ""

if [ -z "${access_token}" ]; then
                echo "No cached access token; getting new access token!"
                echo ""

                update_tokens
                read access_token < access_token.txt

                echo "Your new access token: ${access_token}"
        echo ""
fi

tmp="$(mktemp)"

echo "Validating access token..."
echo ""

#get curl header status for token validity
httpstatus=$(curl -s -I --url "${URL_DOWNLOAD}" \
                --header "Authorization: Bearer ${access_token}" \
                | awk 'NR==1{print $0} END {print $0}' | tr -d '\r')

#echo "$httpstatus" > httpstatus.txt
#echo "$FAILEDSTATUS" > failedstatus.txt

#check if token is invalid
if [ "${httpstatus}" = "${FAILEDSTATUS}" ] ; then

                echo "Invalid/expired access token, requesting new access token!"
                echo ""

                update_tokens
                read access_token < access_token.txt

                echo "Your new access token: ${access_token}"
                echo ""
fi

echo "Request download with access token!"
echo ""

#download file (this uses option -OJ, getting the file name from the content-
disposition
#                              if file exists, this will fail.)
curl -s -OJ -X POST --url "${URL_DOWNLOAD}" \
    --header "Authorization: Bearer ${access_token}" \
    --data "username=${USER_NAME}"

ls -lrt

#cat "${tmp}"
rm -f "${tmp}"
```

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 TBA Security Maste

```
string Action = "DOWNLOAD";
string file = "TBAMASTER";
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);
}
```