FINRA.

Web API Specifications for the

Equity Trade Reporting Facility

File Downloads - ADF

Version 3.1
August 20, 2024

Table of Contents

Revision History

Version	Date	Changes Made
Version 1.0	October 1, 2013	• Original version of specification
Version 2.0	October 9, 2013	• Changed query string for participant DL; and security master deltas
Version 3.0	April 29, 2024	• Removed certificate references and added new M2M API information • New string URL – starts with apidownload
Version 3.1	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 • Updated Explicit Fee URL

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 ADF supports clients via a Web Application Programming Interface (API) to download security master files, daily lists, and other files.

This document pertains specifically to ADF. This document outlines the parameters and values for each available ADF 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.

~~Access to the File Domain~~

~~Equity 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.~~

Acquiring the Refresh Token in TRAQS

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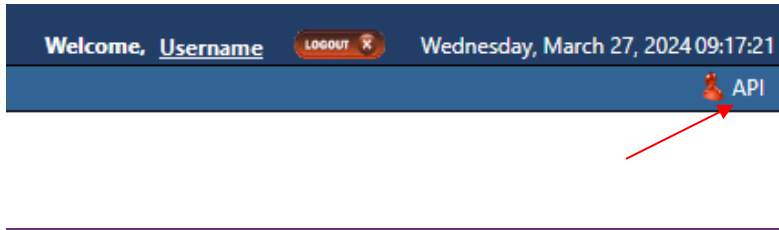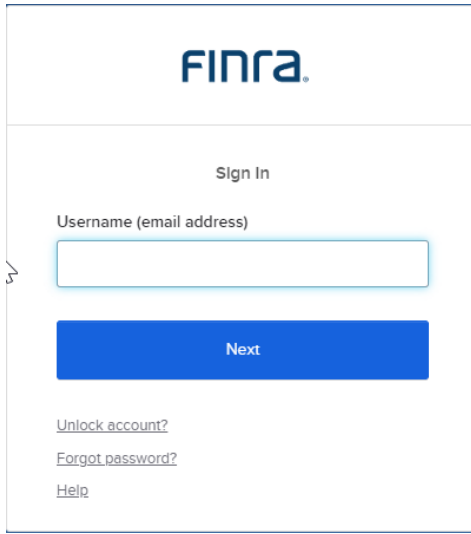
3. Click **Programmatic** from the **Download Menu** (this is where the Refresh Token is obtained).
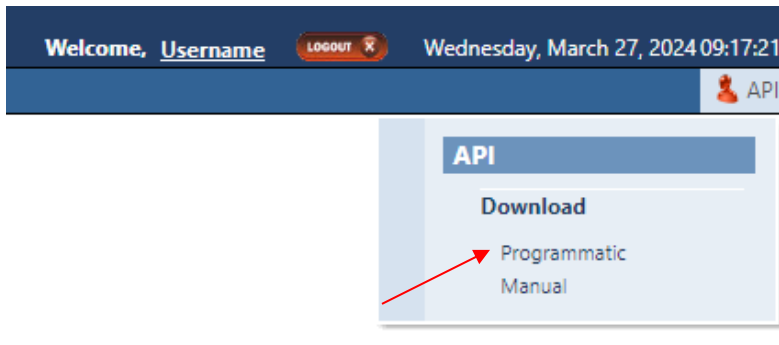
4. Click **Get Token** from the **API Download Programmatic screen**.
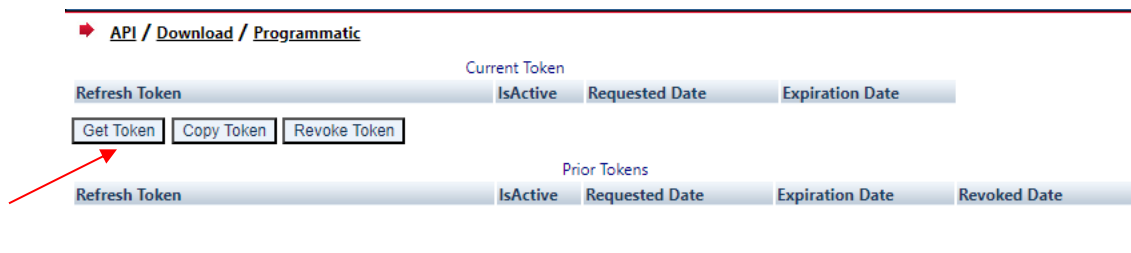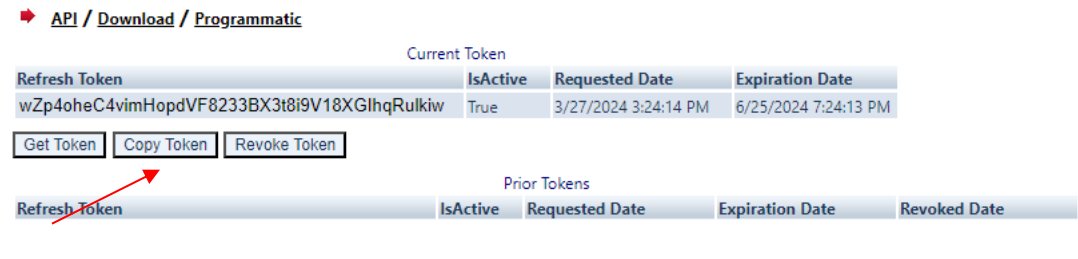
5. After requesting the Refresh Token, the system will ask you to **Authenticate** again. If successful, the user will be brought back to the API Download Programmatic screen and the Refresh Token information will be populated under the "Current Token" portion of the screen.

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.
1.10. 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.

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.

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.e
yJ2ZXIiOjEsImp0aSI6IkFULklhY3FWeDFSOUs3dmVNWGhFU09iOEhNNHZEaGE1Q1Fma2pEQVlzOXM4R0kub2FyNnFzd2
hxbGR0RzV4cUoweDYiLCJpc3MiOiJodHRwczovL21wcC10ZXN0Lm5hc2RhcS5jb20vb2F1dGgyL2RlZmF1bHQiLCJhdWQ
iOiJhcGk6Ly9kZWZhdWx0IiwiaWF0IjoxNzEyNTkyOTY5LCJleHAiOjE3MTI1OTY1NjksImNpZCI6IjBvYTV3bHA0ZXF4
c05PWlRqMHg3IiwidWlkIjoiMDB1cWwybXltZWhqcQ250bzMweDYiLCJzY3AiOlsib2ZmbGluZV9hY2Nlc3MiXSwiYXV0a
F90aW1lIjoxNzExMDc2NDM1LCJzdWIiOiJsdWlzLmJhbGxlbmFBbmFzZGFxLmNvbSIsInFjX3VzZXJuYW1lIjpbImJhbG
xlbmFsIiwibGJhbGxlbmEiLCJsYmFsbGVuYTEiLCJiYWxsZW5hbDEiLCJsdWlzYmFsIiwiYmFsbGx1aXMiLCJsdWJhbGw
iLCJiYWxsbmZzYyJdfQ.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=ADF [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=ADF [apidownload.finratraqs.org]

--header "Authorization: Bearer
"eyJraWQiOiIwVlRIdEFidXZFOUVzVkNkNGtYS3FIYXU5ZWJqbHRRbENSMXc4MGJPTTgwIiwiYWxnIjoiUlMyNTYifQ.e
yJ2ZXIiOjEsImp0aSI6IkFULklhY3FWeDFSOUs3dmVNWGhFU09iOEhNNHZEaGE1Q1Fma2pEQVlzOXM4R0kub2FyNnFzd2
hxbGR0RzV4cUoweDYiLCJpc3MiOiJodHRwczovL21wcC10ZXN0Lm5hc2RhcS5jb20vb2F1dGgyL2RlZmF1bHQiLCJhdWQ
iOiJhcGk6Ly9kZWZhdWx0IiwiaWF0IjoxNzEyNTkyOTY5LCJleHAiOjE3MTI1OTY1NjksImNpZCI6IjBvYTV3bHA0ZXF4
c05PWlRqMHg3IiwidWlkIjoiMDB1cWwybXltZWhqcQ250bzMweDYiLCJzY3AiOlsib2ZmbGluZV9hY2Nlc3MiLCJhdX0a
F90aW1lIijoxNzExMDc2NDM1LCJzdWIiOiJsdWlzLmJhbGxlbmFbmFzZGFxLmNvbSIsInFjX3VzZXJuYW1lIjpbImJhbG
xlbmFsIiwibGJhbGxlbmEiLCJsYmFsbGVuYTEiLCJiYWxsZW5hbDEiLCJsdWlzYmFsIiwiYmFsbGx1aXMiLCJsdWJhbGw
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
Security Master (Active/Inactive)	Real time starting at 7:00 a.m. ET and throughout the day until 8:00 p.m. ET
Participant Master	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 pm. ET
Participant Clearing Number Relationship	Real time starting at 7:00 a.m. ET and throughout the day until 8:00 p.m. ET
Participant Agreements	Real time starting at 7:00 a.m. ET and throughout the day until 8:00 p.m. ET
Explicit Fee Agreement	Real time starting at 7:00 a.m. ET and throughout the day until 8:00 p.m. 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 file. **DELTA** – provide the changes since the last time the user downloaded the file. Delta actions are supported for Participant Daily List files. **NOT** for the Security Master, Participant List, Clearing Relationship, US Agreements, or Explicit Fee.
facility	**ADF**
file	**EQUITYMASTERAC** – Equity Security Master File Active issues **EQUITYMASTERIN** –Equity Security Master File Inactive issues **PARTICIPANT** – Equity Participant Master File **PDAILYLIST**– Equity Participant Daily List **EQUITYCLEAR** – Equity Clearing Relationship File **EQUITYUSA** – Equity US Agreements File **EXPLICITFEE –** Explicit Fee Agreement File

File	Query Parameters
Equity Security Master Active	action=DOWNLOAD&file=EQUITYMASTERAC&facility=ADF
Equity Security Master Inactive	action=DOWNLOAD&file=EQUITYMASTERIN&facility=ADF
Equity Participant Master	action=DOWNLOAD&file=PARTICIPANT&facility=ADF
Equity Participant Daily List	action=DOWNLOAD&file=PDAILYLIST&facility=ADF
Equity Participant Daily List for a specific day	action=DOWNLOAD&file=PDAILYLIST&facility=ADF&day=mm/dd/yyyy
Equity Participant Daily List delta (see note 1)	action=DELTA&file=PDAILYLIST&facility=ADF
Equity Clearing Relationship	action=DOWNLOAD&file=EQUITYCLEAR&facility=ADF
Equity US Agreements	action=DOWNLOAD&file=EQUITYUSA&facility=ADF
Explicit Fee	action=DOWNLOAD&file=~~EQUITY~~EXPLICITFEE&facility=ADF

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

ADF - Equity Security Master (Active and Inactive)

Field Name (Header)	Description	Comments	Maximum Length
FINRA_SCRTY_ID	FINRA Security ID Symbol	Security Id generated by FINRA RDMS System.	
CUSIP_ID	CUSIP	This field will be blank for firms that do not have a CUSIP license in place.	9
SYM_CD	Security Symbol	Local exchange symbol.	14
SYM_SUF_CD	Suffix of the issue symbol		7
SCRTY_DS	Security Description	Security Description/Name.	250
PRDCT_TYPE_CD	Product Type Code	Product code; i.e. CTS	5
SUB_PRDCT_TYPE_CD	Sub product type code		5
PRMRY_XCHNG_CD	Exchange Description	Primary Exchange Code	4
RND_LOT_QT	Round Lot Size	Min. number of shares that can be purchased without incurring a larger fee.	4
DTC_ELGBL_FL	DTC Eligibility Flag	Indicates if security is eligible to be delivered through a computerized system established by DTCC. Y or N.	1
SCRTY_TYPE_CD	Security Type	Security Type Description.	4
WIS_DSTRD_CD	When Issued Flag	Indicates if the security does not have a firm settlement. WI or WD.	2
BSYM_ID	Bloomberg Symbol		12
ISIN_ID	ISIN Identifier		12
SCRTY_EFCTV_TS	Security Effective Time Stamp	Format is YYYYMMDDHHMMSS	
SIP_SYM_ID	SIP Ticker Symbol	As per SIAC CQS specification requirements.	21
LULD_TIER_CD	LULD Tier		2
STTS_CD	Status Code	Indicates if security is active, inactive, or terminated.	1
NACTV_DT	Inactive date and time	Format is YYYYMMDDHHMMSS	
LAST_UPDT_TS	Last update time for a component of the record	Format is YYYYMMDDHHMMSS	

ADF - Equity Participant Master

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

ADF - Equity 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 ADF	

ADF - Equity Clearing Relationship File

Field Name (Header)	Description	Comments	Maximum Length
MPID	MPID of the Client	FINRA identifier assigned to the participant.	6
CLRG_ORG_NB	Clearing Number of Clearing Org used by the MPID		5
CLRG_FIRM_NM	Clearing Firm Name	Name of Clearing Firm Organization.	64
CLRG_EFCTV_DT	Clearing Relationship Effective Date	Format is YYYYMMDDHHMMSS	
CLRG_XPRTN_DT	Clearing Relationship Expiration Date	Format is YYYYMMDDHHMMSS	
PRMRY_CLRG_FL	Default Clearing Relationship flag	Value will be Y or N to state if the clearing number in this record is the default clearing number.	1

ADF - Equity 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	
AGRMT_XPRTN_DT	End date for agreement with the client	Format is YYMMDDHHMMSS	
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	

ADF – Explicit Fee File

Field Name (Header)	Description	Comments	Maximum Length
MPID_1	MPID of the Client	FINRA identifier assigned to the participant.	6
CLRG_FIRM_NM_1	Clearing Firm Name for first MPID	Name of Clearing Firm Organization.	64
MPID_2	MPID of Client 2 in file	FINRA identifier assigned to the second participant.	6
CLRG_FIRM_NM_2	Clearing Firm Name for second MPID	Name of Clearing Firm Organization for second participant.	64
AGRMT_EFCTV_DT	Effective Date for the agreement with the client	Format is YYYYMMDDHHMMSS	
AGRMT_XPRTN_DT	End date for agreement with the client	Format is YYMMDDHHMMSS	

Example Requests

Example 1 - Get the current Active Equity Security Master

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

Example 2 - Get the current Inactive Equity Security Master

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

Example 3 - Get the current Equity Participant Master

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

Example 4 - Get the current Equity Participant Daily List

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

Example 5 - Get the current Equity Participant Daily List Delta

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

Example 6 - Get the Equity Participant Daily List for a Specific Day (10/21/2019)

https://apidownload.finratraqs.org/DownloadHandler.ashx?action=DOWNLOAD&file=PDAILYLIST&facility=ADF&day=10/21/2019 (*note 10/21/2019 is used as an example. Any specific date may be used*)

Example 7 - Get the current Equity Clearing Relationship File

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

Example 8 - Get the current Equity US Agreements File

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

Example 9 - Get the current Explicit Fee File

https://apidownload.finratraqs.org/DownloadHandler.ashx?action=DOWNLOAD&file=~~EQUITY~~EXPLICITFEE&facility=ADF

Sample Results

Active Equity Security Master File Illustrating the Header and Footer

```
FINRA_SCRTY_ID|CUSIP_ID|SYM_CD|SYM_SUF_CD|SCRTY_DS|PRDCT_TYPE_CD|SUB_PRDCT_TYPE_CD|
PRMRY_XCHNG_CD|RND_LOT_QT|DTC_ELGBL_FL|SCRTY_TYPE_CD|WIS_DSTRD_CD|BSYM_ID|ISIN_ID|S
CRTY_EFCTV_TS|SIP_SYM_ID|LULD_TIER_CD|STTS_CD|NACTV_DT|LAST_UPDT_TS
10000000|00846U101|A||Agilent Technologies
Inc.|CTS|NYSE|NYSE|100|Y|COMS||BBG000C2V3D6|US00846U1016|20070220000000|A|1|A||2018
0326015726
10000001|013872106|AA||Alcoa
Corporation|CTS|NYSE|NYSE|100|Y|COMS||BBG00B3T3HD3|US0138721065|20161101000000|AA|1
|A||20161130151424
10014676|715426102|AAAU||Perth Mint Physical Gold ETF
(Trust)|CTS|ARCA|ARCA|100|Y|FUND||BBG00LPXX872|US7154261025|20180815000000|AAAU|2|A
||20180817015542
10013160|021346101|AABA||Altaba Inc. Common
Stock|UTP|NSDQ|NQGS|1|Y|COMS||BBG000GFFQN9|US0213461017|20170619000000|AABA|2|A||20
210722142034
10010317|000307108|AAC||AAC Holdings,
Inc.|CTS|NYSE|NYSE|100|Y|COMS||BBG006T1NZ18|US0003071083|20141002000000|AAC|2|A||20
141002231733
10015275|98986M103|ZYXI||Zynex, Inc. Common
Stock|UTP|NSDQ|NQCM|100|Y|COMS||BBG000BJBXZ2|US98986M1036|20190212000000|ZYXI|2|A||
20190213015719
Footer - Count: 00008802, Facility: ADF, File Created: 20240320150836
```

Inactive Equity Security Master File Illustrating the Header and Footer

```
FINRA_SCRTY_ID|CUSIP_ID|SYM_CD|SYM_SUF_CD|SCRTY_DS|PRDCT_TYPE_CD|SUB_PRDCT_TYPE_CD|
PRMRY_XCHNG_CD|RND_LOT_QT|DTC_ELGBL_FL|SCRTY_TYPE_CD|WIS_DSTRD_CD|BSYM_ID|ISIN_ID|S
CRTY_EFCTV_TS|SIP_SYM_ID|LULD_TIER_CD|STTS_CD|NACTV_DT|LAST_UPDT_TS
10010371|00846U127|A|WD|Agilent Technologies,
Inc.|CTS|NYSE|NYSE|100|Y|COMS|WD|BBG0074Q9Q32|US00846U1271|20070601000000|A/WD|2|A|
|20141103013114
10010277|013817309|AA|PRB|Alcoa
Inc.|CTS|NYSE|NYSE|100|Y|SP||||20140924000000|AApB|2|A||20161101012428
10012482|013872106|AA|WI|Alcoa
Corporation|CTS|NYSE|NYSE|100|Y|COMS|WI|||20161018000000|AAw|2|A||20161101012428
10000005|013817200|AA|PR|Alcoa Inc. $3.75 Preferred
Stock|CTS|AMEX|AMEX|100|Y|PRFS||||20070220000000|AAp|2|A||20161101012428
10009305||ZXYZ|A|Nasdaq test
symbol|UTP|NSDQ|NQCM|100|N|COMS||||20131114000000|ZXYZ/A||A||20131115090405
10005145|812139301|ZZ||Sealy|CTS|NYSE|NYSE|100|Y|COMS||BBG000PZKV21|US8121393016|20
070220000000|ZZ||A||20130319024531
10008040|812139400|ZZC||Sealy
Corporation|CTS|NYSE|NYSE|100|Y|SP||||20120827024525|ZZC||A||20130319024531
Footer - Count: 00006892, Facility: ADF, File Created: 20240320161419
```

Equity Participant Master File Illustrating the Header and Footer

```
mpid|dba_nm
BUDD|BUDD FOR MPP TESTING
ZZZZ|KSAN FOR MPP TESTING
Footer - Count: 00000044, Facility: ADF, File Created: 20240320161705
```

Equity 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
No Updates to this point today
Footer - Count: 00000000, Facility: ADF,  File Created: 20240320163106
```

Equity Participant Daily List Delta File Illustrating the Header and Footer

```
list_dt|effective_dt|cd_description|old_mpid|old_dba|new_mpid|new_dba|rf_cd
No Updates to found
Footer - Count: 00000000, Facility: ADF,  File Created: 20240320163545
```

Equity Participant Daily List file for a specific date 10/21/2019 Illustrating the Header and Footer

```
list_dt|effective_dt|cd_description|old_mpid|old_dba|new_mpid|new_dba|rf_cd
No Updates to this point today
Footer - Count: 00000000, Facility: ADF,  File Created: 20240320163825
```

Equity Clearing Relationship Master File Illustrating the Header and Footer

```
MPID|CLRG_ORG_NB|CLRG_FIRM_NM|CLRG_EFCTV_DT|CLRG_XPRTN_DT|PRMRY_CLRG_FL
ZZZZ|0122|TEST ACCOUNT FORWARD TO P & S DEPT|20220126000000||N
ZZZZ|9999|FNRA MKT OPS|20230119000000||Y
Footer - Count: 00005249, Facility: ADF, File Created: 20240320162318
```

Equity US Agreements Master File Illustrating the Header and Footer

```
MPID|AGRMT_EFCTV_DT|AGRMT_XPRTN_DT|UNFRM_SRVC_AGRMT_MP_ID|US_GIVEUP_DROP_FL
BUDD|20160607000000|20170511000000|KSAN|N
BUDD|20211103000000||KSAN|N
BUDD|20211103000000||TEST|NTST3|20160916000000||TST2|N
Footer - Count: 00000361, Facility: ADF, File Created: 20240320162531
```

Explicit Fee File Illustrating the Header and Footer

```
MPID_1|CLRG_FIRM_NM_1|MPID_2|CLRG_FIRM_NM_2|AGRMT_EFCTV_DT|AGRMT_XPRTN_DT
VERT|BNP PARIBAS SECURITIES CORP.|BMOC|BMO CAPITAL MARKETS CORP.|11/18/2015
12:00:00 AM|
CANT|CANTOR FITZGERALD & CO.|MAXM|PERSHING LLC|8/13/2014 12:00:00 AM|
SSBS|STATE STREET GLOBAL MARKETS, LLC|BAYC|MERRILL LYNCH, PIERCE, FENNER & SMITH
INCORPORATED|7/28/2016 12:00:00 AM|
Footer - Count: 00000135, Facility: ADF, File Created: 20240320162727
```

Programmatic Access Example(curl)

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

Example using the Equity Security Master (Active)

```bash
#!/bin/bash

URL_REFRESH=https://apidownload.finratraqs.org/refresh [apidownload.finratraqs.org]
URL_DOWNLOAD=https://apidownload.finratraqs.org/DownloadHandler.ashx?action=DOWNLOAD&file=EQUITYMASTERAC&facility=ADF [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 active Equity Security Master:

```
string Action = "DOWNLOAD";
string file = "EQUITYMASTERAC";
string facility = "ADF";

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);
}
```