

REFINITIV

DATASCOPE EQUITIES & DATASCOPE FIXED INCOME UPGRADE TO DATASCOPE PLUS

REFERENCE GUIDE

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Contents

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1 About this Guide

Overview

This reference guide has been prepared to assist you with moving from DataScope Equities and DataScope Fixed Income to DataScope Plus, our strategic bulk data feed for end of day pricing and continuously updating reference data, delivered by a fully hosted data platform. You are encouraged to review this guide and familiarize yourself with the key details prior to beginning the upgrade.

This guide is intended to be a reference for understand the upgrade and how DataScope Plus aligns with DataScope Equities and DataScope Fixed Income, as well as how they differ in terms of content and product capabilities. It details the following:

- Benefits of upgrading to DataScope Plus
- Requirements for upgrading to DataScope Plus
- Differences between DataScope Plus and DataScope Equities/DataScope Fixed Income files and content

Service and Support

The Refinitiv [Statement of Service](#) is available on MyRefinitiv.

[MyRefinitiv](#) is the Refinitiv portal that provides a single access point for timesaving support services, along with billing, user management, and information. For support using Refinitiv DataScope Plus, please raise a query by accessing [Help & Support](#) at [MyRefinitiv](#).

You are encouraged to [subscribe](#) to the following support channels to keep informed of changes to products and data, and to be notified of any service issues or changes:

Change Notifications

- **Product Change Notifications (PCNs)** detail new, enhanced, or changed functionality, which may require your action, in products that you use.
- **Content Notifications (DNs)** alert you to upcoming changes to real-time and historical data across all asset classes that are relevant to you.
- **RIC Change Events** inform you of planned changes to Refinitiv Identification Codes.

Service Alerts

You can subscribe to alerts about planned maintenance and unplanned service issues affecting your products and services and be notified via SMS or email.

Feedback

We invite your comments, corrections, and suggestions about this document: access the [Feedback](#) option under [Help & Support](#) at [MyRefinitiv](#). Your feedback helps us continue to improve our user assistance.

Your Personal Information

Refinitiv is committed to the responsible handling and protection of personal information. We invite you to review our [Privacy Statement](#), which describes how we collect, use, disclose, transfer, and store personal information when needed to provide our services and for our operational and business purposes.

2 About the DataScope Plus Upgrade

Refinitiv is retiring DataScope Equities and DataScope Fixed Income in place of the next generation bulk solution, DataScope Plus. DataScope Plus is our strategic offering for end-of-day pricing and continuously delivered reference data. It offers several benefits over the legacy products, including continuous reference updates, customizable report options, broader, richer content sets, and a more secure file transfer service over SFTP.

Before You Start the Upgrade

A successful upgrade to DataScope Plus from DataScope Equities and DataScope Fixed Income involves careful planning and implementation. You are encouraged to review this guide to understand how DataScope Plus aligns with DataScope Equities and DataScope Fixed Income, as well as how the products differ in terms of content and capabilities. This guide is intended to be a reference for looking up these details quickly. It should be used alongside the [DataScope Plus User Guide](#).

Additional Resources

To support you with the upgrade, please visit the DataScope Plus Upgrade site on the [Refinitiv Developer Community](#). This self-service portal provides all relevant links to the upgrade, including documentation, tutorials, sample files and more, all from a single site.

Related documentation includes:

- User Guide
- Data Content Guide
- Field Mappings
- Best Practices & Limits Guide
- Sample Files

In addition, the site provides a Q&A forum for all members to ask and answer questions related to the upgrade. Please make sure to register for this site to keep informed of the upgrade.

Content & Product Comparisons

An “at-a-glance” comparison of the legacy products compared to DataScope Plus is identified in the following table. Descriptions of the enhancements available in DataScope Plus are in the sections that follow.

Item	DataScope Equities / DataScope Fixed Income	DataScope Plus
Data Coverage	DataScope Equities: ETI Pricing & Reference Data Corporate Actions DataScope Fixed Income: FI Terms & Conditions FI Premium & EOD Pricing Price Histories for Gov/Corps	ETI Pricing & Reference Data Corporate Actions Contributed Pricing Entity Reference Data Equity Analytics FI Reference Data FI Premium & EOD Pricing FI Terms & Conditions

Item	DataScope Equities / DataScope Fixed Income	DataScope Plus
		FI Limited Terms Future Dated Reference Data MiFID II Reference Data Single Broker Quotes Technical Indicators
Asset Coverage	DataScope Equities: Equities & Equity Options Funds, Indices & Warrants Futures & Options on Futures Money Markets Commodities DataScope Fixed Income: Government & Corporates Convertibles CMO & ABS Mortgage Pools	Equities & Equity Options Funds, Indices & Warrants Futures & Options on Futures Money Markets Commodities Government & Corporates Convertibles CMO & ABS Mortgage Pools Bank Loans US Municipal Bonds
File Delivery	SFTP	SFTP Cloud Delivery GUI (File Preview only)
File Compression	DataScope Equities: ZIP GZIP DataScope Fixed Income: GZIP	ZIP GZIP
File Delivery Frequency	DataScope Equities: Weekly initialization files Daily early maintenance & maintenance reference data files EOD pricing files DataScope Fixed Income: Weekly initialization files Daily EOD reference files (GovCorp only) EOD pricing files (no Bank Loans)	Weekly initialization files Continuous reference updates and end of day prices published in 15-minute increments daily
Pricing Corrections	DataScope Equities: Daily corrections file	Reflected as available in 15-minute publishing segment files (no separate file).

Item	DataScope Equities / DataScope Fixed Income	DataScope Plus
	DataScope Fixed Income: Ad-hoc EOD maintenance files	
File Retention	3 days	12 days
Report Customization	N/A	Customization via the DataScope Plus user interface.
Key Identifiers	DataScope Equities: Quote ID Asset ID DataScope Fixed Income: asset_id indx_id issuer_orgid party_id pre_asset_id trustee_id. undwrt_id	Quote Perm ID Issue Perm ID Organization Perm ID
Data Consumption	Available by subscription. Subscriptions available in separate files	Available by subscription. Subscriptions can be combined in a single report for delta reference files. Initialization files can include only one subscription.
Third-Party Content	Available in separate files for permissioned users. Limited third-party content offering.	Blank in bulk files at the field or row level, based on permissions for non-entitled clients. Full third-party content offering. All new content is added to DataScope Plus only.

Key Benefits to Upgrading

The key benefits to upgrading to DataScope Plus include the following:

- **Greater Depth of Content Coverage**

DataScope Plus expands upon the DataScope Equities and DataScope Fixed Income content offering with a greater depth of ETI and fixed income pricing and reference data and additional content sets, including entity data and analytics.

Reference data enhancements include fields to support the Markets in Financial Instruments Directive (MiFID) and other regulatory data, future dated reference data and technical indicators.

Expanded fixed income coverage includes bank loans and greater depth of convertible bond data (full MACE terms and conditions, Coco schedules and intraday reference data) and government bond auction data, including both historically current day and future expected auction details.

DataScope Plus also includes third-party provider content not available in DataScope Equities and DataScope Fixed Income.

- **Faster Data Delivery**

DataScope Plus delivers a continuous flow of reference data delta files delivered at 15-minute intervals. File naming conventions allow you to process the files every 15 minutes or based on a frequency of your choosing. Price corrections, including late market changes, are delivered as they are available.

- **Customizable Bulk Reports**

You can retrieve bulk reference, end-of-day pricing, initialization, domain, technical indicators, future dated, and entity data files, as well as a variety of fixed income reports. Customization capabilities include options to receive either XML or delimited files, the asset types to include, field inclusion and order, and whether to include delisted instruments in your bulk files.

- **File Delivery over SFTP**

Output files are delivered securely over the Internet and are available in compressed format for download via SFTP. SFTP offers encryption and optional SSH key authentication to provide a more secure connection than FTP.

In addition to the above, the following enhancements are planned for 2023. Details on these enhancements and their availability dates will be provided in a Product Change Notification (PCN).

- **Consolidation of Segment Files Option**

We will introduce an additional option to receive delta files every three hours, resulting in eight files daily instead of 96. While clients value the timely updates of reference files, there are some for whom that is not important and prefer to consume fewer files. The availability of these files will be aligned to provide end of day and start of day views.

- **Standard File Sets**

We will deliver a standard set of files for all DataScope Plus subscriptions. New clients will have their SFTP sites automatically populated with the files related to the packages to which they subscribe. You will be able to use a file “as is” or customize it to suit your business needs. The introduction of these reports will greatly reduce the migration effort as it does not require you to setup new reports individually.

- **Multi-level Records for Exchange-Traded Instruments**

For exchange-traded instruments, organization-level attributes, issuer-level attributes and quote-level attributes are flattened at the quote-level. We will provide separate records for each level, as if done for fixed income records currently. This will allow for easier reporting of updates.

Upgrade Requirements

The specific steps that are required to perform the upgrade will depend on your individual business case. In general, the upgrade requires you to do the following:

1. **Obtain your DataScope Plus user credentials from your account team.**

Your user credentials will enable you to access the DataScope Plus user interface from where you can customize report templates for requesting bulk pricing and reference data. You can also set your user preferences and view your subscriptions and licensing.

For details on the user interface, please see the [DataScope Plus User Guide](#).

2. **Create report templates for accessing bulk pricing and reference data.**

DataScope Plus offers a variety of reports for retrieving pricing, reference and corporate actions data, as well as entity reference data and analytics. These reports can be customized to integrate seamlessly within your internal systems.

This guide provides an overview of the [DataScope Plus reports](#). For instructions on creating report templates, please see the [Appendix](#). A deeper dive into creating reports is available in the [DataScope Plus User Guide](#).

3. **Configure SFTP to connect to the DataScope Plus server for file retrieval.**

You can connect to the DataScope Plus server using an SFTP client or command-line SFTP. SSH key authentication is also supported for enhanced security.

This guide identifies the URLs, IPs and best practices for SFTP connections. For additional instructions on setting up SFTP, including installing SSH keys, please see the [DataScope Plus User Guide](#).

Note: You will be able to bypass this step with the introduction of [the standard set of files](#) for all DataScope Plus subscriptions, planned for H2 2023. Until these files are available, you must create your own bulk reports.

4. **Build data loaders to ingest and process DataScope Plus files and content.**

You will need to build new data loaders for ingesting and processing DataScope Plus files and the more frequent file deliveries. Please work with your internal teams on doing so.

Please review [DataScope Bulk Files](#) for information on file types, delivery frequency, output formats and file naming conventions. You are also encouraged to review [Processing DataScope Plus Data](#) for an overview of how data is presented in bulk files.

3 DataScope Plus Bulk Files

It is important to understand how the DataScope Plus files align with DataScope Equities and DataScope Fixed Income files, as well as how they differ, so that you can plan your upgrade accordingly.

This chapter describes DataScope Plus Bulk files, covering file types, delivery frequencies, output formats and naming conventions. A comparison of the file types by product is identified in the table below. Details of each file type are in the sections that follow.

Please see [DataScope Plus Reports](#) for details on types of reports that can be created from these files.

File Type Comparisons

DataScope Equities/ DataScope Fixed Income	DataScope Plus Equivalent	Notes
Initialization	Initialization	Full initialization files for Reference, Corporate Actions and Entity data are published weekly by region and subscription across the 15-minute segments per day.
Maintenance/ Early Maintenance	Reference	DataScope Plus provides continuous incremental ETI and fixed income reference files in 15-minute segments per day.
Pricing	Pricing	ETI end of day pricing files across file codes and subscriptions are provided soon after a market closes. Fixed income pricing includes end of day and premium prices for Government and Corporate securities, Convertibles, Structured Debt, and Municipals sourced from Refinitiv Evaluated Pricing Service. Global structured broker quotes are also available. Price corrections, as they are available, are provided in continuous delta files.
Corrections	N/A	The need for a separate pricing corrections file is eliminated with DataScope Plus, which instead uses timely delivery of price corrections in its Pricing files.
Corporate Actions	Corporate Actions	Provides weekly initialization and daily delta files for corporate action reference data and events.
Table & Extended Table	Domain	A full file of domain data is available each day as part of Segment 1. After that, only the changes since the last time the cycle ran are included in the file.
N/A	Entity Data	Provides weekly initialization and delta files for retrieving entity data across a variety of reports.
N/A	Analytics	Provides price volume analytics with correlating reference data to support predictive modelling capabilities for equity instruments.

DataScope Plus File Types

Delta Files

DataScope Plus offers more frequent file delivery with continuous updates throughout the calendar day, delivered in continuous 15-minute incremental reference files. Delta files identify instrument additions, deletions, security master changes, issue and company related information, industrial classifications, and pointers to other instruments. Reference changes in DataScope Equities and DataScope Fixed Income are reported daily and are provided in separate files.

Delta files contain change records only. When there are no record changes for a given segment, the Delta file may not be generated, depending on your selection for creating empty files that you can specify in your user preferences via the DataScope Plus user interface.

Each record change is represented on a separate row. Equity and listed derivatives are denoted at the quote level in a single row. Fixed Income instruments are represented with separate rows representing data related to the quote, asset and organization.

Delta files include an Action field that you can use to identify whether a record is new and should be inserted (I) or updated (U) due to a change to at least one attribute on that record or deleted (D).

Every reference field has a corresponding set of Change Flag and Previous value fields. The Change Flag lets you know that a record has changed with Y or N populated in the field. When the Change Flag is Y, the Previous field will be populated with the last published value. When N, the Previous field value will be null.

Initialization Files

DataScope Plus weekly initialization files provide a full view of all reference data for a region and subscription, delivered across the 15-minute segments. Each segment includes initialization data for at least one file code. Each file code is completely processed and delivered in the segment. The corresponding Notes file can be used to track the final initialization file for a given subscription. Complete will appear in the Notes file under the Status column.

Because initialization files are meant to populate all records within a subscription, all records are treated as inserts and will receive an (I) in the Action field. There are no Change Flags or Previous value fields in Initialization reports.

Pricing Files

DataScope Plus pricing files include daily prices, along with price corrections and updates delivered in 15-minute segment files. The need for a separate corrections file is eliminated with DataScope Plus. Pricing files across file codes and subscriptions are generated soon after a market closes. You will receive prices for each file code in the subscriptions to which you subscribe.

Each file is given a sequence number that provides guidance on the order in which it should be processed. Each record in the report is represented in a separate row.

The initial price delivered for a trade date is identified in the Action field with I (Insert). All price corrections and updates are provided as they happen thereafter in delta files delivered at 15-minute segments. These changes are identified in the Action field with U (Update).

Change Flag and Previous value fields are not available in Pricing reports.

Corporate Actions Files

DataScope Plus provides corporate actions data at the event-level across two reports: Corporate Actions Events and Corporate Actions Reference. The former provides information on Global Distribution Events and Global Capital Restructure events. The latter provides Global Shares, Voting Rights and Nominal Value data. DataScope Equities provides corporate actions data at the instrument-level. Earnings data is not available in DataScope Plus as it is not corporate actions data.

The Corporate Actions Events file includes all events that have been announced but not yet effective. Once effective, the event will no longer appear in the file. Corporate Actions Reference files contain the most recent value or status of the fields in the report.

Corporate Actions changes are included in the delta files. Changes since the last 15-minute segment are identified in the Action field with I (Insert), U (Update) or D (Delete) This field replaces the Deletion Marker field in DataScope Equities. Change Flag and Previous value fields are available for each field to identify updates on a given record.

A key field for DataScope Plus Corporate Action reports is Partition. Partition is used to identify event details, including Annualized Dividend, Cash Movement, Corporate Action Details, Market Details and Security Movement, among others.

Notes Files

A corresponding Notes file is delivered for each report that provides business and product event information, such as end-of-day (EOD) pricing available for an asset group, analyst sign-off for pricing, new pricing asset group adds or deletes, as well as split and currency conversion events. The file is delivered in XML or delimited format, based on the associated report. One Notes file is generated, regardless of whether the report is broken down into several smaller files. Notes files are not customizable.

The Notes file is always produced, even when you have cleared the Create Empty File option in your user preferences to suspend file delivery for a segment in which there is no data updates to publish. The Notes file can be used as the audit that the process ran and had nothing to report. This is a way for you to limit the number of files produced.

The Notes file contains a header in row 1, identifying the report, followed by column headers in row 2 that define the content available. The content varies by asset and report type:

- **Delta Files** - The Notes file shows key data points. If there are no change records for a given segment, only the header will be output in the Notes file with no additional information.
- **Initialization Files** - The Notes file contains information on which file codes received pricing data within the file. The Event Type shows FTP for First Time Price or Second Time Price to denote a validated or corrected price.
- **Pricing Files** - the Notes file contains information on which file codes received pricing data within the file. The Event Type shows FTP for First Time Price or Second Time Price to denote a validated or corrected price.

Domain Files

DataScope Plus provides a full file of domain data each calendar day as part of Segment 1. The file includes lookup table information for encoded fields and acronyms, as well as starting segments for each report's initialization file. Any updates, additions, or deletions of domain values that occur within the day are delivered in an incremental file in one of the 15-minute publishing cycles.

File Delivery Frequency

- Files for customized reports are generated every 15 minutes, on the hour, quarter hour, half hour and three-quarter hour, starting at 00:15 GMT. This can result in up to 96 files per report per calendar day.
- The actual delivery starting segment may change during the day, which will be reflected in an incremental Domain file. For this reason, you should not hard-code file delivery segments in your applications.
- The delivery timing of a segment file for one report does not impact the segment file delivery of another report. A segment file may arrive up to 30 minutes after the end of its related segment without being considered late.

File Output Formats

- Both DataScope Plus and the legacy products deliver bulk files in compressed format. DataScope Equities files are available in compressed ZIP and GZIP format. DataScope Fixed Income files are delivered in GZIP format. With DataScope Plus, you can select your compression preference (ZIP or GZIP) in your user preferences.
- DataScope Plus offers flexible length ASCII text files that can be output in delimited or XML format. DataScope Equities and DataScope Fixed Income provide fixed length ASCII text files only.
- Record formats are the same in DataScope Plus and DataScope Equities and DataScope Fixed Income. They consist of a single string of characters (ASCII 32-127 only, no special control characters). Each record is separated by a linefeed character (ASCII 10).
- DataScope Plus does not restrict field sizes. Recommendations are provided to set expectations on the size of the field contents. Fields do not truncate should they extend beyond their recommended sizes. Please make sure your internal processes can accommodate field sizes beyond the recommended size

File Naming Conventions

Pricing & Reference Files

DataScope Plus use the following naming convention in bulk output files:

Report_Name.Report_Type.Report_ID.Publish_Date.Segment.Record_Count.Price_Sequence_Number.Chunk.Total_File_Chunks.File_Type.Compression_Type

Each item is separated with a full stop (.).

Reference File example:

Glob_Fut_Ref.REF.77D8.20220622.49.1.1.txt.zip

Pricing File example:

Amer_Eq_Test.PRC.788E.20220622.13.29.1.1.txt.zip

DataScope Plus File Naming Convention			
Item	Reference File Value	Pricing File Value	Notes
Report Name	Glob_Fut_Ref	Amer_Eq_Test	User defined, up to 50 characters.
Report Type	REF	PRC	System assigned 3-character code representing the report type For Reference Files, REF will identify a delta file, while the initialization file will use INT. For all other Reference reports, the first two characters will identify the report type and last digit will always be D for Delta or I for Initialization file.
Report_ID	77D8	788E	Last 4 digits of system assigned report identifier.
Publish_Date	20220622	20220622	System assigned date, in GMT, when the file was published. This is not the trade date since multiple markets are represented in the same file.
Segment	49	13	System assigned. Identifies the 15-minute publish segment cycle (1 to 96).
Price_Sequence_Number	N/A	29	This is the sequence number used to uniquely identify a report file within a particular day. The number starts with "1" in the first report file name of the first segment and then is incremented by 1 for every new report file throughout all segments. The sequence number is refreshed every day at 12:00 a.m. GMT. For Pricing, Contributed Pricing, and Fixed Income Pricing report files, this is the sequence number used to uniquely identify a report file within a particular day.

DataScope Plus File Naming Convention			
Item	Reference File Value	Pricing File Value	Notes
Chunk	1	1	Large files may be “chunked” into smaller files. Each chunk is identified with a sequence number. Files are chunked based on the number
Total_File_Chunks	1	1	A file sequence number indicating the number of chunks for the 15 min publishing segment. For example, 2 of 6, where 6 is the total file chunks.
File_Type	txt	txt	User defined, txt or xml.
Compression_Type	zip	zip	User defined, ZIP or GZIP.

Notes Files

The Notes file naming convention is the same as the corresponding report with **note** inserted before the file type. As only a single file is produced, the file chunking information (e.g., the order of the file in the file sequence) is excluded. Here is an example of a Notes file:

```
GovCorp.REF.302B.20220809.44.note.txt.zip
```

The Notes file contains a header in row 1, identifying the report, followed by column headers in row 2 that define the content available. The content varies by asset and report type. In the following sections, sample headers and columns by report type are provided, followed by descriptions of these items.

Here is a sample of the header and columns in the Notes file for a Reference delta report for exchange traded instruments:

```
Testing4457|REF|4B27|20200116|34|1|47|
EventType|Action|Subscription|PricingAssetGroup|AssetType|Market|TradeDate|St
atus|QuoteId|AssetId|RIC|EffectiveDate|AdjustFactor|AdjustVolume|CorporateAct
ionID|CurrencyCode|PrevCurrencyCode|AdjustType|ActiveRicStatus|
```

Header Row

Item	Value
Report Name	testing4457
Report Template	REF
Last 4 digits of Report ID	4B27
Segment Date	20200116
Segment Number	34
Report File Sequence Number	1
Number of Records in the Delta File	47

Column Headers

Item	Description
EventType	SPLT – Split History Events CUR – Currency Conversions Events INT - Weekly Initialization Events FDT – Future Dating Weekly Initialization Events PAG – New File Code information for Pricing Asset Group
Action	I – Insert U – Update D - Delete
Subscription	Subscription universe number
PricingAssetGroup (PAG)	File code
AssetType	Asset Type related to New File Code, e.g., CNE for Commodities and Energy, STDR for Warrants and OTC Derivatives
Market	Null
TradeDate	Null
Status	COMPLETE – Indication of last Init file for the subscription output production cycle
QuoteId	Quote Id
AssetId	Asset Id
RIC	Refinitiv Instrument Code
EffectiveDate	Date format in YYYYMMDD
AdjustFactor	Price Adjustment factor
AdjustVolume	Y – Yes N – No
CorporateActionID	Corporate Action Identifier
CurrencyCode	New currency code

Item	Description
PrevCurrencyCode	Previous currency code
AdjustType	RPO – Refinitiv Pricing Only 1 – 1 to 1 ratio for currency code change
ActiveRicStaus	Not applicable

Reference Reports Notes File – Fixed Income Instruments

Here is a sample of the header and columns in the Notes file for a Reference initialization report for Fixed Income instruments:

```
America_Descriptive|INT|4013|20220122|26|1|215118|
Subscription|File Code|STATUS|
```

Header Row

Item	Value
Report_name	America_Descriptive
Report_Template	INT
Last 4 digits of report_id	4013
Segment date	20220122
Segment Number	26
Report file sequence number	1
Number of records in the delta file	215118

Column Headers

Item	Description
Subscription	Subscription universe code, e.g., AMGVC
File Code	Unique identifier assigned by the system
Status	COMPLETE – Indication of last Init file for the subscription output production cycle

Corporate Actions Reports Notes File

Here is a sample of the header and columns in the Notes file for a Corporate Actions report:

```
CoraxRef|XRD|8317|20220204|40|1|678|  
Subscription|Status|
```

Header Row

Item	Value
Report_name	CoraxRef
Report_Template	XRD
Last 4 digits of report_id	8317
Segment date	20220204
Segment Number	40
Report file sequence number	1
Number of records in the delta file	678

Column Headers

Item	Description
Subscription	Null
Status	COMPLETE – Indication of last Init file for the subscription output production cycle

4 DataScope Plus Reports

DataScope Plus offers Reference and Pricing reports that align similarly to those in DataScope Equities and DataScope Fixed Income, but with greater breadth and depth of content. A wide range of exchange derivatives and fixed income data not offered in the legacy products are also available.

Unlike DataScope Equities and DataScope Fixed Income, DataScope Plus reports are customizable, meaning you can access only the data you want in the format you want it. This chapter describes the reports that are available and how they are presented in DataScope Plus.

You should familiarize yourself with the DataScope Plus report types below and use the ones that best suit your needs. For instructions on customizing report templates see [Appendix A](#).

Report Types

Data Type	Report Options
Reference Data	<ul style="list-style-type: none"> • Reference Provides full terms and conditions for both ETI and fixed income instruments and offers greater depth of coverage than DataScope Equities and DataScope Fixed Income. • Fixed Income Reference Reports Provides separate files that align with the DataScope Fixed Income file offering. Additional files for reference data not available in DataScope Fixed Income are also available. • Domain Provides lookup table information for encoded fields and acronyms, as well as starting segments for each report's initialization file. • Sub-Class ESMA & Sub-Class FCA Provides reference data for ESMA & FCA sub-class and sub-asset class via Perm IDs for use with MiFID II reporting. • Future Dated Reference Provides advanced notice of reference changes at the time they are announced, but before they take effect. The files identify the property that will be changing and details such as the future value and its effective date.
Pricing Data	<ul style="list-style-type: none"> • Pricing Provides initial and validated end of day prices for all exchange-traded instruments from the Refinitiv real-time network. Non-exchange-traded instruments are sourced from Refinitiv Evaluated Pricing Service, as well as from various contributors. • Fixed Income Pricing Provides end of day and premium prices for Government and Corporate securities, Convertibles, Structured Debt, and Municipals sourced from Refinitiv Evaluated Pricing Service. • Contributed Pricing Provides global structured broker quotes.

Data Type	Report Options
Corporate Actions	<ul style="list-style-type: none"> • Corporate Actions Events Provides event-level data on Global Distributions and Global Capital Restructures. • Corporate Actions Reference Provides event-level data on Global Shares, Voting Rights and Nominal Value data.
Entity Data	<ul style="list-style-type: none"> • Legal Entity Audit Provides Audit histories for entity records. • Legal Entity Detail Provides key details for entity records. • Legal Entity Name Identifies the names associated with an entity. • Legal Entity Relationship Provides details of the relationships between entities and hierarchy.
Analytics Data	<ul style="list-style-type: none"> • Technical Indicators Provides price volume analytics with correlating reference data to support predictive modelling capabilities for equity instruments.

Report Customization

You can create both pricing and reference reports for any of the subscriptions tied to your account, and specify preferences for the file output, field inclusion and order, file size, report start and end dates and times relevant to your requirements.

As an alternative to creating a report template from scratch, you can use the [predefined report templates](#) based on legacy DataScope Equities and DataScope Fixed Income reports. Report templates contain all available fields in those reports, if available. You can use them as configured or update them to suit your requirements.

Report customization is available from the DataScope Plus GUI, which you can access via the Internet or private network using the access methods below. Intuitive screens guide you through the report creation process. For instructions, see [Appendix A](#).

Access Method	Description
Internet – GUI Hostname	select.datascope.refinitiv.com
Internet – GUI IP	164.57.211.93
DDN/FCN – GUI Hostname	select.datascope.extranet.refinitiv.biz
DDN/FCN – GUI IP	159.43.7.36
Sign In Credentials	Username and password assigned by your account team

Subscriptions

DataScope Plus subscriptions are organized by asset type and region. To understand how this differs from the legacy products, consider the DataScope Equities Americas Equity Pricing subscription. It includes equities, equity options, indices, warrants, funds, futures and options on futures. In DataScope Plus, a separate subscription exists for each asset type in the Americas region, as well as in the Asia and EMEA regions. Note that because organizations may have instruments that span several regions, DataScope Plus covers organization-level data in a separate global Initialization file for each given subscription.

Additionally, different file versions are available based on subscriptions and third-party permissions in DataScope Equities. This concept is eliminated in DataScope Plus. You will only receive content for the subscriptions and third-party content for which you are permissioned. Content will be blank at the field or row level, depending on permissioning, for non-entitled clients.

You can include only one subscription in Initialization files. Delta files can include multiple subscriptions, up to [certain limits](#).

As part of the migration process, your account team will review your existing DataScope Equities and DataScope Fixed Income subscriptions with you to ensure that you are receiving the same content in DataScope Plus. You will also be able to discuss onboarding additional content sets that you are not using currently.

Fields

Unlike DataScope Equities and DataScope Fixed Income, DataScope Plus enables report customization so that you can select only the fields you require. Field customization is also supported. This includes capabilities for specifying field order and field renaming to align with your internal processes.

To view the available DataScope Plus fields by report template and asset type, please see the [DataScope Plus Data Content Guide](#).

Key Fields to Include in Reports

Key fields in DataScope Plus delta files include Action, Change Flag and Previous value. These fields will identify how to process records and identify any updates to those records.

The Action field is used to indicate whether a record is new and should be inserted (I) or should be updated (U) due to a change to at least one attribute on that record or should be deleted (D). It appears in all reference, pricing, corporate actions and entity reports

Every reference field has a corresponding set of fields that provide a previous value and change flag. The change flag lets you know that this field has changed with a Y or N. The previous value is the last published value. It will only be populated in the segment when the change occurs.

Quote Perm ID, Issue Perm ID and Organization Perm ID are the primary keys for their respective levels and are used to define uniqueness in Reference reports. Use the Level field to indicate whether the content within a record relates to a Quote (Q), Asset (A), or Organization (O). DataScope Plus refers to these fields as “Fields that Define Uniqueness”.

A key field for Corporate Action reports is Partition. Partition is used to identify event details, including Annualized Dividend, Cash Movement, Corporate Action Details, Market Details and Security Movement, among others.

You are encouraged to include these fields in your report templates to identify reference changes.

Note that there are [limits](#) on the number of fields that can be included in a report based on report type.

Field & Report Mappings

To assist you in the migration, we have prepared documents that identify the field and report mappings between the legacy products and DataScope Plus.

In most instances, field names in DataScope Plus are the same or similar to those in DataScope Equities and DataScope Fixed Income. Please note only current fields are available in DataScope Plus. Legacy and deprecated fields do not exist in DataScope Plus and are noted in the documents. For brevity, change flag and previous value fields are not included.

Field & Row-level Filtering

In addition to selecting fields, you can narrow the data is returned at both the field and row level using the screener. The screener is available for Reference reports only.

You can create screeners for File Code, Market Segment MIC List, MiFID ToTV Flag, Contributor Code, Country of Issue, Currency, Ratings and RIC. For example, the Currency filter lets you specify the fixed income records to be included or excluded in your bulk file based on whether they are denominated in the currency listed in the applied filter.

Creating a screener is a one-time process. Once created, the filter can be applied to any of your new or existing reports. For instructions on creating screeners, please see the [DataScope Plus User Guide](#).

Report Preferences

DataScope Plus lets you specify the file compression and output and whether inactive instruments are included in your bulk files. You can also specify how to handle new fields, empty files, and null codes. You can apply preferences for the selected report or globally via the user preferences screen.

For instructions on specifying user preferences, please see the [DataScope Plus User Guide](#).

5 DataScope Plus SFTP File Retrieval

You can retrieve your bulk files using a SFTP connection to the DataScope Plus server. SFTP offers encryption and optional SSH key authentication to provide a more secure connection than FTP.

This chapter identifies the requirements and best practices for using SFTP to retrieve your DataScope Plus bulk files. For additional information on SFTP setup, including installing SSH keys, as well as for instructions on retrieving files via SFTP, please see the [DataScope Plus User Guide](#).

SFTP Client Setup

To connect to the DataScope Plus SFTP Server, you will need:

- The URLs and IPs for accessing the DataScope Plus GUI and SFTP site over the internet and private network. These components are identified in the table below. If you need more information on connecting to DataScope Plus, please see the [DataScope Plus User Guide](#) or [DataScope Product Suite Connection Options](#).
- An SFTP client that enables you to connect to the DataScope Plus SFTP Server, view and navigate the file directory structure and download your files. Examples of SFTP clients for Windows include FileZilla, WinSCP and Solar-PuTTY. These are just examples; there are many free and premium utilities available. You can also connect to the DataScope Plus server for file retrieval using command-line SFTP. Please work with your networking team to determine the best option for your organization.
- An SSH key pair, should you wish to use key authentication with or without password authentication. Combining the two protocols is optional and will strengthen your user authentication process. Please see the [DataScope Plus User Guide](#) for instructions on generating and installing keys.
- Credentials for accessing DataScope Plus. Your login and user ID will be provided by your account team.

SFTP Server Connection Best Practices

- Access DataScope Plus via host-name-based URLs, not IP addresses. This requires no changes to user scripts or browser bookmarks in the event of a failover to the Disaster Recovery site.
- Make sure your firewalls are configured to allow two-way traffic for HTTPS and SFTP against both the DataScope Plus hostname-based URLs and the IP addresses.
- Connect to the DataScope Plus SFTP Server using your user ID, preceded with an r (from example, rusername) and password. Use standard SFTP Pull commands for file retrieval.
- In addition to these guidelines, you must adhere to the connection policies and bandwidth considerations defined in the [DataScope Plus Best Practices & Limits Guide](#). This document provides best practices for using DataScope Plus effectively while reducing opportunities for error.

SFTP Server Access

Access Method	Description
Internet – SFTP Hostname	plus.datascope.refinitiv.com
Internet – SFTP IP	52.223.63.234 35.71.174.196
DDN/FCN – SFTP Hostname	plus.datascope.extranet.refinitiv.biz
DDN/FCN – SFTP IP	159.43.192.125 159.43.192.190
Passwords	Your password is your DataScope Plus login ID prefixed with an “r” and your password. For example, if your User ID were 123ABC, your SFTP login User ID would be r123ABC.

SFTP File Retrieval

Your bulk files are delivered to your own personal directory on the DataScope Plus SFTP server. Files are retained for 12 calendar days, including today, which is an increase over the 3-day retention for DataScope Equities and DataScope Fixed Income.

The DataScope Plus file directory structure does not include batch or archive subdirectories, as DataScope Equities and DataScope Fixed Income both do. With DataScope Plus, you do not need to generate backup against files being lost or corrupted. Replacement files with daily updates for up to 12 calendar days’ can be retrieved from your personal directory. [Capabilities](#) are also available for recovering a report that has been executed within the last 30 days for a specified date and report segment.

6 Processing DataScope Plus Data

Listed below are processing details for a variety of data items. Please note any required changes and take the action described.

Action Field

The Action field is available in DataScope Plus only. It is used to indicate whether a record is new and should be inserted (I) or should be updated (U) due to a change to at least one attribute on that record or should be deleted (D).

- **Insert (I)**

An Action of (I) is sent in delta files for records newly added to the product. Because initialization files are meant to allow users to populate all records within a subscription, all records are treated as inserts and will receive an (I) in the Action field. In the pricing files, the initial price that is delivered for a trade date is marked with an INSERT action.

- **Update (U)**

An Action of (U) will be sent in delta files if at least one attribute on that record has changed. The attributes that have changed will have Y populated in the corresponding Change Flag field and the

Previous value field will be populated with the value that was in the field prior to the update. The Previous value field will not be populated if the Change Flag is set to N. There is no concept of an Update record in an initialization file. In pricing files, all price corrections/updates contain an action marked as UPDATE.

Price corrections include all late market snaps in addition to any manual corrections entered by analysts.

- **Delete (D)**

An Action of (D) will be sent in delta files for one of the following reasons:

- The record was sent in error and should be removed.
- An options record has been delisted for more than 3 days. This is used to control the size of the initialization files. Delete should not be considered synonymous with delist.
- A warrants record has been delisted for more than 2 years. This is used to control the size of the initialization files.

Delete should not be considered synonymous with delist. There are no Delete actions in initialization files. If a record was deleted, it simply will not appear within the initialization file. Pricing records sent in error will receive a Delete action.

Note that when creating a report for the Reference subscription, we recommend you not to limit the report creation only to "Active" instruments. Instead, select "All" to get the complete lifecycle of a record—that is Action= I (Insert), U (Update) and D (Delete). By selecting "All" for Delta, you get Inserts and Deletes along with Updates. If you select only "Active", then you will receive only Action=U (Update), because Active Instrument Flag will be NULL while the record is first inserted in DataScope Plus. If the report is restricted to "Active", then you will not have the Insert row in your report extraction.

Active Instruments

The **Active Quote** field is used to determine the active status for the quote level (Level = "Q") records.

The inclusion of inactive instruments and their quotes in files is configurable with the GUI using the Active Status section in your user Preferences

Note that Delete actions are not an indication of whether the record is active.

Active Instrument Flag

For listed derivatives and equities, the active status is denoted by the Trading Status field (1 = active; 0 = inactive) and/or the Active Quote Flag field (Y = active; N = inactive). In addition, the RIC syntax gets a “^” when an instrument gets delisted.

Active Status Preference

The **Active Status** preference allows you to specify whether active instruments only, inactive instruments only or both active and inactive instruments are included in your reports. You can set this preference globally for all reports via the Preferences screen or for an individual report directly in that report. Please see the [DataScope Plus User Guide](#).

To get the complete lifecycle of a record, make sure to select **All** for both active and inactive instruments. Selecting **All** will output all inserts, deletes and updates. If you select **Active**, then you will receive only updates.

Adding New Fields to Reports

New fields are added to DataScope Plus reports automatically with each release. They are announced at least 30 days in advance in Product Change Notifications. These fields will be available for selection in the applicable report template following the release.

New fields are no longer being added to DataScope Equities. When they were, fields were appended to the end of the record. DataScope offers flexibility for adding only the fields that you want and in the order in which you want them. Alternatively, you can have new fields added to your reports automatically after a release. This is controlled via your user preferences.

Adding New Records

New records added to a subscription are identified in the **Action** field for delta files with **I** (Insert).

In Initialization files, all records are identified in the **Action** field as **I** (Insert). This is because initialization files are used to populate all records within a subscription.

In Pricing files, the initial price for a trade date is identified in the **Action** field for delta files with **I** (Insert).

Applying Adjustments

Like DataScope Equities, all data delivered by DataScope Plus is unadjusted, and storing adjusted data is not recommended.

DataScope Plus sends split factors, previous adjustments, and currency conversions in the Notes file that accompanies Pricing and Corporate Actions reports. In DataScope Equities, this information is provided in Daily maintenance files via the Sh and Sp records for pricing reports and in the CC record for corporate actions.

Blank Fields

Blank fields in Pricing reports indicate a weekend or market holiday. Blank fields in any report can also indicate that you are not permissioned for that field.

Change Flag Field

This field exists in DataScope Plus only. It shows Y or N to indicate that this field has changed since the last delta segment. This field should be used with the previous value field that shows the last published value.

Corporate Actions Annualized Dividends

Annualized Dividends, Dividend Event Descriptions and Dividends (AD, CA and CD records) provided in DataScope Equities daily Maintenance and weekly Corporate Actions Initialization files are available in the DataScope Plus Corporate Actions Events report via the Global Distribution Events offering.

Corporate Actions Capital Changes

Capital Changes and Capital Changes Event Descriptions (CC and CB records) provided in DataScope Equities daily Maintenance and weekly Corporate Actions Initialization files are available in the DataScope Plus Corporate Actions Events report via the Global Capital Restructure Events offering.

Corporate Actions Deletion Marker

The Deletion Marker in DataScope Equities Corporate Actions files will be replaced by the **Action** field in DataScope Plus. If a record is deleted, the **Action** field will show **D** for that record.

Corporate Actions Meetings

Meetings (CM records) provided in DataScope Equities daily Maintenance and weekly Initialization files are available in DataScope Plus Corporate Actions Events reports via the Global Meeting Events offering.

Corporate Actions Nominal Values

Nominal Values (CR records) provided in DataScope Equities daily Maintenance and weekly Initialization files are available in DataScope Plus Corporate Actions Reference reports via the Global Nominal Value offering.

Corporate Actions Partitions

Event details for Annualized Dividends and Capital Changes (AD and CB records) provided in DataScope Equities are available via the **Partitions** field and other related fields in DataScope Plus Corporate Actions Events reports. Please see the [DataScope Plus User Guide](#) for information about Partitions.

Corporate Actions Shares

Default Share Type and All Share Types (CS and CT records) provided in DataScope Equities Daily Maintenance and weekly Initialization files are available in DataScope Plus Corporate Actions Reference reports via the Global Equity Shares offering.

Corporate Actions Voting Rights

Voting Rights (CV records) provided in DataScope Equities Daily Maintenance and weekly Initialization files are available in the DataScope Plus Corporate Actions Reference reports via the Global Voting Rights offering.

Cross-Referencing Instrument Codes

There are no changes to cross-referencing instrument codes. Always use RIC as the primary key when implementing cross-referencing facilities with CUSIP, SEDOL, Wertpapier, Common Code and ISIN.

Currency Conversions

DataScope Plus sends currency conversions in the corresponding Notes file for Pricing and Corporate Actions reports. In DataScope Equities, this information is provided in Daily maintenance files via the Sh and Sp records for pricing reports and in the CC record for corporate actions.

Data Grading

There are no changes to data grading. The pricing facts (High, Low, Close, and so on.) within the daily Pricing files have an associated data grade field indicating the quality of the data for that fact.

If the grade value is greater than zero, the data is regarded as suspect and is being checked by our data analysts. When the price is either verified or corrected, the change is reflected in the Pricing file in the **Action** field with **U** (Update).

Data Quality

Refinitiv has a large suite of quality checks that are carried out on pricing, reference, and technical indicators data. We have an aggressive metrics program that measures our internal databases and products for completeness, accuracy, and timeliness. For more details on Refinitiv's Quality and Metrics program, contact your local account manager or sales specialist.

Deleted Records

Records for exchange-traded instruments are sent at the quote level. Any action on such record only applies to the particular quote, which is represented by the RIC or Quote Perm ID. Quote Perm ID is the preferred key given that a RIC can change. When a **Delete** action is sent, the current values are null for all fields except for the following:

- Quote Perm ID
- Quote ID
- RIC
- File Code

The values in these fields will help to identify the quote-level record in your database being deleted. When one quote is deleted, its organization level, asset/issue level, and the attributes associated with them are not impacted. Other quotes that share the same asset are also not impacted. Deletes should not be considered an indicator of whether an instrument is active. Use the **Active Quote Flag** and **Active Instrument Flag** fields instead.

Earnings

Earnings (CE records) in DataScope Equities are not available in DataScope Plus. Should you require this content, please contact your local account team about ordering a separate fundamentals package.

Expired Records

There is no change to how expiring records should be treated. Be sure that your applications identify securities that cease trading as expired. Expiring records are indicated by the **Trading Status** changing to **0** and the **Active Quote Flag** being set to **N**. The RIC field on expired records often will be updated with an expired-RIC syntax containing a "^" symbol.

File Code Changes

File Code changes are captured in the 15-minute delta reference files and are identified in the **Action** field with **U** for Update. Use the **Change Flag** and **Previous** fields to identify the previous value. In DataScope Equities, File Code changes are captured in (MI) records.

First Time Check (FTC)

First Time Check. This value is populated under the **Event Type** column in the Notes file for Pricing reports. It identifies the first time unvalidated pricing for a file code is available.

Flag Fields

Flag fields can output an X, in addition to a Y/N or null, to indicate that the field was previously populated with a value, but no longer is. This value can be treated as a null.

Generic Price Fields

Generic Pricing details provided in the five Generic Price and Generic Price Grade fields (1-5) in Pricing reports are provided in the Domain file. The corresponding file codes and descriptions are available using the G1, G2, G3, G4 and G5 domain values, where G1 represents Generic Price 1, G2 represents Generic Price 2, and so on.

Holidays

DataScope Plus generates files every day, 24/7, regardless of market holidays. You will receive an empty file on a market holiday only when the Create Empty File preference is selected for the report. If this option is cleared, you will not receive any files on market holidays.

Issue Perm ID

Issue Perm ID is also a universal identifier that is unique to each issue and can be used to identify all quotes for the same issue no matter the number of exchanges on which the issue is quoted.

ISIN, CUSIP, and COMMON codes are examples of Issue Level coding schemes. Most other coding schemes in DataScope Plus are Market Level (or Exchange Level) and are simply a local code for a stock quoted on an exchange.

The main descriptive facts are entered also at this level and are usually unique to each RIC. These are the RIC itself, exchange code, currency code, trading status, PE code, and description

Level

Indicates whether the content within a fixed income record relates to a Quote (Q), Asset (A), or Organization (O). Not applicable to ETI and derivatives.

New Releases

DataScope Plus has multiple releases throughout the year in which new content is added. You will be alerted to upcoming releases no later than 30 days in advance via Product Change Notifications to ensure that your internal processes are prepared.

It is important to note that DataScope Plus files that are created and delivered on the release date prior to the release implementation will reflect old formats. Make sure your internal systems are prepared to process both the old and new files on the release date to capture the release updates.

Null Codes

Null codes can be included in Pricing reports to identify certain data or market conditions, such as market holidays or no trading activity.

DataScope Plus provides the option to show or hide null codes when there is no positive value in a pricing field. The option selected in your Preferences is used as the default setting for all reports. You can update this setting for any single report directly in the report.

Opportunity Records

Opportunity records (XO, OW, OE, OY, OT, OP, O7, O5 or OG depending on asset class) are captured in the 15-minute delta reference files and are identified in the **Action** field with **U** (Update). Use the **Change Flag** and **Previous** fields to identify the previous value.

Organization Perm ID

The key company level fact is the Organization Perm ID universal identifier. Each new company entered into DataScope Plus is assigned a number unique to that company.

This key can be used to pull all issues (including derivatives) of a company. Linked to the Organization Perm ID are Directory Company Name (full legal company name), Organization Display Name, and Organization Geographical Unit.

Previous Adjustments

DataScope Plus sends previous adjustments in the corresponding Notes file for Pricing and Corporate Actions reports. In DataScope Equities, this information is provided in Daily maintenance files via the Sh and Sp records for pricing reports and in the CC record for corporate actions.

Previous Field

This field exists in DataScope Plus only. It should be used with the Change Flag field that indicates that this field has changed since the last delta segment. The previous value field shows the last published value.

Quote Perm ID

Unique quote level identifier. Quote Perm IDs will not change when RICs are renamed, delisted, relisted, or moved to a new file code. This is an advantage over using the RIC as the key identifier, since RICs can change and be re-used for new quotes.

Since DataScope Plus data change delivery order is somewhat driven by the market close events that determine when the end of day files are sent, it is possible for a RIC to be renamed in one file code and the RIC name re-used in a second file code that gets delivered before the first file code. We recommend that you always use the Quote Perm ID to reference a quote.

RIC Additions

RIC Additions (XE, IW, I5, IE, I7, IY, IT, IP, IG records) are captured in the 15-minute delta reference files and are identified in the **Action** field with **I** (Insert). Use the **Change Flag** and **Previous** fields to identify the previous value.

RIC Deletions

RIC Deletions (M4 records) are captured in the 15-minute delta reference files and are identified in the **Action** field with **D** (Delete). Use the **Change Flag** and **Previous** fields to identify the previous value.

RIC Delists

RIC Delists and RIC Relists (M3 and MU records) are captured in the 15-minute delta reference files and are identified in the **Action** field with **U** (Update). Use the **Change Flag** and **Previous** fields to identify the previous value.

RIC Renames

RIC Renames (MR records) are captured in the 15-minute delta reference files and are identified in the **Action** field with **U** (Update). Use the **Change Flag** and **Previous** fields to identify the previous value.

Note that since DataScope Plus data change delivery order is somewhat driven by the market close events that determine when the end of day files are sent, it is possible for a RIC to be renamed in one file code and the RIC name re-used in a second file code that gets delivered before the first file code. We recommend that you always use the Quote Perm ID to reference a quote.

RIC Revisions

RIC Revisions (XF, RW, R5, RE, R7, RY, RT, RP, RG records) for descriptive and reference data changes, such as company name changes, currency changes, etc, are captured in the 15-minute delta reference files and are identified in the **Action** field with **U** (Update). Use the **Change Flag** and **Previous** fields to identify the previous value.

Report Recovery

You can recover a DataScope Plus report that has been executed within the last 30 days for a specified date and report segment. Report recovery is useful in instances where data older than 12 days needs to be reloaded. This capability is available via a Report Recovery tab that appears only for existing reports on the Report screen. Only one report at a time can be recovered. Bulk recovery is not supported.

Report Versioning

Every time you make an update to a report, a copy of that report is saved. This enables you to view earlier versions of your report. Each version of the report is assigned its own unique identifier, which is reflected in bulk files.

Screener

Filtering tool used to include/exclude fields and row-level data in Reference reports. Screeners can be created for File Code, Market Segment MIC List, MiFID ToTV Flag, Contributor Code, Country of Issue, Currency, Ratings and RICs.

Second Time Check (STC)

STC. This value is populated under the **Event Type** column in the Notes file for Pricing reports when a price has been validated or corrected by a Data Analyst.

Security Moves

Use the **File Code - Change Flag** and **Price Code - Previous** fields in Reference reports to track when a security moves from one file code to another. The **Action** field for the impacted records will show **U** (Update).

Skeletal Records

Skeletal records can be identified using the Limited Terms Flag field in the Reference report.

Split Factors

DataScope Plus send split factors in the corresponding Notes file for Pricing and Corporate Actions reports. In DataScope Equities, this information is provided in Daily maintenance files via the Sh and Sp records for pricing reports and in the CC record for corporate actions.

Subscription Changes

You can track subscription changes via the **Subscription ID** field in **Reference** reports. Descriptions of subscription IDs can be found in the SUBID record of the Domain file.

Trade Date

All dates are output in GMT, except for Trade Date. Trade Date is market-driven and is the date the record traded in the given market.

Trading Status

There is no change to Trading Status. Like DataScope Equities, DataScope Plus uses the **Trading Status** field to identify active and inactive RICs. Active instruments are indicated with **1** and inactive instruments are indicated with **0**. DataScope Plus snaps daily prices for active instruments. However, an active RIC can have no-trade Null values on any day.

Unadjusted Data

Data delivered by DataScope Plus is unadjusted. It is exactly as reported by an exchange or contributor (in the case of pricing data). DataScope Plus does not adjust data in any way but provides split and currency conversion events in the corresponding notes file that is delivered with the reference and pricing reports.

Appendix A Creating & Managing Reports

A variety of predefined report templates for retrieving bulk reference and pricing data are available to assist you in upgrading to DataScope Plus. These report templates are based on the legacy DataScope Equities reference records and contain all available fields in those records, if available. You can use these reports as configured or update them to suit your requirements.

In addition to reference data and end of day pricing, DataScope Plus supports report customization for content not available in DataScope Equities. This includes fixed income reference and pricing data, as well as entity and analytics content.

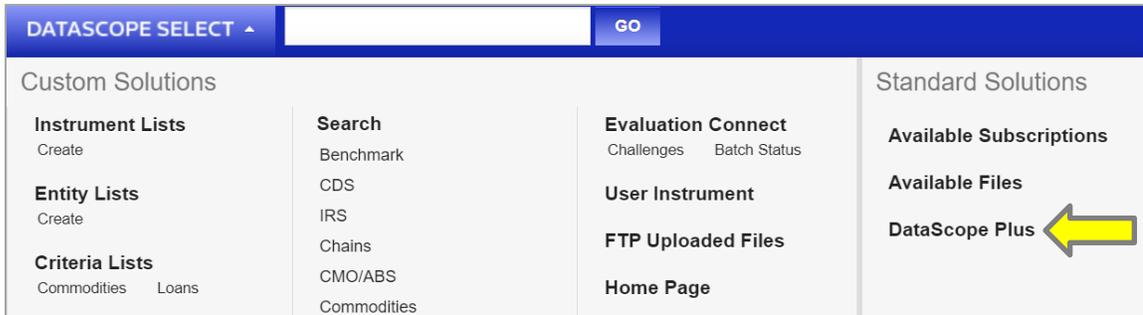
This Appendix describes how to create a new report in DataScope Plus, either from an existing report template or from scratch via the DataScope Plus user interface. Key tasks that you will need to perform as part of managing your reports are also identified. Please note that these instructions are intended to assist in the upgrade process. You are encouraged to also review the [DataScope Plus User Guide](#) for additional details on creating reports.

- [Creating Reports from Report Templates](#)
- [Creating New Reports](#)
- [Creating Initialization Files from a Delta File](#)
- [Copying & Editing Reports](#)
- [Disabling Reports](#)
- [Managing Reports](#)

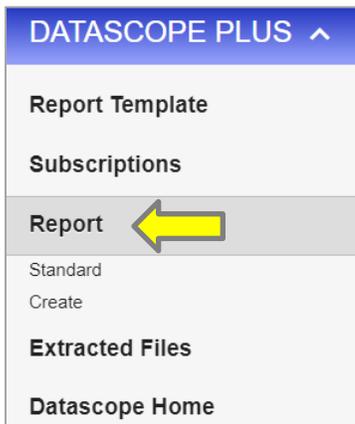
Creating Reports from Report Templates

Note that Reference report templates are used for creating Delta files. If you require an Initialization file, you should customize your delta file first as described below, and then create an Initialization file using the [Copy](#) capability.

1. Launch DataScope Select from a modern browser via <https://select.datascope.refinitiv.com>.
If you are using Delivery Direct/FCN, use: <https://select.datascope.extranet.refinitiv.biz>.
2. Sign in with your user credentials, and then select **DataScope Plus** on the menu:



3. From the DataScope Plus menu, select **Reports**:

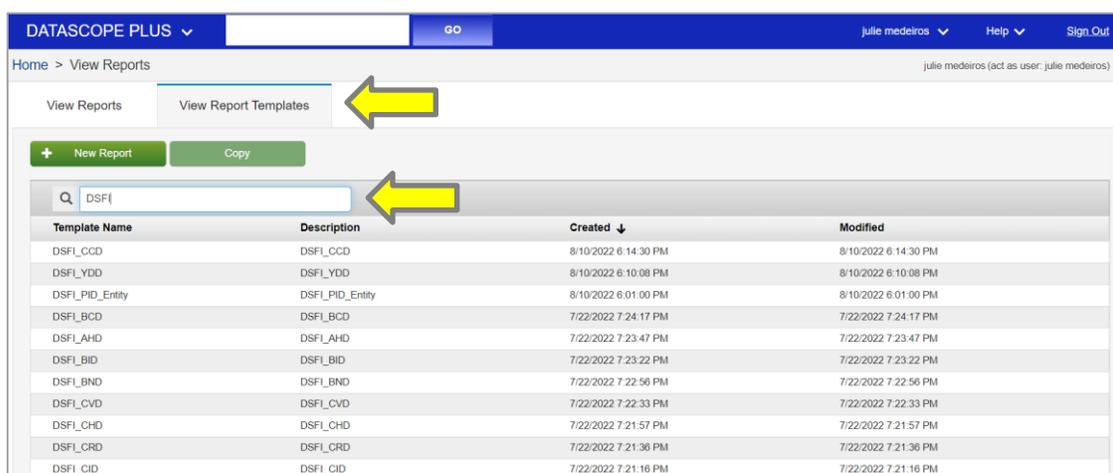


The screen refreshes to show the **Reports** screen. This screen has two tabs: **View Reports** and **View Report Templates**.

View Reports is the default tab. It shows all reports you have created. If you are using DataScope Plus for the first time, no reports are shown.

The **View Report Templates** tab shows all preconfigured reports for DataScope Equities and DataScope Fixed Income.

- Click the **View Reports Templates** tab, and then enter **DSFI** in the search box.



The report templates are identified using the DataScope Fixed Income report code preceded with DSFI. The report templates are configured to include all subscriptions available for that report type. Note that you must be permitted for a subscription to retrieve data for the file codes in it.

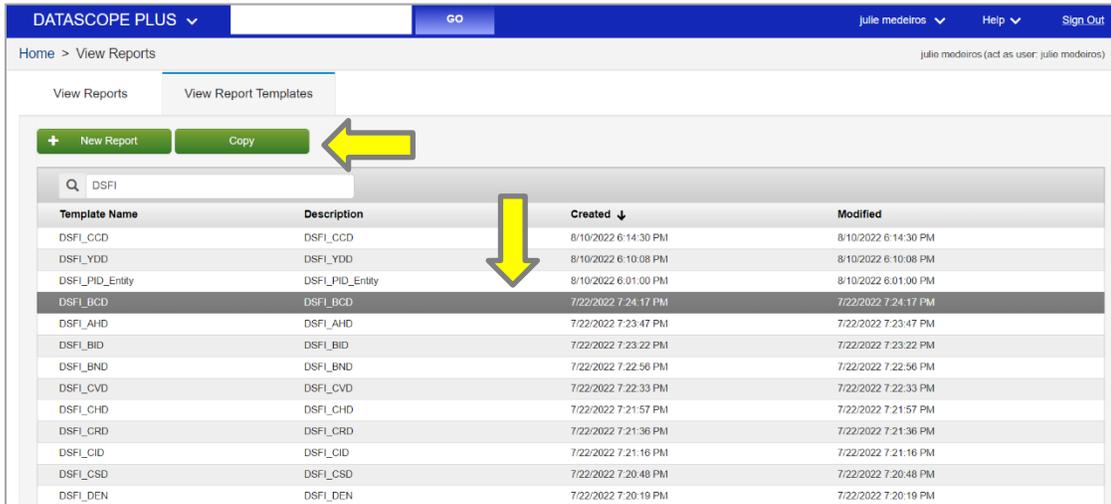
Note that identifier and ratings fields in DataScope Fixed Income files will not have a similar DataScope Plus report templates. This is because of the different delivery mechanisms for this content. Please use the DSFI_Symbol_Cross_Reference and DSFI_Ratings_and_Watch_Hist report templates, respectively to retrieve identifier and ratings data.

DSFI File	DataScope Plus File Equivalent
AHD	Issuance and Outstanding
AID	Relationships
AND	Relationships
BCD	Reference
BID	Reference
BND	Notes
BRB	Ratings
BRD	Ratings
BRF	Ratings
BRM	Ratings
BRS	Ratings
BWB	Ratings
BWD	Ratings
BWF	Ratings
BWM	Ratings
BWS	Ratings
CCD	Convert Underlying
CHD	Convert Hurdle

DSFI File	DataScope Plus File Equivalent
CID	Interest Definition
CLD	Relationships
CRD	Convert Refix
CSD	Coupon History
CVD	Convert Underlying
CWC	Symbol Cross Reference
CWD	Symbol Cross Reference
CWI	Symbol Cross Reference
CWS	Symbol Cross Reference
CXD	Symbol Cross Reference
DEN	Denomination Info
DVD	Domain
EXD	Relationships
GID	Enhancements
HCD	Holidays
IID	Rate Definition
ILD	Principal Definition
IRD	Ratings
IRF	Ratings
IRM	Ratings
IRS	Ratings
IWD	Ratings
IWF	Ratings
IWM	Ratings
IWS	Ratings
MOD	Relationships
MRD	Market Report
MTD	Program Info
PBD	Bankruptcy Schedule
PID	Reference
PKD	Pay In Kind Schedule
PPD	Pay In Part Schedule
PSD	Reference
SID	Redemption Schedule
STD	Redemption Terms
UID	Relationships

DSFI File	DataScope Plus File Equivalent
UND	Relationships
YCD	Points and Curves
YDD	Points and Curves
no DSFI equivalent	Asset Status History
no DSFI equivalent	Auction Calendar
no DSFI equivalent	Ex-Dividend Schedule
no DSFI equivalent	Factor History
no DSFI equivalent	Use of Proceeds Hist
no DSFI equivalent	Program Info
no DSFI equivalent	Range Info
no DSFI equivalent	Rate History
no DSFI equivalent	Convert Definition
no DSFI equivalent	Convert Copay
no DSFI equivalent	Convert Div Protect
no DSFI equivalent	Convert Coco
no DSFI equivalent	Convert Complex Redemption
no DSFI equivalent	Convert Features
no DSFI equivalent	Convert Range
no DSFI equivalent	Convert Unrealized
no DSFI equivalent	Convert Ratchet Coefficient
no DSFI equivalent	Convert Ratchet Event
no DSFI equivalent	Convert Make Whole
no DSFI equivalent	Accretion Info
no DSFI equivalent	Reg Rights 144A
no DSFI equivalent	Flip Info
no DSFI equivalent	Insurance Linked Peril
no DSFI equivalent	Credit Sensitive
no DSFI equivalent	Ad Hoc Payments
no DSFI equivalent	Amount Held Allocation
no DSFI equivalent	Terms Info
no DSFI equivalent	Covenant Info
no DSFI equivalent	Classification

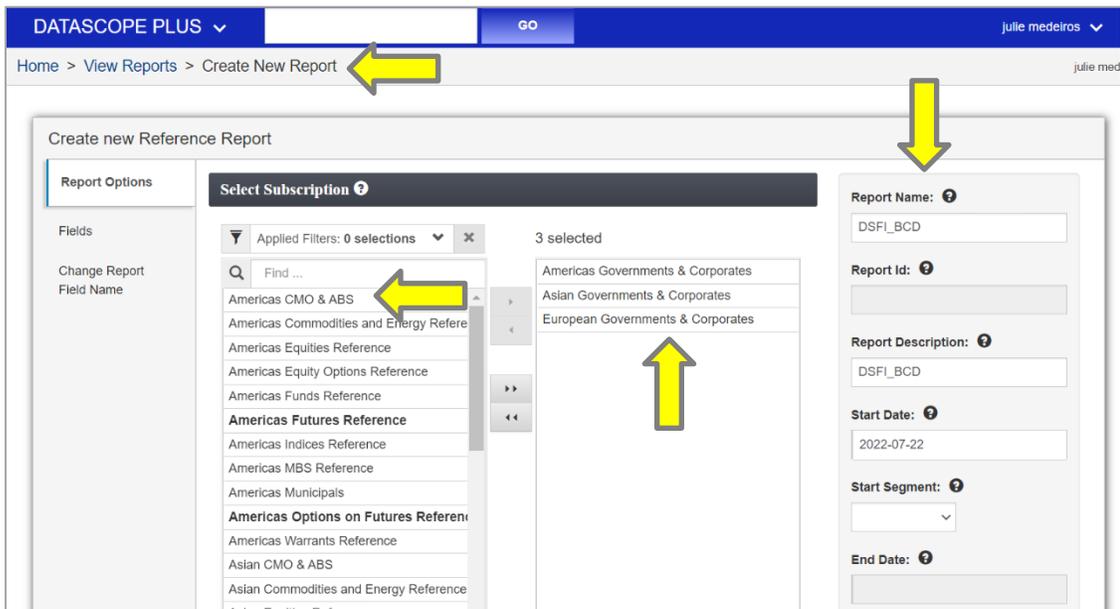
- Click on the row that contains the report template to copy, and then select **Copy**.



This action launches the **Create new Report** screen for the selected report type, from where you can edit the report to meet your specific needs.

Selecting Report Options

- Accept the default subscriptions or update them as needed.



2. Update the report options on the right side as follows:

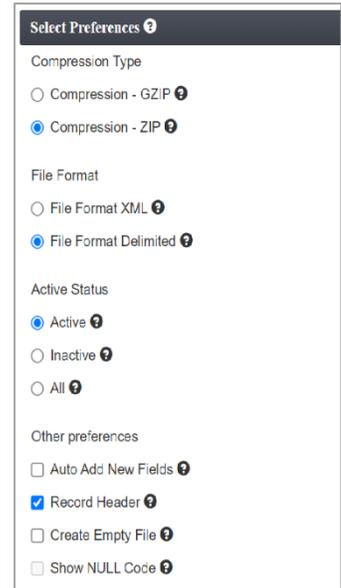
<p>Report Name: ⓘ <input type="text" value="DSE_XE"/></p> <p>Report Id: ⓘ <input type="text"/></p> <p>Report Description: ⓘ <input type="text" value="DSE_XE"/></p> <p>Start Date: ⓘ <input type="text" value="2022-07-25"/></p> <p>Start Segment: ⓘ <input type="text" value=""/></p> <p>End Date: ⓘ <input type="text"/></p> <p>Report type: ⓘ <input type="text" value="Reference"/></p> <p>Max. Record Count: ⓘ <input type="text" value="400K"/></p>	<ul style="list-style-type: none">• Accept the default Report Name or enter a new one.• Report Id is disabled and assigned automatically when the report is created.• Accept the default Report Description or enter a new one.• Accept the Start Date (defaults to today) or click on the date to select a future date on which to activate the report.• In the Start Segment dropdown, select the segment in which to begin retrieving data on the selected date. If you are activating the report today, the next eligible segment is shown.• End Date and Report type are disabled.• Select a maximum number of records included in your bulk file: 400K, 1200K or 2400K. You will receive multiple bulk files if the number of records in the report exceeds the amount selected.
---	---

3. Accept the selections in **Select Preferences** or update them as needed.

You can select the compression type and output file format, as well as how active and inactive records for equity instruments are treated in Reference files.

Preferences for automatically adding new fields following a DataScope Plus release, including header records in output files, creating empty files when no data updates occur and showing null codes for pricing value fields are available.

These preferences default to the values that you selected in the **Preferences** screen. If you update them, the changes will apply to this report only.

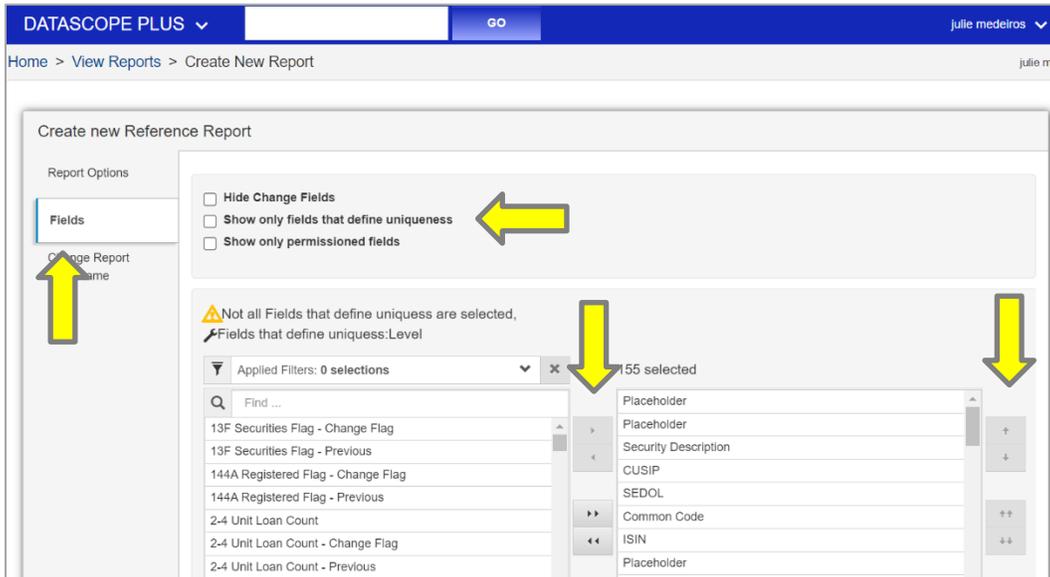


Selecting Fields

Report templates are configured with the equivalent DataScope Fixed Income fields for the selected report type, if available. You can accept these selections or add and remove fields as needed. Note the following:

- DataScope Fixed Income to DataScope Plus field mappings are available to assist you in selecting and understanding fields used in DataScope Plus.
- All DataScope Plus reports include an **Action** field that identifies whether a record is to be inserted, updated or deleted. **These changes are reflected in the 15-minute incremental file.**
For example, if a record is deleted, the Action field in the bulk file will show D for that record. You are encouraged to always include the **Action** field in your report templates.
- Reference reports also include corresponding **Change Flag** and **Previous** value fields for each field in the report for identifying updates. The records that have changed will have **Y** populated in the corresponding **Change Flag** field and the **Previous** value field will be populated with the value that was in the field prior to the update. The **Previous** value field will not be populated if the **Change Flag** is set to **N**.
- Fields requiring licensing, such as CUSIP, ISIN or SEDOL, will be selected in DataScope Plus report templates. You must be licensed for this content or no data for these fields will be output in your bulk files. You should remove these fields if you are not permissioned for them.
- Truncated, deprecated and legacy data fields in the Fixed Income Pricing, Contributed Pricing and Reference report will be replaced by the **Placeholder** in DataScope Plus report templates. No data will be output in these fields.

- Click on the **Fields** tab to view and update the fields selected for the report.



- Use the options at the top of the screen to specify how the fields appear for selection.

For example, if you do not want to see the corresponding **Change Flag** and **Previous** fields for any field, select the **Hide Change Field** button.

Field order can be changed by selecting fields on the right side and clicking the up or down arrows.

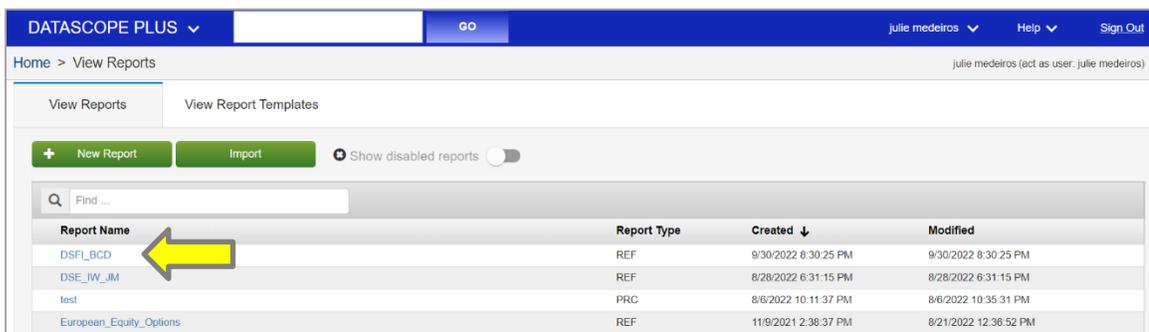
- Use the buttons in the middle to add or remove fields.
- Use the buttons on the right side of the screen to reorder one or more fields.

Keep in mind that the selected fields and field order is the same as in DataScope Fixed Income files. The report columns will no longer align if you add or remove fields or change field order.

Make sure your internal processes are prepared for any changes you make.

- Click  to save the report template with your updates.

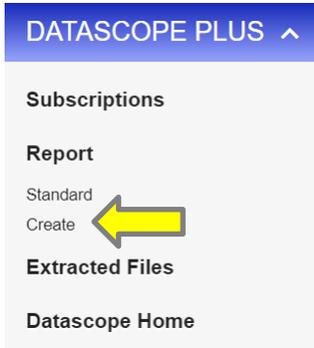
The report is added to the table on the **View Reports** screen.



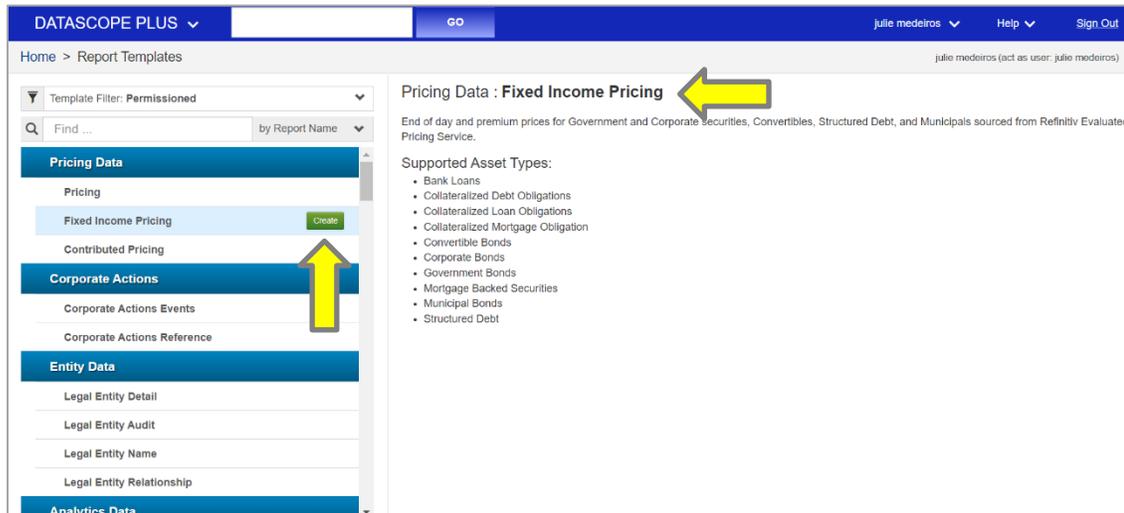
Creating New Reports

The steps for creating a report from scratch are similar to using a report template with these exceptions:

- A new report is launched from the **DataScope Plus** menu by selecting **Report > Create**.



- You can also create a new report from the **Reports** screen by clicking .
- Both options launch the **Report Templates** screen. All reports appear on the right, grouped by content sets with the available reports for each set identified. You can filter and search on the reports listed.
- When you click on a report, a description appears in the center of the screen. For **Pricing** reports, click **Create** to create a new report. For **Reference**, **Corporate Actions** and **Entity Data** reports, click **Delta** or **Init** to create a new delta or initialization report for that report type.



- When you launch a new report, all input fields are blank. You must select your subscriptions, define your report options, and then select your fields. Please see the previous topics in this section for instructions.

Report Customization Limits & Rules

When creating new reports, you must adhere to the following customization limits and rules:

Report Customization Limits & Rules	
Item	Limit
Subscriptions	Each report is limited to 10 subscription “points”. All subscriptions are equal to 1 point with the exception of these subscriptions for exchange-traded instruments, which are 3 points each: Americas Futures Americas Options on Futures European Warrants European Futures Global OTC Derivatives
Initialization Reports	Initialization files can only be defined for a single subscription. If you have more than one subscription, you must create an initialization report for each subscription to get full coverage.
Reference Reports	Reference reports cannot combine equity and fixed Income subscriptions. If you need both equity and fixed income content, you must create two separate Reference reports, one for each content type.
Fields	The maximum number of fields that can be included in a report vary by report type: Reference – 1000 Initialization – 500 Pricing – 500 All other report types – No field limit

Creating Initialization Files from a Delta File

Reference and Corporate Actions reports created from a report template are saved automatically as Delta files. You can use a copy of that report to generate an Initialization file for each of the subscriptions in the Delta report. This capability is available for all delta report types in DataScope Plus and will save you time from having to create Initialization files from scratch.

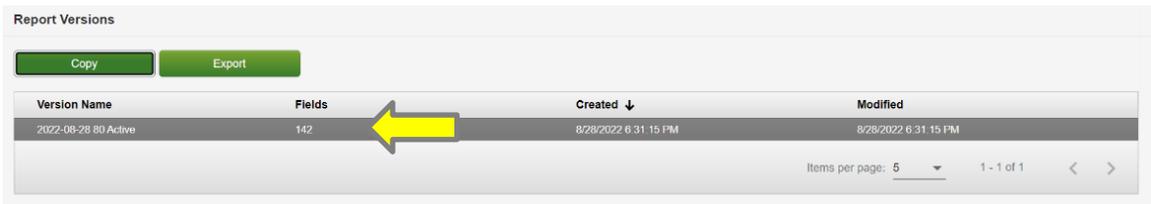
Note that you can only create Initialization files from Delta files. The action cannot be reversed, meaning you cannot create Delta files from Initialization files.

1. Access the **Reports** screen, and in the **View Reports** tab, click on the row that contains the report to copy.



Make sure to click on the row and not the report name. Clicking on the report name will launch the **Edit Report** screen.

2. Scroll to the bottom of the screen, and then click in the row for the report to copy.



3. Click



4. In the **Copying REF reports** pop-up, make sure **Initial** is selected, and then click **OK**.

Copying REF reports

Clone Report name:

DSFI BCD

Please choose the report type to copy to:

Initial 

Reference 

No Thanks

An Initialization report is created for each subscription in that report. In the example below, initialization reports have been created.

DATASCOPE PLUS Julie medeiros Help Sign Out

Home > View Reports Julie medeiros (act as user: Julie medeiros)

View Reports | View Report Templates

Show disabled reports

Find ...

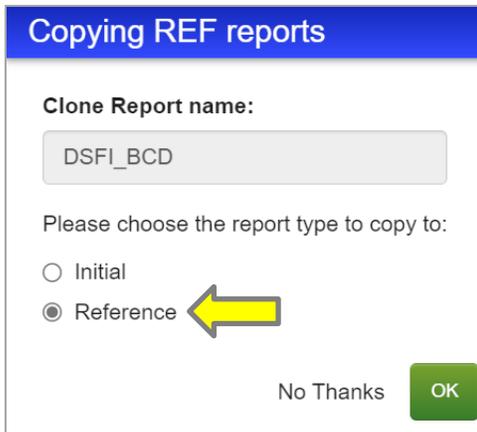
Report Name	Report Type	Created ↓	Modified
DSFI_BCD_GLGVCR 	INT	10/25/2022 9:20:21 PM	10/25/2022 9:20:21 PM
DSFI_BCD_EUGVCR	INT	10/25/2022 9:20:20 PM	10/25/2022 9:20:20 PM
DSFI_BCD_AMGVCR	INT	10/25/2022 9:20:20 PM	10/25/2022 9:20:20 PM
DSFI_BCD_ASGVCR	INT	10/25/2022 9:20:20 PM	10/25/2022 9:20:20 PM
DSFI_REF	INT	9/30/2022 8:49:51 PM	9/30/2022 8:49:51 PM
DSFI_BCD	REF	9/30/2022 8:30:25 PM	9/30/2022 8:30:25 PM

Copying & Editing Reports

You can use the **Copy** capability to duplicate an existing report and use it as a starting point to create a new report. You can also edit the selections in an existing report.

Copying Reports

1. Use the instructions in the previous section to copy an existing delta report, click **Reference** instead of **Initial**.



Copying REF reports

Clone Report name:

DSFI_BCD

Please choose the report type to copy to:

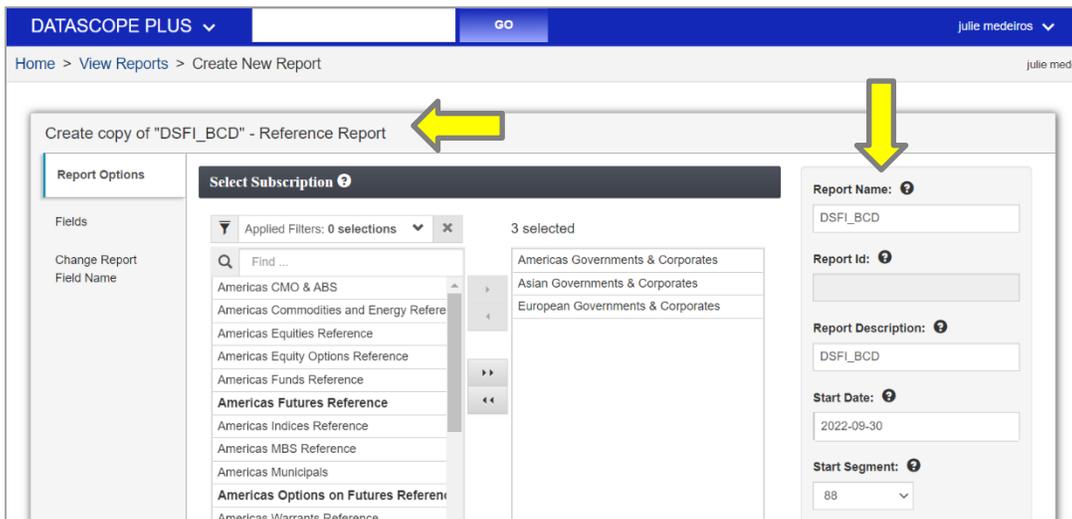
Initial

Reference

No Thanks **OK**

The report will open in **Copy** mode. If you copy a Pricing report, the screen above will be bypassed, and the report will open automatically in **Copy** mode.

2. Enter a new name for the report and update the report settings as needed.



DATASCOPE PLUS GO julie medeiros

Home > View Reports > Create New Report julie medeiros

Create copy of "DSFI_BCD" - Reference Report

Report Options

Fields

Change Report Field Name

Select Subscription

Applied Filters: 0 selections x 3 selected

Find ...

Americas CMO & ABS

Americas Commodities and Energy Reference

Americas Equities Reference

Americas Equity Options Reference

Americas Funds Reference

Americas Futures Reference

Americas Indices Reference

Americas MBS Reference

Americas Municipals

Americas Options on Futures Reference

Americas Warrants Reference

Americas Governments & Corporates

Asian Governments & Corporates

European Governments & Corporates

Report Name: DSFI_BCD

Report Id:

Report Description: DSFI_BCD

Start Date: 2022-09-30

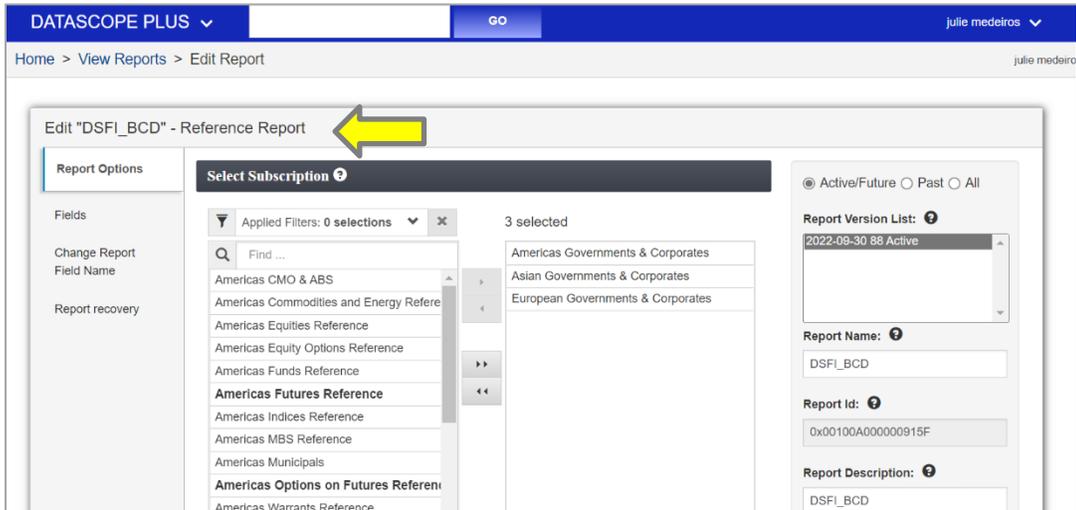
Start Segment: 88

3. Click **Save**.

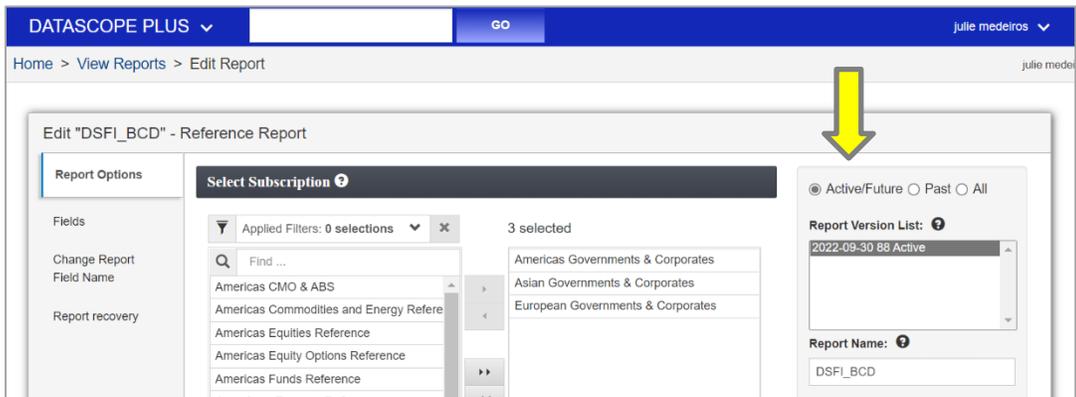
The screen will show the 15-minute segment when the report changes will be active.

Editing Reports

1. Access the **Reports** screen, and in the **View Reports** tab, click on the name of the report to edit.
The report opens in **Edit** mode.



2. Optionally, select a version of the report to edit in the **Report Version** list.
The current active version is selected by default. Select **Past** to edit an earlier version, if one exists.

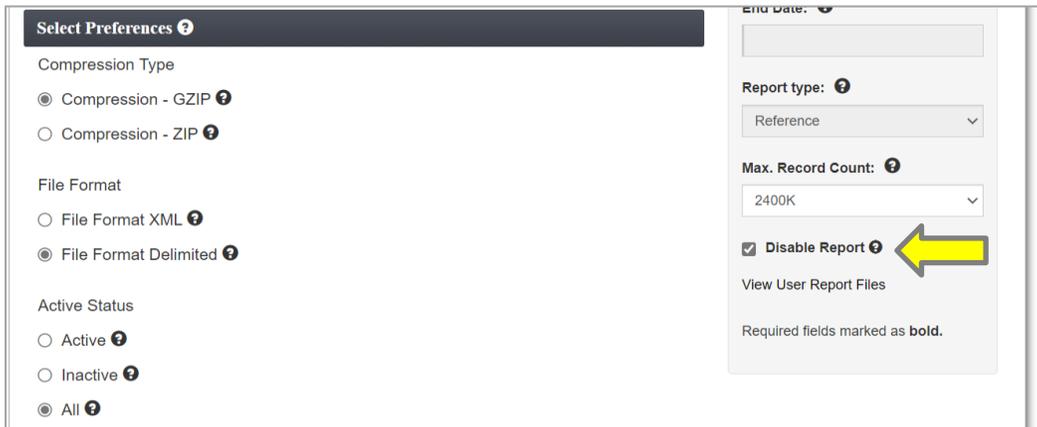


3. Update the report settings as needed.
4. Click **Save** to save the report with your edits.
The screen will show the next 15-minute segment when your changes will be active

Disabling Reports

DataScope Plus does not offer a capability for deleting reports. If you create a report in error, or if you do not want a report to produce files in your FTP service, you can disable it. Should you want to use the report again, you can simply re-enable it, saving you time from having to recreate the report.

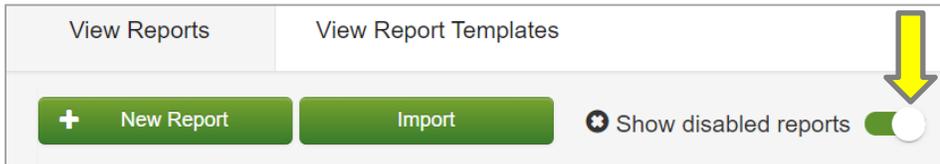
1. Access the **Reports** screen, and then click on the report to disable in the **View Reports** tab.
To access the report in edit mode, make sure to click on the report name and not in the row in which the report appears.
2. Scroll to the bottom of the screen, and then click **Disable Report**.



The screenshot shows the 'Select Preferences' dialog box for a report. It has several sections: 'Compression Type' with radio buttons for 'GZIP' (selected) and 'ZIP'; 'File Format' with radio buttons for 'XML' and 'Delimited' (selected); and 'Active Status' with radio buttons for 'Active', 'Inactive', and 'All' (selected). On the right side, there are fields for 'Report type' (set to 'Reference') and 'Max. Record Count' (set to '2400K'). At the bottom right, there is a checked checkbox labeled 'Disable Report' with a yellow arrow pointing to it, and a 'View User Report Files' link. A note at the bottom states 'Required fields marked as bold.'

3. To re-enable the report at a future point, simply clear this option.

Disabled reports are hidden by default on the **Reports** screen. To view them with your active reports, click **Show disabled reports**.



The screenshot shows the 'View Reports' tab interface. It has two tabs: 'View Reports' (selected) and 'View Report Templates'. Below the tabs are three buttons: 'New Report' (with a plus icon), 'Import', and 'Show disabled reports' (with a gear icon). The 'Show disabled reports' button has a toggle switch that is currently turned off (white circle on the left), and a yellow arrow points to it.

Managing Reports

DataScope Plus offers several capabilities to simplify the management of your custom reports and the content within them. These features are highlighted in the following table. Please see the referenced section of [DataScope Plus User Guide](#) for more information and instructions.

Managing Reports		
Capability	Description	DataScope Plus User Section
Filtering Content	<p>Use the Screener to filter both field and row level data in your bulk output files.</p> <p>Filtering is available for a variety of attributes that are available based on your permissions:</p> <ul style="list-style-type: none"> • File Code • Market Segment MIC List • MiFID ToTV Flag • Contributor Code • Country of Issue • Currency • Rating • RIC 	Filtering Extracted Data
Renaming Fields	<p>Fields can be renamed according to your own naming conventions.</p> <p>Change flag fields are in scope as are their extensions (CF and PV).</p> <p>These changes will be reflected in your bulk output files.</p>	Changing Report Field Names
Exporting/Importing Reports	<p>Reports can be import and exported via XML formatted files.</p>	Exporting and Importing Reports
Recovering Reports	<p>You can recover an existing report that has been executed within the last 30 days for a specified date and report segment.</p> <p>This capability is useful when data older than 12 days needs to be reloaded.</p> <p>Note that this capability allows you to recover only one report at a time.</p>	Recovering Existing Reports

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