REFINITIV DATA PLATFORM

ESG BULK MEASURES USER GUIDE

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1 Introduction

This document provides details of the Measures bulk service that is provided to the Environmental, Social and Governance (ESG) bulk delivery capability.

This service provides the ESG Measures data with history for each of the companies in the ESG universe.

In order to concord ESG content with the customer entity master and with other Refinitiv content sets, entity symbology and reference content, this document should be used in conjunction with the <u>Refinitiv Data Platform ESG Symbology User Guide</u>.

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2 About the files

Each week updates to the Environmental, Social and Governance (ESG) measures are delivered to Refinitiv Data Platform (RDP) calculation engine. Refinitiv Bulk files are distributed in JSON Line format, with the file extension .JSONL. One JSONL file is created containing all organizations and history (based on your subscription). Both active and inactive organizations are included in the data file.

Two types of data updates are available.

- · A full JSONL data file containing history for all scores and all organizations.
- · A delta JSONL data file that contains only incremental changes to the universe since last week.

An incremental update is generated for each organization and period when there is a change to any value within that organization and period.

The incremental update will contain all values for an organization and period, both the values that changed, and the values that have remained the same.

ESG Files are published each Sunday by 9pm UTC.

The ESG JSONL files are zipped and delivered as .gz files. The following naming convention is used for the .gz files:

Package-History-Scheme-Version-Pillar-FileType-UpdateType-DateTime

Package	History	Scheme	Version	SchemeB Pillar	FileType	UpdateType	DateTime
Bulk-ESG-Global-Raw	Full or Current	SchemeA or SchemeB	v1	Env or Social or Gov	Jsonl	Init or Delta	yyyy-mm-ddThh-mm-ssZ

History

There are two history cuts

Code	Description	Notes
Full	All history	All history including the most recent data
Current	Latest year only	Only the most recent data included

Scheme

There are two data schemes available.

Code	Description	Notes
SchemeA	Standardized data items	All data points and indicators with values, timestamps and scores.
SchemeB		Contains all standardized data items available in Scheme A, additionally includes As Reported and Sourceld, allowing links to Source data.

Pillar

The data items within Scheme B are split into 3 separate files, depending as to which pillar they roll up into

Code	Description
Env	All data points and indicators that roll up into the Environmental Pillar
Social	All data points and indicators that roll up into the Social Pillar
Gov	All data points and indicators that roll up into the Governance Pillar

UpdateType

There are two update types

Code	Description	Notes
init	Initialization	Full initialization file of all organizations
delta	Delta incremental	Refresh of organizations with changed data. When a value changes within an Organization and period, each data item for the whole Organization and period is resent

Date

The date the file starts the generation process in the format yyyy-mm-ddThh-mm-ssZ.

The following examples illustrate the naming convention

Bulk-ESG-Global-Raw-Current-SchemeA-v1-Jsonl-Init-2021-10-18T16:10:55.869Z

An ESG initialization file containing the latest period of standardized data generated on 18th October 2021.

Bulk-ESG-Global-Raw-Full-SchemeB-v1-Social-Jsonl-Delta-2021-10-18T16:10:55.869Z

An ESG delta file containing all history, including the most recent period, for standardized, as reported and links to Source data for Social data items generated on 18th October 2021.

Files will remain accessible for 2 weeks before being removed. The zipped files can be uncompressed using standard tools such as 7-zip

3 How to access the files

File Distribution, also known as Client File Store (CFS), is a service of the Refinitiv Data Platform (RDP) that aids in the discovery and delivery of files to subscribers via web-based REST APIs. Refinitiv publish bulk ESG files to the File Store.

For additional details on the File Distribution Service, please see the <u>CFS Subscriber User Guide</u>. This document introduces the CFS REST API and describes the working environment and supporting resources. It is available in the Developers Portal.

This section supplements <u>CFS Subscriber User Guide</u> with ESG-specific information.

bulk-ESG is the bucket name required in section 3.2.1 Finding Buckets of the <u>CFS Subscriber User Guide</u>.

The ESG data measures are delivered through 16 filesets using the following packages and fileset names.

Subscribers will be able to see all files, but only permitted to download either the Current or the Full history files, dependent upon their subscription.

3.1 Current data packages

Package Name: Bulk-ESG-Global-Raw-Current-SchemeA-v1

Fileset Name	Description	Code to retrieve filesets
Bulk-ESG-Global-Raw-Current- SchemeA-v1-Jsonl-Delta-yyyy- mm-ddThh-mm-ssZ	An ESG Measures delta file, following SchemeA containing the latest period for each organization.	https://api.refinitiv.com/file-store/v1/file-sets?bucket=bulk-ESG&packageId=48cc-0e39-8b0a96ca-b9e1-8639999094a8
Bulk-ESG-Global-Raw-Current- SchemeA-v1-Jsonl-Init-yyyy- mm-ddThh-mm-ssZ	An ESG Measures initialization file, following SchemeA containing the latest period for each organization.	

Package Name: Bulk-ESG-Global-Raw-Current-SchemeB-v1

Fileset Name	Description	Code to retrieve filesets
Bulk-ESG-Global-Raw-Current- SchemeB-v1-Env-Jsonl-Delta- yyyy-mm-ddThh-mm-ssZ	An ESG Measures delta file, following SchemeB containing the Environmental data items with the latest period for each organization.	https://api.refinitiv.com/file-store/v1/file-sets?bucket=bulk-ESG&packageId=47c5-675c-8e5962b4-af5c-10646366c5e9
Bulk-ESG-Global-Raw-Current- SchemeB-v1-Env-Jsonl-Init- yyyy-mm-ddThh-mm-ssZ	An ESG Measures initialization file, following SchemeB containing the Environmental data items with the latest period for each organization.	
Bulk-ESG-Global-Raw-Current- SchemeB-v1-Social-Jsonl-Delta- yyyy-mm-ddThh-mm-ssZ	An ESG Measures delta file, following SchemeB containing the Social data items with the latest period for each organization.	
Bulk-ESG-Global-Raw-Current- SchemeB-v1-Social-Jsonl-Init- yyyy-mm-ddThh-mm-ssZ	An ESG Measures initialization file, following SchemeB containing the Social data items with the latest period for each organization.	
Bulk-ESG-Global-Raw-Current- SchemeB-v1-Gov-Jsonl-Delta- yyyy-mm-ddThh-mm-ssZ	An ESG Measures delta file, following SchemeB containing the Governance data items with the latest period for each organization.	
Bulk-ESG-Global-Raw-Current- SchemeB-v1-Gov-Jsonl-Init- yyyy-mm-ddThh-mm-ssZ	An ESG Measures initialization file, following SchemeB containing the Governance data items with the latest period for each organization.	

3.2 Full history data packages

Package Name: Bulk-ESG-Global-Raw-Full-SchemeA-v1

Fileset Name	Description	Code to retrieve filesets
Bulk-ESG-Global-Raw-Full- SchemeA-v1-Jsonl-Delta-yyyy- mm-ddThh-mm-ssZ	An ESG Measures delta file, following SchemeA containing all history including the latest period for each organization.	https://api.refinitiv.com/file-store/v1/file-sets?bucket=bulk-ESG&packageId=4133-fe0b-fe1981eb-b254-ffb9f828b286
Bulk-ESG-Global-Raw-Full- SchemeA-v1-Jsonl-Init-yyyy- mm-ddThh-mm-ssZ	An ESG Measures initialization file, following SchemeA containing all history including the latest period for each organization.	

Package Name: Bulk-ESG-Global-Raw-Full-SchemeB-v1

Fileset Name	Description	Code to retrieve filesets
Bulk-ESG-Global-Raw-Full- SchemeB-v1-Env-Jsonl-Delta- yyyy-mm-ddThh-mm-ssZ	An ESG Measures delta file, following SchemeB containing the Environmental data items with all history including the latest period for each organization.	https://api.refinitiv.com/file-store/v1/file-sets?bucket=bulk-ESG&packageId=4288-ebb6-93372235-acb2-89882a826af1
Bulk-ESG-Global-Raw-Full- SchemeB-v1-Env-Jsonl-Init- yyyy-mm-ddThh-mm-ssZ	An ESG Measures initialization file, following SchemeB containing the Environmental data items with all history including the latest period for each organization.	
Bulk-ESG-Global-Raw-Full- SchemeB-v1-Social-Jsonl-Delta- yyyy-mm-ddThh-mm-ssZ	An ESG Measures delta file, following SchemeB containing the Social data items with all history including the latest period for each organization.	
Bulk-ESG-Global-Raw-Full- SchemeB-v1-Social-Jsonl-Init- yyyy-mm-ddThh-mm-ssZ	An ESG Measures initialization file, following SchemeB containing the Social data items with all history including the latest period for each organization.	
Bulk-ESG-Global-Raw-Full- SchemeB-v1-Gov-Jsonl-Delta- yyyy-mm-ddThh-mm-ssZ	An ESG Measures delta file, following SchemeB containing the Governance data items with all history including the latest period for each organization.	
Bulk-ESG-Global-Raw-Full- SchemeB-v1-Gov-Jsonl-Init- yyyy-mm-ddThh-mm-ssZ	An ESG Measures initialization file, following SchemeB containing the Governance data items with all history including the latest period for each organization.	

4 About the Content

4.1 Overview

An OrganizationId uniquely identifies each organization. These identifiers are generated and maintained by Refinitiv. They do not change over time and are never re-used.

OrganizationId will be impacted by certain events such as mergers, acquisitions.

A merger or acquisition that involves two entities and causes a new entity to be created. Both existing OrganizationId's are considered inactive, and the new entity is given its own unique OrganizationId.

One original entity survives as the new, merged entity, will retain the original OrganizationId.

Organization changes status from public to private, the OrganizationId can change, all history will be copied over onto the new OrganizationId..

The Environmental, Social and Governance (ESG) service includes all Organizations which have Refinitiv ESG content available.

The measures files are split into 3 sections, StatementDetails, ESGOrganization, and Measures.

This service provides the ESG data measures with history (dependent upon subscription) for each of the companies in the ESG universe.

4.2 ESG Coverage

The measures files contain all data points and indicators, as detailed in the Refinitiv ESG Glossary, published in MyRefinitiv. All measures are updated where possible for organizations flagged as being part of the ESG population.

4.3 Anti-Takeover Devices (ATD) Coverage

Organizations flagged as being part of the ATD population are limited to updates in the following fields. Due to the limited nature of these fields you may choose to exclude ATD Organizations from your processes.

Full details pertaining to these fields can be found in the Refinitiv ESG Glossary.

Pillar	Category	RDPFieldName
Governance	Shareholders	UnlimitedAuthorizedCapitalorBlankCheck
Governance	Shareholders	ClassifiedBoardStructure
Governance	Shareholders	StaggeredBoardStructure
Governance	Shareholders	SupermajorityVoteRequirement
Governance	Shareholders	GoldenParachute
Governance	Shareholders	LimitedShareholderRightstoCallMeetings
Governance	Shareholders	EliminationofCumulativeVotingRights
Governance	Shareholders	PreEmptiveRights
Governance	Shareholders	CompanyCrossShareholding
Governance	Shareholders	ConfidentialVotingPolicy
Governance	Shareholders	LimitationofDirectorLiability
Governance	Shareholders	ShareholderApprovalSignificantTrans
Governance	Shareholders	FairPriceProvision
Governance	Shareholders	LimitationsonRemovalofDirectors
Governance	Shareholders	AdvanceNoticeforShareholderProposals
Governance	Shareholders	AdvanceNoticePeriodDays
Governance	Shareholders	WrittenConsentRequirements
Governance	Shareholders	ExpandedConstituencyProvision

4.4 Header Section

The header section is published once for each Organization and Period.

The fields contained in StatementDetails, ESGOrganization are:

Section	Field name	Description
	ObjectId	The ObjectId will enhance interoperability between ESG and other upcoming content feeds. Ensure that ObjectID is included in any data queries submitted to MyRefinitiv
StatementDetails	OrganizationId	Refinitiv Organization Identifer
StatementDetails	FinancialPeriodEndDate	The period end date of the ESG report in the format YYYY-MM-DDTHH:mm:ss.SSSZ.
StatementDetails	FinancialPeriodFiscalYear	The 4 digit year of the period end date of the ESG report in the format YYYY
StatementDetails	FinancialPeriodIsIncomplete	If true, not all ESG information has been collected for the whole Financial Period. Refinitiv publish ESG collected data as soon as it is published. Once all data has been collected for a period, this field will be marked as false.
StatementDetails	EsgOrAtdIndicator	ESG indicates a full coverage company. ATD indicates an Organization for which there is a limited population of shareholders datapoints.
ESGOrganization	NormalizedName	Organization Name

A JSON Sample is outlined here:

```
"ObjectId": "5000072036;417",
"StatementDetails": {
   "OrganizationId": "5000072036",
  "FinancialPeriodEndDate": "2020-12-31T00:00:00.000Z",
  "FinancialPeriodFiscalYear": "2020",
  "FinancialPeriodIsIncomplete": "true"
},
"ESGOrganization": {
  "Names": {
    "Name": {
      "OrganizationName": [
           "NormalizedName": "3M Co"
```

4.5 Environmental, Social and Governance Measures Section

The Environmental, Social and Governance (ESG) measures are delivered in groups under the following Category headings.

Pillar Heading	Category Heading
Environmental	EmissionDataPoints
Environmental	EmissionIndicators
Environmental	InnovationDataPoints
Environmental	InnovationIndicators
Environmental	ResourceUseDataPoints
Environmental	ResourceUseIndicators
Governance	CSRStrategyDataPoints
Governance	ManagementDataPoints
Governance	ManagementIndicators
Governance	ShareholdersDataPoints
Governance	ShareholdersIndicators
Social	CommunityDataPoints
Social	CommunityIndicators
Social	HumanRightsDataPoints
Social	HumanRightsIndicators
Social	ProductResponsibilityDataPoints
Social	ProductResponsibilityIndicators
Social	WorkforceDataPoints
Social	WorkforceIndicators

The list of fields contained in each category:

Scheme	Field Name	Description	
SchemeA&B	MeasureName	The Refinitiv Data Platform (RDP) Name for the ESG measure. A full list of measures can be found in the Refinitiv ESG Glossary, published in MyRefinitiv	
SchemeA&B	ValueCurrencyId_v2	3 character ISO Currency code for ESG value where applicable	
SchemeA&B	Value or Value_v2	Value of the ESG metric being tracked	
SchemeA&B	ValueScore	ValueScore is a normalized score generated for each of the values between 0 to 1. Double values support up to 16 digits of precision. ValueScore is only delivered for the data measures that contribute towards the calculation of the ESG Score	
SchemeA&B	ValueDate	The date when the ESG value was entered into our data management system in the format YYYY-MM-DDTHH:mm:ss.SSSZ.	
SchemeB	Valueld	A unique Valueld enables identification of each as reported measure.	
SchemeB	Scale	A unique integer identifier, with a 1:1 relationship to the ScaleDescription LongName.	
SchemeB	AsReported: MeasureNameAr: AsReportedMeasures: AsReportedMeasuresScaleDescription: ValueDomainEnumeration: LongName:	The scale of the as reported data.	
SchemeB	Unit	A unique integer identifier, with a 1:1 relationship to the Unit_v2 field.	
SchemeB	Unit_v2	The units of the as reported data.	
SchemeB	AsReported: MeasureNameAr: AsReportedMeasures: Value	The value of the as reported data.	
SchemeB	Sources: Sourceld	Provides a Sourceld where available, which links to the Sources file. There may be many Sourceld's populated for each data measure	

The scale and units of each standardized data item are available both in the Refinitiv ESG Glossary, published in MyRefinitiv, and in the ADOC files on the developers portal in the ESG Bulk Schema Files.

4.5.1 Scheme A vs Scheme B

Scheme A is a subset of data items delivering only the standardized data points.

Scheme B is a superset delivering all the standardized data points, along with as reported data and links to source data. All data delivered within Scheme A is included within Scheme B.

Subscribers should choose to process either Scheme A or Scheme B, depending upon their data needs.

4.5.2 JSON Samples

There are 7 types of data item that can be included within a category.

String, Date, Integers, Decimals, Boolean, Monetary amounts with ISO currency and country codes

Values that are string:

```
"BoardStructureType": {
 "Value": "Unitary"
  "ValueDate": "2021-07-16T22:56:03.187Z"
}
```

Values that are date:

```
"PoisonPillAdoptionDate": {
  "Value": "2003-03-18T00:00:00.000Z",
  "ValueDate": "2010-10-01T01:00:00.000Z"
```

Values that are integers:

```
"BoardSize": {
   "Value": 11,
   "ValueDate": "2019-06-19T09:50:56.307Z",
```

Values that are decimals:

```
"AccidentalSpills": {
 "Value": "18.2475",
 "ValueDate": "2021-06-17T18:54:34.183Z",
```

Values that are Boolean

```
"EnvironmentalInvestmentsInitiatives": {
  "Value": true,
  "ValueDate": "2020-04-30T06:57:50.933Z",
```

Values that are ISO Country

```
"CriticalCountry1": {
  "Value": "AE",
"ValueDate": "2014-10-07T05:16:52.783Z",
  "ValueScore": "0",
```

Values that are ISO Currency

```
"EnvironmentalExpenditures": {
  "ValueCurrencyId_v2": "USD",
  "Value": "223000000",
"ValueDate": "2020-04-30T06:57:50.560Z",
```

4.5.3 SchemeB Samples - As reported data

The scheme B files also contain as reported data, and links to the source data file.

In the example below the EnergyUseTotal standardized values are delivered in gigajoules.

Json Headings	Standardized V	alues	As reported fields	As reported fields
EnergyUseTotal		•		
Value	147827			
ValueDate	2021-10-30T05:	1:36.137Z		
AsReported EnergyUseTotalAr AsReportedMeasures				
Valueld			505475123	505476148
Scale				1010066
AsReportedMeasuresScaleDescription ValueDomainEnumeration LongName				Ones (no scaling)
Unit			509037	509030
Unit_v2			Megawatt-Hour	British Thermal Unit
Value			35006	20667000000
Sources				
The Scheme B data describes how the values were calculated.	standardized		35006 Megaw 126022 gigajo TOTAL: 147827 gigajoules	oules 21805 gigajoules

4.5.4 SchemeB Samples - Source data

The Sourceld links to the Sources file, to give further information on the source used to gather the ESG data.

In the example below, all controversies contributing to the count are linked to the underlying Sourcelds.

```
"EnvironmentalControversiesCount": {
     "Value": 2,
      "ValueDate": "2019-11-08T07:46:01.450Z",
      "AsReported": [
      "Sources": [
          "SourceId": 111574190
       },
       {
         "SourceId": 113447833
     ]
```

The Sources data are delivered through the Sources file, which is described in the RDP ESG Sources User Guide.

5 Additional Information

5.1 Feedback

We invite your comments, corrections, and suggestions about this document.

To share your comments, open the Help & Support Feedback page on the MyRefinitiv website. Your comments can be left there.

Your feedback helps us continue to improve our user assistance.

5.2 Get Support

MyRefinitiv is the Refinitiv portal that provides a single access point for timesaving support services. It also provides billing, user management, and other information services.

For support using RDP, go to the Help & Support page at MyRefinitiv. You can raise a query there for any questions.

Choose the product: ESG Bulk - Refinitiv Data Platform for Asset Managers in the drop down list.



5.3 Support Channels

Refinitiv also offers support channels that keep clients informed of changes to products and data, as well as offering real-time service alerts.

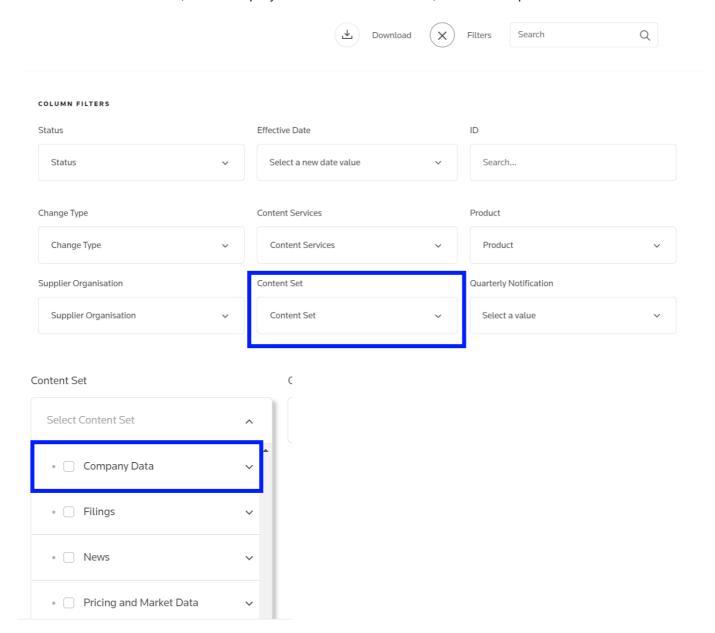
View current changes on the Notifications and Alerts page.

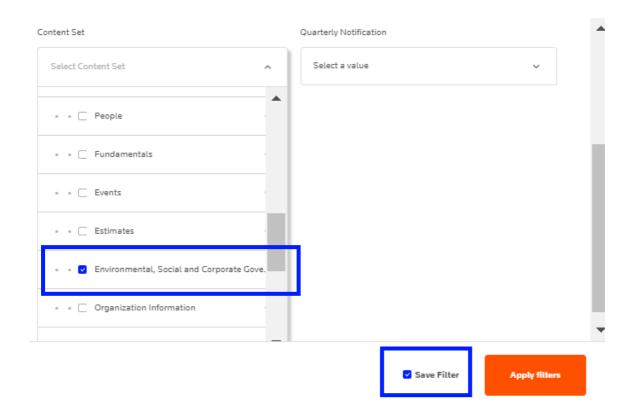
You are encouraged to subscribe to the following support channels:

5.3.1 ESG Content Notifications

Content notifications of new, enhanced, or changed functionality. These may require your action, in products that you use.. Data Notifications | MyRefinitiv

Choose the Content Set Filter, Select Company data and then Environmental, Social and Corporate Governance

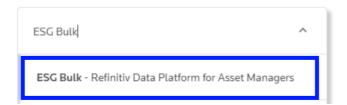




5.3.2 ESG Bulk Product Change Notifications

Planned changes to Refinitiv's products. Product Change Notification | MyRefinitiv

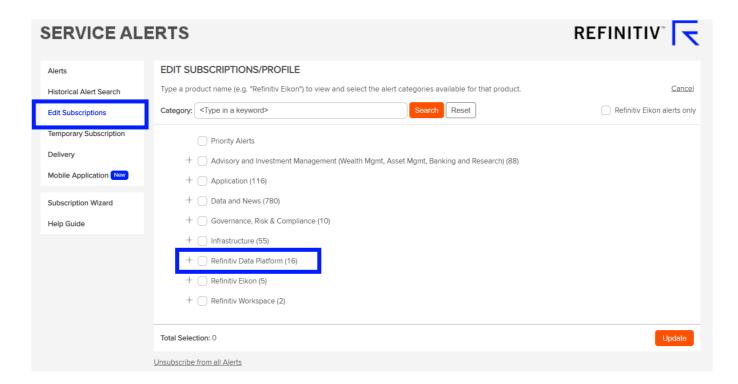
Choose the product: ESG Bulk – Refinitiv Data Platform for Asset Managers Product



5.3.3 ESG Bulk Service Alerts

Real-time service alerts about planned maintenance and unplanned service issues affecting your products and services. You can be notified via SMS or email. An Email Subscriptions section is included on the page. You should subscribe to the Bulk Service support channel here.

See the **Subscriptions** page.



Refinitiv Data Platform (16) selected (1)

✓ Refinitiv Data Platform - ESG Bulk Service				
Refinitiv Data Platform - Derived Content				
Refinitiv Data Platform - Environmental, Social and Governance				
Refinitiv Data Platform - Estimates				
Refinitiv Data Platform - Filings				
Pefinitiv Data Platform - Financial Markets P.	oference Data Bulk Ser			

5.4 Your Personal Information

Refinitiv is committed to the responsible handling and protection of personal information.

We invite you to review our Privacy Statement.

This describes how we collect, use, disclose, transfer, and store personal information when needed to provide our services, and for our operational and business purposes.

The Privacy Statement provides information about your rights. Also, how you can contact us if you have questions about how we handle your information.

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