FactSet SDF Download API Synchronous Delivery Service User Manual
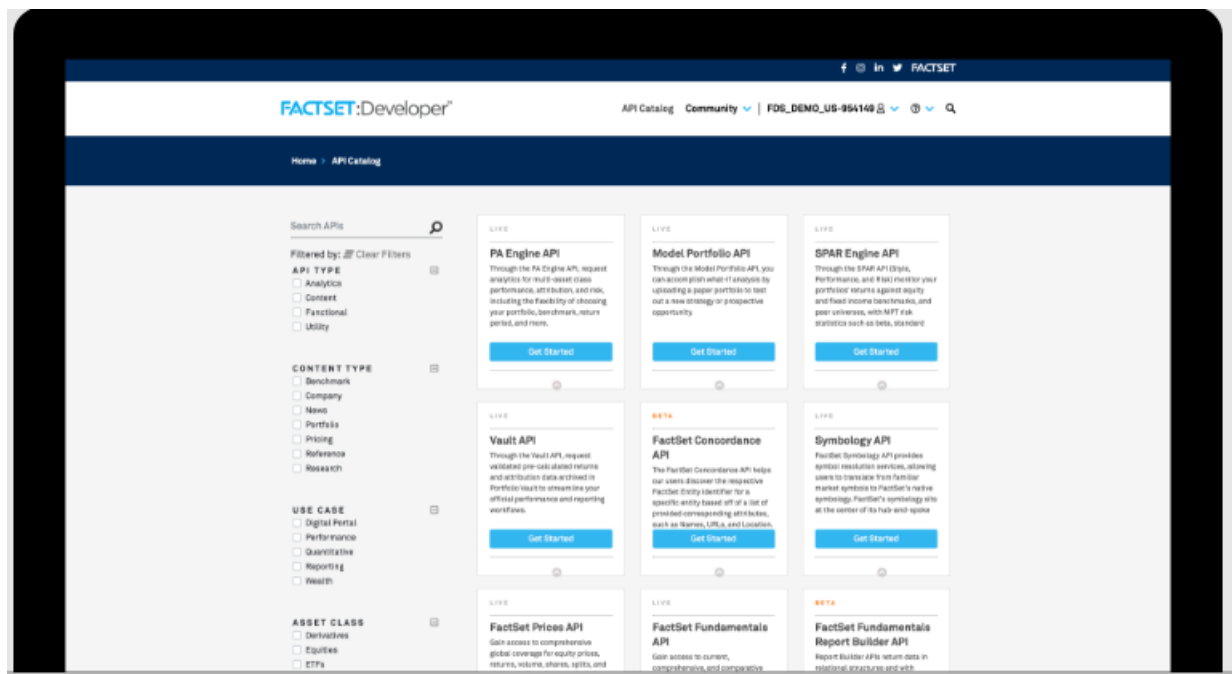
Contents

FACTSET

FactSet SDF Download API Synchronous Delivery Service

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Revision History

Effective Date	Version Number	Description	Changes made
02/15/2022	1.0A	Initial release	
06/10/2022	1.1.0		Now QFL data is also delivered through the SDF Download API

Introduction

The FactSet SDF Download API is a synchronous delivery service that allows you to get the latest version of tables or schemas through an HTTP connection.

FactSet SDF Download (RESTful) API

The FactSet SDF Download RESTful API provides efficient programmatic access to all the SDF delta and full files for the schemas and bundles subscribed to by the user via the standard HTTPS protocol. Data is delivered URL to the downloadable files produced based on user's request.
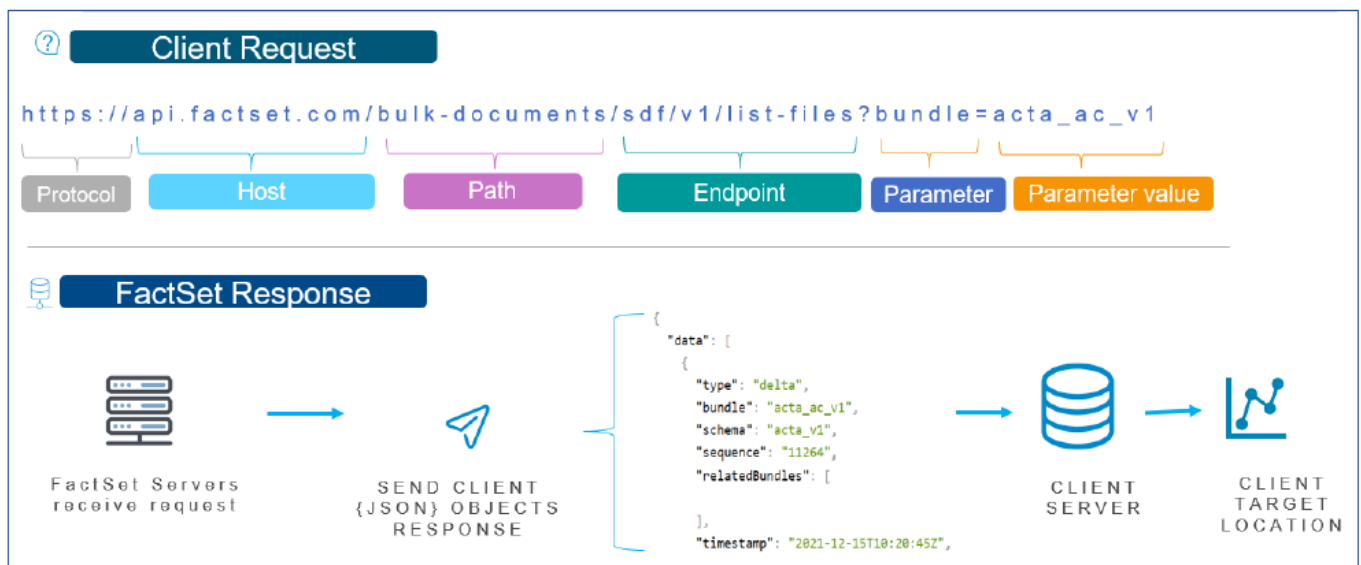
Authentication

The SDF Download API provides easy access to SDF data via the standard HTTPS protocol. All services are authenticated by a central source, so the same username and password work for all services. In addition, naming conventions have been standardized to simplify the consumption of multiple services.

To authenticate to the SDF API FactSet leverages API Keys using Basic HTTP Authentication Scheme described in RFC 7617 Click here for more details on Authentication.

To generate an API key:

1. Go to **https://developer.factset.com**

2. Login with your FactSet .NET ID

3. Go to **https://developer.factset.com/manage-api-keys**

4. Select your machine account to grant you access

5. Select Generate new API key
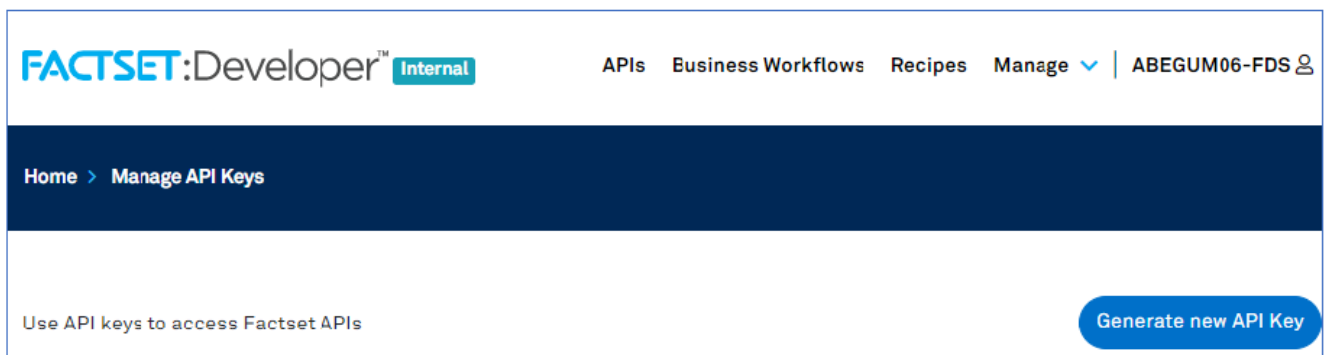
6. Provide a description of your API Key (Tip: Describe IP range)

7. Specify your required IP range and select Add. (The From IP value will auto populate, while the To IP can be left blank.)

   You can edit this API key IP range in the future

8. Select Create

9. Copy your new API Key, this will not be retrievable again. Copy into a safe location for future reference, if needed

Note:

Use USERNAME-MACHINE SERIAL along with the API key generated in the previous step for authentication.

Issuing a Request with an API Key

The specifics of an API request differ by the FactSet RESTful API being used, but the authentication remains the same. A valid Authorization header must be provided using Basic HTTP Authentication Scheme. This scheme requires a username and password. The FactSet credentials (username and serial separated by a single hyphen "-" character) forms the username and the API key is the password. This username and password concatenated by a single colon ":" character must be Base64 encoded and included with the Authorization header for all API requests.

Example

GET request to the FactSet RESTful API using "usernameserial:XXXXXXXXXXXXXXXXXXXXXXXXXXXX" as the credentials

- $ printf "username-serial:XXXXXXXXXXXXXXXXXXXXXXXXXXXX" | base64

- dXNlcm5hbWUtc2VyaWFsOlhYWFhYWFhYWFhYWFhYWFhYWFhYWA==

- $ curl X GET "**https://api.factset.com/bulk-documents/sdf**" –
    - H "Accept: application/json"
    - H "Authorization: Basic

      dXNlcm5hbWUtc2VyaWFsOlhYWFhYWFhYWFhYWFhYWFhYWFhYWA=="

Note:

If the credentials are not valid, the server will respond with a 401 HTTP status code (Unauthorized).

FactSet SDF RESTful API Service

The SDF Download API generates output files with data based on user specified input parameters. The input parameters include schema, sequence number, bundle specification and date ranges for which the data will be generated. When the API request with specified input parameters has completed the output files will be made available back to the users through a secure URL to the location where the files are stored. The files returned are chunked based on type schema bundle and sequence. Each secure link will be valid for up to 1 hour.

FactSet SDF Download API Functionality and Benefits

The FactSet SDF Download API provides the following features to applications:

- Synchronous access using a standard HTTP RESTful service
- Stateless requests (No sticky cookies)
- Platform independence
- Zero-based installation
- Seamless failover

Synchronous Access

Synchronous data access simplifies application programming and makes it straightforward to exploit the HTTP protocol.

Stateless Request / Response

The RESTful API is a stateless request / response service. The service does not make any use of HTTP cookies, and thus allows requests to be load-balanced over multiple servers. This in turn, improves both throughput and response time.

Platform Independence

The RESTful API can be used without any FactSet-supplied software. Applications can access data from any system that supports HTTPs requests.

Zero-Based Installation

Proprietary software is not needed to access this service. Any standard library or application that can issue HTTP queries can request data via the RESTful API.

Seamless Failover

If a FactSet Data Server or an entire data center goes down, requests will be routed to an available Data Server using state-of-the-art load balancers. You do not have to change your software, as this failover will be automatic.

Access and Security

Host Name	Service	Example URL
api.factset.com	bulk-documents/sdf	http://api.factset.com/bulk-documents/sdf/

Easy Access Through FactSet SDF Download API

This RESTful API uses HTTP Basic Authentication which requires the following HTTP header be added to the request. Authorization: Basic {Base-64 Encoding of "user:password"} See the Authentication Section for details on how to generate the password.

Certificates and Certificate Chains

FactSet recommends users should not hardcode a reliance on any certificate or advertised certificate chain into their applications and expects users to rely on Public Key Infrastructure verification and validity of the certificates.

- FactSet's Certificates will change over time as they are renewed, and the complexity of the algorithms employed increase continually increase over time (i.e., SHA-2 rather than SHA-1 signatures). This is the constant evolution of security as old security algorithms are retired and new security algorithms are included. Often these certificates get updated on a rolling multi-year basis. Validating a certificate dynamically during TLS connections must be incorporated by the user as a necessary practice

- FactSet's Certificate chains, including intermediate Certificate Authorities, may change over time, and it is important that users dynamically validate FactSet's certificates against a modern CA trusted root certificate store. FactSet's current root certificate is Thawte Primary Root CA

Security Protocols

Users should not hardcode dependencies on any specific security protocol as FactSet is continuously reviewing security policies and reserves the right to disable support for older security protocols with short notice. The current supported protocols are TLSv1.1 and TLSv1.2 but at a future date, these may be replaced with future versions. Users should make sure that their software can handle ever changing Security Protocols.

Firewall

Users should have access to api.factset.com through their firewall.

Requests

Description

The FactSet RESTful API supports HTTP GET requests.

Request Headers

Header name	Description
Authorization	Standard HTTP header. Value needs to use 'Basic <base64 encoded value>' format
Accept-Encoding	FactSet will send compressed responses (.gzip files). Values need to be deflated

Request Parameters

List Schemas End Point

Parameters	Datatype	Description
Schema	string	Schema for which the schema file is required **Note:** Does not support multiple schemas QFL: To query QFL data, please use value: **qfl_v1**
Sequence	integer	**Note:** Please pass the sequence parameter only while passing the schema parameter in the request QFL: For QFL it's the sequence number associated with the "qfl" schema

List Files End Point

Parameters	Datatype	Description
Schema	string	Schema name. To get the files for a particular schema, default is all schemas & bundles subscribed by the user. For QFL its always "qfl_v1".
bundle	string	Bundle name. To get the files for a particular bundle, default is all schemas & bundles subscribed by the user. **Note:** • Supports multiple bundles QFL: In case of QFL it's a Factor Group name • Default is all the factor families & groups subscribed to by the user • **Note:** Supports multiple factor groups
type	string	Specifies the Full / Delta file for YTD files. Full files are weekly files generated every weekend (Saturday). The date range should include weekend dates if requesting "Full" files. In case of QFL: • Historical files (1995 to previous year) - Always "Full". A "Full" file is generated for each year • For YTD (Current year) - "Full" files are weekly files generated every weekend (Saturday). The date range should include weekend dates if requesting "Full" files Available values: full, delta
startDate	string	The earliest date of the feed file the API should fetch for based on the fileTimestamp • If a schema parameter is not specified in the request, then data should be requested in batches of 10 days or less **(Date range should be less than or equal to 10)** • If the schema parameter is specified in the request, the date range can be greater than 10 days • If startDate and endDate parameters are not specified in the request, this endpoint returns the past 10 days of data by default • startDate can be absolute, YYYY-MM-DD or relative: -1 for yesterday In case of QFL • Historical files are available from 1995-01-01 to 2021-12-31. YTD files are current year files
endDate	string	The latest date (YYYY-MM-DD) of the feed file the API should fetch for based on fileTimestamp. If startDate and endDate parameters are not specified in the request, this endpoint returns the past 10 days data by default. endDate can be in absolute, YYYY-MM-DD or relative date: 0 for today.
_sort	string	Sorts the data as per specified argument (default is descending or reverse chronological order). "_sort=startDate" gives all the results in chronological order.
_paginationLimit	integer	The number of results to display per page. "_paginationLimit" overrides the default (20) results per page. Max limit = 500.
_paginationOffset	integer	For requests that generates more than 20 results. This parameter is used to identify the beginning of the next set of results.

Request Return Codes

HTTP status code	Description
400	Incorrect sequence, incorrect schema name
403	No Subscription
500	There was an error while retrieving the data

Sample Requests

URL Syntax
A URL is defined as following:

- <protocol>://<base URL>/<service><endpoint>?< optional query string parameters>

  https://api.factset.com/bulk-documents/sdf/v1/list-files?bundle=XXXX
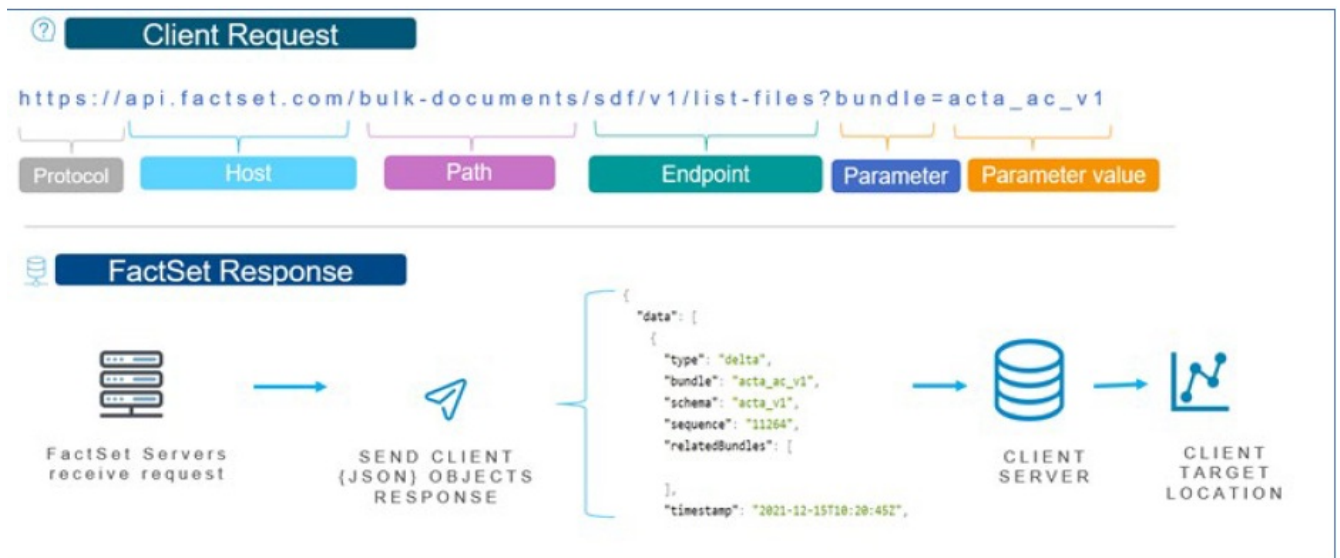
Examples:
List Schemas
http://api.factset.com/bulk-documents/sdf/v1/list-schemas provides the list of schemas subscribed by you
and your corresponding sequences if no query parameters are passed in the request.
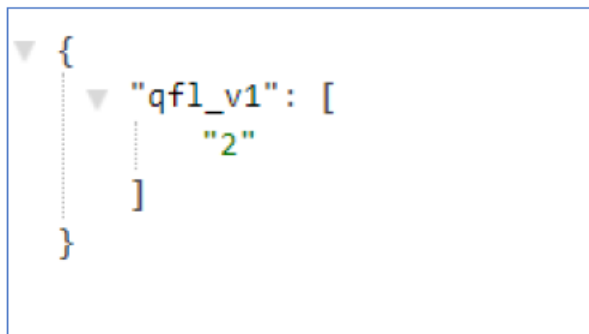
List Schema and Sequence
https://api.factset.com/bulk-documents/sdf/v1/list-schemas?schema=qfl_v1&sequence=2 If schema &
sequence number (version number of schema) are passed in the request, this endpoint provides a downloadable
presigned url containing the schema information.

Note: The request does not support multiple schemas as an input.

```
{
    schema: "qfl_v1",
    sequence: 2,
    url: "https://fdss3-bulk-data-delivery-sdf-prod.s3.amazonaws.com/schema/qfl_v1/2/2022-05-26_16_06_07.
    timestamp: "2022-05-26 16:06:07"
}
```

List-schemas Output:
Output is delivered in the form of JSON files. File names are composed of schema update date and time.

2020-05-28_14_18_33.json
Type: JSON File

List Files
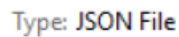
provides the downloadable links for all schemas & bundles subscribed by user. If startDate and endDate parameters are not specified in the request, this endpoint returns the past 10 days data by default.

```
{
  "data": [
    {
      "type": "delta",
      "bundle": "fgp_global_prices_am_v1",
      "schema": "fgp_v1",
      "sequence": "2832",
      "relatedBundles": [
        {
          "bundle": "fgp_global_prices_eu_v1",
          "sequence": "4141"
        }
      ],
      "timestamp": "2022-01-29T03:55:58Z",
      "url": "https://fdss3-sdf-publish-prod.s3.amazonaws.com/prod/01/28/50B8C5EC-80B7-11EC-8704-807C27
disposition=attachment%3B%20filename%3Dfgp_global_prices_am_v1_2832.zip&X-Amz-Algorithm=AWS4-HMAC-SHA25
Date=20220208T002434Z&X-Amz-Expires=3600&X-Amz-SignedHeaders=host&X-Amz-Security-
Token=IQoJb3JpZ2luX2VjEKn%2F%2F%2F%2F%2F%2F%2F%2F%2FwEaCXVzLWVhc3QtMSJGMEQCIFxBaJZbOettTEfmhqRRijAeU
F%2F8BEAEaDDk2NjI4MjExNjQyNSIME71YzuzL8N78rMLGKvMB144xxsyX4Y9fr3P5n0QbJMW%2BoLEgTuGIpnKUOXNE1JJ06Dni8Eu
FrGPHHvxL9Tu7oD6%2BRZWCjQzHGSKqO5npQlDwVUvDULc2gAEsNYfJ9ABfiXrh7W9Qkxgj0ZnpCoZ8cRIRmoZtjB896ZK13ucZAyZK
cIGham3jz4k2VL16FQJDNN%2Fft3XFx89LB63PS65dsK5vv6%2Fyx%2FqWtZ0igLdLaub47ZgpeLVsR9g2zJPn7Px08utuORXY6Ipzt
w2hZfyZZb5rVLapIw%3D&X-Amz-Signature=996133149549565b91718f1dab71192a9fe5cc7ad6d9a2dc9bb6e8b063e7459b",
      "fileSize": "0.0MB"
```

List-files output for YTD(Full) for QFL:

Output is delivered in the form of .zip files with the following naming convention – bundle name_filetype_sequence number.zip for full files.

qfl_factor_profit_ytd_v1_6.zip

List-files output for YTD(Delta) for QFL:

Output is delivered in the form of .zip files with the following naming convention – bundle name_ sequence number.zip for delta files.

qfl_factor_profit_ytd_v1_6.zip

List-files output for Historical for QFL:

Output is delivered in the form of .zip files with the following naming convention – bundle name_filetype_sequence number.zip for full files.

qfl_factor_crowding_2021_v1_full_1.zip
qfl_factor_inside_2020_v1_full_1.zip
qfl_factor_analyst_2019_v1_full_1.zip
qfl_factor_corpgov_1995_v1_full_1.zip
qfl_factor_inside_1995_v1_full_1.zip
qfl_factor_crowding_1995_v1_full_1.zip

List-files output for Historical (excluding QFL):
Output is delivered in the form of .zip files with naming convention as bundle name_filetype_sequence number.zip for full files.

bit_entity_v1_full_530.zip
acta_ae_v1_embargoed_full_953.zip

List-files output for Delta(excluding QFL):
Output is delivered in the form of .zip files with naming convention as bundle name_ sequence number.zip for delta files.

acta_v1_24277.zip

List Files for a Schema
https://api.factset.com/bulk-documents/sdf/v1/list-files?schema=qfl_v1

Provides all the "factor groups" within the subscribed factor families for the past 10 days.

```
{
  - data: [
      - {
            type: "delta",
            bundle: "qfl_factor_corpgov_ytd_v1",
            schema: "qfl_v1",
            sequence: "2",
            relatedBundles: [ ],
            timestamp: "2022-06-01T02:01:56Z",
            url: "https://fdss3-sdf-publish-prod.s3.amazonaws.com/prod/05/31/36FD5A76-E14E-11EC-82EC-A9224
            fileSize: "5.03MB"
      },
      - {
            type: "delta",
            bundle: "qfl_factor_crowding_ytd_v1",
            schema: "qfl_v1",
            sequence: "2",
            relatedBundles: [ ],
            timestamp: "2022-06-01T01:36:55Z",
            url: "https://fdss3-sdf-publish-prod.s3.amazonaws.com/prod/05/31/1702F4EA-E14B-11EC-99F3-9EE2B
            fileSize: "0.0MB"
      },
      - {
            type: "delta",
            bundle: "qfl_factor_analyst_ytd_v1",
            schema: "qfl_v1",
            sequence: "2",
            relatedBundles: [ ],
            timestamp: "2022-06-01T01:36:46Z",
            url: "https://fdss3-sdf-publish-prod.s3.amazonaws.com/prod/05/31/1B069DDA-E14B-11EC-AE28-C2968
            fileSize: "0.0MB"
      },
```

List Files for a bundle
Provides all of the info for the bundle specified. Also gives the available related bundles.
https://api.factset.com/bulk-documents/sdf/v1/list-files?bundle=acta_ac_v1,fgp_global_prices_am_v1

Note: Supports multiple bundles inputs.

```
{
  "data": [
    {
      "type": "delta",
      "bundle": "fgp_global_prices_am_v1",
      "schema": "fgp_v1",
      "sequence": "2832",
      "relatedBundles": [
        {
          "bundle": "fgp_global_prices_eu_v1",
          "sequence": "4141"
        }
      ],
      "timestamp": "2022-01-29T03:55:58Z",
      "url": "https://fdss3-sdf-publish-prod.s3.amazonaws.com/prod/01/28/50B8C5EC-80B7-11EC-8704-807C27
disposition=attachment%3B%20filename%3Dfgp_global_prices_am_v1_2832.zip&X-Amz-Algorithm=AWS4-HMAC-SHA25
Date=20220208T002434Z&X-Amz-Expires=3600&X-Amz-SignedHeaders=host&X-Amz-Security-
Token=IQoJb3JpZ2luX2VjEKn%2F%2F%2F%2F%2F%2F%2F%2F%2F%2FwEaCXVzLWVhc3QtMSJGMEQCIFxBaJZbOettTEfmhqRRijAeU
F%2F8BEAEaDDk2NjI4MjExNjQyNSIME71YzuzL8N78rMLGKvMB144xxsyX4Y9fr3P5nOQbJMW%2BoLEgTuGIpnKUOXNE1JJ06Dni8Eu
FrGPHHvxL9Tu7oD6%2BRZWCjQzHGSKqO5npQlDwVUvDULc2gAEsNYfJ9ABfiXrh7W9Qkxgj0ZnpCoZ8cRIRmoZtjB896ZK13ucZAyZK
cIGham3jz4k2VL16FQJDNN%2Fft3XFx89LB63PS65dsK5vv6%2Fyx%2FqWtZ0igLdLaub47ZgpeLVsR9g2zJPn7Px08utuORXY6Ipzt
w2hZfyZZb5rVLapIw%3D&X-Amz-Signature=996133149549565b91718f1dab71192a9fe5cc7ad6d9a2dc9bb6e8b063e7459b",
      "fileSize": "0.0MB"
```

List-files with type = full / delta
https://api.factset.com/bulk-documents/sdf/v1/list-files?schema=ks_v1&type=full

```
{
  "data": [
    {
      "type": "full",
      "bundle": "ks_hub_v1",
      "schema": "ks_v1",
      "sequence": "1074",
      "relatedBundles": [

      ],
      "timestamp": "2022-02-05T06:08:01Z",
      "url": "https://fdss3-sdf-publish-prod.s3.amazonaws.com/prod/02/05/EA54E18A-864
Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=ASIA6B6XG7VERTPWNUSP%2F20220208%2Fus-east
Token=IQoJb3JpZ2luX2VjEKn%2F%2F%2F%2F%2F%2F%2F%2F%2F%2FwEaCXVzLWVhc3QtMSJGMEQCIFxBaJZ
F%2F8BEAEaDDk2NjI4MjExNjQyNSIME71YzuzL8N78rMLGKvMB144xxsyX4Y9fr3P5nOQbJMW%2BoLEgTuGIp
FrGPHHvxL9Tu7oD6%2BRZWCjQzHGSKqO5npQlDwVUvDULc2gAEsNYfJ9ABfiXrh7W9Qkxgj0ZnpCoZ8cRIRmo
cIGham3jz4k2VL16FQJDNN%2Fft3XFx89LB63PS65dsK5vv6%2Fyx%2FqWtZ0igLdLaub47ZgpeLVsR9g2zJP
w2hZfyZZb5rVLapIw%3D&X-Amz-Signature=2b49fe574d1749ce9ae457e2ebfd81cea047383d87fe60a1
      "fileSize": "5.01MB"
```

https://api.factset.com/bulk-documents/sdf/v1/list-files?schema=ks_v1&type=delta

List-files for a date range

startDate=YYYY-MM-DD&endDate= YYYY-MM-DD Provides data for a specified date range.

```
{
    "type": "delta",
    "bundle": "ks_us_v1",
    "schema": "ks_v1",
    "sequence": "260",
    "relatedBundles": [

    ],
    "timestamp": "2021-08-28T12:11:55Z",
    "url": "https://fdss3-sdf-publish-dev.s3.amazonaws.com/dev/08/28/E646B08E-07F8-11EC-A3E4-D826610AAFED?response
Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=ASIA4NAFRGHDPQULC5PK%2F20220208%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Da
Token=IQoJb3JpZ2luX2VjEKn%2F%2F%2F%2F%2F%2F%2F%2F%2F%2FwEaCXVzLWVhc3QtMSJIMEYCIQCGeA8FaZ1A8yOIUOT63%2FpgKm4ndtaswFAs
F%2F%2F%2FwEQARoMODUyNTYyNjIwODcwIgyrC4g2Tk6tG2DUk90q8wENmd3gJfz1CMjMxNIlTtlEZTa%2FURRrahtgRFpz%2BuaigzU9j64B%2Fuxnt
FzqoJdxfAa%2BSNbFmDuYBo9BWDm%2FcXECwtB9UasQPoOI%2BpvA%2B0fbQu26RGTANhlqOq5y89EHranRDef2fX3gpT7pstvoHHJs3hieQmN21GvI9
w8%2FuGkAY6mQEXgX1XJ7XfyWrfK%2BVbrQmziog8BHXEchkIPqir22HsHckEzEW5r9CaxufiglT8zPoBycQcSATwbx2nod%2BB%2B8v578%2FJoOJfN
otV5XBuztZEdaHd2uuZgQYucTTo%3D&X-Amz-Signature=d7e4acdecc951e32b95610c3088c94b3690e427727b58273cac0fc82837905cb",
    "fileSize": "-"
},
{
    "type": "full",
    "bundle": "ks_us_v1",
    "schema": "ks_v1",
    "sequence": "260",
    "relatedBundles": [

    ],
    "timestamp": "2021-08-28T12:11:53Z",
    "url": "https://fdss3-sdf-publish-dev.s3.amazonaws.com/dev/08/28/E5A8B92E-07F8-11EC-BE64-99A4925EDE03?response
Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=ASIA4NAFRGHDPQULC5PK%2F20220208%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Da
Token=IQoJb3JpZ2luX2VjEKn%2F%2F%2F%2F%2F%2F%2F%2F%2F%2FwEaCXVzLWVhc3QtMSJIMEYCIQCGeA8FaZ1A8yOIUOT63%2FpgKm4ndtaswFAs
F%2F%2F%2FwEQARoMODUyNTYyNjIwODcwIgyrC4g2Tk6tG2DUk90q8wENmd3gJfz1CMjMxNIlTtlEZTa%2FURRrahtgRFpz%2BuaigzU9j64B%2Fuxnt
FzqoJdxfAa%2BSNbFmDuYBo9BWDm%2FcXECwtB9UasQPoOI%2BpvA%2B0fbQu26RGTANhlqOq5y89EHranRDef2fX3gpT7pstvoHHJs3hieQmN21GvI9
w8%2FuGkAY6mQEXgX1XJ7XfyWrfK%2BVbrQmziog8BHXEchkIPqir22HsHckEzEW5r9CaxufiglT8zPoBycQcSATwbx2nod%2BB%2B8v578%2FJoOJfN
otV5XBuztZEdaHd2uuZgQYucTTo%3D&X-Amz-Signature=a9daf06472f215627cd53c8c04c877cf54169c074a4b36be13551661e902f3f4",
    "fileSize": "-"
```

Note: In the absence of a date parameter input, the API returns (by default) 10 days of data.

"_sort" list-files
By default, API shows results in the reverse chronological order based on "time stamp". This order can be changed using "_sort" option in query input
https://api.factset.com/bulk-documents/sdf/v1/list-files?type=full&_sort=startDate

_sort=startDate – sorts the data as per oldest date in response output.

Response Data Fields

Response fields
List-schemas endpoint

Response fields	Datatype	Description
timestamp	string	Time stamp of when the schema-sequence was last updated
bundle	string	Pre-signed downloadable url containing the information of the schema
schema	string	Name of the schema
sequence	integer	Version number of schema

Response fields	Datatype	Description
type	string	Type of file (daily updates / weekly full)
		values: full / delta
bundle	string	Name of the bundle
		QFL: For QFL its Factor Group name
schema	string	Name of the schema
		QFL: In case of QFL its always qfl_v1
sequence	string	Bundle sequence number
relatedBundles	array	Bundle name and sequence number of related bundles
timestamp	string	Time stamp of when the bundle was generated
url	string	Pre-signed downloadable url, containing the bundle information
filesize	string	File size of the particular bundle

Meta fields

```
"meta": {
  "pagination": {
    "total": 256,
    "isEstimatedTotal": false,
    "limit": 20,
    "offset": 20
  },
  "partial": {
    "isPartial": true
  } }
```

Pagination

An endpoint where the primary data in the response is an array or an object containing an array may support pagination of the respective array to limit the number of resources returned in a response, using a pagination meta-attribute.

Meta Member name	Format	Description
pagination	object	Object defining the pagination attributes for an endpoint response.
pagination.total	integer	Total number of entries in the result set.
pagination.isEstimatedTotal	boolean	Flag indicating that the value of total is estimated.
pagination.total	integer	Number of results returned per page
pagination.offset	integer	The flag indicating the position in the results array if additional results are available beyond the default value or the value in _paginationLimit parameter (if used). This value is passed in the _paginationOffset parameter to retrieve subsequent results

Example

```
"meta": {
    "pagination": {
        "total": 256,
        "isEstimatedTotal": false,
        "limit": 20,
        "offset": 20
    },
```

Total: Specifies the number of records returned in the response. In this example the total number of records are 256.

```
"meta": {
    "pagination": {
        " ,total": 256
                        "isEstimatedTotal": false,
        "limit": 20,
        "offset": 20
    },
    "partial": {
        "isPartial": true
```

paginationLimit
The default results per page is 20 (offset). "_paginationLimit" parameter allows users to override the default.
http://api.factset.com/bulk-documents/sdf/v1/list-files?schema=ks_v1&_paginationLimit=100
shows 100 results per page instead of default 20

```
Default Limit value

"meta": {
    "pagination":      {
"total": 256,
        "isEstimatedTotal":
false,
        " ,limit": 20
                    "offset": 20
    },
    "partial": {
        "isPartial": true


with "_paginationLimit=100"
    "meta": {
        "pagination": {
            "total": 256,
            "isEstimatedTotal":
false,
            " ,limit": 100

"offset":100
        },
        "partial": {
            "isPartial": true
```

paginationOffset
The "_paginationOffset" option allows users to navigate to the next set of records. By default, the Pagination Limit = Pagination Offset.

```
Default Offset value
"meta": {
    "pagination": {

        "total": 71,

        "isEstimatedTotal": false,
        "limit": 50,

        "offset": 50
    },
    "partial": {
        "isPartial": true
```

"_paginationOffset=50" returns next set of 50 records. In this case last 21 (51-71) records since the total number of records are 71.

```
with "_paginationOffset=50"

  "meta": {
     "pagination":     {
"total": 71,
        "isEstimatedTotal":
false,
        "limit": 50,
        "offset": 100
    },
     "partial": {
        "isPartial": false

    }
  }
}
```

isPartial: true
Denotes there are additional results/pages for the request.

with "_paginationOffset=50"

    "meta": {
        "pagination":   {
"total": 71,
            "isEstimatedTotal":
false,
            "limit": 50,
            "offset": 100
        },
        "partial": {
            "isPartial": false

        }

    }

}

Partial: false

Denotes there are no further results/pages for the request.

    "meta": {

        "pagination": {

            "total": 256,

            "isEstimatedTotal": false,

            "limit": 20,

            "offset": 100
        },
        "partial": {
            "isPartial": true

        } }}

Error Response

Permission Error

User does not have a subscription to the API

    "id": "d53e590f-543c-4ab0-863d-5048a3b0728e",
    "error_message": "You are not subscribed to this product: sdf"

User does not have a subscription to the Schema in list-schema endpoint

    "id": "5d378c0c-2d84-4574-acd5-588bba395c59",
    "error_message": "parameterError:fgp_v1 : Not a valid schema."

Param Error

Example not entitled error messages:

- Does not support multiple inputs for "schema" parameter in list-schemas end point.

    "id": "ac27e073-ed3e-4669-81de-361d75394504",
"error_message": "parameterError:Bad Request: schema and sequence required"

- No schema or bundle access – returns blank output in /list-files end point.

```
{
  "data": [

  ],
  "meta": {
    "pagination": {
      "total": 0,
      "isEstimatedTotal": false,
      "limit": 20,
      "offset": 20
    },
    "partial": {
      "isPartial": false
    }
  }
}
```

- If the date range for data requested is greater than 10 days without using the schema parameter in the list-files end point.

  https://api.factset.com/bulk-documents/sdf/v1/list-files?startDate=2022-01-25&endDate=2022-02-10

- The 10-day date range limitation does not apply when requesting data for a schema.

  https://api.factset.com/bulk-documents/sdf/v1/list-files?schema=sym_v1&startDate=2022-01-25&endDate=2022-02-10&_paginationLimit=500

  Passing the correct schema name value with the wrong sequence number returns a 503 error.

  https://api.factset.com/bulk-documents/sdf/v1/list-schemas?schema=qfl_v1&sequence=3

Appendix D: Reference Docs

Refer to the documents below from OA_Page:15222

- FactSet Standard DataFeed Symbology v1 UserGuide for FactSet symbology
- FactSet Standard DataFeed General v1 User Guide for standard datafeed questions

Global Client Support
If you have any questions, submit a request through **https://issuetracker.factset.com** under the "Documents API" RPD product category.
If you do not have login credentials for Issue Tracker, Email to datafeed_support@factset.com.
For general assistance, contact your local FactSet Consultant or Salesperson or Email support@factset.com.

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Acknowledgements
This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (**http://www.openssl.org**).

Documents / **Resources**

Standard DataFeed Download API Programmer's Manual and Reference v1.1.0	**FactSet SDF Download API Synchronous Delivery Service** [pdf] User Manual SDF, SDF Download API Synchronous Delivery Service, Download API Synchronous Delivery Service, Synchronous Delivery Service, Delivery Service

References

- O**S** **/index.html**