



File Delivery Service (FDS)

Guidelines

2022-02-08

1 This Document

This document provides a quick tour on all the essential features of the File Delivery Service (FDS).

FDS is a web based file format and size independent NASDAQ solution, used for distributing files from several source systems. FDS is owned and managed by NASDAQ Global Data Products team.

Latest update - February 8th, 2022.

Revision History

This document has been revised according to the following table:

Revision History	Author	Comments
Rev 1, February 2013	Nasdaq	Initial Version
Rev 2, February 2017	Nasdaq	Updated Test Information
Rev 3, February 2022	Nasdaq	Updated contacts Changed password renewal frequency

2 General Service Information

Service related changes and news

Information about FDS service related changes is distributed via IT Notices. In some cases we may approach our direct contacts via mail.

Please note! FDS is not producing any files by itself. All the files are generated by various source systems. This means that when source systems producing the files are changing, it is possible that files are changing accordingly. Also all these source related changes are being informed via IT Notices.

IT Notices can be subscribed here:

<http://www.nasdaqomxnordic.com/news/marketnotices/Subscribe>

Products and service documentation

For the *files product information*, *file format specification* and *file/market mapping* documentation, please see the other documents available here:

<https://www.nasdaq.com/solutions/nasdaq-nordic-file-delivery-service>

For the TIP message content, please see the *TIP specifications* available at the "Technical information" section on this page:

<https://www.nasdaq.com/solutions/technical-information-genium-consolidated-feed-gcf>

For the ITCH message content (historical files), please see the *Data Feed specifications* available at the "Technical information" section on this page:

<https://www.nasdaq.com/solutions/inet-nordic-protocol-specification>

ITCH data specifications are also available on the Member portal. Please contact operator@nasdaq.com for access to the MP.

First Line Support

Available on trading days:

Between 07:00 – 18:30 CET

Tel. +46 8 405 6410, Operator@nasdaq.com

System hours

System hours on trading days are:

Between 06.30 - 23.30 CET

Supported 07:00 – 18:30 CET

Access and product information

To get the FDS access or request for more information, please contact either:

GDP Sales: EUDataSales@nasdaq.com

GDP Products: DataEurope@nasdaq.com

The access is available when customer receives confirmation mail with access details. The password is updated on a quarterly basis and forwarded to the person who requested the original access unless customer otherwise informs. The FDS contact changes must be provided to GDP products team (DataEurope@nasdaq.com).

3 How to use

General

FDS system requirements are:

- access to internet
- a web browser and
- user account with subscriptions to files products.

Service has 2 external interfaces: one for file listing and one for downloading. Both can be used with a web browser, and downloading also with wget type of embedded solutions. Please also see the examples.

Connection

Connection to the FDS service can be based on either open internet or member network access. There are some major differences technically between the solutions, and therefore, if you are accessing the system via member network, please read the additional information in chapter 4.

IP addresses are not being filtered i.e. user can access system anywhere via open internet.

In open internet the file transfer protocol is always *HTTPS*, and *HTTP* when using the member network connection.

Availability of the files

FDS is a fully separate system (i.e. not part of GMI, INET or any other NASDAQ system) and only a distribution channel.

Because FDS is not producing any files by itself, FDS is also completely dependent of the sources when it comes to providing the files. FDS makes the file available immediately after receiving it, but FDS cannot guarantee the availability of a file: neither in terms of files being generated nor that files are available at the same time each day.

Continuous file polling is not being allowed, if you need further information regarding expected file availability details, please contact us.

To get access to a file customer must have subscription to the file group ("product") containing the file. To add/change subscriptions, please contact us (see the "Access and product information" above).

File storage time depends on file type. Certain files are kept in the system without any limit, but in common case the files are available online for 30 days.

Daily folder hierarchy

Nearly all the files distributed via FDS are daily ones. This is also the reason why we have organized the files into daily folders.

When requesting a file, today's folder can be referred either with string constant "TODAY" or actual date in format "yyyymmdd", please see the examples below.

If you need to find older files, you can use either string constant "YESTERDAY" (refers to previous business day) or the actual date.

Web Browsers

All the major browsers are supported, but not all the browsers, like Internet Explorer, allow usernames and passwords in URL. In those cases URL has to be given without access details and system will prompt for those (see examples). In order to fix the problem with IE, please visit the following link for an explanation and guidelines: <http://support.microsoft.com/kb/834489/>

Web Browser plug-ins

Different types of files are downloaded the same way (either via list by clicking the link or direct URL/WGET request). However, there are some issues to be taken into consideration if browser plug-ins are being used. For example, all browsers use a plug-in program when downloading and viewing PDF documents.

This plug-in divides PDF downloads into smaller data chunks which it loads into the browser window during the process. This is often done so that downloading is not completed before the file content presentation is started. If the PDF file is large enough this unfinished download may trigger download errors.

The suggested way to do the downloading is to finish it first completely, then open the file for other purposes.

Typical usage examples:

All these are for the production environment and open internet connection, replace https with http if using member net connection.

A) File listing

Displays all the available daily files generated so far.

```
https://<user>:<password>@fds.nasdaqomxnordic.com/basicdata/today/
```

And if your browser does not allow details in URL (prompted after request)

```
https://fds.nasdaqomxnordic.com/basicdata/today/
```

B) Requesting a specific file

Returns the file if that is available (accessible and generated).

Alternative 1: Browser request

```
https://<user>:<password>@fds.nasdaqomxnordic.com/basicdata/today/<fname>
```

And if your browser does not allow details in URL (prompted after request)

```
https://fds.nasdaqomxnordic.com/basicdata/today/<fname>
```

Alternative 2: Using WGET

WGET manual is available here:

```
https://www.gnu.org/software/wget/manual/wget.html
```

a) With proxy (change *192.168.0.1:1080* to your internal proxy address)

```
wget -e http_proxy=https//192.168.0.1:1080 --tries=3 --output-document=<fname>  
https://<user>:<password>@fds.nasdaqomxnordic.com/basicdata/today/<fname>
```

b) Without proxy

```
wget --tries=3 --output-document=<fname>  
https://<user>:<password>@fds.nasdaqomxnordic.com/basicdata/today/<fname>
```

In case of problems

If the issue is related to products, subscriptions and/or user account, please contact GDP Products team: DataEurope@nasdaq.com

If the issue is related to connection or other technical issues, please contact First Line Support (Tel. +46 8 405 6410, operator@nasdaq.com)

With any technical problems please prepare to provide following details:

- Browser and version (e.g MS Internet Explorer version: 8.0.7601.17514)
- Complete error message that is visible in the browser. Please attach a screenshot of the browser window if possible.
- If the download was successful after numerous tries, please provide the number of failed attempts before successful.
- Please also mention if the download is not completed and you can find something like "12394kB/2000kB done" or "downloading 85%" in the bottom of the browser window.

4 Additional information for OA/VFN

When accessing FDS over member network connections such as OA (OneAccess) or VFN (Verizon Financial Network) please replace the URL's accordingly:

fds.nasdaqomxnordic.com -> 192.176.3.100:8080
fdstest01.nasdaqomxnordic.com -> 192.176.3.101:8080

In open internet the file transfer protocol is always *HTTPS*.

Example:

```
http://<username>:<password>@192.176.3.100:8080/basicdata/today/
```

If you intend to connect from your personal desktop (and not from a server deployed for external connection) over the member network, ask your network department to attend to the following:

- Enable routing from your desktop to the network equipment which is used for accessing the member network;
- Implement NAT (Network Address Translation), as your IP address cannot

be used as source over the member network;

- Implement access control in router/Firewall to the FDS destination addresses (IP addresses and TCP port) as above. The IP addresses are within subnet 192.176.3.0/24.

5 Test information

Test areas

There are 4 different FDS test areas available, each connected to different GCF test systems. Technically areas are similar, but file content varies depending on the source data.

The access privileges are the same on each of the areas.

FDS TEST AREA	CONNECTED GCF TEST SYSTEM
TST1	GCF TST1
TST2	GCF TST2
TST3	GCF TST3
TST4	GCF TST4

If you have questions concerning data availability or usage of the test areas, please contact dataeurope@nasdaq.com.

Examples:

A) *File listing*

TST1 - area

```
https://<user>:<password>@fdstest01.nasdaqomxnordic.com/tst1/today/
```

TST4 - area

```
https://<user>:<password>@fdstest01.nasdaqomxnordic.com/tst4/today/
```

And if your browser does not allow details in URL (prompted after request)

TST1 - area

```
https://fdstest01.nasdaqomxnordic.com/tst1/today/
```

TST4 - area

```
https://fdstest01.nasdaqomxnordic.com/tst4/today/
```

B) Requesting a specific file

Alternative 1: Browser request

TST1 - area

```
https://<user>:<password>@fdstest01.nasdaqomxnordic.com/tst1/today/<fname>
```

TST4 - area

```
https://<user>:<password>@fdstest01.nasdaqomxnordic.com/tst4/today/<fname>
```

And if your browser does not allow details in URL (prompted after request)

TST1 - area

```
https://fdstest01.nasdaqomxnordic.com/tst1/today/<fname>
```

TST4 - area

```
https://fdstest01.nasdaqomxnordic.com/tst3/today/<fname>
```

Alternative 2: Using WGET (example of GCF4 only)

a) With proxy (change *192.168.0.1:1080* to your internal proxy address)

```
wget -e http_proxy=https://192.168.0.1:1080 --tries=3 --output-document=<fname>  
https://<user>:<password>@fdstest01.nasdaqomxnordic.com/basicdata/today/<fname>
```

b) Without proxy

```
wget --tries=3 --output-document=<fname>
```

```
https://<user>:<password>@fdstest01.nasdaqomxnordic.com/basicdata/today/<fname>
```

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