WM **Datenservice**

Customer FTP Server Manual

Version 2.8

1. System performance and prerequisites

WM Datenservice provides a range of financial information and data products via the FTP server including:

- HOST data profiles such as compilations of various segments, Investment Fund Prices (IFP), Ratings, and Asset & Risk Management
- Financial Object Feeds (FOFs) from the WMS system
- Special data profiles, such as the monthly VAG and the Event Calendar

The data are provided to the individual customer accounts, which can be accessed by way of user names and passwords via

- FTP (File Transfer Protocol) using any FTP Client
- http (HyperText Transfer Protocol) using a conventional web browser.

Furthermore, there are several *special accounts* used for special deliveries, basic and initial loads, and test deliveries.

The data are usually downloaded on an automated basis via FTP, in the course of which a program *(FTP Client)* is started on the customer's side and the user name and password are transferred *(login)*. If these are valid, the *FTP Client* gains access to the corresponding directory *(customer account)*.

The download via FTP can also be carried out manually.

As of this version – for security reasons – the user name and password may only be transmitted in secured form via FTP as the FTP Server has now been set to only accept TLS (Transport Layer Security) connections. This again requires specialised FTP Clients. This procedure is explained in more detail below.

Profile files can also be downloaded from customer accounts using a conventional web browser (Internet Explorer, Firefox, Safari, Opera, etc.). After entering the web address of the WM FTP Server, entry of the user name and password is prompted. If the entry is correct, a page facilitating the selection and download of several files is shown. This is explained in greater detail below. Our special form of authentication via a central authenticator's site allows a safe transmission of the user name and password although the web address is initially a *http* URL.

2. Customer accounts

A customer account is a directory assigned to a particular customer, within which the supplied data profiles are located. As each customer account comprises a *pub* subdirectory containing the profile files, the command

```
cd pub
```

must follow each successful FTP login. See the FTP session described below for illustration. Customers cannot make amendments to the contents of the directory (e.g., file deletion or renaming, uploads).

Some *customer accounts* contain a further subdirectory *(data)* for uploading files such as ISIN request files for certain FOF profiles. As a rule, the uploaded files are processed by downstream processes and then deleted.

User names and passwords are allocated and transmitted to customers at the time a new account is set up.

Aside from standard *customer accounts* allocated to a specific customer, there are also special accounts equipped to receive special deliveries, as follows:

- Initial load accounts (ZZGRUND1, ZZGRUND2, …) are used for the provision of all types of initial load files. Customers receive temporary passwords to log in and download the files.
- Test accounts (ZZTEST…) are used for test deliveries analogous to the above mentioned process.
- Accounts for the provision of insurance company special assets (Sondervermögen Versicherungen), Insurance Supervisory Act (ZZVAGMON, ZZVAGQUARTAL), and other special delivery accounts.

Customers who are entitled to receive a special delivery will thus receive a corresponding user name (e.g., ZZGRUND1) and password in order to carry out the download.

3. FTP access via TLS

In order to prevent eavesdroppers from stealing passwords, we now only operate a TLS-capable FTP Server. The TLS procedure only encodes the command port, but not the data port. The command port is the one that transmits FTP command (eg. `dir, cd`,…) along with the user names and passwords.

The FTP server can be accessed at (URL):

`ftp01.wmgruppe.de`

The TLS-capable FTP Server does not, however, operate via the standardised FTP port, but rather via port 26. The following prerequisites are required for the operation of an *FTP Client*:

Port 26
For obtaining data from our FTP Server, a *FTP Client* with an adjustable port is required. In general, the adjustments can be induced via parameters entered when starting an *FTP Client*, or via a configuration file, in which case the corresponding *FTP Client* documentation must be consulted.

Passive mode
The *FTP Client* must be operated in a passive mode which nearly all currently available *FTP Clients* are capable of. Switching into the passive mode is usually achieved via parameters entered when starting an *FTP Client*, or via a configuration file, in which case the corresponding *FTP Client* documentation must be consulted.

Port range 44200 - 44400
In the passive mode, the *FTP Client* and the FTP Server agree upon the port via which the data (i.e., the profile files) are to be transported at the beginning of each session. Hence, the FTP Server is adjusted so that only ports within the 44200 to 44400 range are used. These ports must therefore be unblocked if a firewall exists.

TLS capability
The *FTP Client* must support TLS, and in general all *FTP Clients* with TLS capability can be used, as follows (with no warranty as to completeness):

Windows:	Linux, Unix, MacOS X
coreFTP: : http://www.coreftp com/ SmartFTP: http://www.smartftp.com/ WinSCP: http://winscp.com FlashFXP: http://www.flashfxp.com 1FileZilla: http://www.filezilla.de/	lftp: http://lftp.var.ru 1FileZilla: http://www.filezilla.de/

1) FTP client can only be used for manual downloading.

In the following, we will illustrate the process of a manual FTP session (login, change to the pub directory, download of a profile file). The user's commands are shown in blue.

The FTP server can be accessed at (URL):

ftp01.wmgruppe.de

with port 26.

The connection to the FTP server is made at the beginning of the session; the login is effected by substituting the word "**password**" with the received password.

```
>>lftp -p 26 -u ZZVAGMON,password ftp01.wmgruppe.de
lftp ZZVAGMON@ftp01.wmgruppe.de:~> cd pub
---- Connecting to ftp01.wmgruppe.de (194.187.222.24) port 26
<--- 220---------- Welcome to Pure-FTPd [TLS] ----------
<--- 220-You are user number 1 of 100 allowed.
<--- 220-<<
<--- 220-Welcome to ftp01.wmgruppe.de
<--- 220-
<--- 220-
<--- 220-WM Gruppe
<--- 220-
<--- 220-Herausgebergemeinschaft WERTPAPIER-MITTEILUNGEN
<--- 220-Keppler, Lehmann GmbH & Co. KG
<--- 220-
<--- 220-Postfach 11 09 32
<--- 220-60044 Frankfurt a. M.
<--- 220-
<--- 220-Tel.: (069) 27 32-0
<--- 220-Fax: (069) 23 22 64
<--- 220->>
<--- 220-Local time is now 10:30. Server port: 26.
<--- 220-IPv6 connections are also welcome on this server.
<--- 220 You will be disconnected after 15 minutes of inactivity.
<--- 230-User ZZGRUND1 has group access to:  reader
<--- 230 OK. Current restricted directory is /
<--- 250 OK. Current directory is /pub
cd ok, cwd=/pub
lftp ZZVAGMON@ftp01.wmgruppe.de:/pub>
```

Login was successful. The **cd pub** command leads to the **pub** sub directory. While the **dir** command results in a list of the file contents of the customer account:

```
lftp ZZVAGMON@ftp01.wmgruppe.de:/pub> dir
229 Extended Passive mode OK (|||44245|)
150 Accepted data connection
drwxr-xr-x    2 501       501     8192 Nov  1 13:31
drwxr-xr-x    3 501       501     4096 Sep 15 22:59 ..
...
lrwxrwxrwx    1 501       501      52 Aug  1 00:49 WM110731-VAG-CSV_ANSI.TXT
       → /opt/daten/CSV_ANSI/SICHER/WM110731-VAG-CSV_ANSI.TXT
lrwxrwxrwx    1 501       501      54 Aug  1 00:50 WM110731-VAG-CSV_ASCII.TXT
       → /opt/daten/CSV_ASCII/SICHER/WM110731-VAG-CSV_ASCII.TXT
lrwxrwxrwx    1 501       501      52 Aug  1 00:58 WM110731-VAG_VF1_ANSI.TXT
       → /opt/daten/VF1_ANSI/SICHER/WM110731-VAG_VF1_ANSI.TXT
lrwxrwxrwx    1 501       501      54 Aug  1 00:59 WM110731-VAG_VF1_ASCII.TXT
       → /opt/daten/VF1_ASCII/SICHER/WM110731-VAG_VF1_ASCII.TXT
lrwxrwxrwx    1 501       501      52 Sep  1 02:36 WM110831-VAG-CSV_ANSI.TXT
       → /opt/daten/CSV_ANSI/SICHER/WM110831-VAG-CSV_ANSI.TXT
lrwxrwxrwx    1 501       501      54 Sep  1 02:36 WM110831-VAG-CSV_ASCII.TXT
       → /opt/daten/CSV_ASCII/SICHER/WM110831-VAG-CSV_ASCII.TXT
lrwxrwxrwx    1 501       501      52 Sep  1 02:51 WM110831-VAG_VF1_ANSI.TXT
       → /opt/daten/VF1_ANSI/SICHER/WM110831-VAG_VF1_ANSI.TXT
lrwxrwxrwx    1 501       501      54 Sep  1 02:51 WM110831-VAG_VF1_ASCII.TXT
       → /opt/daten/VF1_ASCII/SICHER/WM110831-VAG_VF1_ASCII.TXT
lftp ZZVAGMON@ftp01.wmgruppe.de:/pub>
```

The character → represents a symbolic link, denoting that not the original file itself, but rather a reference to it, is in the *customer account.* This makes no difference in the event of downloading, as the *FTP Client* will always receive the original profile file.

By entering **get** the profile file can be downloaded:

```
lftp ZZVAGMON@ftp01.wmgruppe.de:/pub> get WM110831-VAG_VF1_ASCII.TXT
101492181 bytes transferred in 4 seconds (24.26M/s)
lftp ZZVAGMON@ftp01.wmgruppe.de:/pub>
```

4. Files in customer accounts

The names of files supplied via the FTP Server are subject to certain naming conventions.

Host data profiles

The host data profiles are provided each business day and are thus named

$$WMYYMMDD.XX.gz$$

The individual characters represent

YY   > the year
MM   > the month

DD   > the day
XX   > the WM data profile identification number (2 or 3 digits)
gz   > the compression type used

FOF or WMS profiles

The construction of WMS profile file names is described in the WMS terms of supply , and appear as follows:

$$\texttt{wm\_identification\_YYYYMMDD\_seqno.ext}$$

The individual characters represent:

indentification   > identification specific to the WMS profile
YYYY   > the year
MM   > the month
DD   > the day
seqno   > a sequential, five-digit number starting from 00000
ext   > extension eg., `xml.gz` in the case of compressed XML files

Special data profiles

In this case, the naming convention is dependent upon the delivery type, with individually varying names for initial load accounts (ZZGRUND1, ZZGRUND2, etc.). In the case of VAG accounts, for instance, the convention is as follows

$$\texttt{WMYYMMDD-VAG\_type\_format.txt}$$

The individual characters represent:

YY   > the year
MM   > teh month
DD   > the day
type   > VF1 or CSV
format   > ANSI or ASCII

The exact naming convention in the case of special deliveries will be communicated to you after your order has been received.

Archives

The profile files are retained in customer accounts for a given period of time, after which they are archived, the archives also being maintained for certain period. The archives are themselves files produced using the **tar** archiving program, and can be unpacked using for example, **gtar** or **winzip**.

Chronological framework:

- Host data profiles are available for one calendar month, after which they are archived for another six months in *customer accounts.*

- FOF profile files are saved for seven days, after which they can be found in the archives for another three months. Exception: Should a given *customer account* contain more than 5000 files, the oldest deliveries

are archived until the file quantity falls below 5000.

- No archiving is effected in the case of special deliveries.

However, for every profile, this default setting can be adjusted individually e.g, in cases where the file quantity is very high.

Naming convention:

The archives are named according to the following convention:

<div align="center">

`arch_pno_YYMM.tar`

</div>

With YY denoting the year, MM the month, and pno the profile number.

Index files:

In addition to the archives, text files containing the tables of contents of the archives serve to facilitate the search for particular profile files. The corresponding naming convention is as follows:

<div align="center">

`index_arch_pno_YYMM.tar.txt`

</div>

The following is a typical example of archives and index files in a customer account:

This includes the archive files of the HOST_VAS_161 profile (profile number 327) covering June to October 2011.

```
arch_327_1106.tar → /opt/daten/HOST_VAS_161/SICHER/arch_327_1106.tar
arch_327_1107.tar → /opt/daten/HOST_VAS_161/SICHER/arch_327_1107.tar
arch_327_1108.tar → /opt/daten/HOST_VAS_161/SICHER/arch_327_1108.tar
arch_327_1109.tar → /opt/daten/HOST_VAS_161/SICHER/arch_327_1109.tar
arch_327_1110.tar → /opt/daten/HOST_VAS_161/SICHER/arch_327_1110.tar
index.arch_327_1106.tar.txt →
            /opt/daten/HOST_VAS_161/SICHER/index.arch_327_1106.tar.txt
index.arch_327_1107.tar.txt →
            /opt/daten/HOST_VAS_161/SICHER/index.arch_327_1107.tar.txt
index.arch_327_1108.tar.txt →
            /opt/daten/HOST_VAS_161/SICHER/index.arch_327_1108.tar.txt
index.arch_327_1109.tar.txt →
            /opt/daten/HOST_VAS_161/SICHER/index.arch_327_1109.tar.txt
index.arch_327_1110.tar.txt →
            /opt/daten/HOST_VAS_161/SICHER/index.arch_327_1110.tar.txt
```

5. Web server

Profile files can also be downloaded via the web server. The following *web browsers* are compatible: *Netscape 6* or higher, *Internet Explorer 5* or higher, *Mozilla Firefox 1.5* or higher, *Opera 6* or higher, *Konqueror 3.1.1* or higher, *Safari 1.0* or higher. Cookies must be enabled..

The web server can be accessed via the following address (URL):

http://www.wmdaten.de/wmftp

The login site will then be displayed as illustrated.

As can be gathered from the address bar, the connection to a secure https protocol has been established. Simultaneously, the entries have been transmitted to our authenticator's site. The user name and password must now be entered.
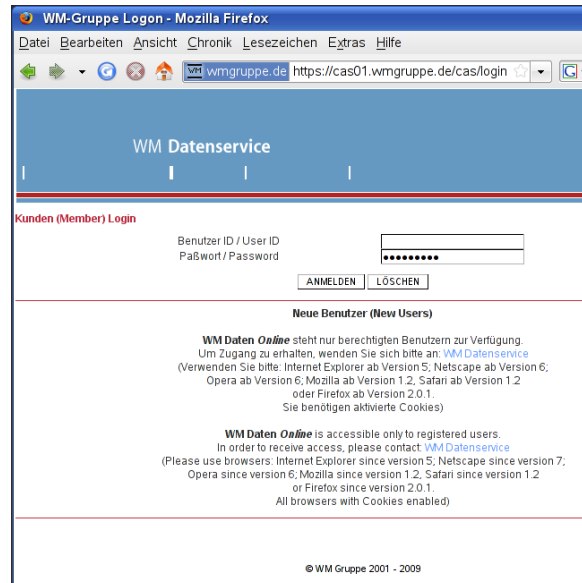

If the login was successful, the following will appear:

The left list contains the data profiles subscribed for, while the right list contains the files cur-rently available in the directory.

In order to download a file you must first mark the correspon-ding file name and then click the right mouse button to open the context menu. The illust-rations below, are examples for the browsers Morzilla Firefox (left side) and Internet Explorer (right side).
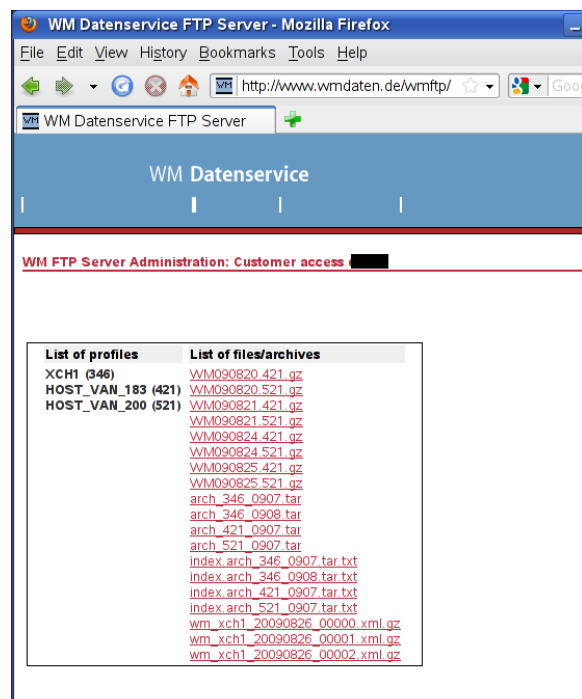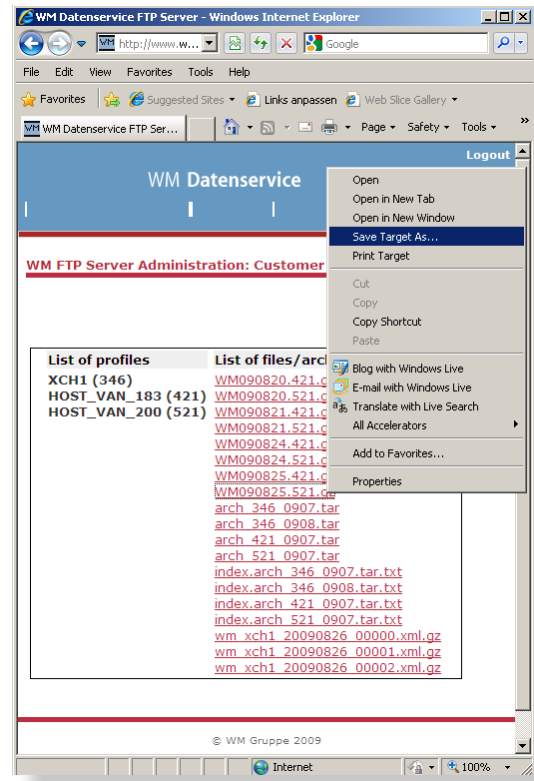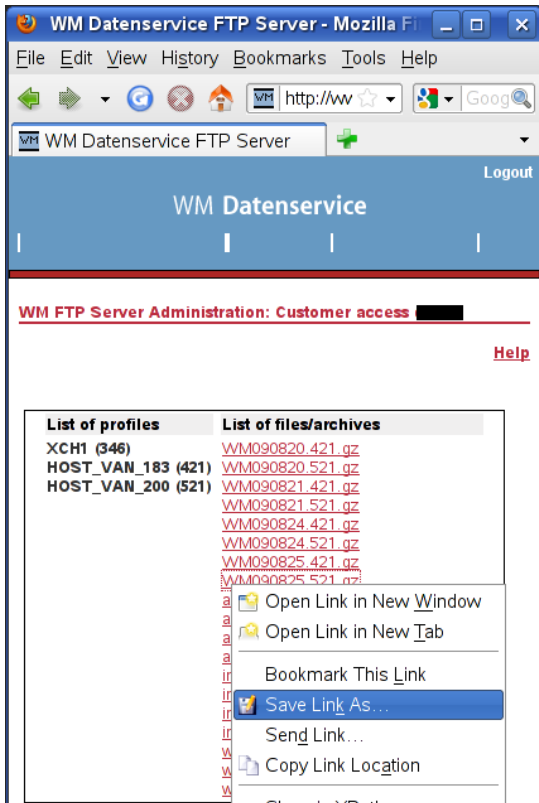
Select "Save target as…"; the system will then inquire to which directory the file shall be copied.

After the download has been completed, the session can be terminated by selecting "Logout".

6. Contact persons

In case of queries, please contact:

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