

Machine Readable News with SFTP Python Example

- Last update: Sep 2024
- Environment: Windows
- Compiler: Python
- Prerequisite: MRN Archive SFTP service account

Overview

Machine Readable News (MRN) is an advanced service for automating the consumption and systematic analysis of news. It delivers deep historical news archives, ultra-low latency structured news and news analytics directly to your applications. This enables algorithms to exploit the power of news to seize opportunities, capitalize on market inefficiencies, and manage event risk.

The MRN data Real-Time news and News Analytics data are available for consumers via the LSEG Real-Time Platform and SFTP connections. While the Real-Time news connection can be accessed programmatically only (we have covered it via the Introduction to Machine Readable News (MRN) with Enterprise Message API (EMA) and Introduction to Machine Readable News with WebSocket API articles), the SFTP connection can be access with any SFTP applications like the FileZilla, WinSCP, or even Windows native `SFTP` command.

However, some developers might need to access the SFTP remote server and get the file programmatically. This jupyter notebook shows a step-by-step guide to access and get the file from the MRN Remote SFTP site using the Python programming language with the Paramiko library on the JupyterLab notebook.

Import Libraries

```
In [ ]: import paramiko
        from dotenv import dotenv_values
```

Set Parameters

```
In [ ]: config = dotenv_values(".env")
        username = config['MACHINE_ID']
        password = config['PASSWORD']
        hostname = 'archive.news.refinitiv.com'
        localfilepath = './download'
```

Establish the SSH Client

```
In [44]: ssh = paramiko.SSHClient()
# Automatically add host keys (not secure for production)
ssh.set_missing_host_key_policy(paramiko.AutoAddPolicy())
```

Connect to the Remote Server

```
In [45]: ssh.connect(hostname=hostname, username=username, password=password)
```

Establish the SFTP client

```
In [46]: sftp = ssh.open_sftp()
```

Check the current directory

```
In [47]: print(sftp.listdir())

['mpsyach', 'na-gold']
```

Change Directory to get a file

I am demonstrating with **/mpsyach/MI4/CMPNY_REF/BASIC** folder and get the first file from the Remote server.

```
In [48]: sftp.chdir('/mpsyach/MI4/CMPNY_REF/BASIC')
```

```
In [49]: print(sftp.listdir())

['MI.Companies.BASIC.04043.txt', 'MI.Companies.Changes.04043.txt']
```

```
In [50]: # Get the first file name
fileName = sftp.listdir()[0]
```

Downloading the file

```
In [51]: sftp.get(remotepath = fileName, localpath=f'{localfilepath}\\{fileName}')
```

Read the file

```
In [59]: try:
    with open(f'{localfilepath}\\{fileName}') as finput:
        data = finput.read(200)
        print(data)
except Exception as e:
    print(f'The error is:{e}')
```

OrgPermID	Name	TRBC	TRBCPermID	TRBCEconomicSector	Ticker	MIC
RIC	Domicile	ExchCtry	ExchCode	InfoCode	region	stat
us	CurrentInstrumentIssuerPermId					
4294970469	ESPN Inc		5330202011	4294951554	Consumer	cycl

```
In [60]: sftp.close()
```