

Marketplace Scheduler

User Guide



v2.0.15

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Overview

The Marketplace Scheduler is part of the Marketplace Publisher. This application will download Publisher lists according to a schedule that can be set on the Marketplace Publisher web site.

The Scheduler UI adds a Morningstar icon to the system tray of the user's desktop running Windows, Mac, or Linux. The user can access the Scheduler UI by clicking on the icon in the system tray and choosing the "Show Scheduler" menu option. After the UI is initialized it creates a Scheduler and displays the status of the jobs in the Scheduler window.

How it works:

The Scheduler downloads schedules that were created on the Marketplace web site and generates a Quartz job for each. When a trigger is executed based on the schedule criteria set in the Marketplace, the 'Downloader' component of the application will download the content for each publist.

The 'Downloader' can also be used to run publisher lists ad-hoc. See the 'Downloader' section of this guide for instructions.

Requirements

- Java 7 update 6 or later

[v1.0.6 zip \(with executable jar\)](#)

- Java 8 update or later

[v2.0.15 zip \(with executable jar\)](#)

Desktop application

The Scheduler is a windows application that loads existing schedules from Marketplace, runs the schedules accordingly, and downloads Publisher lists specified in the schedules.

To install the Scheduler:

1. Download the zip file.
2. Extract the contents (single jar file) to a directory of your choice
3. Open the extracted directory.
4. Double click the jar file in windows explorer

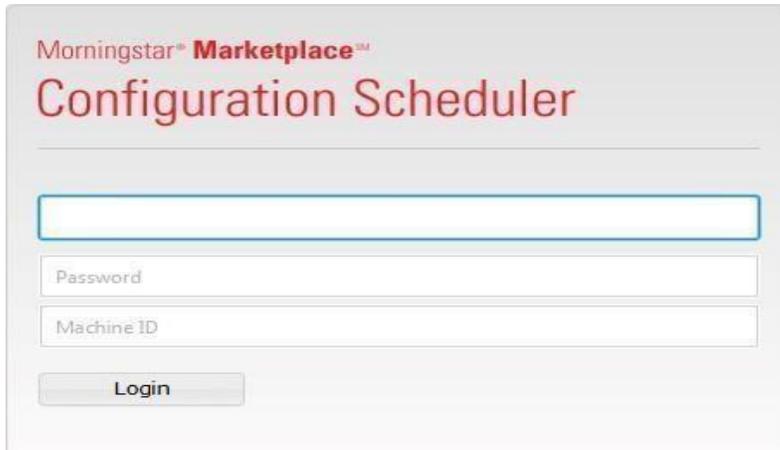
The application can also run from the command line to provide optional command line arguments. Open a command prompt and cd to the extracted directory. The following shows an example running the app and connecting to a specific host via the `-h` command line option.

```
C:\>cd < extracteddirectory >
```

```
C:\<extracteddirectory>\java -jar scheduler-2.0.10.jar -h=http://localhost:8080
```

(By default the scheduler will connect to the Marketplace production environment. To change hosts, see Appendix)

Installation



The screenshot shows a web form titled "Morningstar Marketplace Configuration Scheduler". It features a large empty text input field at the top, followed by a "Password" field, a "Machine ID" field, and a "Login" button at the bottom.

Username – Utilize the same username and password combination as the one used to log into the Marketplace Publisher to create the Publish Lists and Schedules.

Password - Utilize the same username and password combination as the one used to log into the Marketplace Publisher to create the Publish Lists and Schedules.

Machine ID –Create a unique Machine ID which will be used as an identifier for each schedule.

Scheduler User Interface

The Scheduler UI displays the schedules created via the Marketplace Scheduler Configuration browser page. The Schedule Name and Description columns match the information entered when creating the schedule in Marketplace. The Status/Next Run column shows the next scheduled run or the current status of a schedule: Running or Error. The right hand side pane displays the Publisher List names that are included in the schedule. The File Information section displays the Directory and File Format. The Schedule Details section displays the frequency selection for each schedule.

Logging

In the Scheduler UI, some messages are displayed as a notification near the system tray. All log messages are written to a log file regardless of which application is ran (UI, Scheduler or Downloader). The log files can be found in: <USERHOME>/Marketplace/Scheduler.

Server application

Downloader

For Ad-hoc requests, the Downloader application can be used. This can run on the server as a standalone Java application.

```
com.morningstar.publisher.dl.Download
```

The Downloader requires the following arguments:

Argument	Description
cfgFile	The configurations file with username, password and host. The host is optional and can be specified as a JVM parameter (-Dscheduler.host=https://host:port) or undefined to use as default.
saveToDir	The directory where downloaded publist files are saved to
datePattern	Java SimpleDateFormat to append to file names. (yyyyMMddHHmmss, MMddyyyy, yyyy-MM-dd)
fromDate	The starting date for new data. Format must be yyyyMMdd

pubListNames	List of all publist names to be downloaded (pubList1, pubList2, pubList3)
--------------	---

Java command line format:

```
>java -cp scheduler-2.0.10.jar com.morningstar.publisher.dl.Downloader  
<cfgFile> <saveToDir> <datePattern> <fromDate> <pubListNames>
```

Example java command line:

```
>java -cp scheduler-2.0.10.jar com.morningstar.publisher.dl.Downloader  
scheduler.cfg F:\temp\mpdownloads yyyyMMdHHmmss 2013-07-01 Y_List
```

Scheduler

The Scheduler can be run on the server as a standalone Java application:

```
com.morningstar.publisher.sched.PubScheduler
```

Example java command line:

```
java -jar scheduler-2.0.10.jar scheduler.cfg
```

Configuration file

All three components (User Interface, Downloader, and Scheduler) use a configuration file for reading the username, password and machine id.

The configuration file should contain the following properties:

- username - The user's login name for Marketplace
- password - The user's password. May be un-encrypted. Will be encrypted the first time one of the applications reads it.

-
- encrypted - A Boolean flag stated if the password is encrypted or not. (true | false)
 - machine_ID - The ID of the machine the application is to be ran on. (i.e. dev01, prod02)
 - host - (Optional) Specifies the Marketplace host. If not defined then the default <https://mp.morningstarcommodity.com> is used unless specified as a JVM or command line option.

The configurations file example below will only download schedules for john.doe@globe.com with the machine ID "dev01":

```
username=john.doe@mycompany.com
password=FiMNBf6MLMB9d/5ba07onQUtGFBUgIgC4Uq06aBU7U\=
encrypted=true
machine_id=dev01
```

Custom Formatting

The scheduler can also accommodate an 'Override' file. Morningstar can configure this file to customize the format of the publisher lists/data. Please contact your sales or account representative for further information regarding this. (See Appendix for Sample Override file)

Appendix

The user can change the host for the scheduler application. The host is determined in the following order:

1. As a command line option. (`-h=http://somehost:port`)
2. As a JVM parameter. (`-Dscheduler.host=http://somehost:port`)
3. In the config file. (`host=http://somehost:port`)
4. Undefined. When no host is defined as a command line option, JVM parameter or in the config file the default is `http://mp.morningstarcommodity.com`

Sample `list_overrides` file:

The default download location for the Scheduler's Config file will look something like this:

`C:\Users\{InsertUserName}\Marketplace\Scheduler`

In here, you can save a file named **list_overrides.json**

This file can be used to customize, or re-format the downloaded publists. There are many ways you can re-format a file. Below are a few examples you can save into your `list_override` file.

Example 1: The "name" field specifies your publist. "Dateformat" will re-format your dates, and the "sort" function will sort the column specified in "field".

```
[
{
  "name":"Test_list1",
  "dateformat":"M/d/yyyy",
  "sort": [
  {
    "field": "StartDate",
    "type": "date",
    "ascending": true
  }
],
]
```

Example 2: In a list called "Power_Ercot_Forwards", rows in the standard output can be transposed horizontally. In here, PUBCOLs for the key pairs (Root, DeliveryStartDate, DeliveryEndDate) will output listed horizontally in one row (Open, High, Low)

```
[
{
  "name":"Power_ERCOT_Forward",
  "sort":[
    {"field": "Root", "type": "string", "ascending": true },
    {"field": "DeliveryEndDate", "type": "date", "ascending": true },
    {"field": "DeliveryStartDate", "type": "date", "ascending": true },
  ],
  "collapse": {
    "keys": ["Root", "DeliveryEndDate", "DeliveryStartDate"],
    "from": "PUBCOL",
    "to": ["Open","High","Low"],
    "value": "PUBVAL"}
  }
]
```