

# Marketplace Scheduler

# User Guide

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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  
[v2.0.10 zip \(with executable jar\)](#)

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## 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)

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## Installation



The image shows a web form titled "Morningstar® Marketplace™ Configuration Scheduler". The form contains four input fields: a large empty text box at the top, 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.



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## 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.

## Running Scheduler as a Windows Service

Clients using Windows can run Marketplace Scheduler as a service by using Windows Server tool "sc" to create a windows service. Running as a service allows for Scheduler to start on reboot of the system and does not require a user to logon to the server.

For information on how to use the "sc" tool please see the link below to the Microsoft technet article:

[https://technet.microsoft.com/en-us/library/cc990289\(v=ws.11\).aspx](https://technet.microsoft.com/en-us/library/cc990289(v=ws.11).aspx)

It is recommended that Scheduler runs as an account on the server. Prior to starting the service, please log into the account and start Scheduler manually. Starting Scheduler will force the entry of all configuration settings and allow for testing connectivity.

Daily restarts of Scheduler are recommended to obtain any changes made through the Publisher interface. Configure restarts through two Windows Scheduled Tasks entries with the settings:

- Action: Start a program
- Program: Net
- Add arguments: Stop (service)
- Action: Start program
- Program: Net
- Add arguments: Start (service)

Example:

```
C:\Users\chambre>sc create MorningstarScheduler type= own
start= auto binpath= C:\pubclient\pubclient-2.0.11
\scheduler-2.0.11-jar-with-dependencies.jar obj= <username>
password= <password>
```

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## 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, MMdyyyy, 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 yyyyMMddHHmmss 2013-07-01 Y_List
```

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## 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 Markteplace 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](mailto:john.doe@globe.com) with the machine ID "dev01":

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

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## **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.

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## 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`