

# **Download Rates**

# **User Guide**

#### **Important Notice**

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## Summary

Download Rates provides a practical way to download currency exchange rates from free, government and commercial exchange rate services and store these rates in related Sage 300 databases. The downloaded interbank rates can be adjusted by a specified percentage so as to more accurately represent rates likely to be used in a transaction. A currency-code mapping table can be used when ISO currency codes change. The program is designed to run as an unattended Windows Scheduled Task, as well as from a user interface. Automating rate entry makes the Sage 300 "spread" function practical - the spread is only entered once during setup.

**Notes:** Yahoo's service is not currently available as of November 2017. Google's service is not currently available as of July 2015. Support for Bank of Canada's new RSS feeds is provided as of May 2017. Oanda is not supported as of May 2017. A commercial provider, currencylayer, is a much less expensive alternative to Oanda, and is recommended as an alternative to those free rate provider services no longer available.

#### Overview

All settings necessary to run Download Rates are stored in an XML file and can be edited with the program. This means that Download Rates can be set up to run as a Windows Scheduled Task, with the name of the EXE file and the XML file provided in the usual way - user interface styles vary and are not covered in this document. When run as a task, Download Rates traps error messages so that they will not "pop up" in a window - any errors are written to a log file.

Download Rates will connect to an exchange rates service provider such as Yahoo, which is a free service, or to a paid commercial service. Commercial services provide credentials when you subscribe to their services. Commercial services may provide a test account for demonstration purposes that do not provide accurate or up-to-date rates.

Download Rates also supports central bank free services, "The Bank of Canada", the "US Federal Reserve" and the "Reserve Bank of Australia". If you choose a central bank as an exchange rate provider and you request a rate to convert to a functional currency other than that of the central bank Download Rates will use Triangulation to compute an effective exchange rate. For example: if you want to convert GBP to USD using "The Bank of Canada" as an exchange rate provider an effective rate would be calculated that would be the combination of the rates that would convert GBP to CAD, and CAD to USD.

Once rates are downloaded, the program will store the rates in a Sage 300 database. Sage 300 login credentials must be provided. Rates stored in a Sage 300 Company database can be propagated to related companies - meaning those that share a common System database.

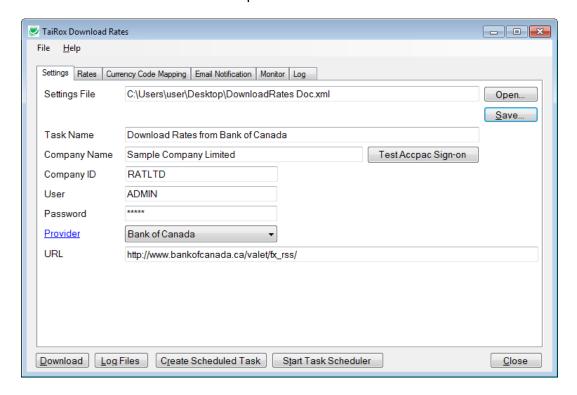
Robust re-try strategies are used to allow operation over satellite or other variable quality connections. Email notifications can be sent to several recipients indicated the success or failure of the job.

#### **Running Download Rates**

Download Rates is installed and run like any other Windows program. It uses Sage 300 business objects to update all databases. An icon to launch the program can be created on the Sage 300 desktop. Download Rates may be un-installed.

## **Running Download Rates - Settings Tab**

When the program is launched, the following screen will appear. The screen collects setup information and stores the information in XML files which can be used to automate operation. Any authentication information is encrypted in the XML file. Any number of jobs can be set up, stored in different XML files and run as separate Windows Scheduled Tasks.



The **Download** button will download rates immediately from the current provider. When operating as a Windows Scheduled Task, the rates are downloaded based on the windows system date. Some providers supply historical rates that can be downloaded from the user interface only.



**Job Name** - This is used in the email notification subject.

**Company Name** - This is used for documentation purposes.

**Company ID** - This is used to specify which Sage 300 company database is to be used for a Sage 300 session.

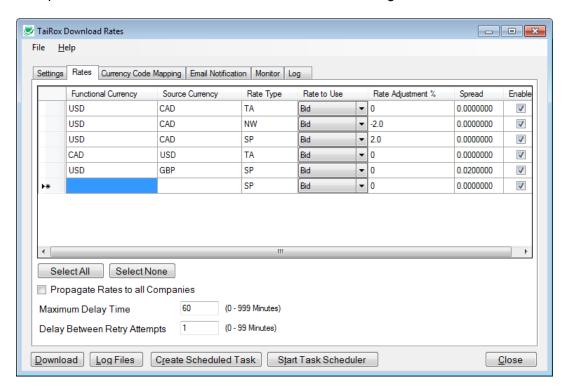
User & Password - Sage 300 authentication.

**Provider** - A supported provider can be selected from this list. For some providers, options such as date ranges, a rates choice and a credentials tab will appear.

**URL** - The URL to the Provider's service. This value will default and should only be changed when the Provider changes the URL for their service.

## **Running Download Rates - Rates Tab**

The Source and Functional currencies in the grid below are often referred to as "From and To" rates by rates providers. The **Functional Currency**, and **Source Currency** must be a valid ISO 4217 currency codes, and must be valid Sage 300 currency codes. The **Rate Type** must be a valid Sage 300 code. Some service providers may have Bid and Ask rates while some only provide one exchange rate and the "**Rate to Use**" column will not be visible. If you select Average, this will be the average of these two rates. The **Rate Adjustment** % column specifies by how much you wish to adjust the given rate up or down to more accurately reflect a rate actually used in a transaction. **Important Note when using Rate Adjustment:** Check the log details. You will have to "reverse the sign" if using Sage 300 "Divide by" rates. The **Spread** column is the Sage 300 "spread variance warning" tolerance. The **Enabled** column specifies whether or not the rate set up in the row will be downloaded and stored in the Sage 300 database.



**Propagate Rates to all Companies** - If checked, will cause rates to be set in all company databases with the same system database as the company specified in the Settings tab.

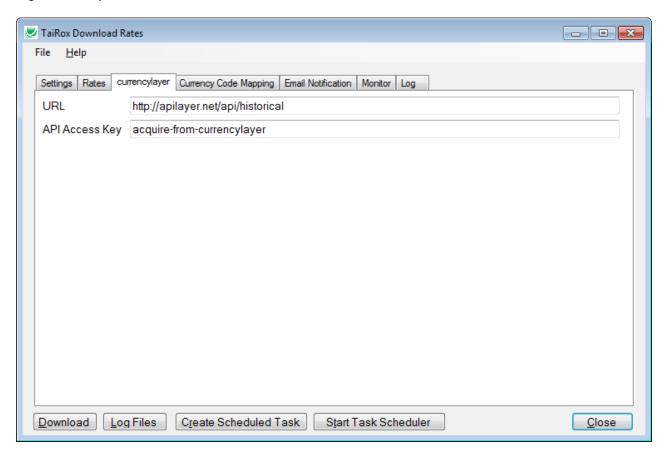
**Maximum Delay Time** - Once retries reach this limit, the attempt to download rates will be abandoned.

**Delay Between Retry Attempts** - This is the time that the program waits before the first re-try attempt. An exponential back-off strategy is used - if 1 minute is specified as the delay, Download Rates will wait 1 minute, 2 minutes, 4 minutes, 8 minutes and so on until the Maximum Delay Time is reached.

## Running Download Rates - currencylayer Tab

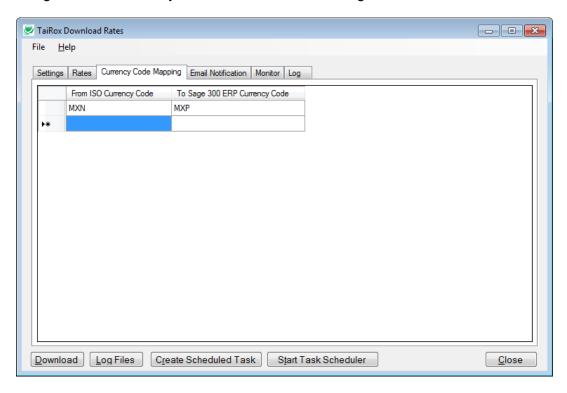
The provider currencylayer requires that you subscribe to their service and obtain an account which you need to specify on this tab in order to use it. If you choose a free exchange rate service provider such as Yahoo this tab will not be visible.

**Important Note:** A provider will supply you with an API key. The API key below which is <u>not</u> a legitimate key.



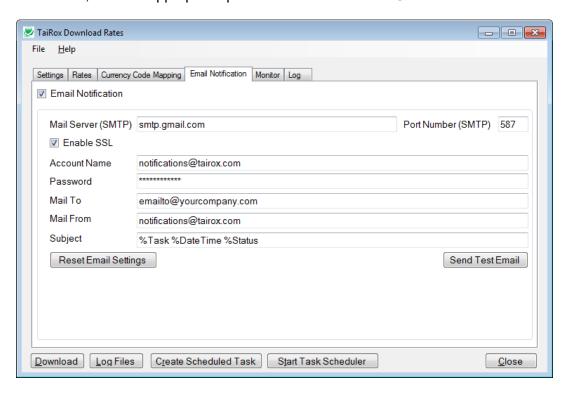
## **Running Download Rates - Currency Code Mapping Tab**

Providers use ISO Currency Codes and Sage 300 Currency Codes are normally set up to match. When they don't match, Download Rate will re-map. Note that an ISO code will sometimes change. For example, Mexican Pesos (MXP) may become Mexican New Pesos (MXN). A client using an older code may not wish to convert their Sage 300 databases.



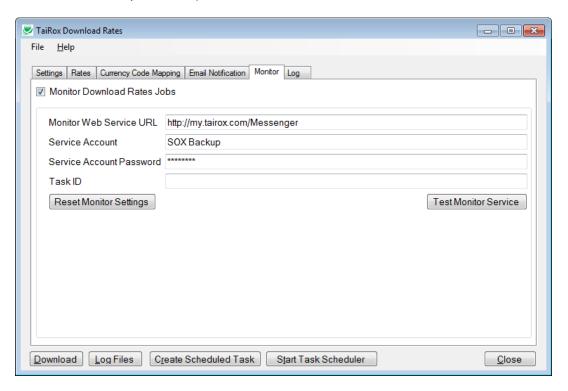
## **Running Download Rates - Email Notification Tab**

Email notification may be turned on or off. Any SMTP server accessible from the server can be used with credentials as you would set them up in an email client such as Outlook. You may find it convenient to use notifications@tairox.com with the settings below so as to avoid dependencies on other mail providers - email notification is re-tried and it is unlikely that TaiRox's gmail service will be unavailable for any extended period of time. Resetting Email settings will return them to those here, with the appropriate password for notifications@tairox.com.



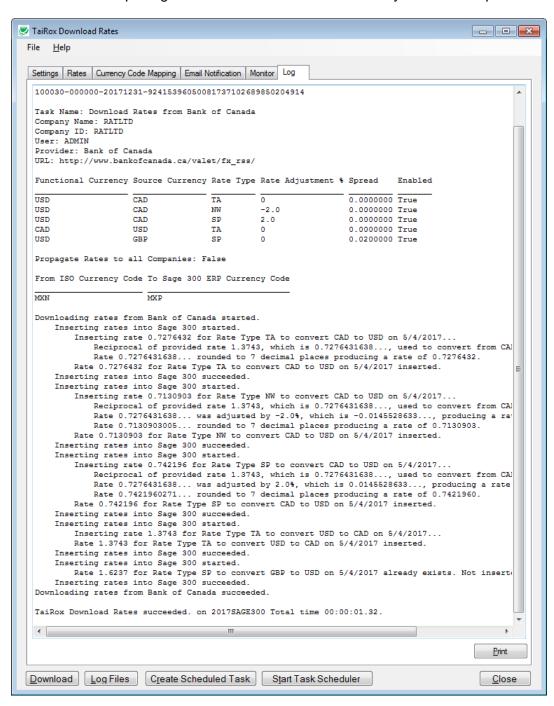
## **Running Download Rates - Monitor Tab**

In some circumstances, it may be impossible to send an email notification from the computer on which Download Rates is running. For example, the email ports may be blocked by a firewall. In those circumstances it may be possible to send a message to a TaiRox service - this only requires the standard browsing port (80) to be useable. The monitoring service provides a non-email mechanism for reporting success or failure. The TaiRox site also notices when a message has not arrived within an expected timeframe. Some coordination with TaiRox is required (the selection of a unique Job ID) to make use of this service.



## **Running Download Rates (continued)**

The end of a sample log file shows values retrieved and any calculations performed.



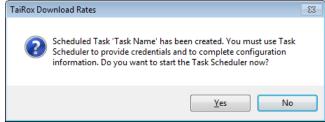
**Important Note:** If a rate already exists for a given date, it will NOT be updated in Sage 300. This allows you to manually correct any mistakes made by a service or to have manual entries previously entered NOT be overridden.

## **Running Download Rates - Create Scheduled Task**

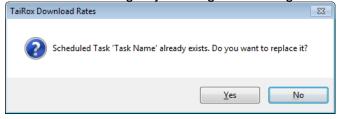
Download Rates will create a basic task with that can be managed with the Task Scheduler. The task will have the Task Name on the Download Rates Setting tab. We are providing this feature so that the Task Scheduler's Action tab will be populated with path to the Download Rates program and also populated with the current XML path and name. These are the most common errors made by Sage 300 consultants not familiar with the Task Scheduler.

Important Notes: The task created by Download Rates will not run on a regular basis until credentials have been provided. Other important options will need to be set up properly. Consult Task Scheduler documentation for important details beyond the scope of this document

If the task is successfully created, a message will appear:



If a task with the same name already exists, you will be warned. **Note** that replacing the task means not retaining any existing task settings:



The Task Scheduler varies in appearance from one version of Windows to another. Typically:

