



# **SOX Backup Express & Enterprise**

## **User Guide**

### **Important Notice**

TaiRox does not warrant or represent that your use of this software product will be uninterrupted or error-free or that the software product can be run with any other version of Sage ERP Accpac other than 5.6A, 6.0A, or any version of Sage 300 other than 2012, 2014, 2016, 2017 or 2018 or that the information in this document is completely accurate. TaiRox warrants that any media by which you have received this software is free from defects. TaiRox will replace any such defective media. TaiRox expressly disclaims all other warranties, representations, conditions and guarantees of any kind including, but not limited to warranties for merchantability or fitness for a particular use.

# SOX Backup User Guide

## Summary

SOX Backup automates 2 processes critical to a well-run Sage 300 installation: DBDump and Data Integrity Checking. Multi-day DBDump archives are managed automatically. There are options to include the backup and management of Sage CRM or any other SQL Server database. The DBLoad process can also be automated, where appropriate for an installation. SOX Backup is designed to run as a Windows Scheduled Task without user interface pop-up windows, producing a log file and providing email notification.

**SOX Backup Enterprise** provides Fast DBLoad capabilities (typically 3x faster loads and database name substitution) and Fast Data Integrity checking capabilities (typically 10x - 1000x faster). Restoring an archive from an FTP site is also an option. Using an intermediate FTP site, databases can be copied between different offices, usually as an overnight operation. SOX Backup Enterprise has sequencing mechanisms for database transfers involving multiple Windows Scheduled Tasks.

**Cautions:** Note that while backing up on the local network protects against server failure, it does not protect against a total facility failure from fire, flood, or natural disaster. A mechanism, either manual or automated, should be in place to bring data off site on a daily basis.

## Overview

SOX Backup user interface creates one or more XML settings files that are used to drive Windows Scheduled Tasks ("Jobs"). A job will be either a "Backup" or "Restore" job, which is controlled by the Mode drop down on the Settings tab. **Recipe:** To set up a job that only checks integrity, select Backup Mode, remove all databases from the field in the Backup tab, clear the checkbox in the Shared Folder tab and add all databases to be checked in the Integrity tab.

A Backup job performs the following steps:

- Sage 300 System and Company databases are dumped to a working folder.
- Optionally, Sage 300's shared folder and its sub-folders are copied to the working folder.
- The working folder is moved to an archive directory with a date-based name.
- If the number of archive directories exceeds a maximum, the oldest archives are removed.
- Optionally, Sage 300's Data Integrity Checking program is run. **SOX Backup Enterprise** provides the ability to select Fast Data Integrity.
- Optionally, the newest archive directory is zipped and copied to an FTP site.
- A log file is produced documenting job results.

A Restore job includes the following steps. **The use of Professional IT resources to set up and test restore jobs is strongly advised.** Note that data is restored from the most current archive folder:

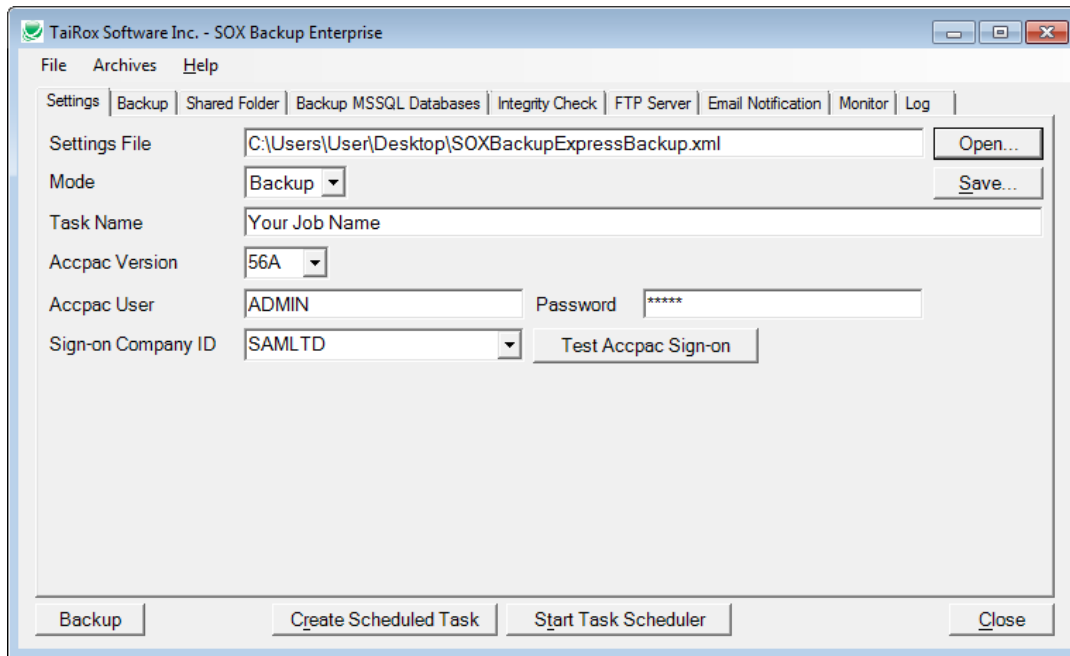
- **SOX Backup Enterprise** Optionally, download to a zipped archive from an FTP site, extract into an archive directory and (optionally) remove the data from that FTP site.
- Optionally, Sage 300's shared folder and its sub-folders are restored from an archive.
- Sage 300 System and Company databases are loaded from an archive. **SOX Backup Enterprise** provides the ability to use Fast DBTools to load a dataset into a differently named Sage 300 database.
- If the number of archive directories exceeds a maximum, the oldest archives are removed.
- Optionally, Sage 300's Data Integrity Checking program is run. **SOX Backup Enterprise** provides the ability to select Fast Data Integrity.
- A log file is produced documenting job results.

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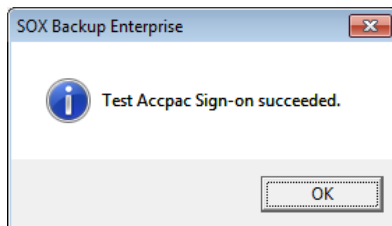
## Setup

When SOX Backup is launched, the following window will appear. Settings are kept in an XML file and different jobs can be saved in different XML files and scheduled to be run at different times. A job is either a "Backup" job or a "Restore" job. The Mode dropdown on this screen selects which job is performed and various labels in the program change to reflect the mode. The windows in this manual are for Backup mode. The Job Name field identifies the backup job and is used in the subject of email notifications.

**Important Note re Restore Operations:** The Sign-on Company must be a different company from any of the companies being restored.



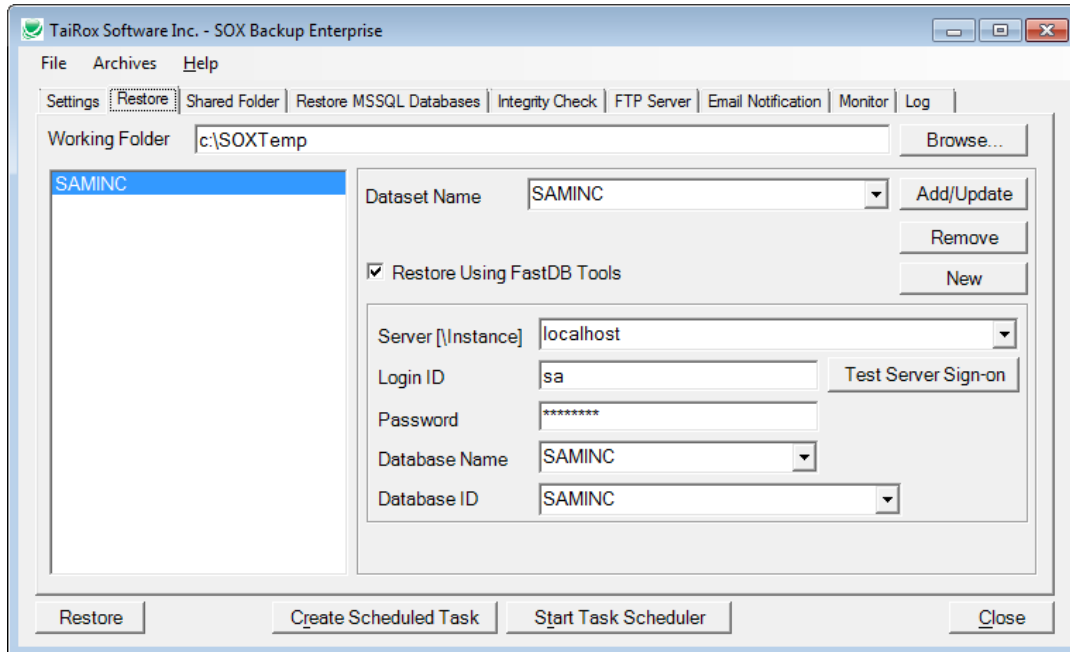
You may wish to test Accpac (Sage 300) Sign-on credentials. A success or fail message should appear as follows:



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## Setup (continued)

The Backup/Restore tab contains information about a backup job. System and company databases must be added manually. The working folder is where dumped databases and shared folders will be stored prior to being archived.



**SOX Backup Enterprise** is required to enable Fast DBTools settings. In SQL Server environments Fast DBLoad operations are approximately 3x faster than the standard database-independent DBLoad operation. **Important Notes:** When Fast DBTools is enabled, it connects directly with one or more SQL Server instances - so the SQL Server credentials must be entered for every database. When restoring a record set to a database of a different name, carefully check that the Dataset Name (name of the Sage 300 DCT file and folder), the Database Name (the SQL Server database name) and the Database ID (the Sage 300 DB Setup ID) are correct.

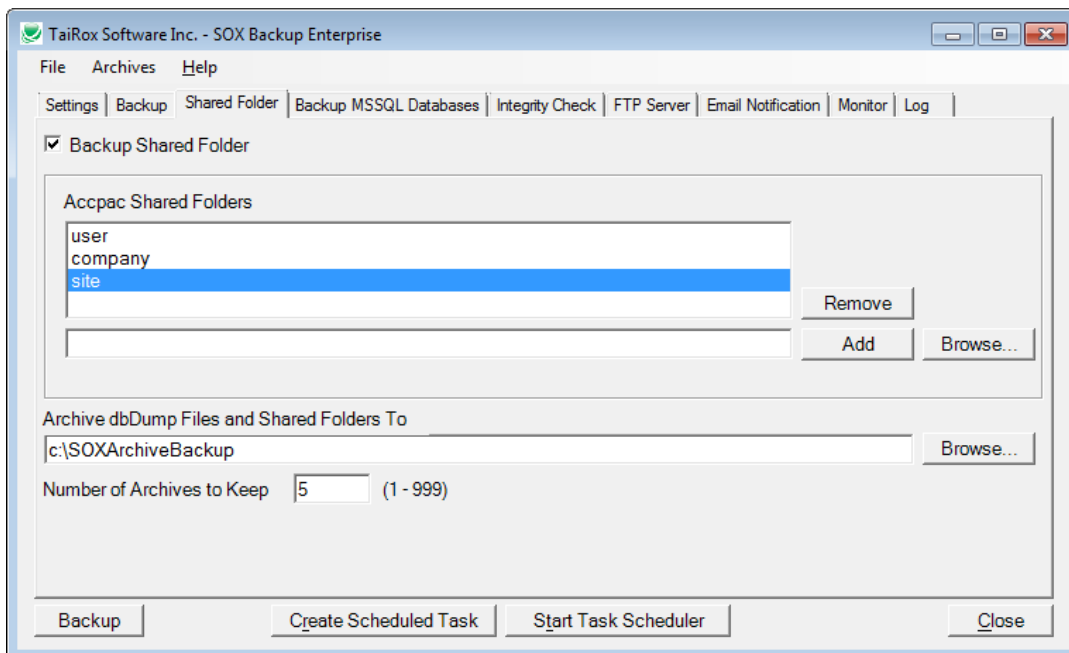
# SOX Backup User Guide

## Setup (continued)

A complete set of Sage 300 data from an installation is comprised of system and company databases along with files in the Accpac Shared Folders.

An "Archive" is created whenever a backup job is run or when an archive is downloaded from an FTP site. An archive is kept in series of sub-folders named according to the date that the job was run. In this way a series of backup archives is kept. Specify the maximum number of archives to be retained. If this number is exceeded, the oldest archive(s) will be deleted. Deleting old archives helps manage total disk space in an automated fashion.

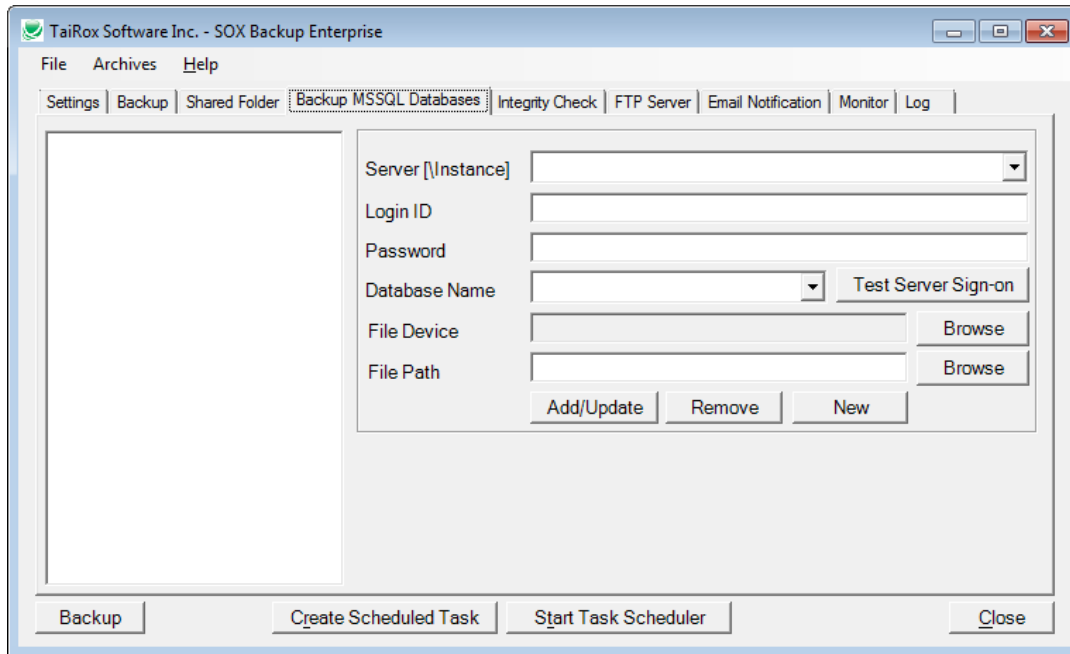
**Important Notes:** In Restore mode, restoring shared folders would not normally be done when using SOX Backup to copy databases from one office to another. If you decide to restore shared folders when in Restore mode, you may not wish to restore the database setup information (the "ORGS" file in Sage 300 terminology). There is an additional checkbox "Restore Database Setup Information", so this can be avoided.



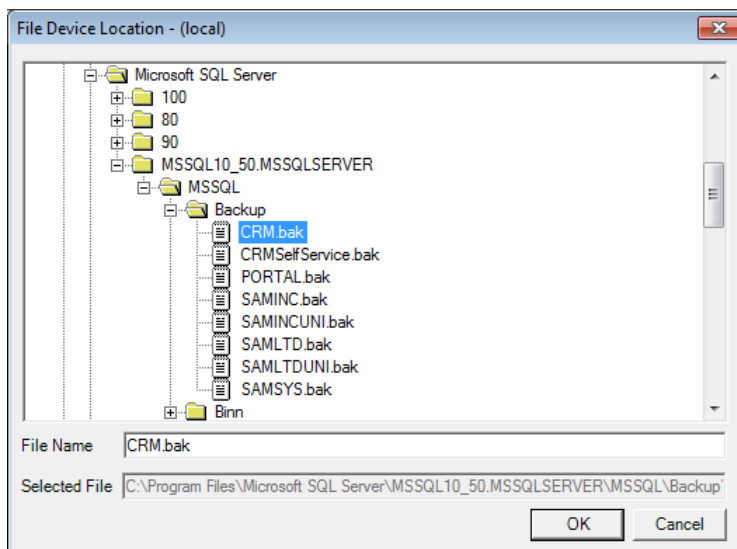
# SOX Backup User Guide

## Setup (continued)

In a Microsoft SQL Server environment, other databases can be included in the backup - for example Sage CRM databases. **Note:** Sage 300 databases are dumped in DBDump format and are therefore greatly reduced in size. A SQL Server database will not be reduced in size this way. Including larger databases in a daily archive will affect how many archives can be kept in a fixed amount of disk storage. **Note:** When the Server dropdown button is clicked, please wait several seconds while a list of accessible server instances is discovered. **Note:** SQL Server credentials must be entered for every database.



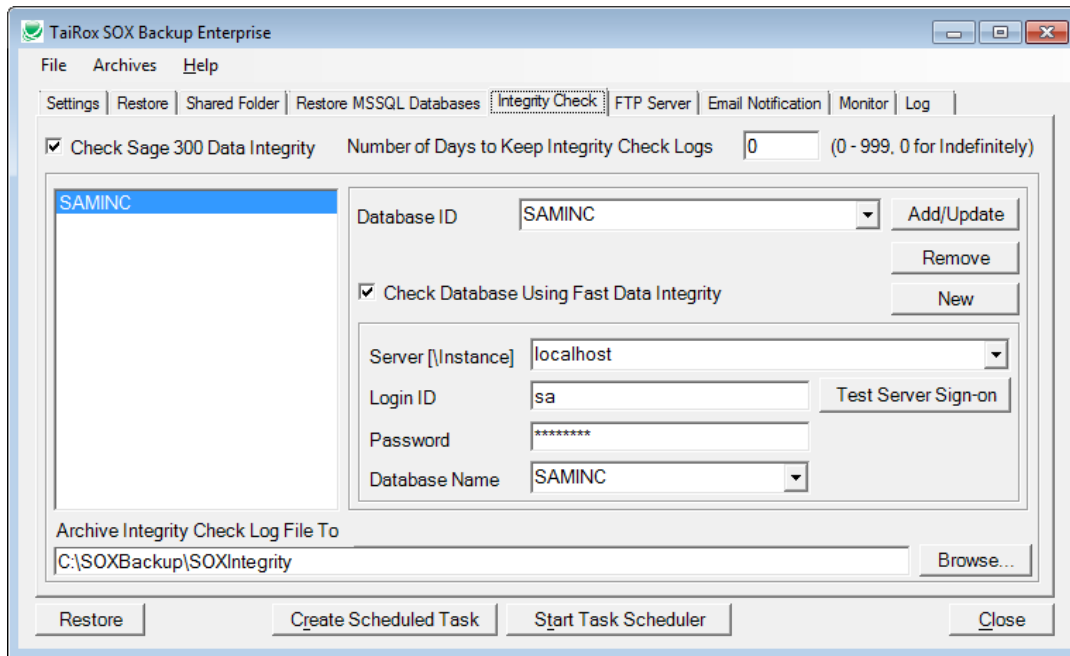
The Browse buttons for File Device and File Path display subtly different tree-views used to select the backup file name. File Device presents a SQL Server tree-view, relative to the server (shown below). File Path presents the typical explorer tree-view, relative to the computer on which SOX Backup is running. If SOX Backup is running on a computer other than the SQL Server's computer, then File Path would be the UNC path to the File Device.



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## Setup (continued)

The Database Integrity Checker can be run for any number of databases. Note that this can also be set up as an independent job.



**SOX Backup Enterprise** is required to enable Fast Data Integrity settings. In SQL Server environments Fast Data Integrity is approximately 10x to 1000x faster than the standard database-independent utility (the larger the database, the larger the performance improvement). **Important Note:** If Fast Data Integrity is selected, SOX Backup Enterprise will perform a "hybrid" check of the databases - using Fast Data Integrity if the application is supported by Fast Data Integrity and using the standard utility for unsupported (typically third party) applications. **Important Note:** When Fast Data Integrity is enabled, it connects directly with one or more SQL Server instances - so the SQL Server credentials must be entered for every database.

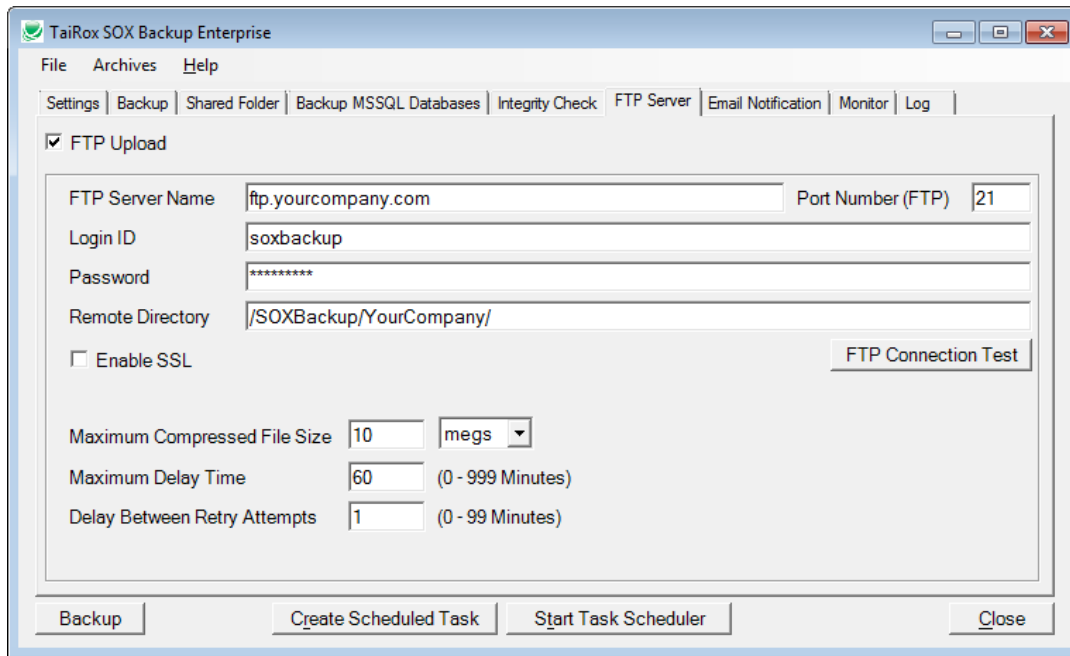
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## Setup (continued)

Optionally, an archive can be zipped into "small" pieces and copied to an FTP site. FTP credentials are provided and well as settings that control re-try wait time after a failure. The default settings shown are reasonable for an overnight backup window of several hours, with occasional outages of several minutes duration.

In a situation where the FTP connection is very intermittent or poor, smaller pieces than the default of 10Mb may speed up the total job time. When the FTP connection fails, the Delay Between Retry Attempts setting controls the initial re-try wait time (1 minute). For continued failures, the re-try wait time will double until the Maximum Delay Time setting is reached (2 minutes, 4 minutes, and so on). Once a successful transfer is completed, the re-try wait time will be reset to the initial setting (1 minute).

**Important Note:** The Enable SSL option will connect using an FTPS protocol, not an SFTP protocol. With this option selected the protocol will be FTP.



The screenshot shows the 'FTP Server' configuration window in the TaiRox SOX Backup Enterprise application. The window has a menu bar with 'File', 'Archives', and 'Help'. Below the menu bar is a tabbed interface with tabs for 'Settings', 'Backup', 'Shared Folder', 'Backup MSSQL Databases', 'Integrity Check', 'FTP Server', 'Email Notification', 'Monitor', and 'Log'. The 'FTP Server' tab is active, and the 'FTP Upload' checkbox is checked. The configuration fields are as follows:

FTP Server Name	ftp.yourcompany.com	Port Number (FTP)	21
Login ID	soxbackup		
Password	*****		
Remote Directory	/SOXBackup/YourCompany/		
<input type="checkbox"/> Enable SSL	FTP Connection Test		
Maximum Compressed File Size	10	megs	
Maximum Delay Time	60	(0 - 999 Minutes)	
Delay Between Retry Attempts	1	(0 - 99 Minutes)	

At the bottom of the window, there are four buttons: 'Backup', 'Create Scheduled Task', 'Start Task Scheduler', and 'Close'.



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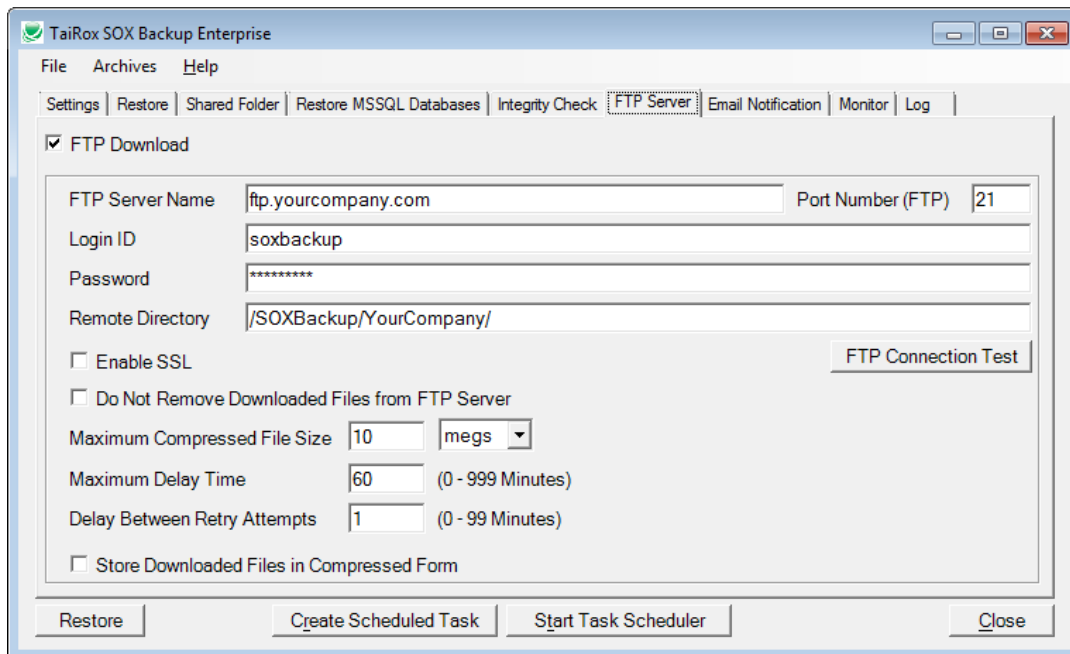
## Setup (continued)

**SOX Backup Enterprise** also allows, during a Restore operation, downloading a zipped archive from an FTP site to a new archive directory. The credentials and re-try settings are the same. There are 2 **important** additional settings:

**Do Not Remove Download Files from FTP Server** - When transferring data from one site to another through an FTP site, removing the files from the FTP site after downloading provides a means of insuring that the same files are not being downloaded every day because the backup operation has failed. During set up and testing of the Restore job, you may wish to leave the files on the FTP site until your set up and testing is complete.

**Store Downloaded Files in Compressed Form** - When transferring data from one site to another through an FTP site, minimizing the data being transferred is important and the data is compressed. On the restore site, the data must be uncompressed so that it can be loaded into a database. Daily archives are maintained. If disk space is limited and there are lots of archives, you may wish to store the archived data in compressed form. Otherwise the archive contains uncompressed data (in DBDump format), which is in a more convenient form should the need arise to restore a database from the archive. If stored in compressed form, the Archive menu provides a way to uncompress an archive.

**Important Note:** The Enable SSL option will connect using an FTPS protocol, not an SFTP protocol. With this option selected the protocol will be FTP.

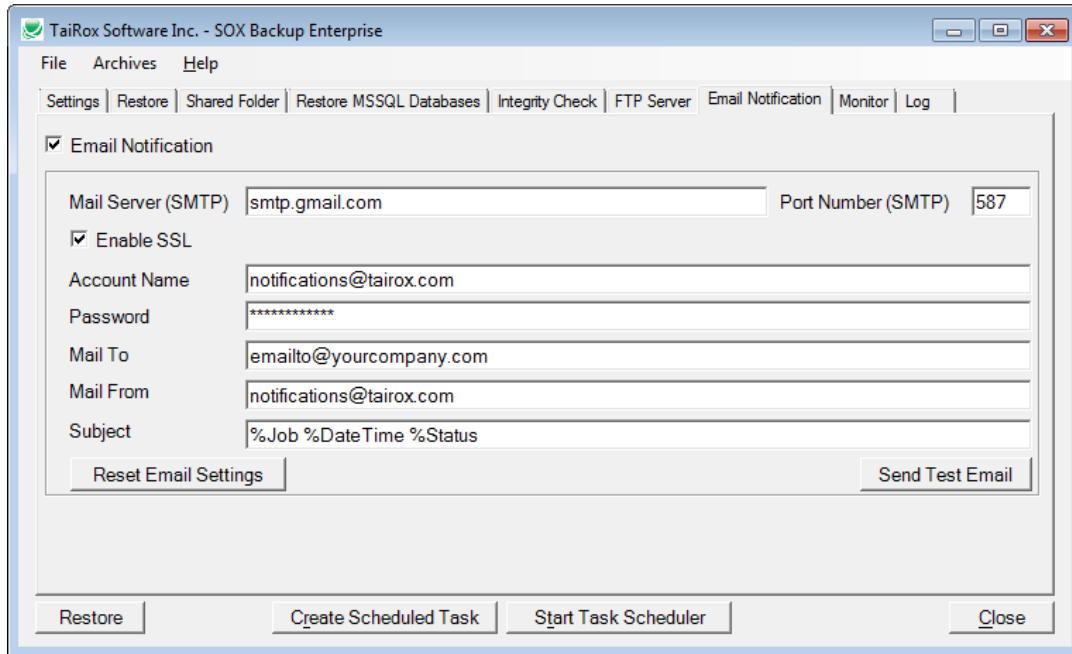


The screenshot shows the 'FTP Server' configuration window in TaiRox SOX Backup Enterprise. The window title is 'TaiRox SOX Backup Enterprise' and it has a menu bar with 'File', 'Archives', and 'Help'. Below the menu bar is a tabbed interface with tabs for 'Settings', 'Restore', 'Shared Folder', 'Restore MSSQL Databases', 'Integrity Check', 'FTP Server' (which is selected), 'Email Notification', 'Monitor', and 'Log'. The 'FTP Download' section is checked. The configuration fields are: 'FTP Server Name' (ftp.yourcompany.com), 'Port Number (FTP)' (21), 'Login ID' (soxbackup), 'Password' (masked with asterisks), and 'Remote Directory' (/SOXBackup/YourCompany/). There are three checkboxes: 'Enable SSL' (unchecked), 'Do Not Remove Downloaded Files from FTP Server' (unchecked), and 'Store Downloaded Files in Compressed Form' (unchecked). There are also input fields for 'Maximum Compressed File Size' (10 megas), 'Maximum Delay Time' (60 minutes), and 'Delay Between Retry Attempts' (1 minute). An 'FTP Connection Test' button is located to the right of the 'Enable SSL' checkbox. At the bottom of the window are buttons for 'Restore', 'Create Scheduled Task', 'Start Task Scheduler', and 'Close'.

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## Setup (continued)

The Email Notification tab settings control how email notifications are sent. The default settings are shown here (a gmail account provided for use by SOX Backup). Another common setup style would be to use the same setup as Outlook would use from the server - same SMTP server, same port number (default would be 25), same user and password.

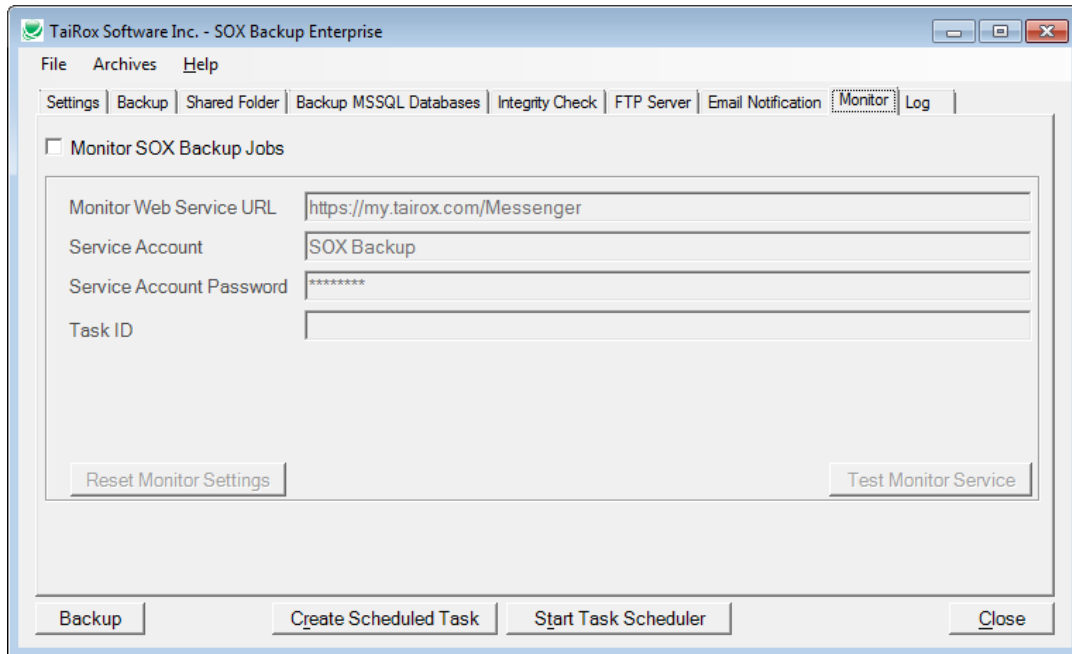


The strings %Job, %DateTime and %Status will be replaced appropriately before the job is sent. Any other information is copied as-is to the subject line. Sending a test email will display a pop-up message. If the test email fails click on the log tab for further detail about why sending the test email failed.

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## Setup (continued)

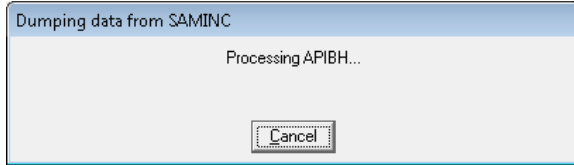
The Monitor tab provides a mechanism to have TaiRox or a business partner monitor jobs. The important aspect of this is that if the Windows Scheduled Task for a SOX Backup job does NOT run, there will be no FAIL email notification sent. This can occur if rights or passwords are changed or expire (a Windows Scheduled Task should be run by an administrative account whose password does not expire). The TaiRox portal will be aware that a job was expected to send it a message in a certain time frame and did not.



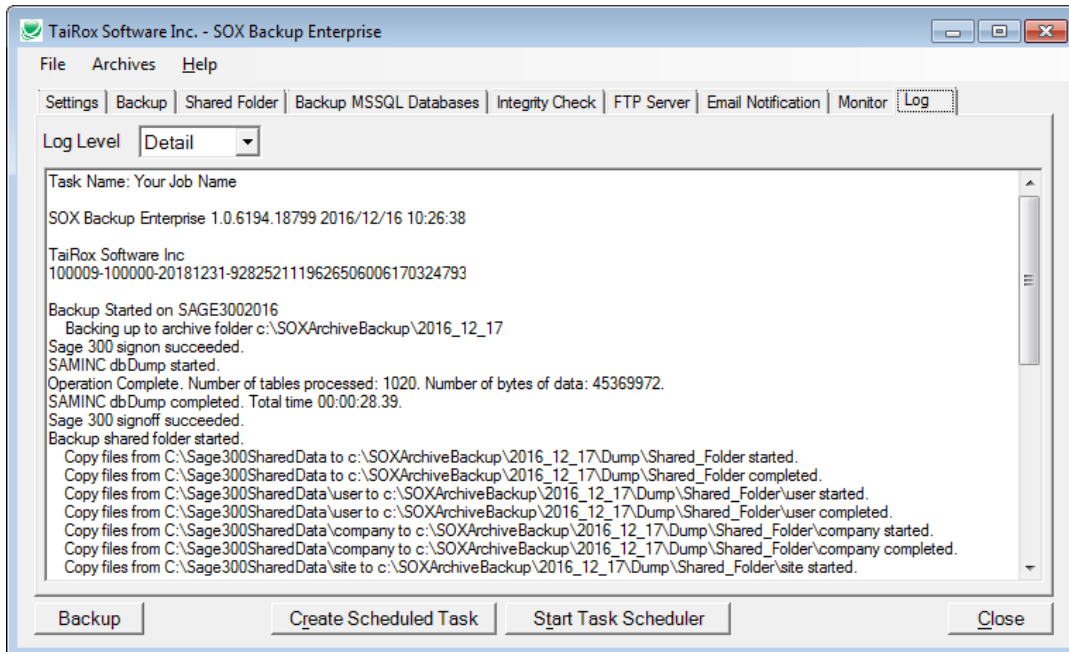
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## Testing Your Setup

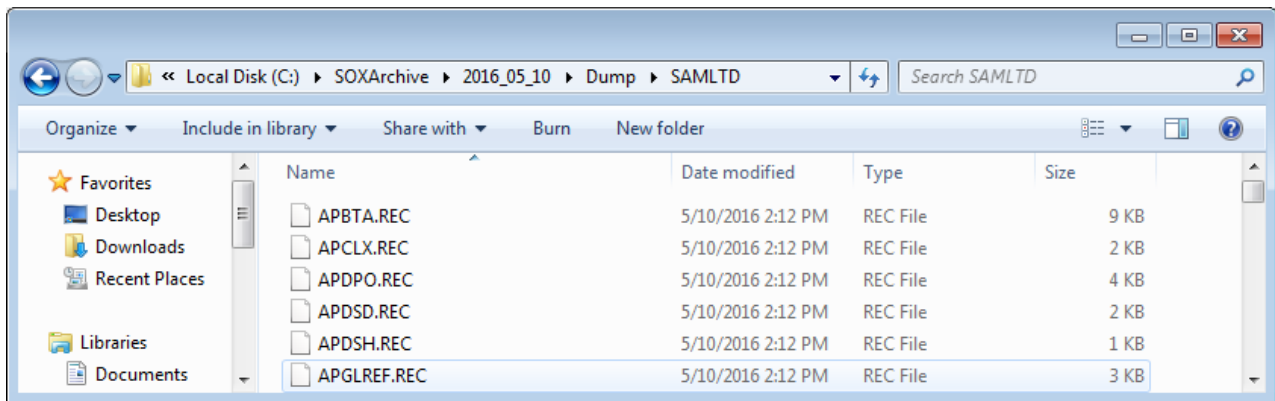
You may have noticed the Backup button in the lower left hand corner of the screen. If this is pressed, and you confirm the operation, a Backup will occur immediately. While the backup proceeds, various progress windows will appear:



Clicking on the Log button will show the progress of a backup.



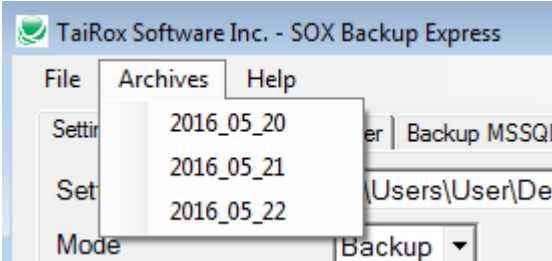
You may wish to view the Archive folder as a way of seeing the resulting files:



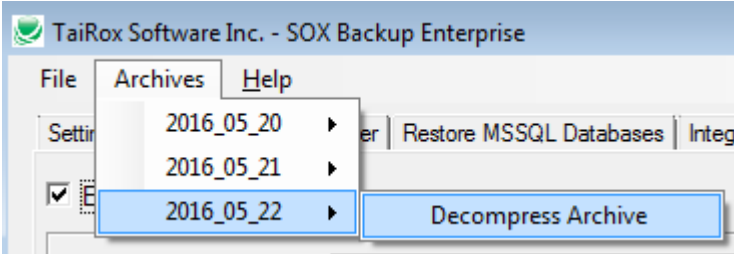
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## The Archives Menu

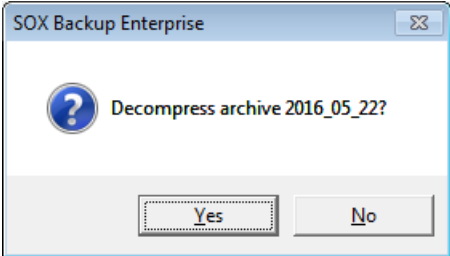
When there are no archives stored in compressed mode, the Archives menu merely provides a list of archive folder names:



A SOX Backup Enterprise restore operation from an FTP site allows archives to be stored in compressed mode. When this option is selected, the Archives menu provides a way to decompress the archive, unzipping the files into DBDump format.



A prompt will be presented to confirm the operation:



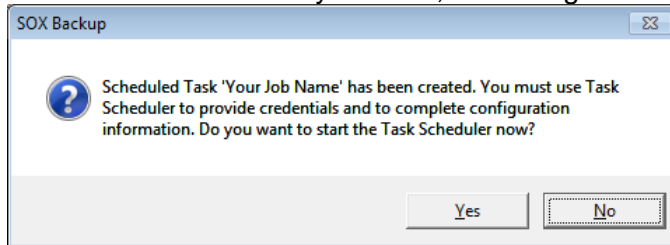
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## Create Scheduled Task

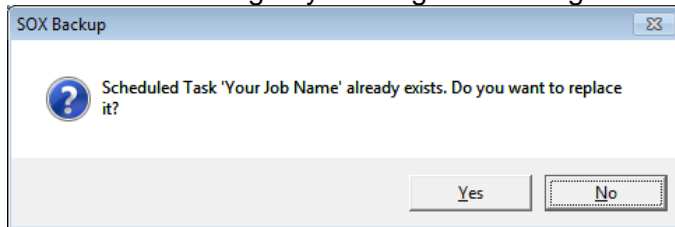
SOX Backup will create a basic task with that can be managed with the Task Scheduler. The task will have the Task Name on the SOX Backup Setting tab. We are providing this feature so that the Task Scheduler's Action tab will be populated with path to the SOX Backup program and also populated with the 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 SOX Backup 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

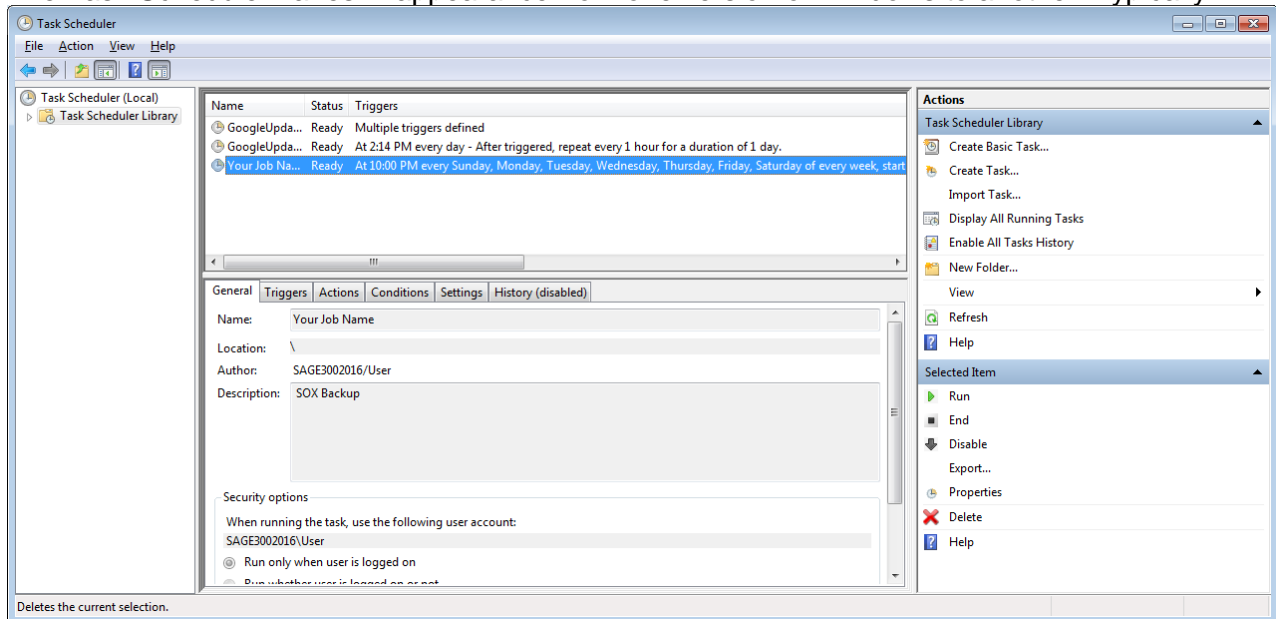
If the task is successfully created, a message will appear:



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:



# SOX Backup User Guide

## Scheduling a Complicated Backup / Restore Sequence

Scheduling matching restore and backup processes involves scheduling the restore process to run once the backup process is complete. Some experimentation will be required to determine how long the backup process takes and how much variation there is in this time. Some forward-looking planning must be done to account for growing amounts of data. SOX Backup's restore process from an FTP has a built-in mechanism - it will wait until the complete matching backup job has been run.

The following worksheet illustrates the planning process for transferring data between a server in Mexico and a server in Vancouver. The Mexico data is large and is transferred to Vancouver where it is restored and used for consolidation. The Vancouver parent data is small and is transferred to Mexico as a form of backup and not restored. The data is transferred through an FTP site in Houston, which is located in a secure facility with redundant internet connections and huge bandwidth.

Note that the Mexico server and the Vancouver site are in different time zones. Vancouver time and Mexico time are set out in different columns. Several test runs may be required to map out approximate times, as set out here:

Process	Vancouver Start Time	Mexico Start Time	FTP Elapsed	Restore Elapsed
Mexico Backup	20:01	22:02	40 min	N/A
Vancouver Backup	21:32	23:32	2 min	N/A
Mexico Restore	22:03	00:03	1 min	15 min
Vancouver Restore	00:04	02:04	35 min	176 min