



**with the ArchiveSync Add-On
Evaluator's Guide**

Software Pursuits 
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Introduction

SureSync is a powerful file replication & synchronization utility that can be used to ensure users on your network are always working off of the most recent version of critical files, for disaster recovery purposes, for software distribution, and much more. When the ArchiveSync Add-On is licensed, you can also generate versioned backups to devices such as a removable USB hard drive, a NAS, or a SAN. This allows you to protect your critical files automatically, restore to various points in time, and restore files much quicker than possible with traditional methods of backup.

This evaluator's guide is designed to walk you through the initial setup of SureSync with the ArchiveSync Add-On. ArchiveSync jobs can be run in both scheduled and real-time modes of operation. This guide will focus on real-time data protection.

System Requirements

SureSync's basic operating system and hardware requirements are:

- **Supported Operating Systems:** Windows Server 2022; Windows Server 2019; Windows Server 2016; Windows Server 2012 R2; Windows Server 2012; Windows Server 2008 R2 with SP1; Windows Server 2008 with SP2; Windows 10; Windows 8.1; Windows 8; Windows 7; Windows Vista with SP2
- **Processor:** Minimum: 1Ghz (x86 processor) or 1.4Ghz (x64 processor). Recommended: 2Ghz or faster processor (x86 or x64 processor)
- **RAM (total for system):** 1GB (Minimum); 2GB (Recommended)
- **Hard Disk:** 30MB for application files; 20MB+ for database
- **Display:** 1024x768 high color, 32-bit (Minimum)

SureSync is a 32-bit application but will run on 64-bit versions of Windows. 64-bit editions of Windows include full featured emulation for running 32-bit code that allows SureSync to run on these operating systems. The File Locking Add-on is 64-bit compatible.

SureSync can synchronize data to operating systems such as Windows 2000, and non-Windows machines such as Macintosh and Linux machines via UNC path but the software itself must be installed on one of the supported operating systems listed above.

Windows 2003/XP Support – Communications Agent Only

Windows 2003 and Windows XP are no longer supported by Microsoft. User interface components such as the SureSync Desktop, status panels, SyncLockStatus and Endpoint require the .NET Framework 4.5.2. This version of the .NET Framework is not available for these operating systems. Machines running any of these components must be upgraded to a supported operating system.

A version of the Communications Agent running the .NET Framework 4.0 will be installed automatically on Windows 2003 with SP2, Windows 2003 R2, and Windows XP with SP2 machines. This allows you to synchronize files to paths on these operating systems using Communications Agent functionality. You can also synchronize to them via UNC path.

Virtualization

SureSync can be run on Windows operating systems hosted in virtualization software such as VMWare or Hyper-V without issue. Each virtual machine involved in the synchronization / replication requires appropriate licensing.

SureSync Database Requirements

SureSync requires a database to store configuration information. The following formats are supported:

- Microsoft Access (default)
- SQL Express 2005, 2008, 2012, 2014, 2016, 2017 and 2019
- SQL Server 2005, 2008, 2012, 2014, 2016, 2017 and 2019

While SureSync will operate with older versions of SQL Server, it is strongly recommended to use the newest possible release to take advantage of performance and reliability enhancements in those versions of SQL Server.

To achieve optimal performance, SQL database is strongly recommended for setups using multi-directional rule types, environments with more than 50 Relations defined, or environments where hundreds of thousands of files will be processed.

SureSync requires a number of Microsoft components to be installed on the system. The SureSync installer will inspect your system for these components and offer to upgrade or install them as needed.

- Microsoft .NET Framework 4.5.2
- Microsoft .NET Framework 4.0 (Windows 2003/XP)
- Microsoft MDAC 2.8 Refresh with Service Pack 1
- Microsoft Visual C++ Runtime 14.0 (Visual Studio 2015)
- Microsoft Windows Installer 3.1
- Microsoft XML Parser 6.0
- Microsoft Jet 4.0 with Service Pack 8

Please note that using the SureSync installer to install these prerequisites could result in a reboot being necessary before the setup can continue. If a reboot is necessary, the installer will prompt you. In environments where a reboot is disruptive, we recommend installing the required components manually during your normal maintenance schedules and then proceeding to install SureSync.

Contact Information

If you need further information about SureSync or need clarification on anything within this guide, please contact our support group and they will be happy to assist you with your evaluation.

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Technical support is available between 7:00AM and 4:00PM PST Monday through Friday.

Required Add-Ons for ArchiveSync in Real-Time

ArchiveSync can be run in either scheduled or real-time modes of operation. This guide will focus on real-time operation. The Communications Agent Add-on is required for real-time operation but also adds important performance benefits to scheduled ArchiveSync jobs.

Communications Agent Add-On

Ensure high availability and improved replication performance with SureSync's Communications Agent Add-On. The Communications Agent provides technology to perform real-time synchronization/replication and more. Below is a list of features that are included when you license the Communications Agent Add-On.

- **Real-Time Monitors**
Real-Time processing increases data availability by continuously monitoring data for updates. By processing files immediately after they change, SureSync can avoid folder scans that are necessary for scheduled jobs.
- **Remote Differential Compression (RDC)**
RDC copies only the changes made to a file, reducing synchronization time and decreasing the consumption of network resources.
 - **RDC to Non-Windows Machines**
If you map a non-Windows drive to a drive letter on a Windows machine you can process delta copies to that non-Windows machine. This in turn provides bandwidth savings between any machines, regardless of the OS.
- **File Compression**
Transmit files in a smaller package across your network by compressing them. File compression is particularly useful on slow network connections.
- **TCP/IP Transmissions**
Transmissions across the Internet give you more options on how you connect to remote machines. Now it is even easier to keep office branches connected to the information they need.
- **Encryption**
Ensure your files are being transmitted securely by encrypting each file transmission. Multiple FIPS certified encryption algorithms are available. This is an especially useful and necessary option when transmitting sensitive data across the Internet.
- **Change Journal Support for Schedules**
When a Schedule is configured to run a Job using the Communications Agent Add-On, SureSync uses the NTFS Change Journal to minimize the amount of scanning performed. Eliminating much of the scanning creates a significant performance improvement for Schedules.

ArchiveSync Add-On

SureSync's ArchiveSync Add-On allows users to create versioned backup copies of files, providing an efficient disk-to-disk backup solution. Versioned file copies allow users to quickly restore files to a specified point-in-time, without sifting through tape backups. Additionally, when archiving or restoring, the ArchiveSync Add-On will allow you to backup and restore security privileges.

Archiving can be done in real-time to continuously protect data, effectively eliminating tight backup windows during the evening. ArchiveSync will also automatically thin out your archive to clean storage up.

Other SureSync Add-Ons

Software Pursuits also offers additional Add-On products for SureSync that provide additional functionality. The available Add-On products include:

File Locking Add-On

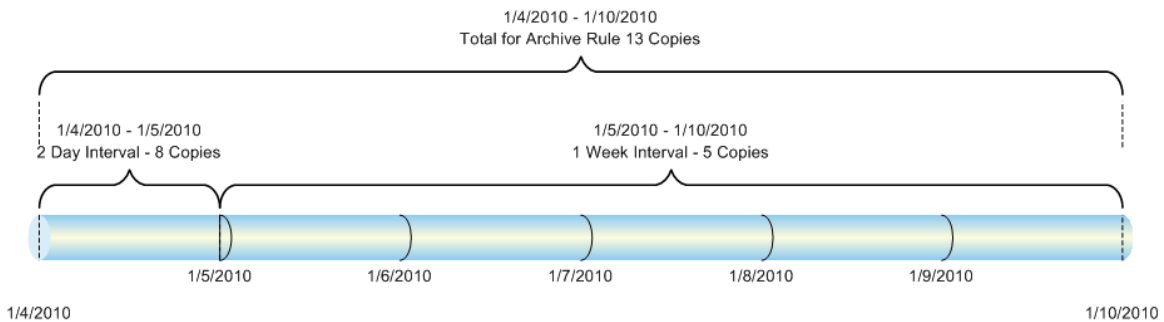
The File Locking Add-On requires the Communications Agent to be licensed and gives you an additional benefit in collaborative file sharing environments. The File Locking Add-On eliminates the possibility that a file could be changed on multiple sides of a synchronization resulting in a more efficient synchronization with zero risk of lost changes. A user who attempts to open a file that is already in use will receive an indication from the application that the file is locked.

Please consult the [SureSync Collaboration Evaluator's Guide](#) for further details.

Commonly Asked Questions

What is an Interval?

Understanding the concept of an Interval is essential to configuring ArchiveSync properly. An Interval is simply a period of time. You will configure a set of Intervals to tell ArchiveSync how many versions of a file you wish to keep in those different periods of time.



The most important thing to understand about Intervals is that they all start at the same point in time. Consider the example timeline above that shows a week (7 days) of time. In this example, two Intervals have been defined. The first Interval is defined as 2 days with 8 copies stored in the archive. The second Interval is defined as 1 week with 5 copies. Note that the 1 week Interval covers the period after the 2 day interval. These two Intervals result in 13 copies in the week.

From what starting time is an Interval calculated?

An ArchiveSync Interval is calculated differently depending on the way that the Job is being run. If you are running a Job on a scheduled basis, the Interval is calculated from the time that the Schedule starts to run. If you are running the Job on a real-time basis, then the Interval is calculated from the time a file changes.

How does ArchiveSync determine which copies to keep in an Archive?

ArchiveSync will spread the number of versions out as evenly as possible throughout an Interval. For example, if you have an Interval defined to keep 7 versions in a week then ArchiveSync will try and space out the versions in the Archive so that they are as close to a copy a day as possible. Older versions fall into the next Interval. If you had a second Interval asking for 3 versions in a month then ArchiveSync would try and keep a version a week for the remaining three weeks of the month.

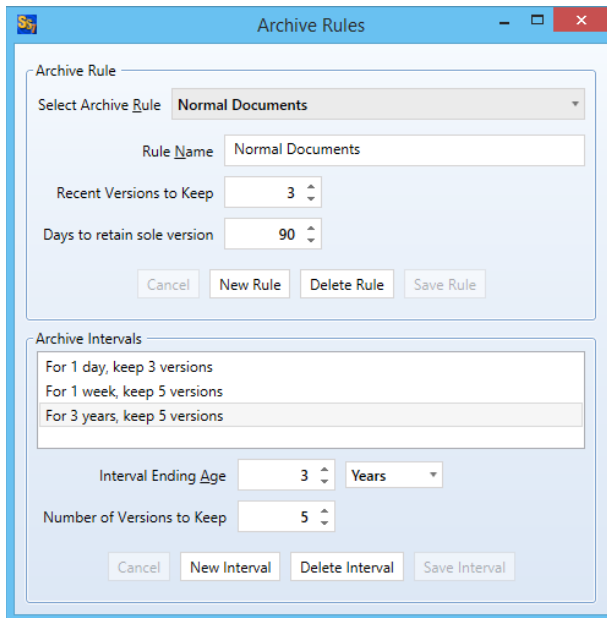
Example Archive Rules

Understanding how to construct Archive Rules is an essential part of using ArchiveSync to protect your files. The Archive Rules are extremely flexible and allow you to protect data in a variety of ways.

This section of the guide will present some example Archive Rules to assist you in determining the type of Rule construction you will want to use to protect your data. These example Rules are created by default in a SureSync database to ease configuration. You have a lot of flexibility when defining Archive Rules that allows ArchiveSync to protect a particular data set in just about any way you desire.

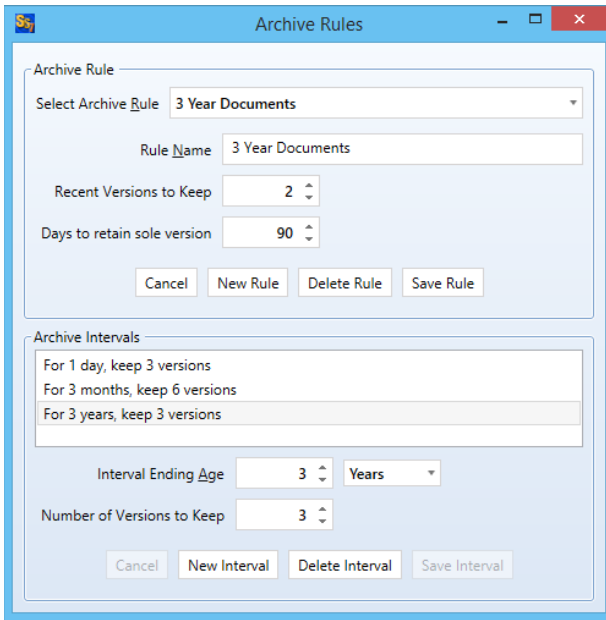
Normal Documents

A balanced Archive Rule that will maintain versions for 3 years before thinning versions out of the Archive. This Rule keeps more copies when the file is newer and then just a few over the time past a week.



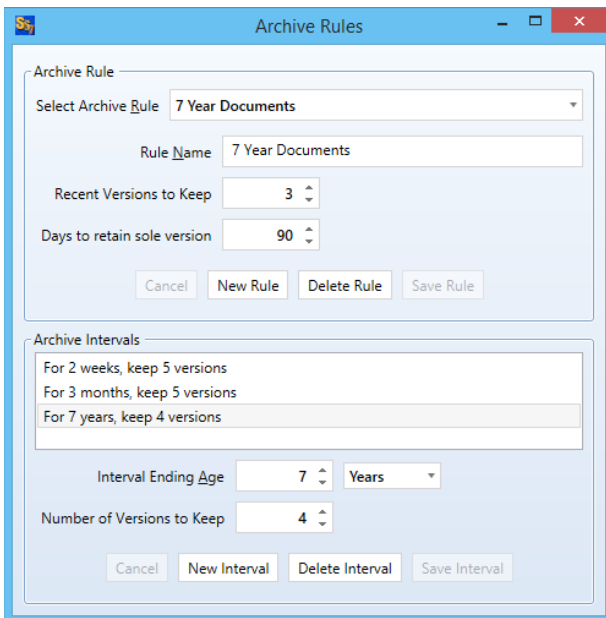
3 Year Documents

This Archive Rule also stores files for 3 years, but you will notice how the copies are more spread out by having the 6 copies in 3 months Interval added.



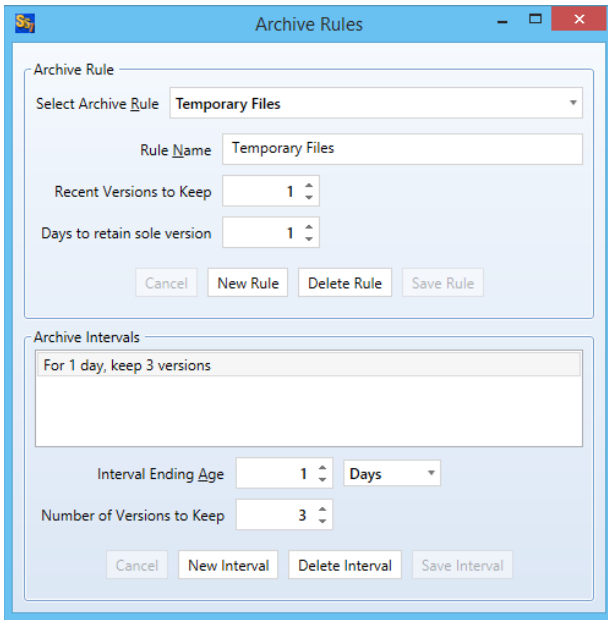
7 Year Documents

The 7 Year Documents Archive Rule is an example for longer term storage of critical files. This is a variation of the 3 Year Documents Rule that expands the time stored in the Archive to 7 years. This Rule maintains fewer copies early in the file lifespan.



Temporary Files

This Archive Rule is useful in protecting files that are not needed long-term. For example, employees may work on files in one location and transfer final documents to another location for long-term storage. In these cases, you want to protect the temporary work files but not have them maintained for long periods in the Archive. This Rule works perfectly for those types of scenarios.

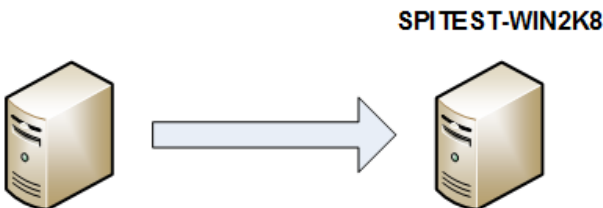


Our Scenario

This guide will walk you through the configuration of SureSync using the ArchiveSync Add-On to protect your files in real-time as changes occur. To use a Real-Time Monitor to archive files, all machines involved must be running supported Windows operating systems. ArchiveSync can generate versioned backups to multiple destinations from a single job. In this scenario, we will be protecting a folder on a machine named *DEV20* and creating an archive that is maintained in real-time on a machine named *SPITEST-WIN2K8*. The folder for this example scenario is *C:\SalesData* on the *DEV20* machine. We will be using the 3 Year Documents Archive Rule defined earlier in this guide.

While this guide will show you how to run an archive job in a Real-Time Monitor, you can use the exact same steps to configure the archive job in a Schedule. The only difference is you would create a Schedule instead of a Real-Time Monitor. The rest of the configuration is identical.

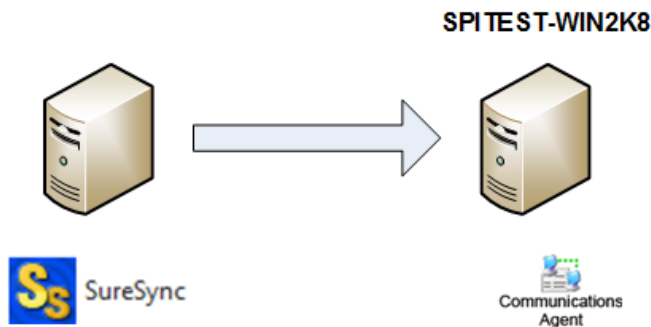
Schedules can also be used to archive data via UNC path from machines that do not support the installation of the Communications Agent Add-on. This is useful for archiving from old Windows machines and non-Windows machines such as Linux based NAS devices.



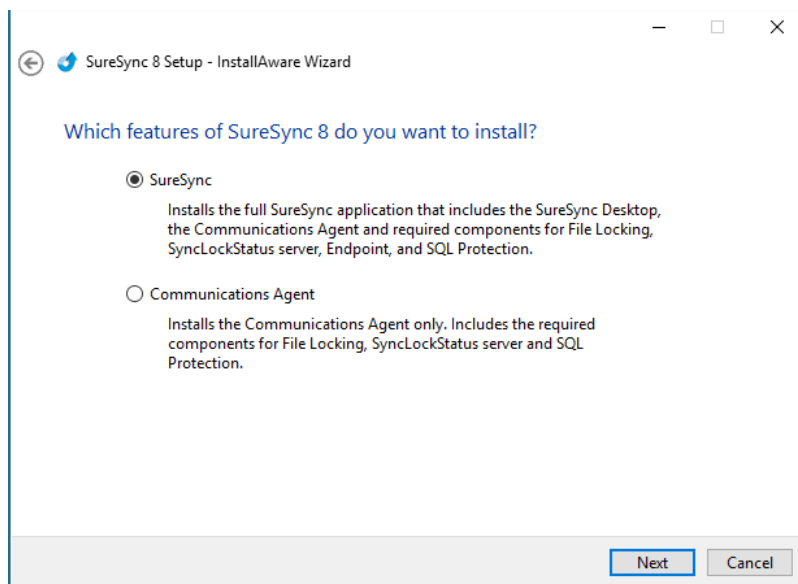
Installation

To begin your SureSync trial, you must install the correct SureSync components on the right machines. SureSync is installed using a Windows Installer (MSI) installer. SureSync and all Add-On products are installed using the same installer.

For this scenario, the full SureSync application will be installed on one machine (*DEV20*) and the Communications Agent will be installed on the other machine (*SPITEST-WIN2K8*) as illustrated below.



On the *DEV20* machine, we will run *SureSyncSetup.exe* and select SureSync as the installation type in the installer. This will install the complete SureSync application and make *DEV20* the machine where we configure and run our archive job.



On the *SPITEST-WIN2K8* machine, the Communications Agent installation should be performed. This is accomplished by launching *SureSyncSetup.exe* on that machine and selecting "Communications Agent" as the installation type.

Launch SureSync for the First Time

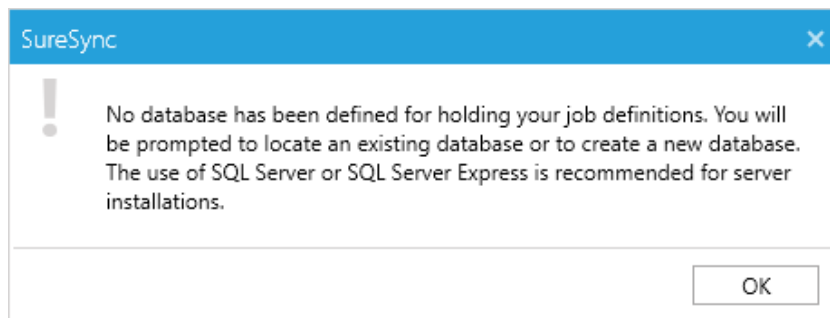
Now that the required components have been installed, we can continue with the configuration. To launch SureSync for the first time, go to the Start menu, select the SureSync folder and click

on the SureSync Desktop icon. This will launch the SureSync Desktop where you will perform your entire synchronization job configuration.

On the first launch of the application, SureSync will present you with a series of questions to aide in completing the initial configuration.

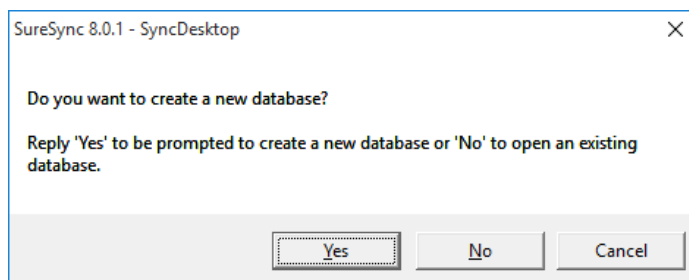
Creating a SureSync Database

The prompt displayed below informs you that a SureSync database needs to be created. The SureSync database is used to store all of your synchronization/replication configuration and related information. This database can be either an Access or SQL database.



Click "OK" to continue on with the creation of the database.

The next dialog box allows you to select an existing SureSync database to open with the new installation or allows the creation of a new database. For our example, this is a new installation and "Yes" should be selected to create a new database.



On the next panel, the type of database is selected. For our example, we will select "Create a new Access/Jet database".

Create a new Access/Jet database
 Create a new SQL Server/MSDE database
 Jet Database Path and File Name (*.mdb)

 SQL ServerName\InstanceName

 Any SQL Server Failover Partner (mirrored) as ServerName\InstanceName

 Name of the SQL Database

 SQL Server account name or blank for Windows authentication

 Password for SQL Server account or blank for Windows authentication

 Re-enter your SQL Server password

The form will change to show the path to the Access/Jet Database. We will select the default location of C:\Users\Public\Software Pursuits\SureSync8\SureSync.mdb.

Create a new Access/Jet database
 Create a new SQL Server/MSDE database
 Jet Database Path and File Name (*.mdb)

Configuring the Local Communications Agent

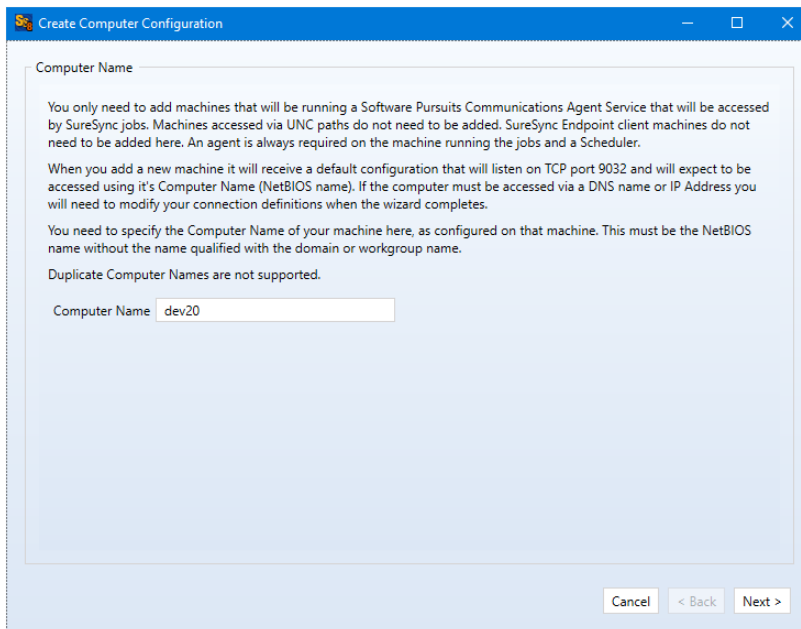
The next step in the initial configuration involves defining a credential for the local Communications Agent to run under.

SureSync
 ! This appears to be a new database that does not have any agents defined. You must create a local agent before you can create any jobs. A New Computer wizard will start to help you define your local computer and provide login credentials for an account to be used to access your files.

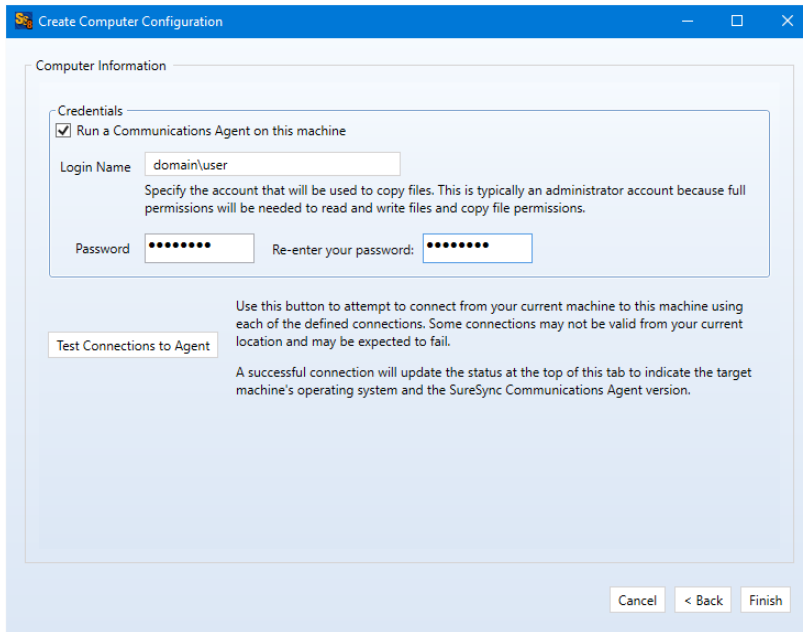
Click "OK" and the Communications Agent Configuration panel will be launched.

The local Communications Agent must be given a credential for SureSync to function properly. We recommend this account be either a local administrator on the machine or a domain administrator to ensure rights to all the files and folders being synchronized. The local Communications Agent must be configured even if you're not licensed for the Communications Agent Add-on. The Add-on functionality is enabled by a license but the Communications Agent on the SureSync machine is responsible for all the basic I/O as well.

The only exception to the need to configure the local agent is if no paths of any kind, including UNC paths are referenced from the local machine. This scenario is extremely rare.



When the “Create Computer Configuration” wizard loads, the name of the computer SureSync is installed on is automatically filled in. For this example, the machine name is DEV20. Click “Next” to continue.



The “Computer Information” panel of the wizard is where you define the user account and password that the Communications Agent should use to access the files on the machine.

To ease initial configuration, the “Run a Communications Agent on this machine” option will be checked. In addition, the account you are logged into the machine as will be prefilled in the “Login Name” field.

If you want the Communications Agent to run under a different user account, you can change it here. The account must be in domain\user or machinename\user format.

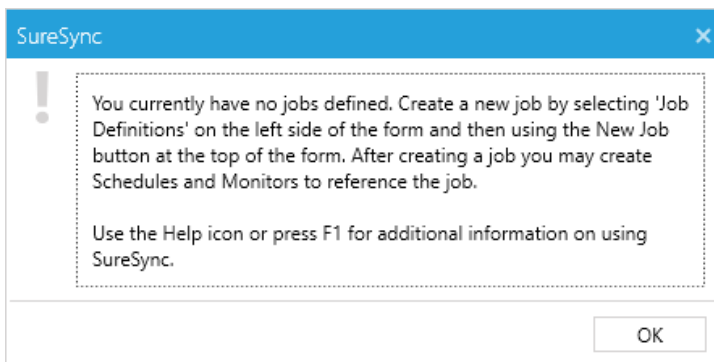
Enter the password for the defined account twice in the password fields.

When a Communications Agent configuration is saved, a default connection for TCP port 9032 is created automatically. In most environments, only the default connection is used.

To test the connection, click the “Test Connections to Agent” button.

Click “Finish” to complete Communications Agent configuration for the local agent.

The following dialog will appear, click “OK to proceed to the SureSync Desktop.




Importing a License

A license file should be installed in the new database. This can be a trial license obtained from the Software Pursuits sales team or purchased license.

If you are new to SureSync, you should request a trial license from <http://www.softwarepursuits.com/suresync/trial/>. A license file will be generated and sent to you via e-mail. You can also call our sales team at 1-800-367-4823.

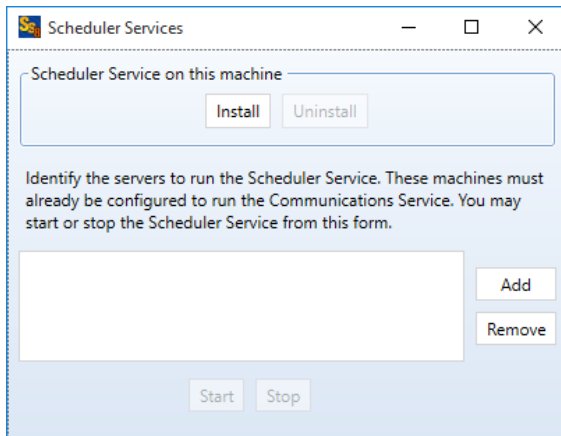


Once a license file has been provided to you, click the “Licenses” button () in the ribbon bar of the SureSync Desktop and click the “Import License...” button to import the updated file.

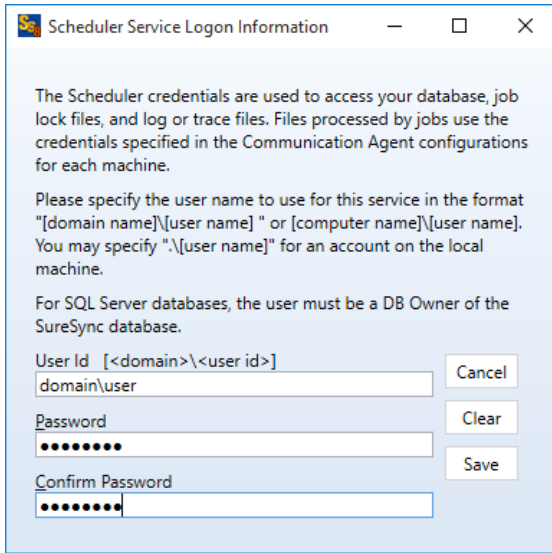
Installing the SureSync Scheduler

The SureSync Scheduler is a Windows service that runs on the main SureSync machine. This service is responsible for launching Schedules at the correct times and for running Real-Time Monitors. You must have a Scheduler running in order for your Schedule to execute at the configured time.

To install the SureSync Scheduler service, click on the Home button in the upper left hand corner of the SureSync Desktop and click on “Scheduler Services.”



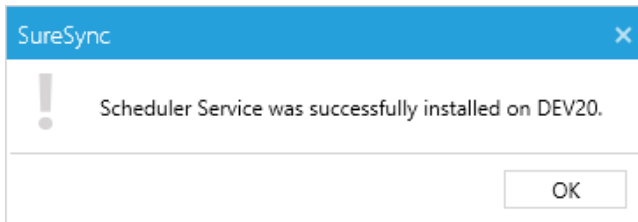
To install the Scheduler, click the “Install” button, which will launch a window like the one below.



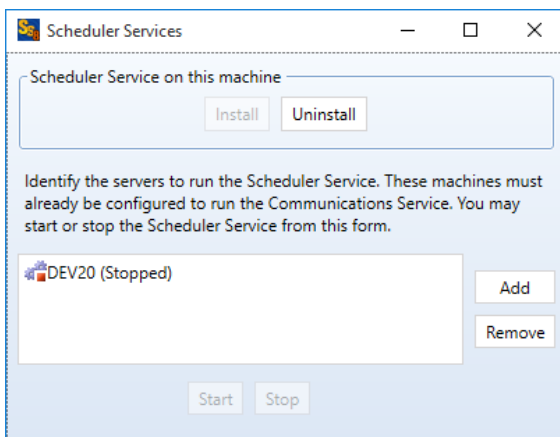
The user account the Scheduler service runs under must be a member of the local administrators group on the SureSync machine. If using SQL, the account must also be a DBOwner on the SureSync database.

Enter the username formatted as *machinename\username* or *domainname\username*. This account must be an administrator on the machine. Click "Save" to install the service.

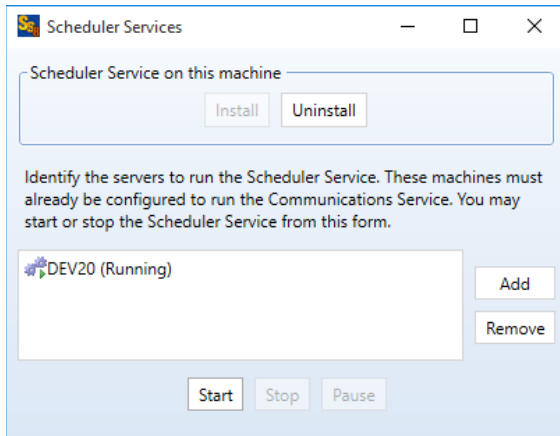
You will receive a confirmation dialog box that the Scheduler service was installed successfully as shown below.



The Scheduler will appear in the dialog with a status of (Stopped).



Once the service has been installed, click on the machine name and click “Start.” The Scheduler will now be listed as Machine Name (Running).

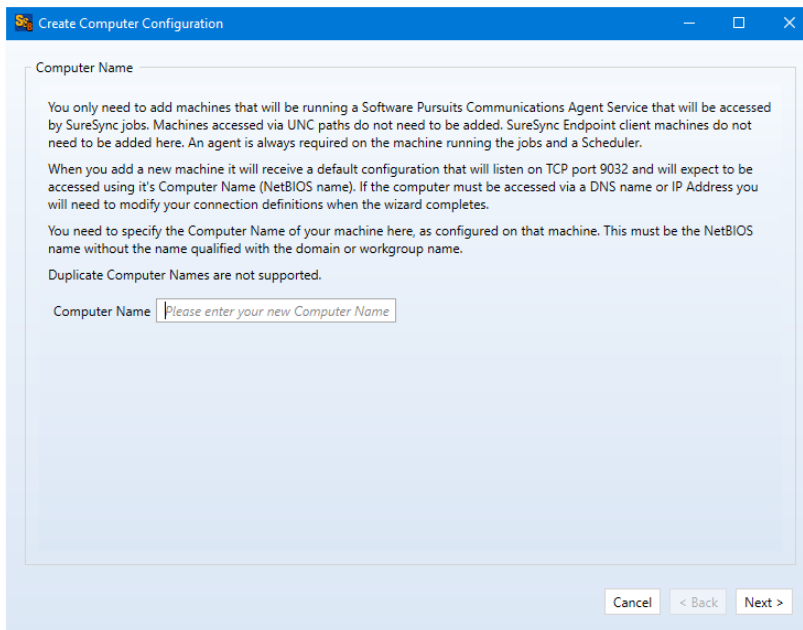


Configuring the Communications Agent Machines

The next step in configuring the environment is to define the remote Communications Agent machines.



To configure a Communications Agent, launch SureSync and click on the “Computer” (Computer) button in the ribbon bar.

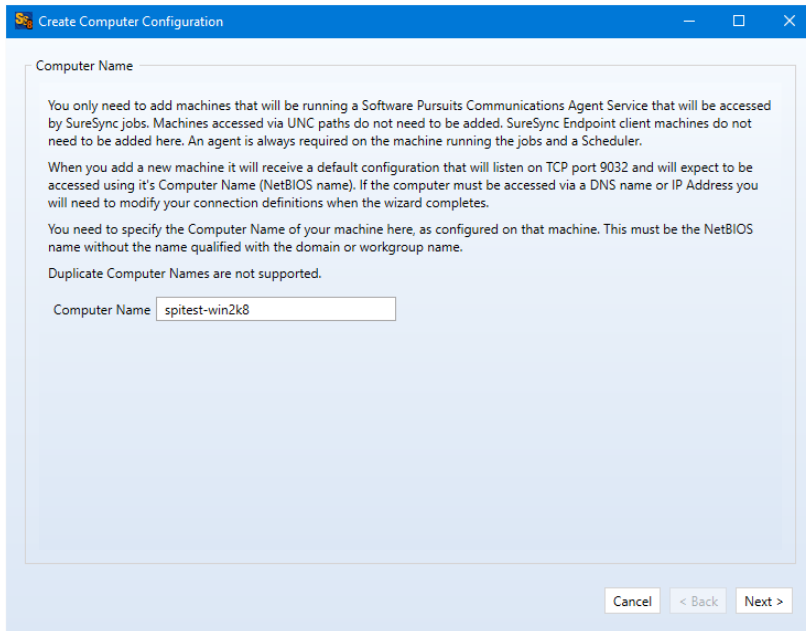


The “Computer Name” panel of the Computer wizard is where you define the name of the machine running the Communications Agent that SureSync will be connecting to. This machine must be the NetBIOS computer name of the computer.

The computer name entered here must be the NetBIOS computer name

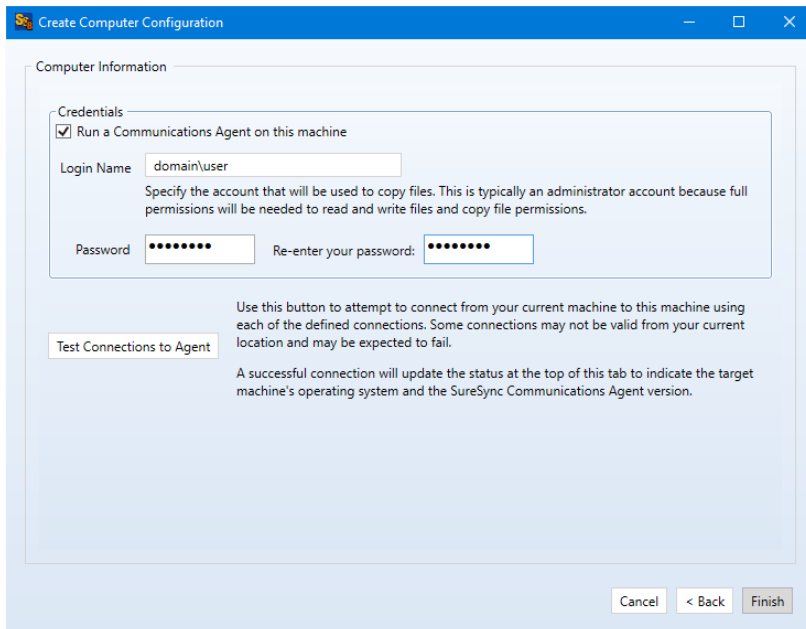
of the computer in question. Using an IP address or a random name will result in the connection failing.

Enter the computer name into the field. For example, spitest-win2k8.



Click the "Next" button to continue.

The "Computer Information" panel of the wizard is where the credential used for accessing files on this Communications Agent machine is defined.



On this panel you will then want to:

1. Ensure that "Run a Communications Agent on this machine" is checked. It is by default.

2. Enter the account to be used in the “Login Name” field. This should be in domain\user or machinename\user format. .user can also be used to represent the machine name for local accounts.
3. Enter the password for the account in both password fields.

Click the “Test Connections to Agent” button to test the connection.

If the test does not complete successfully, there are some common causes to investigate:

1. Ensure the Software Pursuits SureSync 8 Communications Agent service is running on the machine.
2. Ensure the name you defined for the Computer name is the NetBIOS name of the computer.
3. Ensure that the clocks are accurate for the time zone the machine is in. .NET cryptography will reject requests when the clocks are greater than 5 minutes apart.
4. Ensure TCP port 9032 is forwarded to the correct machine in any firewall.


These steps should be done for each Communications Agent that will be used. In the example scenario, SPITEST-WIN2K8 would be defined.

Creating the Job

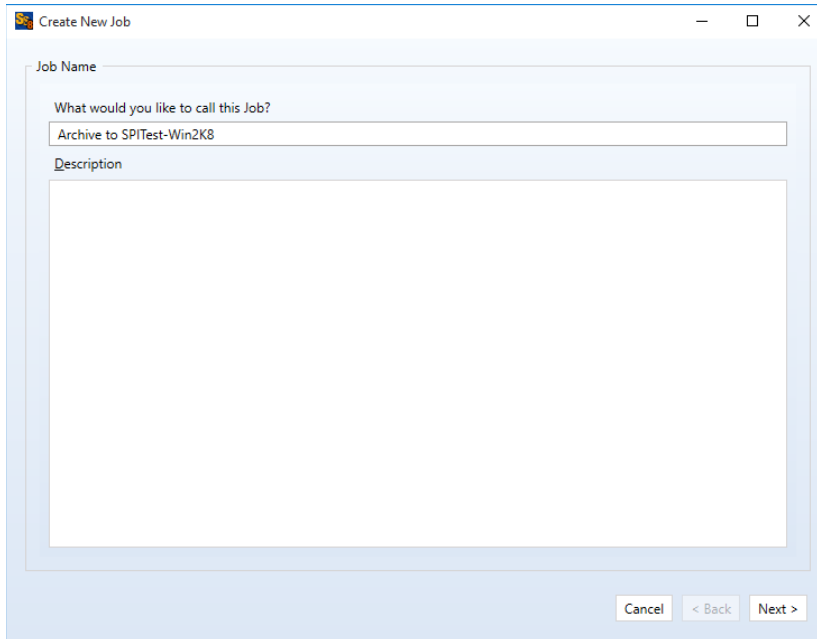
Jobs are the basic building blocks of SureSync. Each Job contains the root paths (source and destination paths) that apply to that Job and options for the Job. Each Job also contains one or more Rules that tell SureSync how to replicate & synchronize data. The Job and the Rule are created together in one wizard.

The wizards are designed to quickly and easily configure the basic options needed to get a Job up and running. SureSync is an extremely flexible product with many advanced options. Additional options can be specified on the properties panels for the Job after it has been created.



Click on the Job button () in the ribbon bar to launch the Job Wizard. The Job Wizard will be used to configure your archive.

Name Your Job



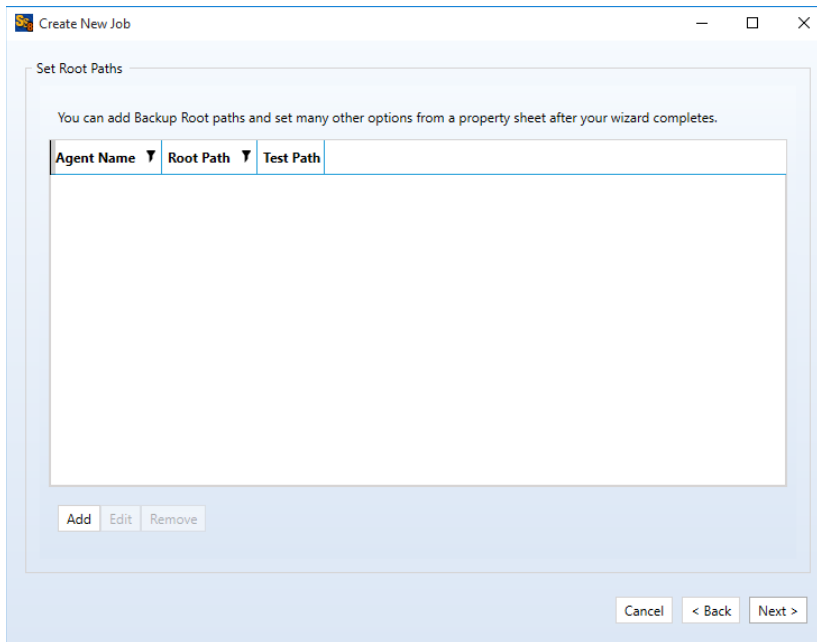
The screenshot shows a window titled "Create New Job". Inside the window, there is a section labeled "Job Name" with the prompt "What would you like to call this Job?". Below this prompt is a text input field containing the text "Archive to SPITest-Win2K8". Underneath the input field is a section labeled "Description" with a large, empty text area. At the bottom right of the window, there are three buttons: "Cancel", "< Back", and "Next >".

The first panel in the wizard allows you to name your Job. Enter the name of the Job and an optional description and click "Next" to continue. The Job name used for this example will be "Archive to SPITEST-WIN2K8".

Specifying Root Paths

The next panel is used to specify the source path and the archive path(s) for the archive job. Later in the wizard, you will specify which path is source and which is destination. In this dialog box you are simply listing the paths, both source and destination, that will be part of this archive job.

There must be at least two root paths specified (a source and a destination) to have all Rule types available. Later on in the wizard you will get to specify which path is source and which is destination. If you specify only one path, then the only Rule methods available later in the wizard will be “delete” and “skip”.

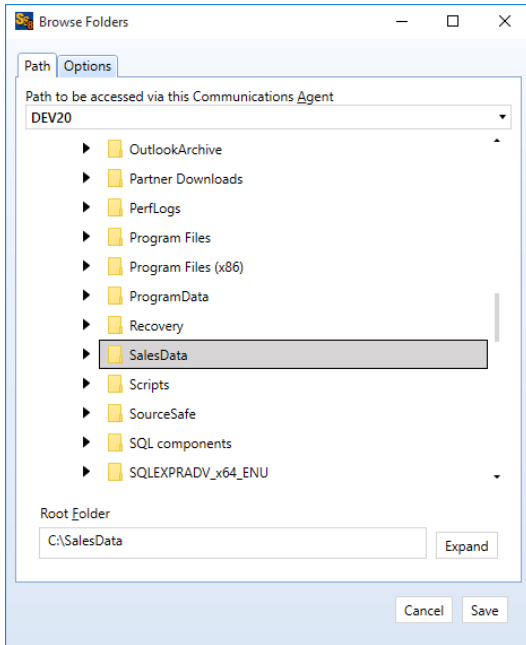


Root paths are added by clicking the “Add” button at the bottom of the panel to display the “Select a new root path” panel shown below.

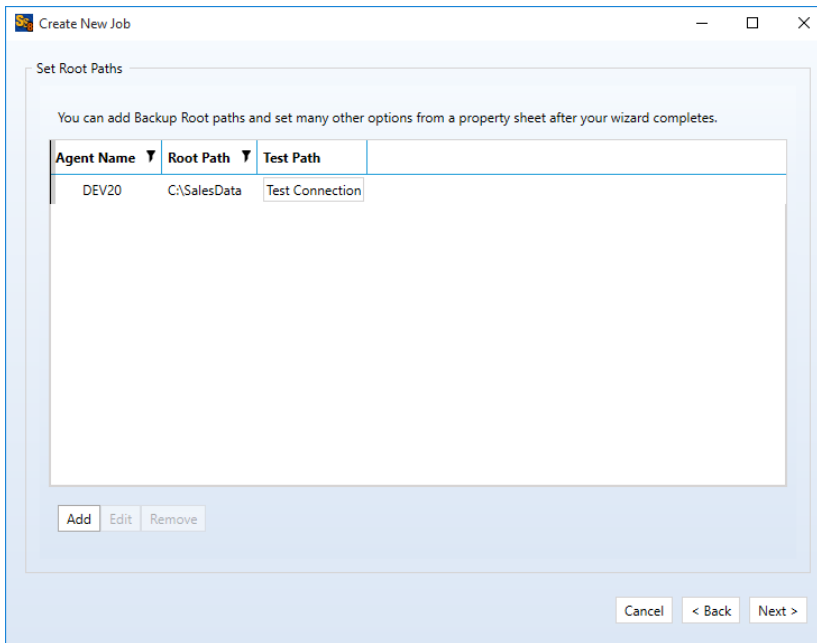
For this example, our root paths are:

- C:\SalesData on DEV20
- C:\SalesDataArchive on SPITEST-WIN2K8 (the location of the archive)

First, we will select the local path on DEV20 by browsing to that path through “My Computer”, highlighting the directory and clicking “OK”.

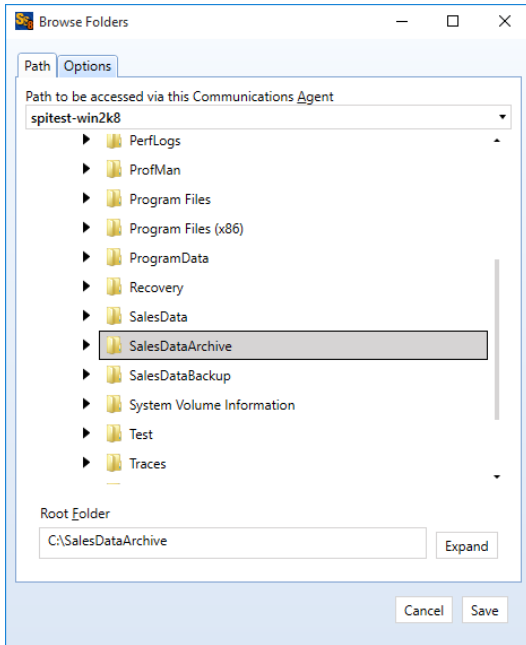


The Root Paths panel will now look like the screenshot below. Click “Add” to add the path for the remote machine.

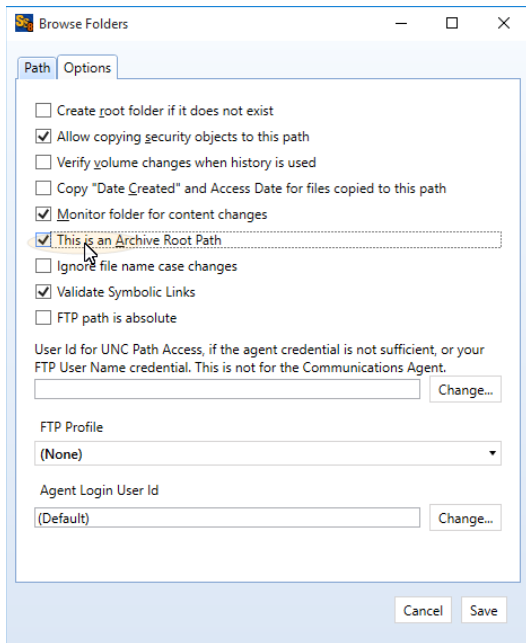


On the “Select a New Root Path” panel, you will select the machine name from the “Path will be accessed via this Communications Agent” drop-down menu, browse to the path, and then click “OK”.

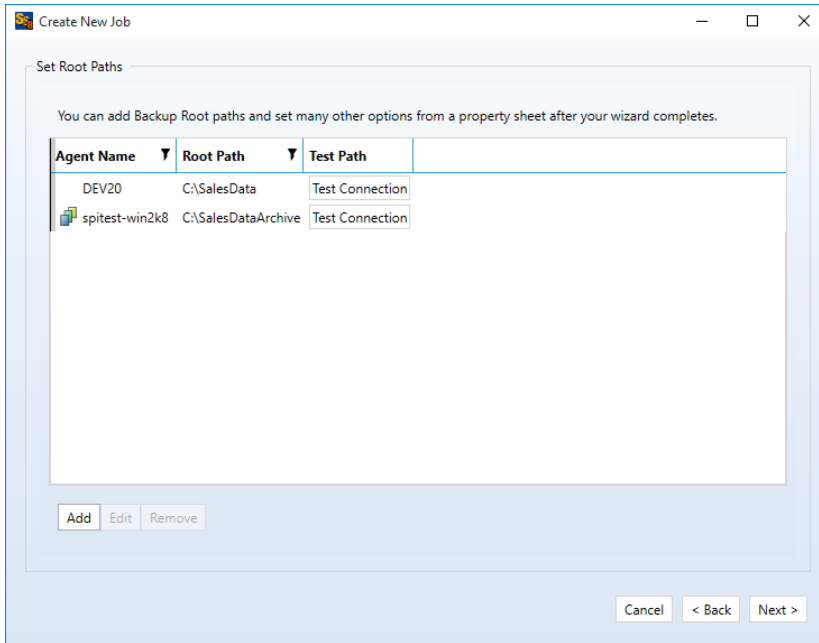
When selecting a remote Communications Agent from the drop-down, the browse panel will display the drives and folders from that remote machine as if you were sitting down in front of the computer.



After selecting the path, click on the “Options” tab and check the “This is an Archive Root Path” option to tell SureSync that this path is the path where the Archive should be stored.



Click “OK” to add the path. On the Root Paths panel, note that the Archive path is now represented with a special icon.



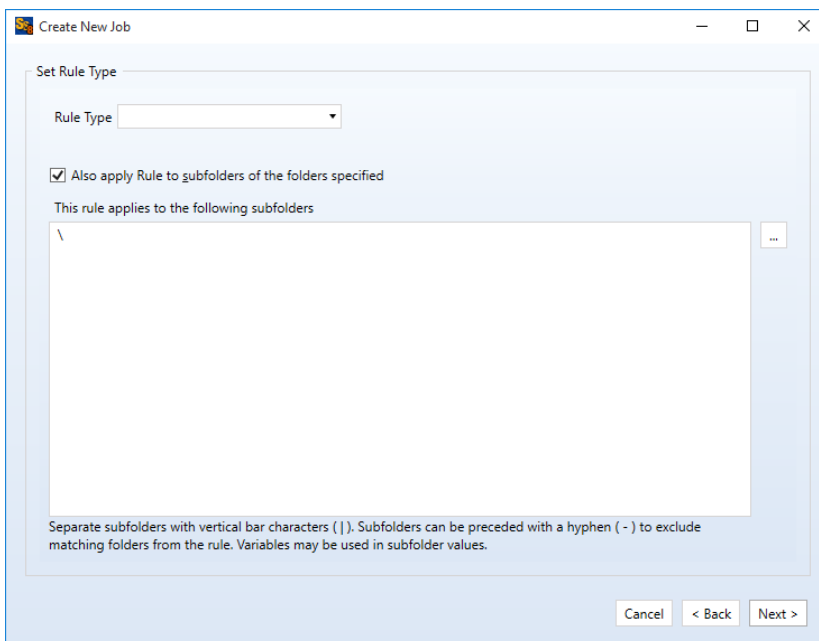
Once all of the paths have been entered, press the "Next" button to continue.

Selecting Your Rule & Defining Folder Exclusions

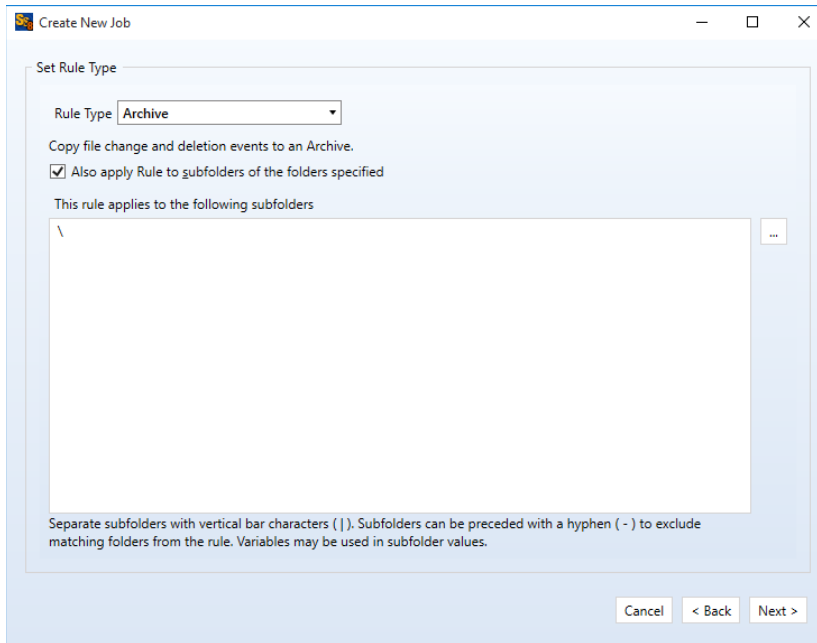
On this next panel we will specify the Rule to use for this job.

If the panel indicates that only "Delete" and "Skip" Rules are available, you have selected only one root path. You should use the "Back" button to return to the root path entry panel and add your other root path(s).

The type of Rule we will be using in this example is "Archive". The panel will load looking like the screenshot below.



To select the Rule Type, pull down the “Rule Type” drop-down and select “Archive.”



The “This rule applies to the following subfolders” section of the panel allows you to include or exclude specific subfolders. The default “\” means to include all subfolders. You can enter subfolders into the text field or select them using the checkboxes in the browse dialog on the lower portion of the wizard panel. Folders are excluded by placing a minus character (-) in front of the folder name. Multiple folder entries are separated by the vertical bar character (|).

Examples

To synchronize only two subfolders named “FolderA” and “FolderB,” you would enter the following:

```
\FolderA\ | \FolderB\
```

To synchronize all subdirectories except for subfolders “FolderA” and “FolderB,” you would enter the following:

```
\ | -\FolderA\ | -\FolderB\
```

For our example scenario, the default “\” option will be used to process all subfolders.

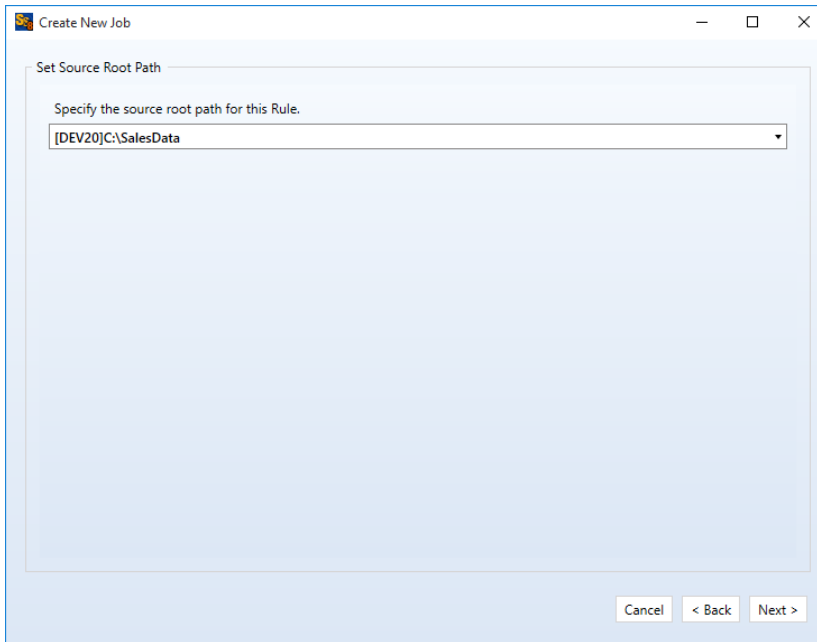
To learn more about how to include and exclude subfolders, press the “F1” key on this panel.

Click the "Next" button to continue.

Selecting Source Path

The next panel is where you indicate the source root path. To complete this panel, select the source path from the drop-down menu. An archive path cannot be a source so often there will only be one option in this drop-down menu. For our example, this is [DEV13]C:\SalesData.

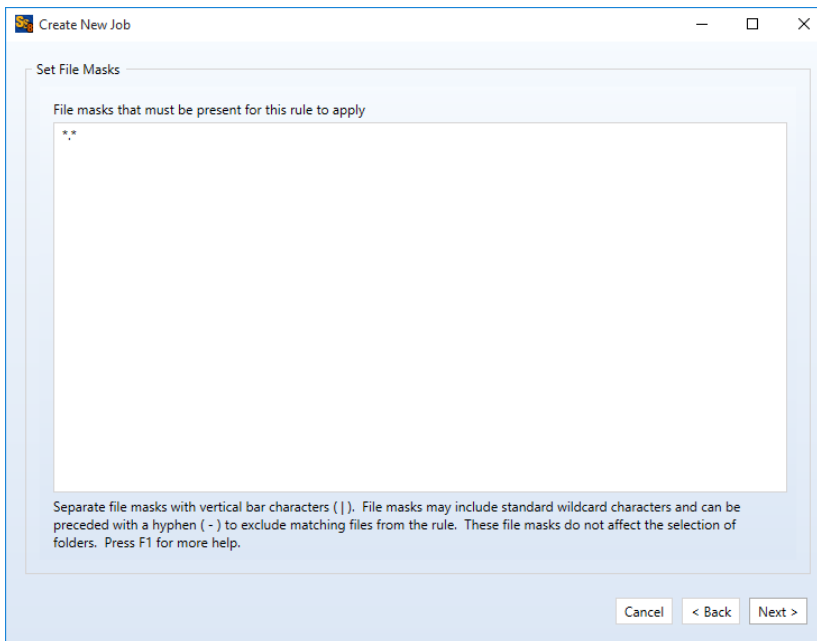
Your wizard panel should look like the one below:



Filtering Based on File Masks

The next panel displayed will let you indicate the files to be included or excluded from the synchronization. Each entry in this panel should be separated by a vertical bar (|) character. To exclude a file name or file type, place a minus sign (-) in front of the mask.

The default file mask is *.* which includes all files. Some common exclusions you could consider adding are: *.tmp | ~*.doc | ~\$.doc? | ~\$.xls?. This excludes tmp files and some Microsoft Office temporary files.



Examples

To synchronize only *.doc files and a file named "Test.txt," you would enter the following:

```
*.doc | Test.txt
```

To exclude *.tmp files, *.doc files, and a file named "Test.txt," you would enter the following:

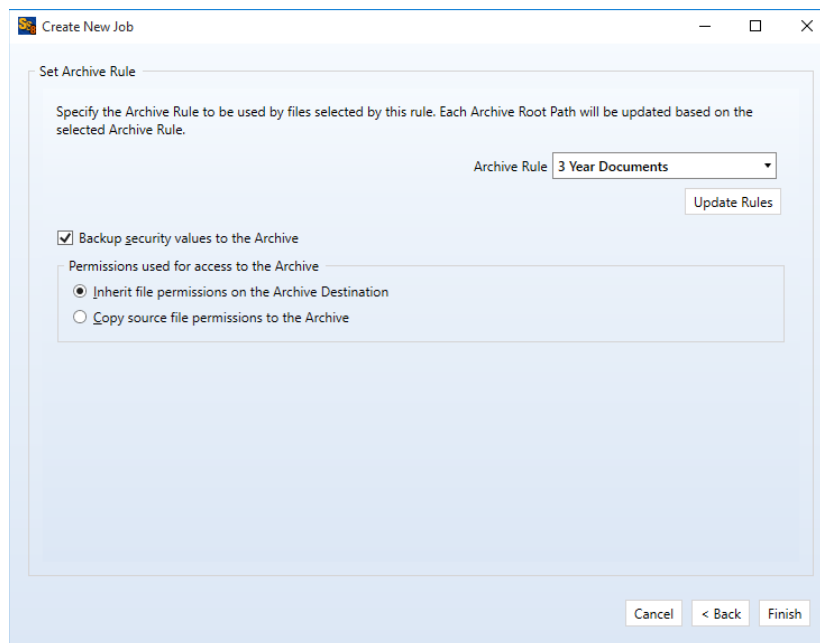
```
*.* | -*.tmp | -*.doc | -Test.txt
```

To learn more about how to include and exclude files based on file masks, press the "F1" key on this panel.

Clicking the "Finish" button will create your Job. The Job Wizard only displays a subset of essential options for a Job. There are many other options that can be configured by modifying the properties of the Job using the SureSync Desktop. Pressing the "F1" key on any tab in the application will display context sensitive help detailing the options on that tab.

Define the Archive Rule

The next panel defines the Archive Rule to be used by this Job. For this example, we will expand the Archive Rule drop-down and select the "3 Year Documents" Archive Rule as shown below.



Clicking the "Finish" button will create your Job. The Job Wizard only displays a subset of essential options for a Job. There are many other options which can be configured by modifying the properties of the Job using the SureSync Desktop. Pressing the F1 key on any tab in the application will display context sensitive help detailing the options on that tab.

Previewing Your Job

SureSync provides two methods to preview the actions that will be performed by a Job. The first option is the Preview that provides a graphical user interface display of all actions that would be performed without actually doing them. To launch a Preview, click on the Job in the SureSync

Desktop and click on the Preview button in the Ribbon Bar. Further details about Preview are available in the SureSync help file.

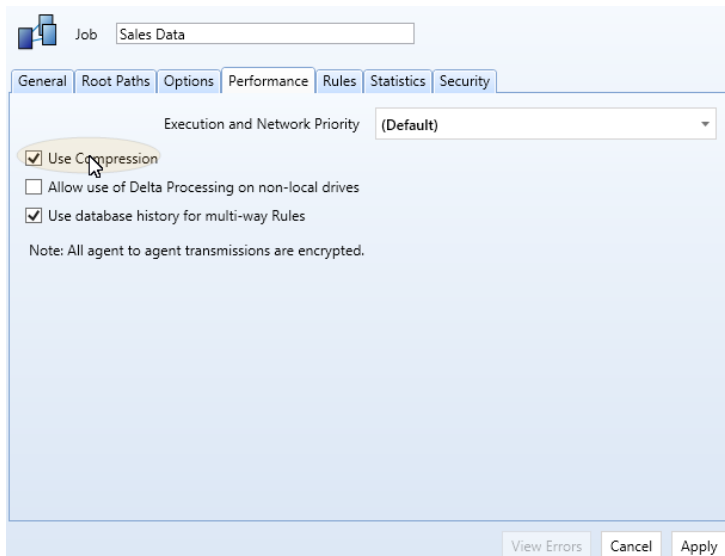
The second option is called a Trial Run. This method produces a tab delimited file containing the actions that would be performed. This file can easily be opened in Microsoft Excel to be viewed. To run a Trial Run, right click on the Job and select "Trial Run." Further details about Trial Run are available in the SureSync help file.

Communications Agent Compression & Encryption

The Communications Agent Add-On provides the ability to compress data during transmission. These features are useful when processing data over slow connections or public networks such as the Internet. For example, compression is recommended to be enabled when synchronizing files over the Internet.

Encryption is always enabled when using the Communications Agent. The default encryption method is a basic United States Federal Information Processing Standard (FIPS) certified Transport Layer Security (TLS) with Certificate encryption. A series of other encryption methods are available. Additional details can be found in the SureSync help file in the "Communications Agent Configuration – Connections" topic.

To enable compression, you must click on the "Performance" tab of the Job in question and check the "Use Compression" option.



Creating a Real-Time Monitor

A Real-Time Monitor is used in place of a Schedule to constantly monitor changes in files. When a change is detected, the associated Job/Rule is applied, and archiving is immediately performed.

The real-time feature requires the use of the optional Communications Agent Add-on on each machine involved in the real-time monitor. A Communications Agent license is also required for the local machine that will be running the job (if that machine is involved in the job).

In this example, we will create a Real-Time Monitor to process changes to our Job as they occur.

A Job can only be running in one instance at a given time. If you are planning to run a Job with a Real-Time Monitor then you should not attempt to run a Schedule of that same Job at the same time. You will get errors about the Job already being busy. If a Schedule exists to run a Job you are going to run with a Real-Time Monitor, it should be placed on hold or deleted.



To begin configuring your Real-Time Monitor click on the Job button (Real-Time Monitor) in the ribbon bar. This will launch the Real-Time Monitor wizard that is used to configure your Job to be run in real-time.

The wizards are designed to quickly and easily configure the basic options needed to get a Real-Time Monitor up and running. SureSync is an extremely flexible product with many advanced options. Additional options can be specified on the properties panels for the Real-Time Monitor after it has been created.

Name Your Monitor

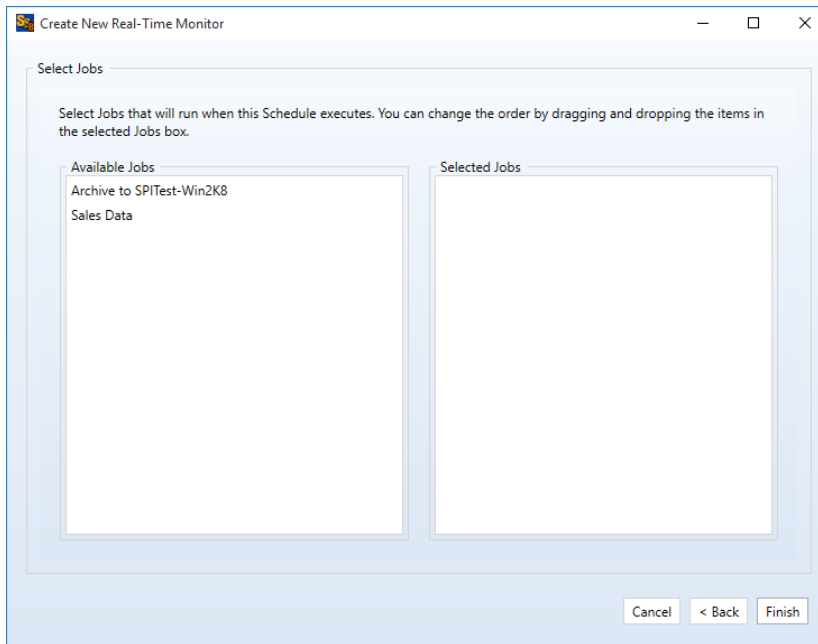
A screenshot of a Windows-style dialog box titled "Create New Real-Time Monitor". The dialog has a light blue background and a white border. At the top, it says "Real-Time Monitor Name". Below that, it asks "What would you like to call this Real-Time Monitor?" with a text input field containing "Archive to SPITest-Win2K8". Underneath is a "Description" label and a large empty text area. At the bottom left, there is a checked checkbox labeled "Stop Real-Time Monitor and place it on hold". At the bottom right, there are three buttons: "Cancel", "< Back", and "Next >".

The first panel allows you to name your Real-Time Monitor. Enter the name of the Real-Time Monitor and an optional description, then click “Next” to continue.

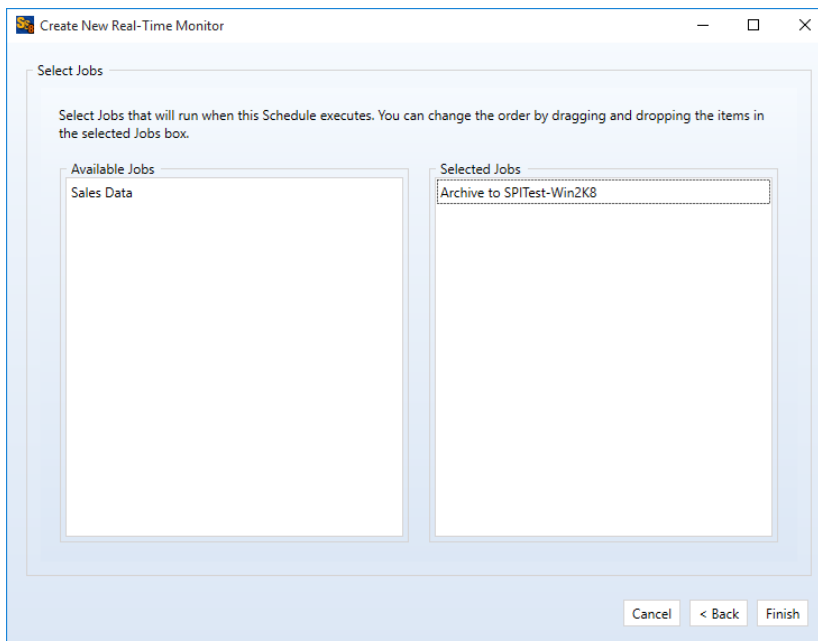
Selecting What Job(s) to Run

The next panel is where you specify which Job you would like this Real-Time Monitor to run. Jobs are selected by performing a drag and drop operation from the “Available Jobs” column to the “Selected Jobs” column.

Multiple Jobs can be run under one Real-Time Monitor. To do so, add all the Jobs you want this Real-Time Monitor to run under the “Selected Jobs” column.



For our example, drag and drop the “Archive to SPITest-Win2K3” Job into the “Selected Jobs” column. The panel should now look like this:



Click the “Finish” button to create the Real-Time Monitor.

Modifying and Running Your Real-Time Monitor

When the wizard is complete, you will be returned to the SureSync desktop and the Real-Time Monitor you created will be displayed.

You can make changes to the options for your Real-Time Monitor in the main SureSync window by first clicking on the Real-Time monitor you wish to modify. You can then look through the tabs on the right side for options to change. Pressing “F1” while on any tab will bring up context sensitive help describing the options in detail.

Now that the Real-Time Monitor is created, it may be started by selecting the Monitor and clicking the “Start” button in the Ribbon Bar. The Real-Time Monitor will switch to an “Active” status.

Configuring E-mail Alerts

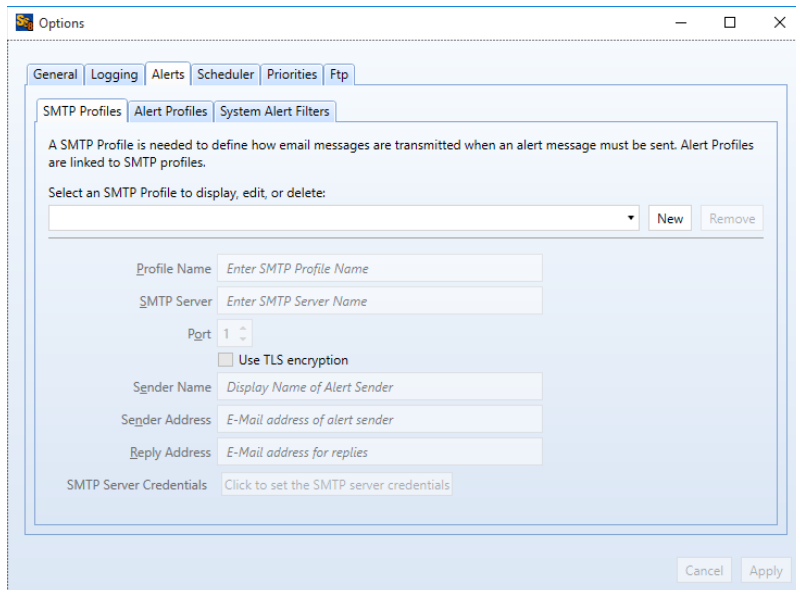
E-mail alerts are part of the Alert system within SureSync and can be a useful way of notifying the SureSync administrator of a problem that should be investigated.

Configuring a SMTP Profile



To start the configuration of e-mail alerts, you should click on the Options (Options) button in the Ribbon bar. Click on the “Alerts” tab to access the appropriate configuration panel.

The first item configured is the SMTP Profile. The SMTP Profile provides SureSync with the necessary details about your SMTP e-mail server so the program can send e-mail messages to you.

The screenshot shows the 'Options' dialog box with the 'Alerts' tab selected. The 'SMTP Profiles' sub-tab is active. A text box explains that an SMTP Profile is needed to define how email messages are transmitted. Below this, there is a dropdown menu to 'Select an SMTP Profile to display, edit, or delete:' with 'New' and 'Remove' buttons. The main configuration area includes fields for 'Profile Name' (placeholder: 'Enter SMTP Profile Name'), 'SMTP Server' (placeholder: 'Enter SMTP Server Name'), 'Port' (dropdown: '1'), 'Use TLS encryption' (checkbox), 'Sender Name' (placeholder: 'Display Name of Alert Sender'), 'Sender Address' (placeholder: 'E-Mail address of alert sender'), 'Reply Address' (placeholder: 'E-Mail address for replies'), and 'SMTP Server Credentials' (button: 'Click to set the SMTP server credentials'). 'Cancel' and 'Apply' buttons are at the bottom right.

To create a SMTP Profile, click on the “New” button on the SMTP Profiles tab.

The following fields must be configured:

- **Profile Name:** The name of the profile that you are configuring. For example, you might use the name of the SMTP server.
- **SMTP Server:** The server address of the SMTP server. For example, smtp.mail.com.
- **Port:** The SMTP port for the SMTP server. The default SMTP port is 25.
- **Use TLS Encryption:** If your SMTP server requires encryption, check this box.
- **Sender Name:** The name that will appear in the From: field of messages sent by SureSync.
- **Sender Address:** The e-mail address that will appear on messages sent by SureSync.
- **Reply Address:** The reply address that will appear on messages sent by SureSync.

You can also define SMTP Server Authentication settings if your SMTP server requires a valid logon to send messages (most do). To define a credential, click the ‘Click to set the SMTP server credentials’ button. The following fields will be presented:

- **User Name:** The username that SureSync will log into this SMTP server with when sending an e-mail alert.
- **Password:** The password for the username defined in "User Name" should be entered here.
- **Repeat Password:** The password for the username defined in "User Name" should be confirmed here.

Click “Apply” to save the SMTP Profile.

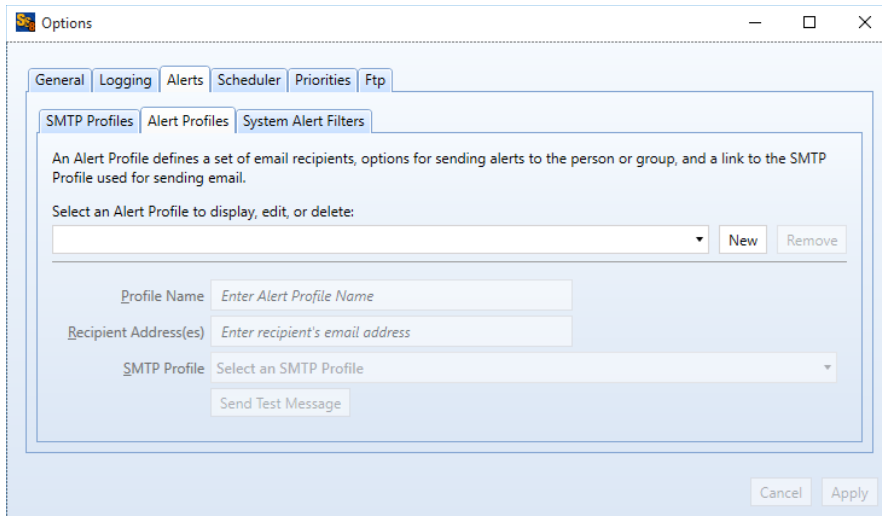
The screenshot shows a window titled "Options" with several tabs: "General", "Logging", "Alerts", "Scheduler", "Priorities", and "Ftp". The "Alerts" tab is active, and within it, the "SMTP Profiles" sub-tab is selected. A text box explains that an SMTP Profile is needed to define how email messages are transmitted. Below this, there is a dropdown menu to "Select an SMTP Profile to display, edit, or delete:" with "New" and "Remove" buttons. The configuration fields are as follows:

Profile Name	SMTP Server
SMTP Server	smtp.domain.com
Port	25
Use TLS encryption	<input type="checkbox"/>
Sender Name	SureSync Admin
Sender Address	suresync@domain.com
Reply Address	suresync@domain.com
SMTP Server Credentials	Click to set the SMTP server credentials

At the bottom right of the dialog are "Cancel" and "Apply" buttons.

Configuring an Alert Profile

The second part of configuring E-mail Alerts is to define an Alert Profile. The Alert Profile defines the e-mail address(s) that will be sent messages when errors occur. To configure an Alert Profile, click on the Alert Profiles tab and click the “New” button.



The following fields need to be configured:

- **Profile Name:** The name of the profile.
- **Recipient Address(es):** The e-mail address(es) that SureSync will send the alert messages to.
- **SMTP Profile:** The SMTP profile that will be used to send the message.

Multiple e-mail addresses can be added by separating the addresses with commas (,) or semi-colons (;). This allows you to easily send messages to a group of SureSync administrators.

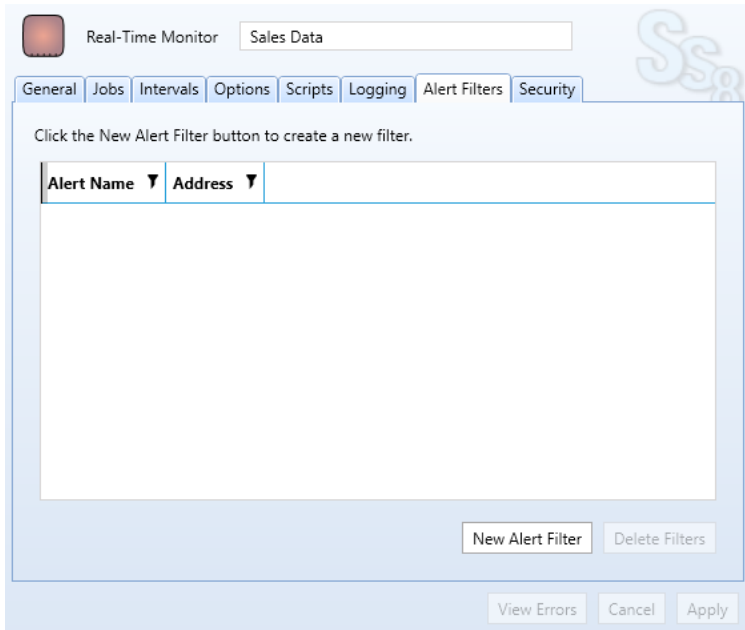
Configuring the Real-Time Monitor to Send Alerts

The final step for receiving e-mail alerts from the Real-Time Monitor is to define an Alert Filter on the Real-Time Monitor.

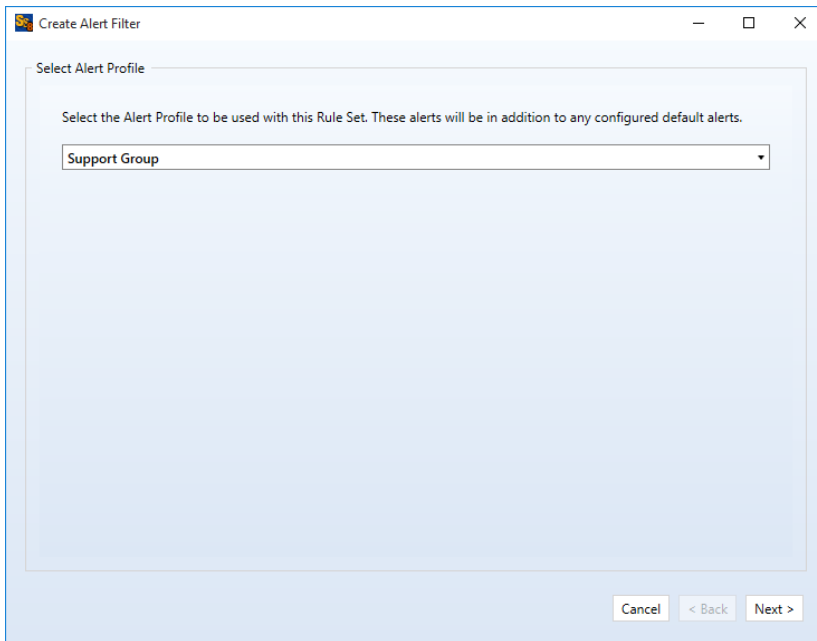
A global Alert Filter can be defined on the Alerts tab of Options. These global Alert Filter settings are inherited by all Jobs, Schedules and Real-Time Monitors defined in the database. Global Alert Filters can be overwritten for a specific Job, Schedule or Real-Time Monitor as appropriate.

You can also define an Alert Filter on a specific Job, Schedule or Real-Time Monitor. This is what will be done in this guide.

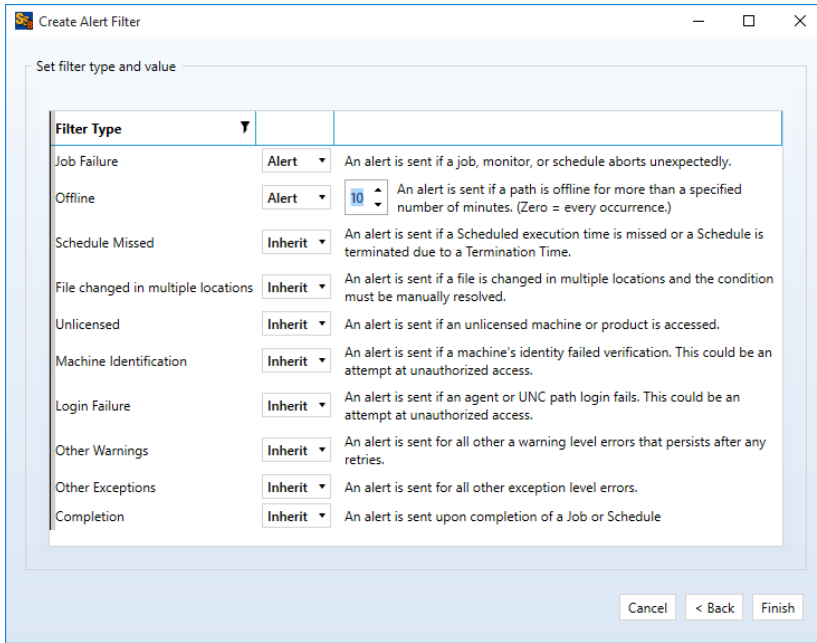
Click on the "Sales Data" Real-Time Monitor and click on the "Alert Filters" tab.



Click on the “New Alert Filter” button.

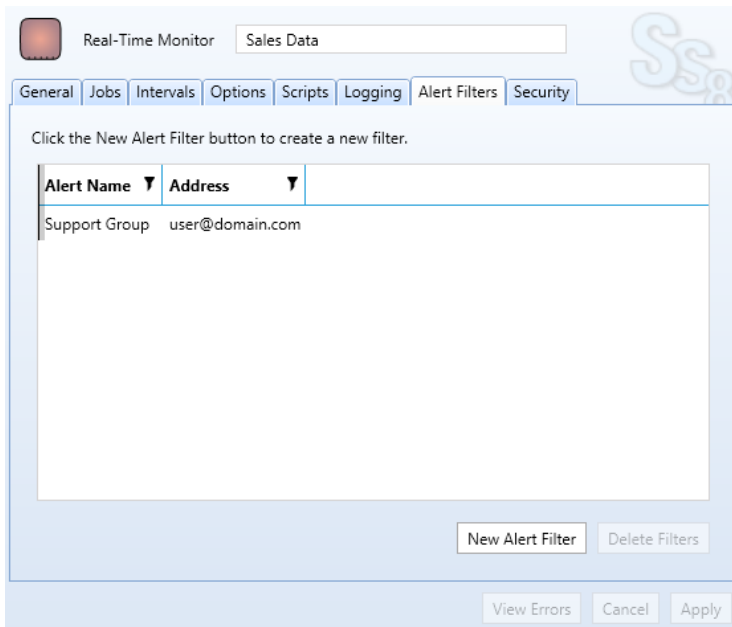


From the drop-down menu on the “Select Alert Profile” panel select the Alert Profile you want to configure. Click “Next” to continue.



On the next panel, you can define the types of alerts you would like to receive via e-mail. For a full description of all available options, press F1 to launch the context sensitive help.

Click "Finish" to create the Alert Filter. It will be displayed in the Schedule properties.



Monitoring the Synchronization


Monitoring your synchronization job is important, and SureSync makes this process easy through the use of two different status panels.

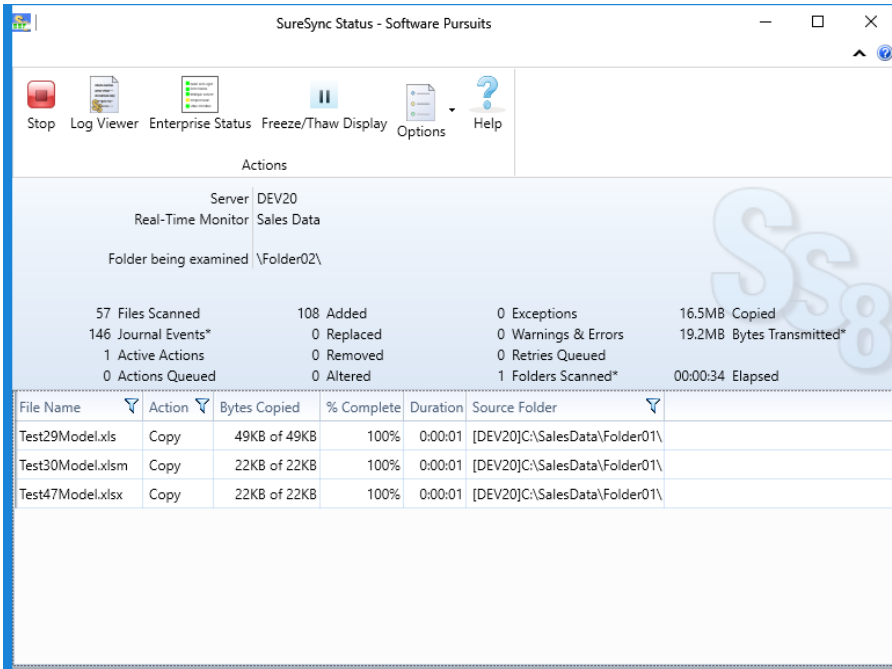
Detailed Status

The detailed status panel will show you file level activity for a current job as well as common counters such as files added and files deleted. If you want to take an in-depth look at a particular job, you will want to use Detailed Status.

To launch Detailed Status, right click on the job and select “Job Status.”



You can also select the job and click on the “Status” button () in the Ribbon Bar.




Enterprise Status

The Enterprise Status panel can be used to view the current status of jobs from SureSync installations anywhere on your network. The Enterprise Status panel provides an easy way to stay current on the status of your jobs, no matter where they are running.

Enterprise Status can be launched by going to the Start menu, selecting SureSync 8 and then “SureSync 8 Enterprise Status.”



You can also click on the “Ent Status” button () in the Ribbon Bar.

Scheduler	Name	Alerts	Warnings & Errors	Exceptions	Bytes Copied	Active Locks	Journal Events	Scanned	Added	Replaced	Deleted	Altered
SPIBACKUP	Mirror to Archive4 on K:	0	0	0	33.7GB	0	0	23,624	15,250	64	8,180	3
SPIBACKUP	Mirror to Archive5 on J:	0	0	0	133.0GB	0	0	94,461	82,327	95	11,775	6
SPIBACKUP	Mirror to Archive6 on I:	0	0	0	226.8GB	0	0	131,843	96,705	35	17,364	0
SPIBACKUP	Archive SPIWebSite (staging) from SPIFileSvr2	0	0	0	23KB	0	272	14	5	0	6	0
SPIBACKUP	Archive SPIWebSvr Orgs, HostedImages	0	0	0	8.4MB	0	630	334	80	0	254	0
SPIBACKUP	Archive to SPIBackup	0	0	0	48.3MB	0	978	870	204	0	219	1
SPITESTVM	Archive to SPIExch2	0	0	0	533KB	0	410	68	23	0	0	0
SPIBACKUP	Mirror to Archive7 on H:	0	0	0	57.1MB	0	2,128	749	715	0	32	0
SPIBACKUP	Mirror to Archive8 on G:	0	0	0	57.1MB	0	2,135	749	715	0	32	0
SPITESTVM	Monitor Archive SPIWebSvr to SPITestVM	0	0	0	8.1MB	0	637	331	77	0	254	0
SPITESTVM	Multi-Mirror to SPITestVM	0	0	0	31.8MB	2	872	574	120	25	110	0
SPIBACKUP	Larry Test	0	0	0	0KB	0	0	0	0	0	0	0
SPITESTVM	Archive SureSync Database	0	0	0	907.4MB	0	0	3	3	0	3	0
SPIBACKUP	Archive SureSync Database	0	0	0	486.4MB	0	0	3	3	0	3	0
SPIBACKUP	Daily Archive to SPIBackup	0	0	0	28.0GB	0	0	8,955	666	0	787	7

Methods of Restoring Files

Monitoring your synchronization job is important, and SureSync makes this process easy through the use of two different status panels.

Windows Explorer

Windows Explorer can be used to rapidly restore a file when you are looking to restore a single file. The files in an archive are full copies of the versions of the file. Each file has an extension added to the file name that indicate the version and type of file backup.

The extension format is ~#####F.~~A

The ~#####F is a version in the archive. For example ~0001F. F indicates a full copy of the file. An A indicates an attribute change. The ~~A indicates the file is a file backed up with ArchiveSync. The files you want to restore are the ones with F in the name.

The modified timestamp on the file is the timestamp on the file when it was added to the archive. The older the date, the older the backup copy.

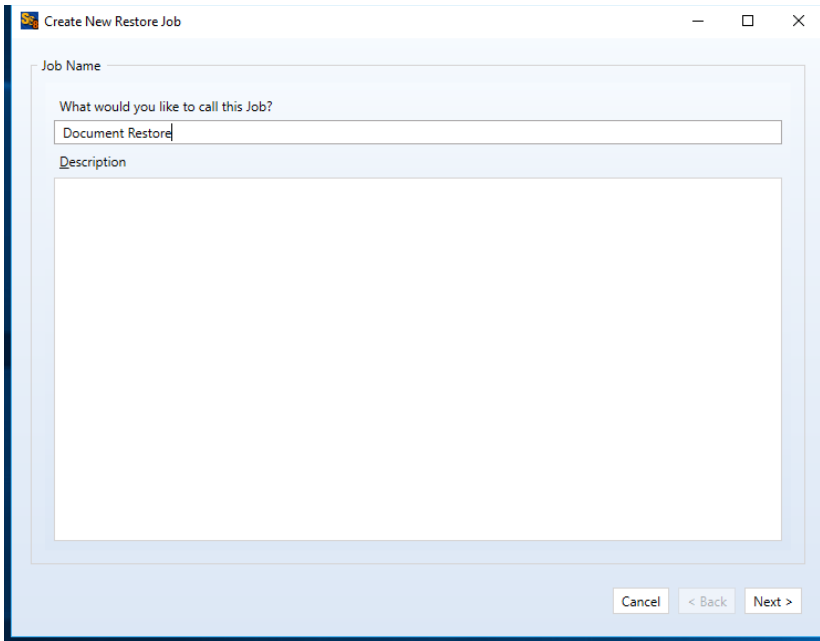
For example, assume the file you want to restore is named Document.docx. In the archive, you want to look for files named something like Document.docx~0005F.~~A.

Select the version you want to restore, copy it to another location and rename it to remove the ~#####F.~~A. You will now have a full copy of the file you can restore the desired location.

Restore Wizard

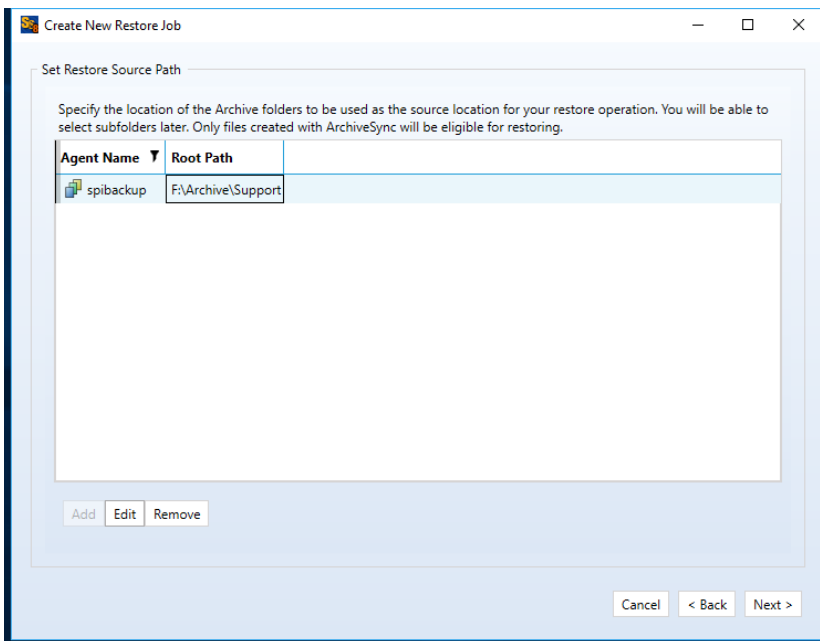
If you are looking to restore multiple files or a larger folder structure, the Restore Job Wizard can be used. This will create a Job in SureSync that restores files from the ArchiveSync archive. The files are restored with the ArchiveSync extension removed so the files are immediately usable.

To launch the Restore Wizard, click on the Restore button in the SureSync Desktop's ribbon bar.



The first panel of the wizard is where you define the name of the Restore Job and an optional description.

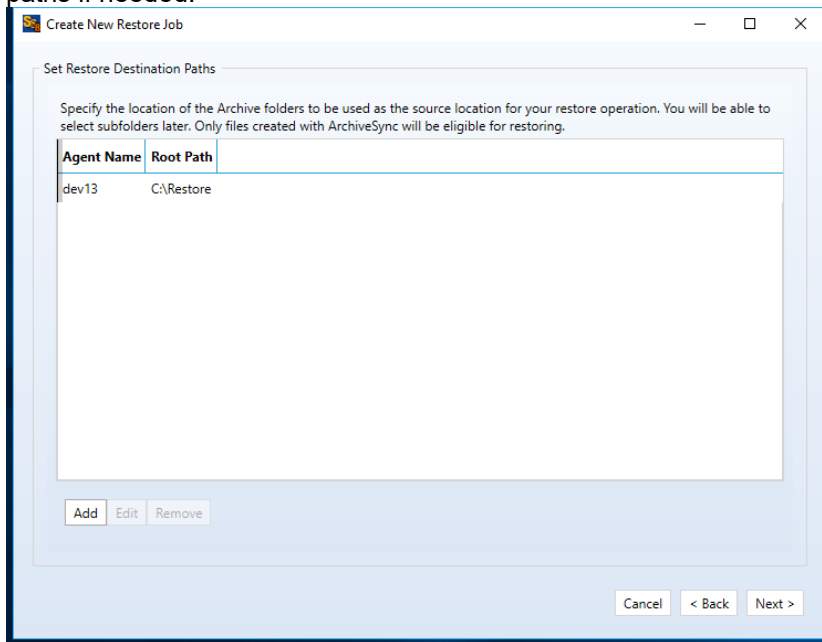
Click "Next" to continue.



The next panel is where you define the source for the restore. This should be the archive path and there should only be one path listed.

Once you have added the archive path, click "Next" to continue.

The next panel defines the path(s) that the files should be restored to. You can restore to multiple paths if needed.



Once you have defined the destination path(s), click “Next” to continue.

The next panel defines the type of restore rule to be used.

The rule types available are:

- **Restore Differing Files (recommended):** Restore files and folders, replacing existing files if they have different dates, adding missing files and deleting files to match the point in time.
- **Restore All Files:** Restore files and folders, replacing all existing files and deleting files to match the point in time specified.
- **Restore If Later Version:** Restore files and folders, replacing existing files if the archive has a later date, add missing files to the point in time specified.

The “This rule applies to the following subfolders” section of the panel allows you to include or exclude specific subfolders. The default “\” means to include all subfolders. You can enter subfolders into the text field or select them using the checkboxes in the browse dialog on the lower portion of the wizard panel. Folders are excluded by placing a minus character (-) in front of the folder name. Multiple folder entries are separated by the vertical bar character (|).

Examples

To restore only two subfolders named “FolderA” and “FolderB,” you would enter the following:

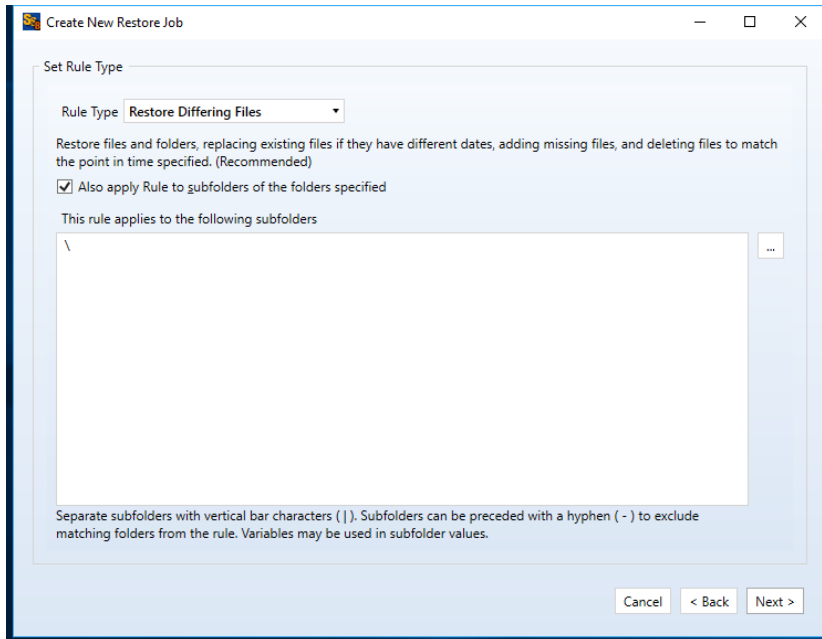
```
\FolderA\ | \FolderB\
```

To restore all subdirectories except for subfolders “FolderA” and “FolderB,” you would enter the following:

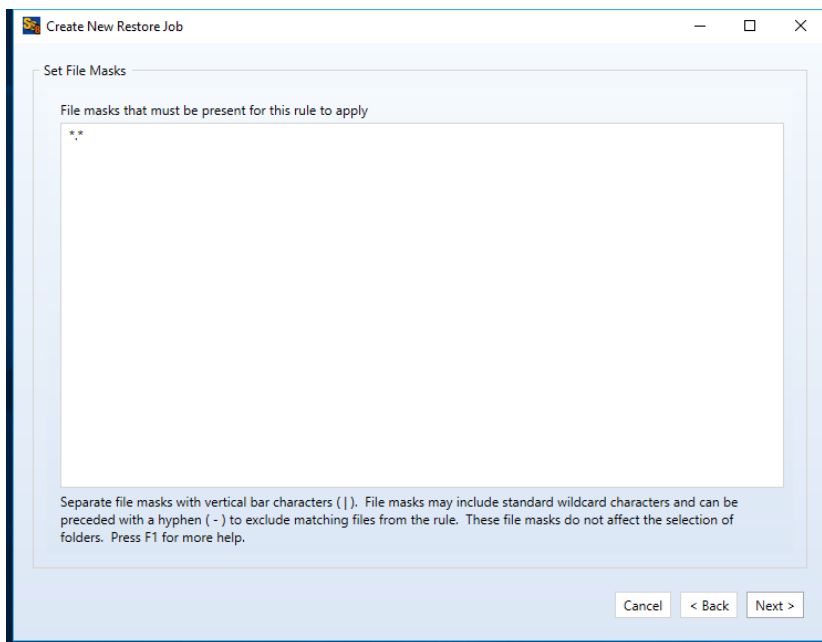
```
\ | -\FolderA\ | -\FolderB\
```

For our example scenario, the default “\” option will be used to restore all subfolders.

To learn more about how to include and exclude subfolders, press the “F1” key on this panel.



Click the “Next” button to continue.



The next panel displayed will let you indicate the files to be included or excluded from the restore. Each entry in this panel should be separated by a vertical bar (|) character. To exclude a file name or file type, place a minus sign (-) in front of the mask.

The default *. * definition tells the Restore Rule to restore all files.

Examples

To restore only *.doc files and a file named "Test.txt," you would enter the following:

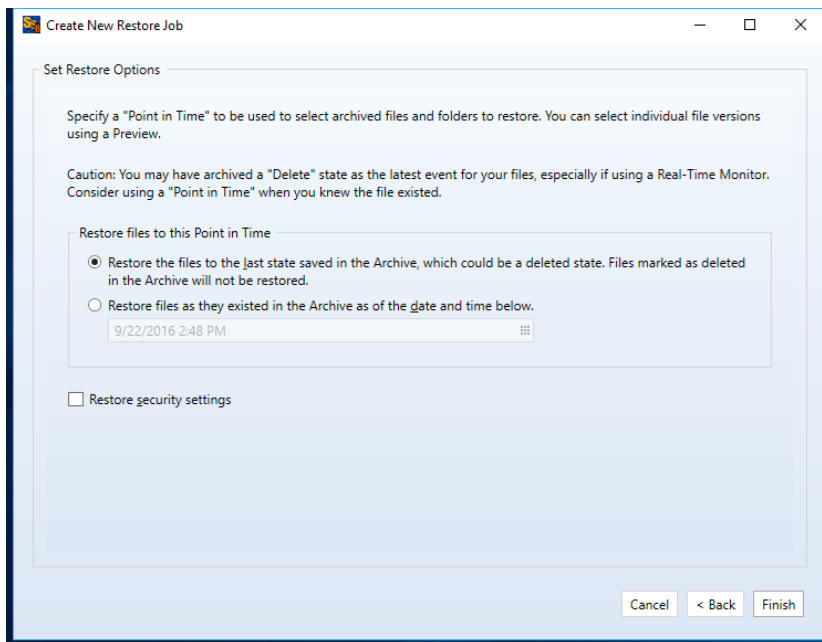
```
*.doc | Test.txt
```

To exclude *.tmp files, *.doc files, and a file named "Test.txt," you would enter the following:

```
*.* | -*.tmp | -*.doc | -Test.txt
```

To learn more about how to include and exclude files based on file masks, press the "F1" key on this panel.

Click "Next" to continue.



The next panel defines the point in time to restore to.

The default "Restore the files to the last state saved in the archive" will restore each file to the most recent file version stored in the archive. If a file is marked as deleted in the archive, it will not be restored.

The "Restore files as they existed in the Archive as of the date and time below" allows you to restore files back to how they exist in the archive as of the point in time defined.

Click "Finish" to complete the wizard. You will be presented with a prompt to preview, run the job or take no action (you can run it later).