

Pro Bundle Evaluator's Guide



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# Introduction

SureSync is a powerful file replication & synchronization application that can be used to ensure users on your network are always working off the most recent version of critical files, for disaster recovery purposes, software distribution, and much more.

This evaluator's guide is designed to walk you through the initial setup of the SureSync product with the Communications Agent Add-On. This Add-On provides many performance enhancing features such as Real-Time Monitors and Change Journal support. By reviewing this guide, you will become familiar with how to use SureSync and the Communications Agent to implement an efficient and powerful synchronization / replication infrastructure in your network.

# **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 11; Windows 10; Windows 8.1; Windows 8; Windows 7 SP1
- Processor: Minimum: Dual-core CPU of at least 2.5Ghz; Recommended: Quad-core CPU or greater of at least 2.5Ghz
- **RAM (total for system):** 4GB of free memory (recommended minimum)
- Hard Disk: 100MB for application files; 20MB+ for database

For File Locking, ReFS volumes are not supported on Windows 2008 R2, Windows 2012 or Windows 7.

SureSync can synchronize data to operating systems such as Windows 2008, and non-Windows machines such as Mac and Linux via UNC path but the software itself must be installed on one of the supported operating systems.

#### 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 SQL database to store configuration information. The following versions are supported:

- SQL Express 2012, 2014, 2016, 2017, 2019 and 2022
- SQL Server 2012, 2014, 2016, 2017, 2019 and 2022

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.

SureSync requires some 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 4.8
- Microsoft Visual C++ Runtime 14.0 Update 3

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.

**Software Pursuits, Inc.** 140 Chestnut Ln San Mateo, CA 94403

Phone: +1-650-372-0900 Fax: +1-650-372-2912

Sales e-mail: <u>sales@softwarepursuits.com</u> Support e-mail: <u>support@softwarepursuits.com</u>

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

# About the Communications Agent Add-On

The Communications Agent is a powerful Add-On license for SureSync that contains a number of performance enhancing features.

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.

## 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 Bundle Evaluator's Guide for further details.

### 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.

Please consult the SureSync with ArchiveSync Add-On Evaluator's Guide for further details.

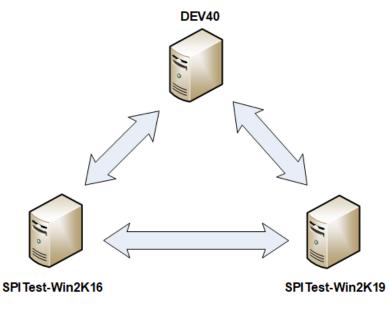
# **Our Scenario**

This guide will walk you through the configuration of SureSync using the Communications Agent Add-On to accomplish a multi-directional synchronization between 3 servers using a Real-Time Monitor. The three machines we will use are named *DEV40*, *SPITEST-WIN2K16*, and *SPITEST-WIN2K19*. The folder being synchronized will be C:\SalesData on each machine.

With this common scenario, users on any of the machines will be able to make changes to the monitored directories and have those changes reflected on the other servers. This will include additions, deletions, and modifications.

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

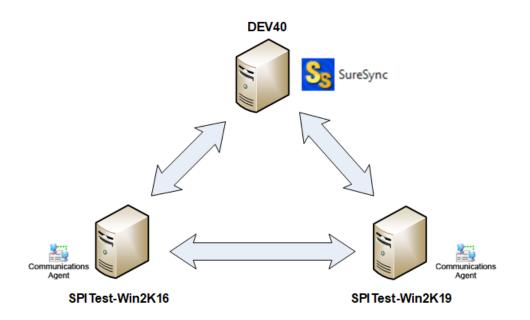
This type of configuration is commonly used to allow users to collaborate on the same documents in multiple offices. This multi-directional real-time scenario can be further enhanced using File Locking, to prevent users from modifying the same file concurrently from multiple offices. For more information on File Locking, please see the <u>SureSync Collaboration Bundle Evaluator's</u> <u>Guide</u>.



# 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) driven installation application. 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 (*DEV40*) and the Communications Agent will be installed on the other two machines (*SPITEST-WIN2K16* and *SPITEST-WIN2K19*) as illustrated below.



On the *DEV40* machine, we will run SureSync9Setup.exe and select SureSync as the installation type in the installer. This will install the complete SureSync application and designate *DEV40* as the machine where we configure and run our synchronization job.

← 💣 SureSync 9 Setup - InstallAware Wizard		×
Which features of SureSync 9 do you want to install?		
• SureSync		
Installs the full SureSync application that includes the SureSync Desktop, the Communications Agent and required components for File Locking, SyncLockStatus server, Endpoint, and SQL Protection.		
Communications Agent		
Installs the Communications Agent only. Includes the required components for File Locking, SyncLockStatus server and SQL Protection.		
Next	Ca	ncel

On the *SPITEST-WIN2K16* and *SPITEST-WIN2K19* machines, the Communications Agent installation should be performed. This is accomplished by launching SureSync9Setup.exe on those machines 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 9 folder and click on the SureSync 9 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 aid in completing the initial configuration.

#### Creating a SureSync Database

The first dialog displayed is used to create or open an existing SureSync database. The database is used to store your synchronization/replication configuration and related information.

SS Open or Create Database	-		×
This form is used to open or create a database. Select an existing SureSync datab for other actions.	ase or us	se the bu	ttons
Select an existing SureSync database: [Select a Database]			
Create a new database Use an empty database			
Open an unlisted database Cancel			

Click on the 'Create a new database' button to continue.

S Open or Create Database	_		×
You must fill in all values and save your database credentials before you can conti your database.	nue to ope	en or crea	te
Name of SQL Server and any Instance Name as [server]\[instance]: Enter: ServerName\InstanceName			
Name of any Failover Partner (mirrored) SQL Server: Enter: ServerName\InstanceName			
Name of SQL Database:			
Full path and file name for the new SQL database, local to the database server, en Enter the local path as viewed by the SQL Server. Must end with .mdf	ding with '	'.mdf':	
You may use the button below to specify SQL Server credentials instead of using Set SQL Database Credentials	Windows A	Authentica	ation.
Cancel Delete Database Reference Prior Dialog Cor	ntinue		

Enter the following information to create the SureSync database:

- Name of the SQL Server and any Instance Name: Enter the name of the SQL server and an instance name if used. For example, dev40\sqlexpress.
- Name of any Failover Partner (mirrored) SQL Server: This is an optional field that allows you to use a SQL Failover Partner. This functionality has been deprecated from SQL but is currently still available. Should be defined as machinename\instancename.
- Name of SQL Database: Enter the name of the SQL database that should be created.

• Full path and file name of the new SQL database: Enter the path on the SQL server where the database files should be created. This folder must already exist. For example, G:\Databases\SureSync.mdf.

If you want to use Windows authentication with the SQL database, you can click 'Continue' to create the database.

If you want to use SQL authentication with the SQL database, you will click on the 'Set SQL Database Credentials' button to provide the credential. After that, you can click 'Continue' to create the database.

Next, the following dialog will be displayed:

SureS	ync	×
	You currently have no jobs defined.	
	Create a new job by selecting 'Job Definitions' on the left side of the f and then using the New Job button at the top of the form. After creat a job you may create Schedules and Monitors to reference the job.	
	Use the Help icon or press F1 for additional information on using SureSync. Use the Video button on the ribbon for instructional videos using SureSync.	on
	0	ĸ

Click 'OK' to continue. The help file will be displayed that can either be reviewed now or closed.

#### **Configuring the Local Communications Agent**

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

SureSy	ync ×
	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.
	ОК

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.

Vers ends and the odd ser	
accessed by SureSync jol	achines that will be running a Software Pursuits Communications Agent Service that will be bs. Machines accessed via UNC paths do not need to be added. SureSync Endpoint client b be added here. An agent is always required on the machine running the jobs and a Scheduler.
accessed using it's Comp	achine it will receive a default configuration that will listen on TCP port 9032 and will expect to be outer Name (NetBIOS name). If the computer must be accessed via a DNS name or IP Address you connection definitions when the wizard completes.
name without the name	Computer Name of your machine here, as configured on that machine. This must be the NetBIOS qualified with the domain or workgroup name.
Duplicate Computer Nan	
Computer Name	dev40
Computer Name	dev40 This is the default IP address, DNS Name, or NetBios name to be used to connect to this machine if explicit outbound connections are not defined by other agents for connecting to this machine. IPv6 addresses must be enclosed in square brackets, like [::1]. This name is also used if the agent announces to other agents how they should connect to this machine. If omitted, the computer name is used.
	This is the default IP address, DNS Name, or NetBios name to be used to connect to this machine if explicit outbound connections are not defined by other agents for connecting to this machine. IPv6 addresses must be enclosed in square brackets, like [::1]. This name is also used if the agent announces to other agents how they should connect to this machine. If
	This is the default IP address, DNS Name, or NetBios name to be used to connect to this machine if explicit outbound connections are not defined by other agents for connecting to this machine. IPv6 addresses must be enclosed in square brackets, like [::1]. This name is also used if the agent announces to other agents how they should connect to this machine. If omitted, the computer name is used.
	This is the default IP address, DNS Name, or NetBios name to be used to connect to this machine if explicit outbound connections are not defined by other agents for connecting to this machine. IPv6 addresses must be enclosed in square brackets, like [::1]. This name is also

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 dev40. Click "Next" to continue.

🖌 Run a Com	imunications Agent on this machine
Login Name	domain\user
	Specify the account that will be used to copy files. This is typically an administrator account because full permissions will be needed to read and write files and copy file permissions.
Password	Re-enter your password:
Test Connectio	s location and may be expected to fail.
Test Connectic	each of the defined connections. Some connections may not be valid from your current
Test Connectic	each of the defined connections. Some connections may not be valid from your current location and may be expected to fail.
Test Connectic	each of the defined connections. Some connections may not be valid from your current location and may be expected to fail.

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. You can also enter .\username to define a local account.

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 9031 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. You will be taken 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 a purchased license.

If you are new to SureSync, you should request a trial license from <u>https://www.softwarepursuits.com/suresync</u>. 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 (<sup>Licenses</sup>) 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 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."

Scheduler Services —		×
Scheduler Service on this machine		
Identify the servers to run the Scheduler Service. These mac already be configured to run the Communications Service. start or stop the Scheduler Service from this form.		
	4	Add
	Re	move
Start Stop		

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

Scheduler Service Logon Information —		Х
The Scheduler credentials are used to access your lock files, and log or trace files. Files processed by j credentials specified in the Communication Agent for each machine.	jobs use th	e
Please specify the user name to use for this service "[domain name]\[user name] " or [computer name] You may specify ".\[user name]" for an account on machine.	]\[user nam	
For SQL Server databases, the user must be a DB C SureSync database.	wner of th	e
User Id [ <domain>\<user id="">]</user></domain>	Cance	J
domain\user	Cance	
Password	Clear	
•••••		
Confirm Password	Save	
•••••		

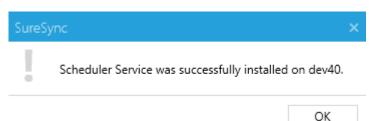
The user account the Scheduler service runs under must be a member of the local administrators group on the SureSync machine.

The account must also be a DBOwner on the SureSync database. Depending on the account you're using and how your SQL Server is configured, you may need to do this manually if the account is not automatically assigned DBOwner on newly created databases.

To do so, launch SQL Server Management Studio. Connect to the instance where the new SureSync 9 database is located. Expand Security and then Logins. Locate the account that the Scheduler will be running under. Right click and select Properties. Click on User Mappings. Make sure there is a checkmark next to the SureSync 9 database and that db\_owner is checked for membership.

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.

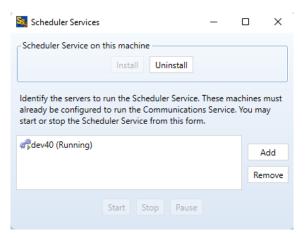
You will receive a confirmation dialog box that the Scheduler service was installed successfully as shown below.



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

Scheduler Services	;		-		×
Scheduler Service on	this mac	nine			
	Insta	Uninstall			
Identify the servers to already be configured start or stop the Sche	d to run th	e Communicatio	ons Service		
arriange dev40 (Stopped)					Add
				Re	move
	Start	Stop			

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" (<sup>Computer</sup>) button in the ribbon bar.

accessed by SureSync jo	achines that will be running a Software Pursuits Co os. Machines accessed via UNC paths do not need o be added here. An agent is always required on th	I to be added. SureSync Endpoint client
When you add a new ma accessed using it's Comp	Ichine it will receive a default configuration that w suter Name (NetBIOS name). If the computer musi connection definitions when the wizard complete	ill listen on TCP port 9032 and will expect to be t be accessed via a DNS name or IP Address you
	Computer Name of your machine here, as configu qualified with the domain or workgroup name.	red on that machine. This must be the NetBIOS
Duplicate Computer Nar	nes are not supported.	
Computer Name	Please enter your new Computer Name	
	This is the default IP address, DNS Name, or Net machine if explicit outbound connections are no	ot defined by other agents for connecting to
Default Access Name	this machine. IPv6 addresses must be enclosed i used if the agent announces to other agents ho omitted, the computer name is used.	
Default Access Name	used if the agent announces to other agents ho	
Default Access Name	used if the agent announces to other agents ho omitted, the computer name is used.	

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 name 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-win2k16.

accessed by SureSync jo	achines that will be running a Software Pursuits Communications Agent Service that will be bs. Machines accessed via UNC paths do not need to be added. SureSync Endpoint client o be added here. An agent is always required on the machine running the jobs and a Scheduler.
When you add a new ma accessed using it's Com	achine it will receive a default configuration that will listen on TCP port 9032 and will expect to be puter Name (NetBIOS name). If the computer must be accessed via a DNS name or IP Address you connection definitions when the wizard completes.
	Computer Name of your machine here, as configured on that machine. This must be the NetBIOS qualified with the domain or workgroup name. mes are not supported.
Computer Name	spitest-win2k16
Default Access Name	This is the default IP address, DNS Name, or NetBios name to be used to connect to this machine if explicit outbound connections are not defined by other agents for connecting to this machine. IPv6 addresses must be enclosed in square brackets, like [:1]. This name is also used if the agent announces to other agents how they should connect to this machine. If omitted, the computer name is used.
	IP address, DNS Name, or NetBios name

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.

Spec		hat will be used to conv					
		hat will be used to conv.					
	pecify the account that will be used to copy files. This is typically an administrator account because III permissions will be needed to read and write files and copy file permissions.						
Password •••		Re-enter your password	4	1			
- assirera		ne enter your passion					
		his button to attempt to of the defined connection					
Test Connections to		on and may be expected		is may not be var	ia irom your cu	irrent	
		1 - C					
	Using	this test button will sav	e your current config	uration before at	tempting the te	est.	

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 9 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 9031 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-WIN2K16* and *SPITEST-WIN2K19* 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 ( <sup>Job</sup> ) in the ribbon bar to launch the Job Wizard. The Job Wizard will be used to configure your synchronization / replication.

#### Name Your Job

b Name		
What would you like to call this Job?		
Sales Data		
Description		

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 "Sales Data".

#### Specifying Root Paths

The next panel is used to specify the paths that you want to synchronize. All the paths involved in the synchronization must be listed here.

If you do not define at least two root paths on this panel, the only Rule methods available later in the wizard will be "Delete" and "Skip."

You can add B	ackup Root	paths a	nd set many	ther options from a property sheet after your wizard co	ompletes.	
Agent Name	<b>T</b> Root Pa	ath T	Test Path			
Add Edit	Remove					
Add Edit	Remove					

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 DEV40
- C:\SalesData on SPITEST-WIN2K16
- C:\SalesData on SPITEST-WIN2K19

First, we will select the local path on DEV40 by selecting DEV40 from the "Path to be accessed via this Communications Agent" drop-down and then browsing for the C:\SalesData path.

Sa Browse Folders	-		×
Path Options			
Path to be accessed via this Communications Agent			
dev40			•
PSTools			•
Recovery			
SalesData			
🕨 🚞 SeaTemp			
SourceSafe			
SPILock8			
SQL2019			
🕨 🧮 temp			
Users			
Vault2			
🕨 🧫 Web			
Root Folder			
C:\SalesData		Expan	d
			_
	Can	cel Sa	ave

Once that path has been added, we must add the paths for the remote machines. Click the "Add' button again to add a new path. Then 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.

Signal Browse Folders	-		$\times$
Path Options			
Path to be accessed via this Communications Agent spitest-win2k8 subscription of the second s			•
<ul> <li>PerfLogs</li> <li>ProfMan</li> <li>Program Files</li> <li>Program Files (x86)</li> <li>ProgramData</li> <li>Recovery</li> </ul>			
SalesData      SalesDataBackup      SolesDataBackup      SolesDataBackup      Solet Folder      C:SalesData		Expar	- nd
	Ca		ave

Click "OK" to add the path. Continue clicking "New" and adding paths until all the paths involved in the synchronization are present.

C:\SalesData k16 C:\SalesData k19 C:\SalesData	Test Connection			
k19 C:\SalesData	T 10 11			
	Test Connection			

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

### Determining the Best Rule

SureSync offers several different replication & synchronization methods, allowing a great deal of flexibility in how your data is handled. A chart detailing each of these Rules can be found in the help file under "Rule Methods Summary."

### 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 the "Delete" and "Skip" Rules are available, you have selected only one root path. To correct the problem, you should click the "Back" button on the wizard and add the additional path(s) that will be processed by the Job.

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

Create New Job	-		×
Set Rule Type			
Rule Type 🔹			
☑ Also apply Rule to subfolders of the folders specified			
This rule applies to the following subfolders			
Separate subfolders with vertical bar characters ( ] ). Subfolders can be preceded with a hyphen ( - ) to ex	clude		
matching folders from the rule. Variables may be used in subfolder values.			
Cancel	< Back	c Next	>

To select the Rule Type, pull down the "Rule Type" drop-down and select "Multi-Mirror."

Set Rule Type		-		×
Rule Type Multi-Mirror				
Replaces, adds, and deletes files and folders in multiple directions making each path identical to a modification date determines the source file to copy.	ill the oth	ers. The l	atest	
✓ Also apply Rule to subfolders of the folders specified				
Resolve updates in multiple locations by copying the latest version				
This rule applies to the following subfolders				
Separate subfolders with vertical bar characters ( ] ). Subfolders can be preceded with a hyphen ( - matching folders from the rule. Variables may be used in subfolder values.	- ) to exclu	ude		
	Cancel	< Back	Nex	>

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.

#### 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.

S:,	Create New Job	-		×
- 5	et File Masks			
	File masks that must be present for this rule to apply			
	Separate file masks with vertical bar characters (   ). File masks may include standard wildcard characte preceded with a hyphen ( - ) to exclude matching files from the rule. These file masks do not affect the folders. Press F1 for more help.			
		1 . D		
	Canc	el < Bao	EK FI	nish

#### 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.

#### 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. This feature is useful when processing data over slow connections or public networks such as 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.

	Job	Sales I	Data							
General	Root	Paths	Options	Performance	Rules	Statistics	Security			
				and Network	Priority	(Default	)			•
Use Compression Allow use of Delta Processing on non-local drives										
			-	ulti-way Rules						
Note: A	411 agen	it to ag	jent transr	nissions are en	cryptea.					
								View Errors	Cancel	Apply

# **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 the synchronization is immediately performed.

Real-Time Monitors require the optional Communications Agent Add-on to be installed on each machine involved in the real-time synchronization. A Communications Agent license is also required for the local machine that will be running the job (if that machine is involved in the synchronization).

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're 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 (<sup>Real-Time Monitor</sup>) 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

🍇 Create Nev	Real-Time Monitor		-		×
Real-Time	Ionitor Name				
What we	uld you like to call this Real-Time Monitor?				
Sales D	ta				]
<u>D</u> escript	on				
✓ Ste	o Real-Time Monitor and place it on hold				
		Cancel	< Back	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.

Section 2015 Create New Real-Time Monitor				-		×
Select Jobs						
Select Jobs that will run when this Schedule execution the selected Jobs box.	utes. You can	change the order by	dragging and	dropping the	items in	
Available Jobs		Selected Jobs				
Sales Data						
			(	Cancel < B	ack Fir	nish

For our example, drag and drop the "Sales Data" Job into the "Selected Jobs" column. The panel should now look like this:

Create New Real-Time Monitor		-	
Select Jobs			
Select Jobs that will run when this Schedu	le executes. You can change th	ne order by dragging and dropping the	items in
the selected Jobs box.	5	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Available Jobs	Selecte	d Jobs	
	Sales D	ata	
		Cancel <	Back Finish
		Concer	

Click the "Finish" button to create the Real-Time Monitor.

### Using the File Locking Add-On

The File Locking Add-On enables file locking when running a Job that contains a multi-directional Rule under a Real-Time Monitor. With this option, when a user opens a file on one server the Real-Time Monitor will establish locks on the same file on all other paths. If another user attempts

to open the same file, they will get a read only copy. This prevents changes from happening to the same file on multiple sides of the synchronization.

Details on setting up SureSync with the File Locking Add-On can be found in the <u>SureSync</u> <u>Collaboration Bundle Evaluator's Guide</u>. The File Locking Add-On requires the Communications Agent Add-On to be licensed for the machines involved.

### 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 clic	k on the	Options ( <sup>0</sup>	ptions )	button in the
Ribbon bar.	Click on the	"Alerts" ta	o to acces	s the appro	priate cor	figuration	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.

neral Logging Alerts Sch				
A SMTP Profile is needed to d are linked to SMTP profiles.	efine how email messages are transmitted when an alert	message must be	e sent. Ale	ert Profiles
Select an SMTP Profile to disp	lay, ear, or delete:	•	New	Remove
<u>P</u> rofile Name	Enter SMTP Profile Name			
<u>S</u> MTP Server	Enter SMTP Server Name			
P <u>o</u> rt	1.0			
	Use TLS encryption			
S <u>e</u> nder Name	Display Name of Alert Sender			
Se <u>n</u> der Address	E-Mail address of alert sender			
<u>R</u> eply Address	E-Mail address for replies			
SMTP Server Credentials	Click to set the SMTP server credentials			

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.

Options		-		
General Logging Alerts Sch	eduler Priorities Ftp			
SMTP Profiles Alert Profiles	System Alert Filters			
A SMTP Profile is needed to o are linked to SMTP profiles.	lefine how email messages are transmitted when an alert message must b	e sent. Ale	ert Profiles	
Select an SMTP Profile to disp	olay, edit, or delete:			
	•	New	Remove	
<u>P</u> rofile Name	SMTP Server			
<u>S</u> MTP Server	smtp.domain.com			
Port	25 🗘			
S <u>e</u> nder Name	SureSync Admin			
Se <u>n</u> der Address	suresync@domain.com			
<u>R</u> eply Address	suresync@domain.com			
SMTP Server Credentials	Click to set the SMTP server credentials			
			ancel A	
		C	ancei A	pp

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.

SMTP Profiles Alert Profi	les System Alert Filters			
	set of email recipients, options for sending alerts to the per	son or group, an	d a link to th	ne SMTP
Profile used for sending e				
Select an Alert Profile to	display, edit, or delete:			
			• New	Remove
<u>P</u> rofile Name	Enter Alert Profile Name			
<u>R</u> ecipient Address(es)	Enter recipient's email address			
	Select an SMTP Profile			Ŧ
SMTP Profile				
<u>S</u> MTP Profile	Send Test Message			

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.

	me Monitor	Sales Data				
General Jobs	Intervals Opti	ons Scripts	Logging	Alert Filters	Security	2
	ns item in the de control email m			-		ult Alert
	allow you to cre ny system define :t.					
Alert Name	Address					
				New Alert Filt	ter Dele	ete Filters
				View Erro	rs Cano	el Apply

Click on the "New Alert Filter" button.

Create Alert Filter	-	-		×
Select Alert Profile				
Select the Alert Profile to be used with this Rule Set. These alerts will be in addition to any cor	nfigured defaul	t alerts		
Support Group			•	
	Cancel <	Back	Next	>

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

Filter Type	7	
Job Failure	Alert •	An alert is sent if a job, monitor, or schedule aborts unexpectedly.
Offline	Alert •	An alert is sent if a path is offline for more than a specified number of minutes. (Zero = every occurrence.)
Schedule Missed	Inherit 🔻	An alert is sent if a Scheduled execution time is missed or a Schedule is terminated due to a Termination Time.
File changed in multiple locati	ons Inherit 🔻	An alert is sent if a file is changed in multiple locations and the condition must be manually resolved.
Unlicensed	Inherit 🔻	An alert is sent if an unlicensed machine or product is accessed.
Machine Identification	Inherit 🔻	An alert is sent if a machine's identity failed verification. This could be an attempt at unauthorized access.
Login Failure	Inherit 🔻	An alert is sent if an agent or UNC path login fails. This could be an attempt at unauthorized access.
Other Warnings	Inherit 🔻	An alert is sent for all other a warning level errors that persists after any retries.
Other Exceptions	Inherit 💌	An alert is sent for all other exception level errors.
Completion	Inherit 💌	An alert is sent upon completion of a Job or Schedule

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.

Real-Time Monitor Sales Data
General Jobs Intervals Options Scripts Logging Alert Filters Security
Use the Options item in the desktop ribbon bar to configure and view the default Alert Filters used to control email messages sent on certain types of errors.
This panel will allow you to create Alert Filters that can override individual system defined Alert Filters. Any system defined Alert Filter that is not listed and overridden here will remain in effect.
Alert Name Address
Support Group support@domain.com
New Alert Filter Delete Filters
View Errors Cancel Apply

# Monitoring the Synchronization

Monitoring your synchronization job is important, and SureSync makes this process easy using 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 (<sup>Status</sup>) in the Ribbon Bar.

- 			SureSyn	c Detailed	Status - Software Pursuits		- □ × ¯
Stop Log Viewer	Enterpri	ise Status Freeze/The Actions	aw Display O	otions	<b>?</b> Help		
Folder 718 Files	being e			plete.	0 Exceptions	129-3MB Copied	
0 Journ 16 Activ 50 Actio	al Even e Actior	ts" 0 Is 0	Replaced Removed Altered		0 Warnings & Errors 0 Retries Queued 3 Scans Queued*	0KB Bytes Transmitted*	
File Name	Action	Bytes Copied	% Complete	Duration	Source Folder		
Test465Model.mdb	Сору	416KB of 416KB	100%	0:00:02	[dev40]C:\Web\Folder04\		
Test466.txt	Сору		0%	0:00:02	[dev40]C:\Web\Folder04\		
Test466Model.xls	Сору	49KB of 49KB	100%	0:00:02	[dev40]C:\Web\Folder04\		
Test467.txt	Сору		0%	0:00:02	[dev40]C:\Web\Folder04\		
Test467Model.xlsm	Сору	22KB of 22KB	100%	0:00:02	[dev40]C:\Web\Folder04\		
Test468.txt	Сору		0%	0:00:02	[dev40]C:\Web\Folder04\		
Test468Model.xlsx	Сору	22KB of 22KB	100%	0:00:02	[dev40]C:\Web\Folder04\		
Test469.txt	Сору	OKB of 1.8MB	0%	0:00:02	[dev40]C:\Web\Folder04\		
Test470.txt	Сору		0%	0:00:02	[dev40]C:\Web\Folder04\		
Test470Model.accdb	Сору	584KB of 584KB	100%	0:00:02	[dev40]C:\Web\Folder04\		
Test471.txt	Сору		0%	0:00:02	[dev40]C:\Web\Folder04\		
Test471Model.doc	Сору	0KB of 54KB	0%	0:00:02	[dev40]C:\Web\Folder04\		
Test472.txt	Сору		0%	0:00:01	[dev40]C:\Web\Folder04\		
Test472Model.docx	Сору	0KB of 24KB	0%	0:00:01	[dev40]C:\Web\Folder04\		
Test473.txt	Сору		0%	0:00:01	[dev40]C:\Web\Folder04\		

### Enterprise Status

The Enterprise Status panel can be used to view the 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 9 and then "SureSync 9 Enterprise Status."

You can also click on the "Ent Status" button (<sup>Ent Status</sup>) in the Ribbon Bar.

]				SureS	ync Enterpris	e Status - Softwa	are Pursuits							- 0	×
tart Sto	p Schedulers Start All M	onitors Stop All Jobs	Status Alerts	Log Viewer	Options H	<b>?</b> Help									
	Actions			View											
e the "spi	in down" button to the left	of a row to expand a gr	oup or to display		letails. Click o	n a column hea									
		Job	Alerts	Warnings & Errors	Exceptions	Bytes Copied	Bytes Queued	Active Actions	Actions Queued	Active Locks	Added	Replaced	Deleted	Altered	
•	Job Group: Job Defi	nitions	0	0	0	4.3GB	OKB	16	0	0	43,123	0	0	0	
-•	ComplexStructure		0	0	0	4.0GB	ОКВ	0	0	0	39,097	0	0	0	
- = (	File Locking M1-A		0	0	0	OKB	0KB	0	0	0	0	0	0	0	
La	Schedule Web Data		0	0	0	359.8MB	0KB	16	0	0	4,026	0	0	0	
		Waiting for tasks to c Scanning: \Folder08\/													
	2,106 Files Scanned	4,026 Added		0 Exceptio		359.8MB C									
	0 Journal Events* 16 Active Actions	0 Replaced 0 Removed		0 Warning 0 Retries C		OKB B	/tes Transmitte	d*							
	50 Actions Queued	0 Altered		4 Scans Q	ueued*	00:01:17 E	apsed								
	Job Group: SQL Pro	tection Group	0	0	0	106.3MB	0KB	0	0	0	2	0	0	0	