



GS RichCopy 360
Standard v7.1 and Enterprise v8.1
Administrator's Manual

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Licensing

The GS RichCopy 360 follows a perpetual licensing model. A perpetual licensing model allows the customer to install and use the software indefinitely. GS RichCopy 360 is licensed per machine, requiring that you purchase a license for each client computer and/or device where the software is to be installed. Other licensing options are available such as volume, site, and enterprise licensing.

Note: Licensing models such as volume, site and enterprise have to be discussed and arranged with sales prior to purchasing GS RichCopy 360.

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Feedback

If you encounter any problems or difficulties using the software, or suggestions, comments or bugs discovered using the utility, please send a message to support@gurusquad.com.

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Introduction

GS RichCopy 360 is designed to work on windows servers and workstations and is perceived as the industry leader for file\folder replication and synchronization in WAN and LAN environments. GS RichCopy 360 will even work over VPN connections and across the internet (Enterprise version only). Our current version is the ideal solution for high-volume server and workstations transactions over networks using LAN, WAN and VPN connections and across the internet thanks to 11 years of refinement.

GS RichCopy 360 is offered in two different versions, Standard and Enterprise. Enterprise version includes all options offered in Standard as well as other advanced options such as Bulk Job Create/Import, block level replication, Real-time replication, Compression, Encryption, replication over TCP port (recommended for replication across the internet and locked down firewall environments and many more options covered later in the admin guide.

Benefits of GS RichCopy 360

Consider the following benefits of GS RichCopy 360:

Easy to Understand and Use

Our patent pending design is slick and easy, providing the best admin experience possible while using intelligent and sophisticated logic and advanced methods under the hood.

GS RichCopy 360 is designed for daily use by staff that also have other responsibilities. The GS RichCopy 360 interface provides what you need and where you expect to find it. It offers advanced capabilities with minimal configuration overhead.

Robust Performance

GS RichCopy 360 offers advanced multi-threading technology utilizing 100% parallel computing techniques along with proprietary patent pending technology that offers the most robust and powerful performance possible.

Affordable Value

GS RichCopy 360 provides functionality that is comparable, if not superior, to most other solutions. What's more, the total cost of ownership of GS RichCopy 360 and is less than the initial purchase cost of most other solutions. GS RichCopy 360 comes with free support from our highly trained support staff.

Key Features of GS RichCopy 360

Considering the previously listed benefits of GS RichCopy 360 and the following features, GS RichCopy 360 is a simple choice to make.

GS RichCopy 360 is job-based and can be configured with multiple jobs per server\workstation to operate in the following modes\ features:

- Real-time (Only available in GS RichCopy 360 Enterprise)
- Byte-Level file replication to save on bandwidth and file copy time (Only available in GS RichCopy 360 Enterprise)

- Ability to use compress data during transmission making transfers much more efficient and robust (Only available in GS RichCopy 360 Enterprise).
- Option to replicate data across the internet with data being highly encrypted during transmission (Only available in GS RichCopy 360 Enterprise).
- Repeat Interval (e.g. every 30 Minutes, 1 hour, daily, weekly ...etc.)
 - Scheduled (e.g. Friday 11:00 pm)
 - On demand.
- Command line support. Jobs can be created, triggered, stopped..etc via command line locally from the same machine or passed remotely from another machine. This is useful to centrally manage all the clients.
- Run as a windows service or as currently logged in user.
- Connect As specific user to source\ target machines which can be useful in workgroup and multi-domain\forest environments.
- Long path and file name support out of the box.
- Sync Poisoning provides a safety net where data on the RTA server is backed up in the event it is about to get overwritten or deleted by its source job
- Advanced Multi-Threading technology utilizing 100% parallel computing techniques and along with proprietary patent pending technology offering the most robust and powerful performance possible.
- GS RichCopy 360 has the ability to copy open and locked files due its full integration with Volume Shadow Service (VSS).
- Option to replicate NTFS ACL security permissions, file and folder attributes, and date time stamps.
- Advanced file and folder inclusion\exclusion settings by pattern in name, full name or explicit.
- Send email notifications on failure and\or success using local SMTP server or any other email provider such as Gmail.
- Environment Variable is fully supported throughout most fields in the applicaiton.

Each job has its own unique configuration (Definition of Source and Target Folder) and its own settings.

The GS RichCopy 360 suite can be very useful in copying/moving/ mirroring directories along with all of their files and subfolders, ACLs, and Attributes from one location to another (same server or different server). Additionally, you have the option to have the source (folder you are copying from) to be mirrored exactly on the target (folder you are copying to).

Another useful feature is the ability to replicate only the directory tree (structure) without files. This feature will basically copy only the exact directory structure of source.

Installation Requirements

GS RichCopy 360 provides a simple, wizard-driven installation process.

System Requirements

GS RichCopy 360 supports all of the following operating systems:

- Windows 10
- Windows 2012R2
- Windows 2012
- Windows 2008 R2
- Windows 2008
- Windows 2003
- Windows 8.1
- Windows 8
- Windows 7
- Windows XP
- Windows Vista

GS RichCopy 360 supports x32 and x64 bit Windows running on PIII equivalent or higher processor and minimum of 2GB of RAM.

Licensing

Once installed, GS RichCopy 360 will run in trial mode (Copies only 5 files from every folder). The software will automatically switch to a full version by providing a valid serial key. No uninstall or reinstall required.

Storage and Privileges Requirements

GS RichCopy 360 requires only 40MB of available space to successfully install. It is recommended however, to have more available disk space to meet logging requirements in the event logs will be stored on the same drive partition.

GS RichCopy 360 requires elevated admin privileges when installing and administering GS RichCopy 360.

Installing GS RichCopy 360 (Standard and Enterprise)

Before installing GS RichCopy 360 installation, make sure that the server\workstation on which you are installing it currently meets or exceeds stated requirements.

Upgrading from a previous version of GS RichCopy 360

When upgrading from a previous version of GS RichCopy 360, simply remove the previous installation and install the new version (this will retain all configurations intact as they are stored in the database). To upgrade to the latest build of the current version, simply “check for update” in the info tab or download the latest package from the GuruSquad.com.

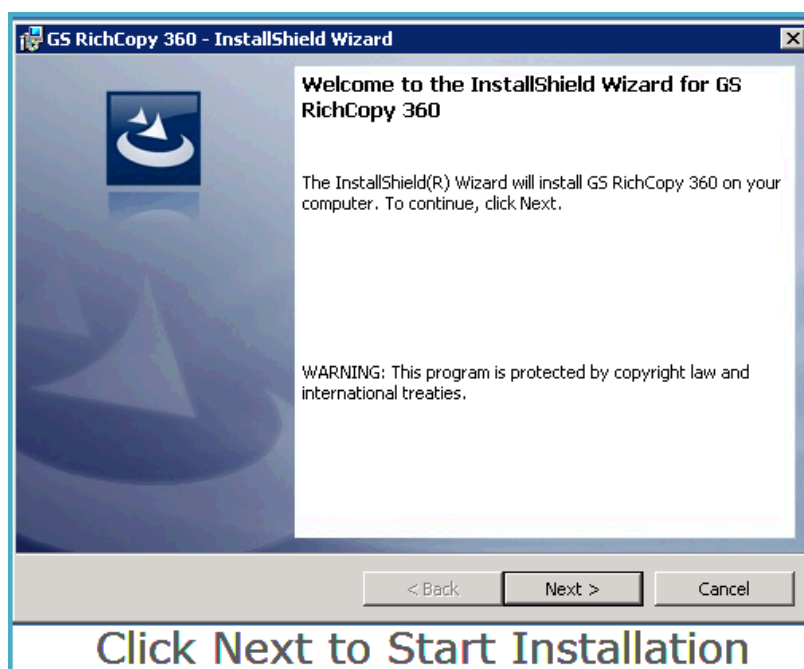
Note, “check for update” will only upgrade the same primary version. For instance, it will upgrade 7.1 to 7.2. However, it will not upgrade 7.1 to 8.0. Such upgrades require a full uninstall of the previous version and then install the latest version. After the upgrade, the application will switch to trial mode until it is activated with a GS RichCopy 360 Enterprise serial number. All the current jobs and configurations will be preserved. However, once the GS RichCopy 360 standard is upgraded GS RichCopy 360 Enterprise, the database will not be downward compatible which means it cannot be used with GS RichCopy 360 Standard as the database schema has changed.

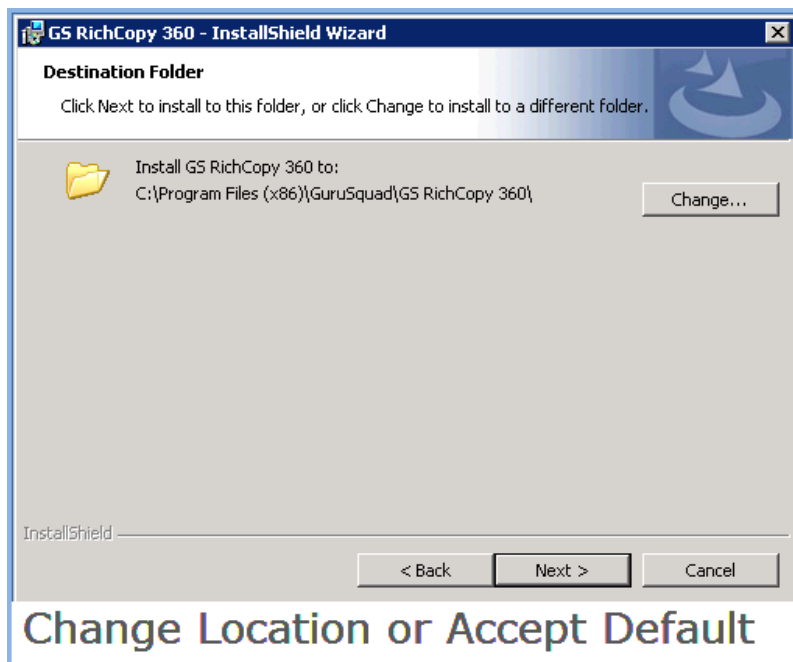
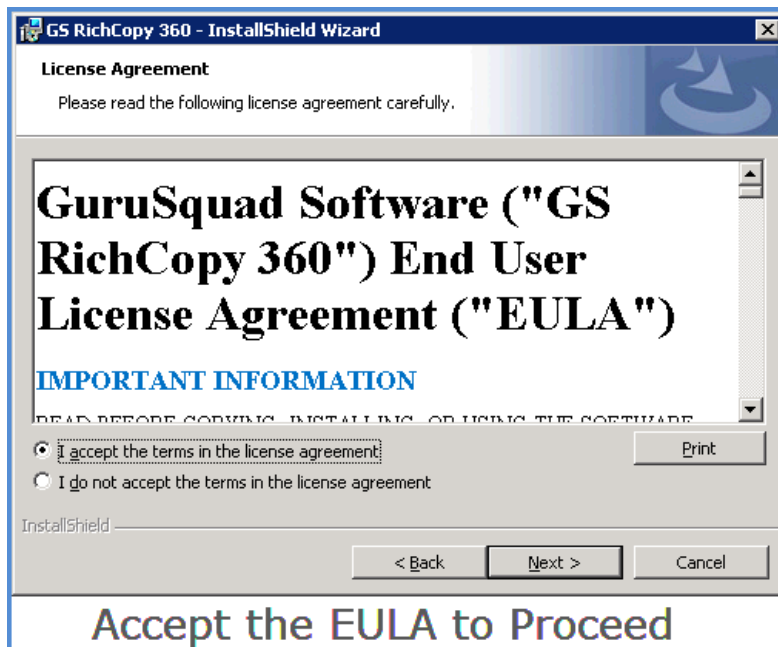
New installation instructions

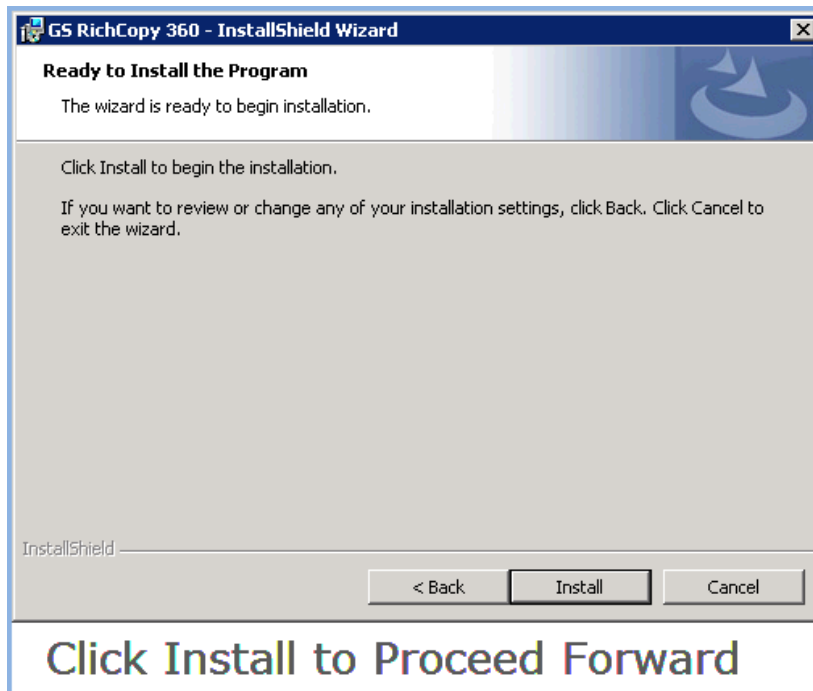
Prior to installing GS RichCopy 360, you must download and install [.Net framework 4.0](#). If it is already installed, you may skip this step.

Note: .Net framework 4.0 will suffice if it is already installed. GS RichCopy 360 will not proceed if .Net framework is not installed.

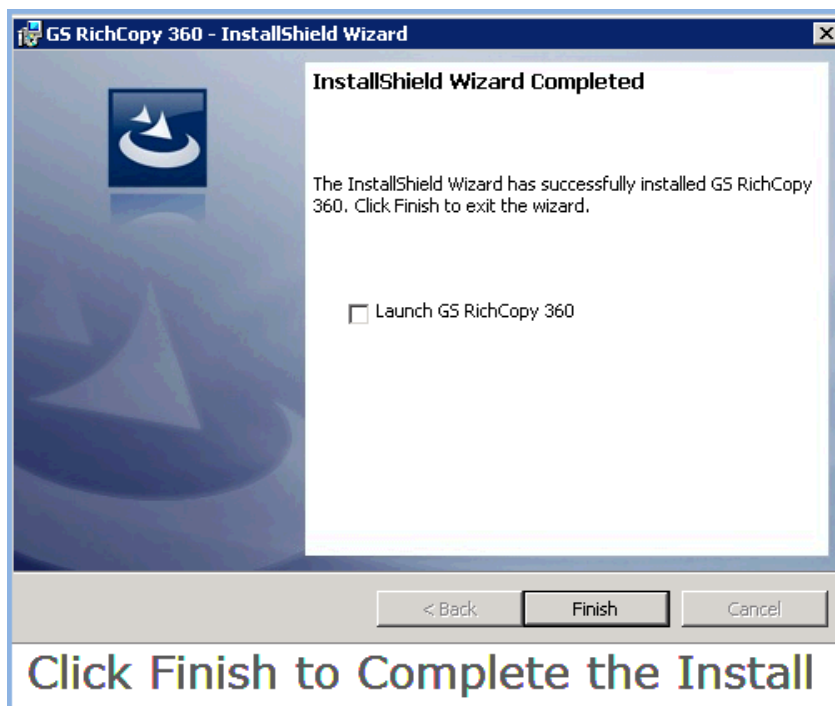
To install GS RichCopy 360 you must be logged onto the server\workstation as a user with full administrative privileges. Simply download the digitally signed installer (GS RichCopy 360 Setup.exe) and follow the simple setup instructions.







4)



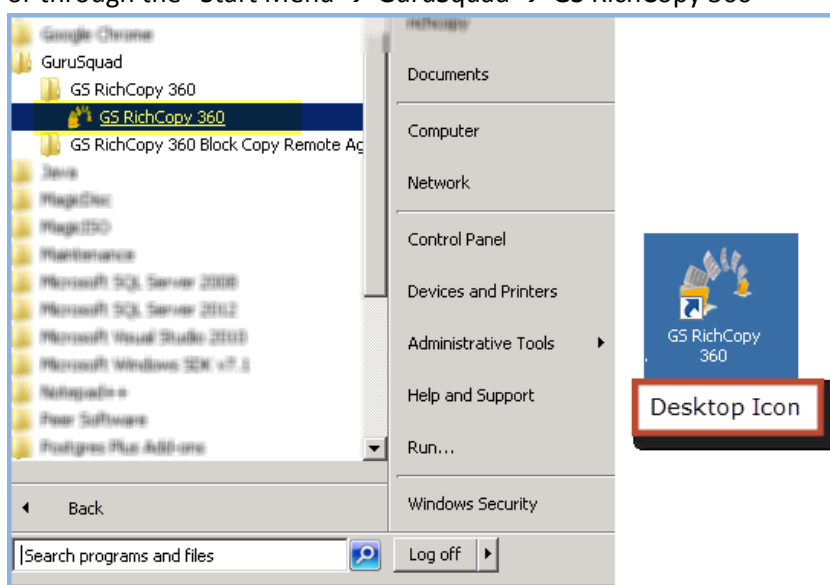
5)

After following these five simple installation steps, your newly installed copy of GS RichCopy 360 is ready to be registered and configured.

Registering GS RichCopy 360


To register a newly installed or trial version of GS RichCopy 360, you will need the product serial key along with your email address. This email address will be used for further correspondence/support and to check for license authenticity. It is important to note that serial numbers will only work for the version issued (i.e. Standard or Enterprise) Once you have secured them, follow the steps below:

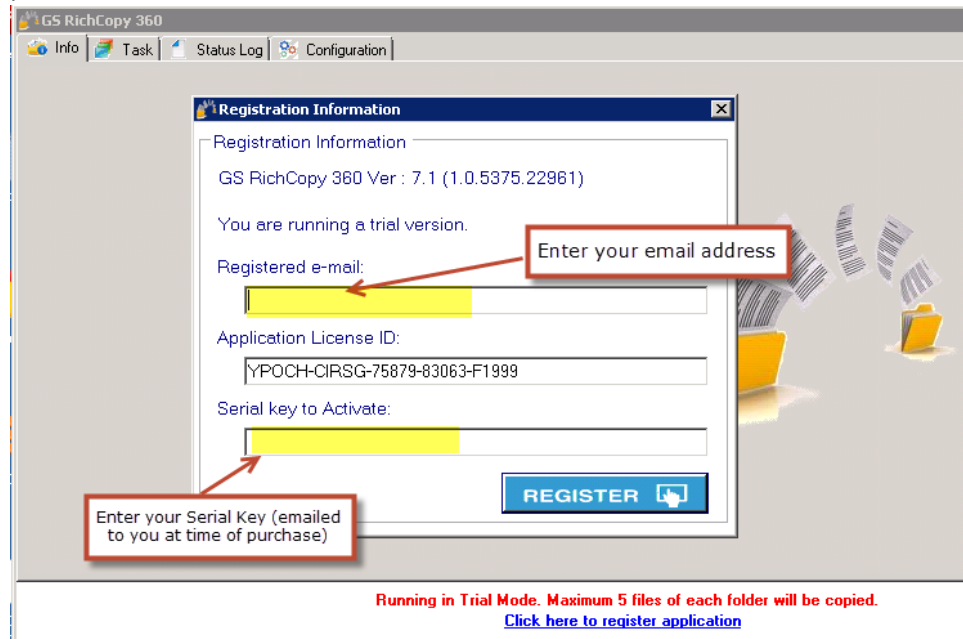
- 1) Open up GS RichCopy 360 by double click on the GS RichCopy 360 icon either from the desktop or through the “Start Menu → GuruSquad → GS RichCopy 360”



- 2) Once GS RichCopy 360 opens up, it will default to the Info Tab. In the bottom Click on the link “Click here to register application”



- 3) Enter your email address along with the serial key which you should have received at time of purchase and click 

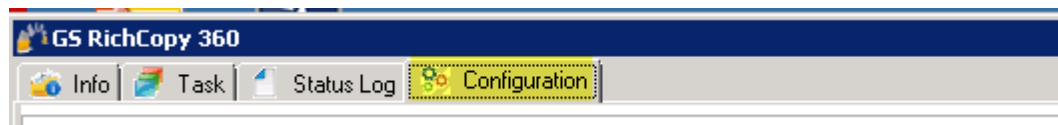


- 4) GS RichCopy 360 will initiate a connection to the GuruSquad activation servers and instantly activate your copy upon registration. In the event your machine does not have internet connectivity, then a support ticket can be opened by phone or email and an offline activation code can be generated based on the Application License ID.

Initial Configuration of GS RichCopy 360

GS RichCopy 360 requires minimal configuration and is ready to work right out of the box. IT administrators do have the option to configure certain components such as whether or not to run [GS RichCopy 360 as a “Windows Service”](#) and what credentials to run the service as. Other configuration parameters are [Connect As accounts \(Impersonation\)](#), [email configuration settings](#), [maximum concurrent jobs to run](#), and backup and restore [GS RichCopy Database](#) which all will be covered later in this section.

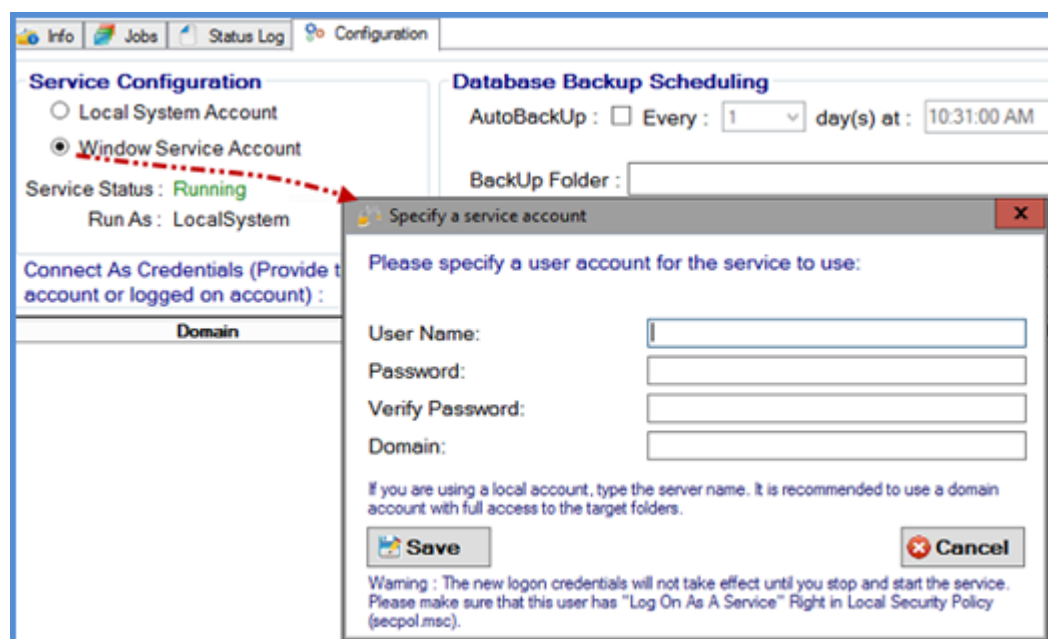
All of the settings that dictate how GS RichCopy 360 are covered under the Configuration Tab



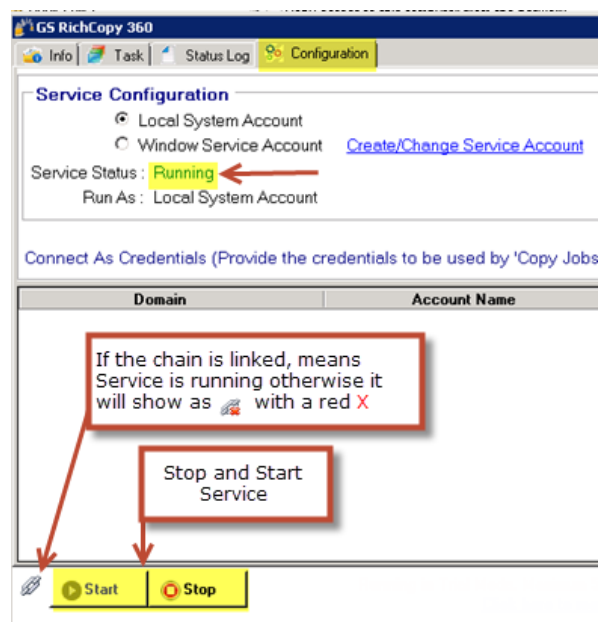
Service Configuration

By default, GS RichCopy 360 will install a service called “GS RichCopy 360 Service”. The service will be in a running state running under the Local System Account. In the Service Configuration Section, you can change it to run under a different user account. This user account can be a local user or a domain user. It is very common to have this service account be a domain account that has access to both source and target locations. It is important to note that this account must have administrative privileges in order to copy open and locked files as well as **Log On as a Service** rights if you are running Windows 2008R2 or later. Refer to “[Assigning Log On as a Service](#)” in Support section in this guide.

As you select “Windows Service Account” you will be presented with a service account form to use.



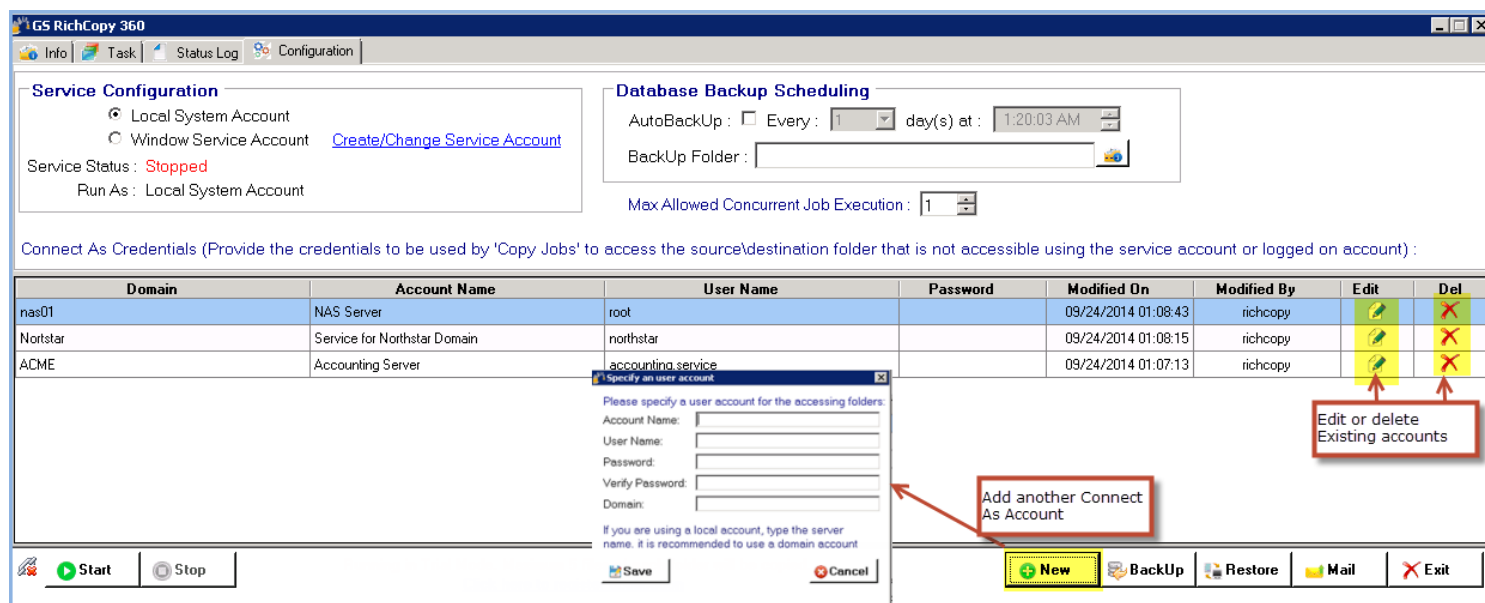
If you set different credentials or switch back to “running under Local System Account”, you must stop and start the service for the changes to take effect. *(Note: if you have any running jobs configured to run under the services account, those jobs will be terminated and they will to be restarted).* You can stop and start the service from within the configuration tab as reflected in the screen shot below



Connect As Accounts

GS RichCopy 360 offers the option to run jobs as the logged in user or service account. There may be times in which the service account and/or logged in account may not have access rights to connect to the source and/or destination. In those instances, GS RichCopy 360 provides another option to specify accounts and save them in the GS RichCopy 360 database. These accounts can then later be selected and used to Connect As those users who have the necessary permissions for the source and/or destination when creating a job. We will discuss this in more details when we get to creating a job. Please reference the screen shot below for further clarification

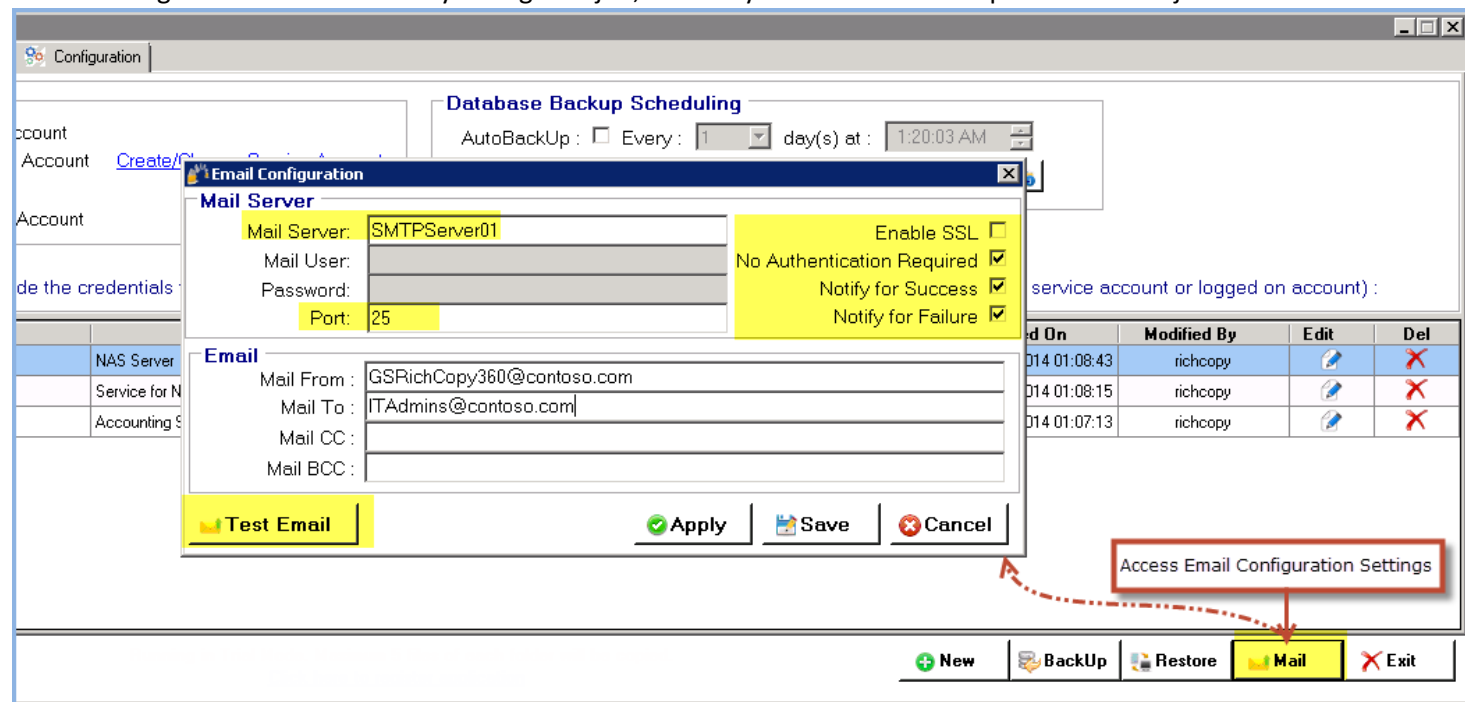
NOTE: the service account and connect as credentials saved in GS RichCopy 360 have their passwords fully encrypted.



Email Configuration Settings

GS RichCopy 360 offers the option to send email notifications once a job completes to alert you of its success or failure status. GS RichCopy 360 can use any SMTP servers, locally or cloud servers i.e. Gmail, Hotmail, or Yahoo. Below are two different sample configurations.

These settings are inherited on every configured job; user may also customize recipients for each job.



The above screen shot showing the settings for an open SMTP Server that requires no authentication.

Note: Make sure your non-authenticated SMTP servers can accept relay requests from the machine or machines hosting GS RichCopy 360 if you select this feature.

The

above screenshot showing settings for Gmail.

Note: Environment variables is supported in the From, To, CC, and BCC fields. Refer to [Environment Variable](#) section for more details.

Maximum Allowed Concurrent Jobs Execution

GS RichCopy 360 can run multiple jobs at the same time. Running many jobs simultaneously can however impact performance. Trying to manage that can be difficult if there are a lot of jobs defined. For this reason, setting a maximum concurrent job amount is recommended. If there are more jobs trying to run than the max concurrent allowed, they will be queued up until other jobs are either completed or terminated. For example, if the max allowed concurrent job execution is set to 6 and 8 jobs are trying to run concurrently then GS RichCopy 360 will allow only 6 jobs to run and the remaining two will be queued up until the two of the 6 jobs complete or stop.

The default value for Max Allowed Concurrent Job Execution is 6.

Backup and Restore GS RichCopy 360 Database

GS RichCopy 360 saves all entire configuration settings, including job definitions, to a single database stored locally on the machine. The database file is called GSRichCopy360.sdf and its default location is "C:\GSRICHCOPY360DB" folder.

GS RichCopy 360 provides the option to backup and restore the database manually by clicking the backup or restore button under the Configuration tab. In addition, GS RichCopy 360 offers the option to have the database backed up regularly at a specific time every X number of days. By default this option is not turned on. If you do not make changes to the database often, it is recommended you space out the number of days in order to minimize the number of backup files. It is highly recommended that the backup location is stored onto a different location from where the GS RichCopy 360 currently resides.

Warning: Restoring the database will overwrite everything (job definitions, configurations) stored in the current database. GS RichCopy service must be stopped before restoring the database. Once the database is restored, the GS RichCopy 360 UI and service must be restarted in order to reload and reflect the new configurations.

GS RichCopy 360

Info Task Status Log Configuration

Service Configuration

☒ Local System Account
☐ Window Service Account [Create/Change Service Account](#)
 Service Status : **Stopped**
 Run As : Local System Account

Database Backup Scheduling

AutoBackUp : ☒ Every : **14** day(s) at : **1:20:03 AM**
 BackUp Folder : **D:\Backup GS DB**
 Max Allowed Concurrent Job Execution : **6**

Connect As Credentials (Provide the user name and password for the jobs' to access the source\destination folder that is not accessible using the service account or logged on account) :

Domain	Account Name	User Name	Password	Modified On	Modified By	Edit	Del
nas01	NAS Server	root		09/24/2014 01:08:43	richcopy		
Nortstar	Service for Northstar Domain	northstar		09/24/2014 01:08:15	richcopy		
ACME	Accounting Server	accounting.service		09/24/2014 01:07:13	richcopy		

At any time, you can backup and restore the database. Restoring the database will overwrite everything stored in the current database.

Start Stop

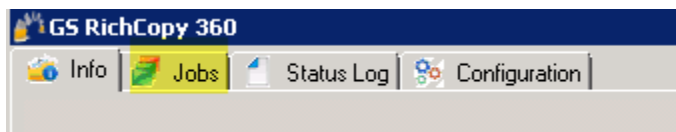
New BackUp Restore Mail Exit

This will create a backup of the database automatically on the specified interval.

Managing and Creating Jobs in GS RichCopy 360

GS RichCopy 360 offers a simple yet intuitive design that makes it easy to manage and create jobs. All the options are available in a single pane of glass so that any option can be easily selected. Moreover, our job setup wizard can walk you through the most commonly used options. We will discuss each section in full detail.

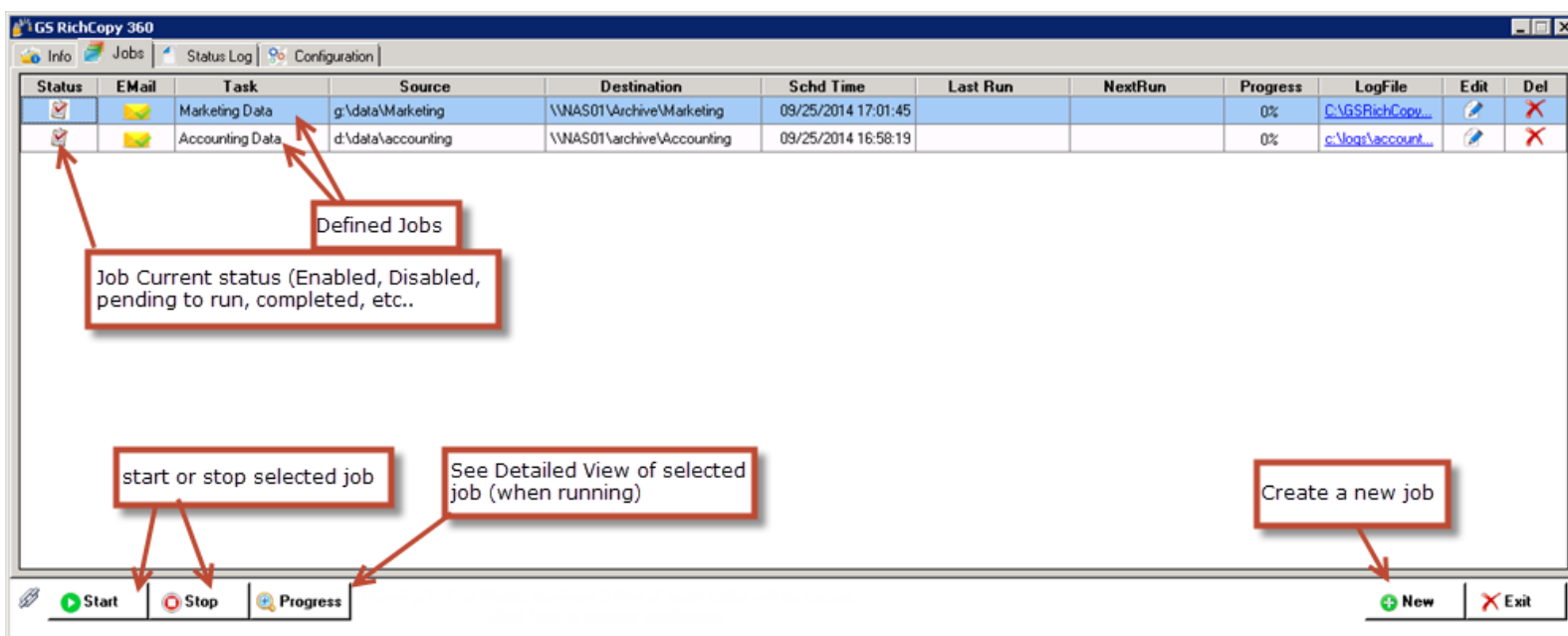
Once you open up GS RichCopy 360, click on the Jobs Tab to manage and create jobs.



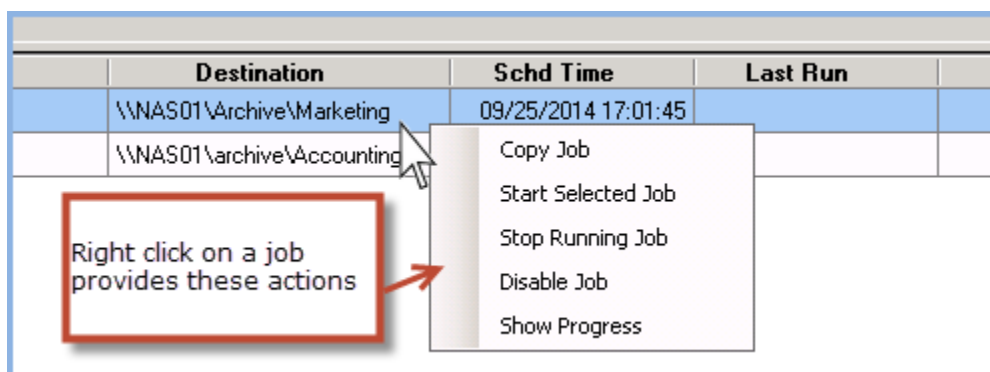
Jobs Overview

Once you select the Jobs tab, you will see a list of all defined jobs listed along with their current status (Running, completed, queued up) as well as other configured settings for each job such as email notification settings.

There are several dashboard buttons to start, stop and create new jobs. Please refer to screen below to get a much clearer overview



You can click on buttons on the dashboard to control a selected (highlighted job). You may also right click on a job to initiate the same actions in addition to copying an existing job. See screen shot below for further clarification.



Tip: To duplicate an existing job, simply right click on the job you would like to duplicate and select "Copy Job". This will create an exact copy of the job but in a disabled state. The duplicated job will have the same name as the original job but it is preceded with "Copy of" in the job name.

Job Status Legends:

Job Status (first column in the Jobs Interface) shows a different sign for each of the different job statuses. Users can easily identify the status of a job by looking at the presented sign corresponding to a specific job. Below are the different signs and what they stand for:

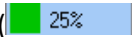

Sign	Description
	Job is Disabled
	Manual – job may be run only manually
	Job Completed and not scheduled to run any longer
	The job is set to repeat but no repeating schedule has been defined
	The job is scheduled to run as a service
	The Job is scheduled to run as the current user's session

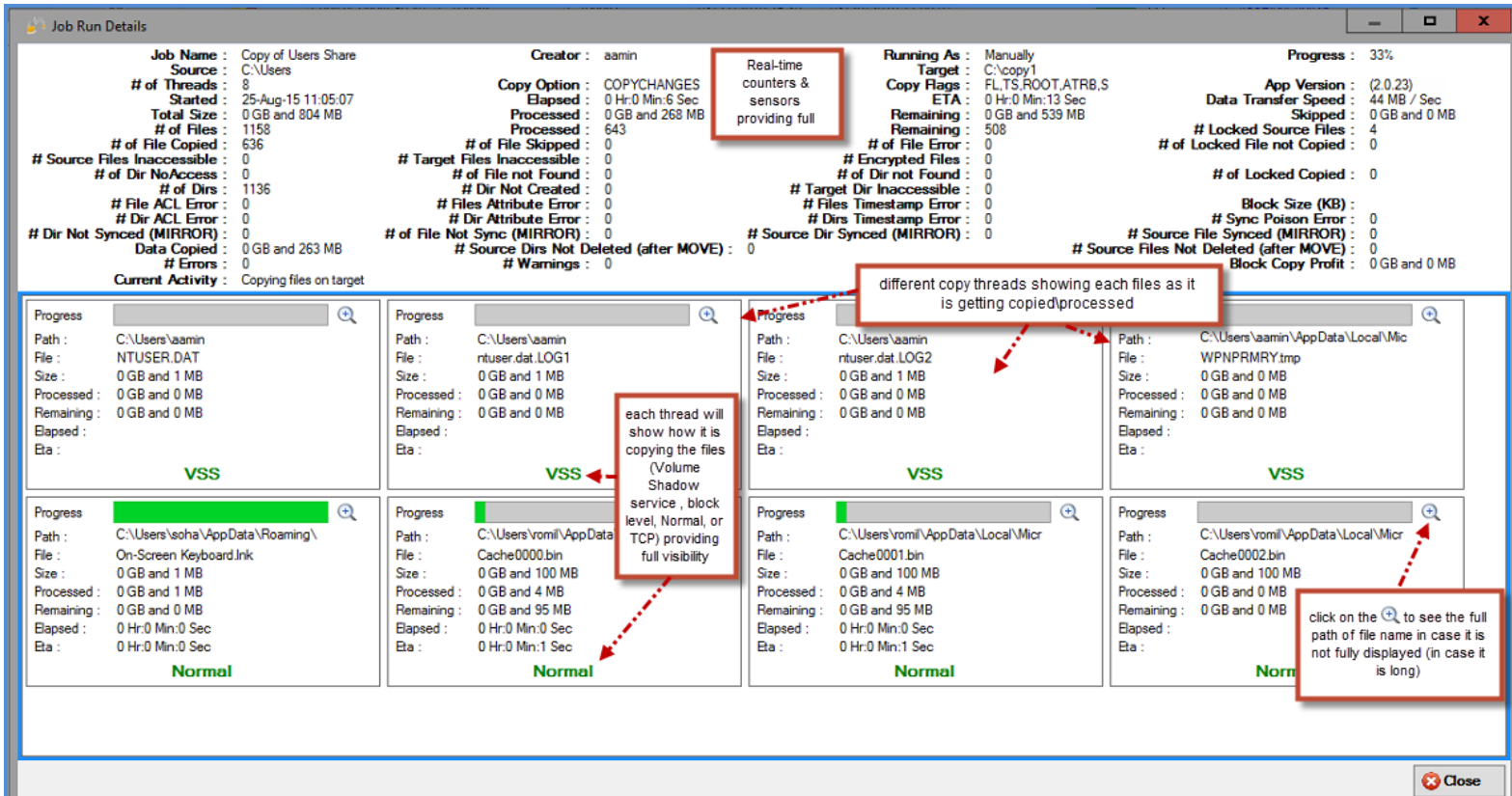
Job Progress Indicators:

Because jobs run independently from one another, each job is presented with its own progress bar. The progress bars display the current state of the job or its recent completion result in the event it is no longer running. Please refer to the table below detailing each progress state and what it stands for. As the progress screen runs, it will show **green** for as long as it does not encounter errors (25%). Should it encounter a warning then it will change to **orange** and would turn **red** if it encounters any errors. This can be useful if there are multiple jobs running and the administrators is conducting a quick check on the status of the jobs, if they all show green then it is an indication everything is running as desired.

State	Description
Running	Job is gathering all the information to start the job operation. The gathering process is fully multi-threaded.
Stopped	The job has been terminated by the user or by some other intervention (Service stopped...etc.)
Error	Job experienced a problem. This could mean it completed with errors or it did not fully complete (i.e. target is full; source or target is down...etc.)
Queued	Job is waiting in line for its turn to run. Check Max Allowed Concurrent Job Execution in the event it reached its limit at the current state
Completed	Job has completed successfully with no errors to report
Progress %	As the job runs, percentage of the progress is displayed showing the overall progress of the job. Click on it to see full details regarding its progress. User can see detailed progress for individual job by clicking progress button at bottom.

Show Progress Screen:

When a job is in a running state, users can click on the progress bar () next to the running job or show progress button ( **Progress**) in the Jobs Tab to see full details regarding that job's progress. If a job is set to multi-thread (highly recommended), then each copy thread and its progress will be shown as well. Please refer to the screen shot below



The screenshot displays the 'Job Run Details' window for a job named 'Copy of Users Share'. The job is in a 'Running' state with 33% progress. The window is divided into several sections:


- Job Information:** Job Name, Source, # of Threads, Started, Total Size, # of Files, # of File Copied, # of Source Files Inaccessible, # of Dir NoAccess, # of Dirs, # File ACL Error, # Dir ACL Error, # Dir Not Synced (MIRROR), Data Copied, # Errors, Current Activity.
- Copy Option:** COPYCHANGES, Elapsed, Processed, # of File Skipped, # Target Files Inaccessible, # of File not Found, # Dir Not Created, # Files Attribute Error, # Dir Attribute Error, # of File Not Sync (MIRROR), # Source Dirs Not Deleted (after MOVE), # Warnings.
- Running As:** Manually, Target, Copy Flags, ETA, Remaining, # of File Error, # Encrypted Files, # of Dir not Found, # Target Dir Inaccessible, # Files Timestamp Error, # Dirs Timestamp Error, # Source Dir Synced (MIRROR).
- Progress:** A progress bar showing 33% completion.
- App Version:** (2.0.23), Data Transfer Speed, Skipped, # of Locked Source Files, # of Locked Copied, Block Size (KB), # Sync Poison Error, # Source File Synced (MIRROR), # Source Files Not Deleted (after MOVE), Block Copy Profit.

Below the main job details, there are eight individual progress windows for different copy threads. Each thread shows its own progress bar and details. A red box highlights one of these threads, stating: 'each thread will show how it is copying the files (Volume Shadow service, block level, Normal, or TCP) providing full visibility'. Another red box points to the progress bar of a thread, stating: 'different copy threads showing each files as it is getting copied/processed'. A third red box points to a magnifying glass icon on a thread's progress bar, stating: 'click on the [magnifying glass] to see the full path of file name in case it is not fully displayed (in case it is long)'.

Job Details Interface

GS RichCopy 360 offers a single pane of glass when viewing\modifying an existing job. The user interface is very rich in terms of features and options, while being simple and intuitive.

In this section we will do a deep dive into the different features and settings offered in the job details screen. Users can access the job details screen in two different ways:

- 1) Double clicking on existing job or selecting the edit button “” corresponding to that specific job.
- 2) By creating a job through the [Job Creation Wizard](#) (discussed in the next section), advanced users have the option to skip the wizard and jump directly into a blank job details screen.

Refer to the screen shots below for details on each option

The screenshot shows the 'Copy Job Configuration' window. Numbered callouts point to the following elements:

- 1: Job Name field (value: Copy of Accounting Share)
- 2: Description field (value: This is to copy the accounting share to the archive NAS)
- 3: Source field (value: d:\data\accounting)
- 4: Destination Type radio buttons (Normal selected)
- 5: Destination field (value: \\NAS01\share)
- 6: Connect As dropdown (value: Logged in User)
- 7: Copy Files Instantly checkbox (checked)
- 8: Copy Options radio buttons (COPY CHANGES ONLY selected)
- 9: File Compare dropdown (value: Both)
- 10: Log checkbox (checked)
- 11: File/Folder/Email tabs (Folder selected)
- 12: Run Manual radio button (selected)
- 13: Job Concurrency section (Copy Threads: 4)
- 14: Job Status dropdown (value: Enabled)
- 15: Run as Service checkbox (unchecked)

Other visible fields include: ACL(s) set to 'Files and Folders', Skipped File's ACL (slow) checkbox, File Compare options (Locked, Folder Timestamp, Attribute, etc.), Log file path (c:\logs\backupaccounting.log), Log Level (Error), and Log Size (MB).

- 1) **Job Name:** This is the name of the job by which you will identify it. The name has to be unique. It is highly suggested to use a descriptive name such as "Accounting Data" or "Copy Email Archive" so that other users/administrators can relate to the role of this job in the future. Job names are referenced in the Job Status Tab (discussed later) and in email notifications (if turned on).
- 2) **Description:** This field is available to enter a description for the job.
- 3) **Source:** Type or browse to the path (folder) where you want to copy FROM. Source will always point to a folder not to a file. **Note:** Path variables is supported in this field. Refer to [Environment Variable](#) section for more details.
Copy as Root Folder: When this option is selected, it will create the source root folder and its contents on the destination. Otherwise, it will only copy the contents of the root folder to the destination.
- 4) **Destination Type:** There are two ways data can be copied:
 - a. **Normal:** This method uses SMB to copy data such as [\\192.168.0.11\share](#) or a local drive such

as d:\target.

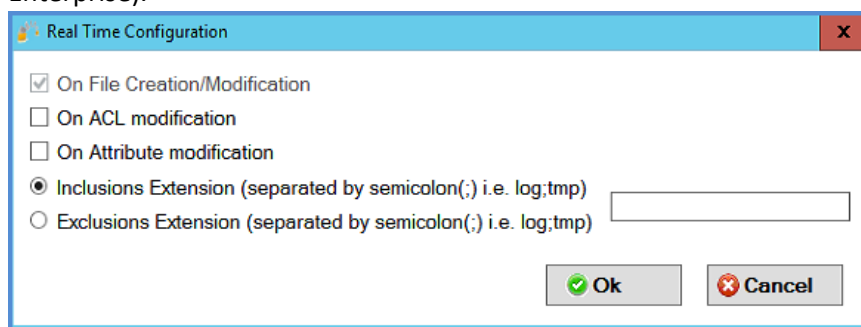
b. **TCP**: This option is only available in GS RichCopy 360 Enterprise. User can specify a specific port (by default it uses TCP 8008) to transmit the data. This option requires a few additional configuration settings and a light Remote Transfer Agent must be installed on the recipient machine which will be later discussed in TCP Copying method.

- 5) **Destination**: Type or browse to the path (folder) where you want to copy to. This folder will be created if it does not exist. Please note if you are using the TCP option, then a job serial number is presented instead of a destination path prompt. Please refer to TCP Copying method for more details. **Note**: Path variables is supported in this field. Refer to [Environment Variable](#) section for more details.
- 6) **Connect As (Source), (Destination)**: Users have the option to impersonate a different user to connect to the source and/or destination. This is practical when the logged in user or the service account used does not have access to the source folder. The Connect As user accounts are defined in the [Connect As section](#) under the Configuration Tab.
- 7) **Copy Files Instantly**: If you enable this option then GS RichCopy 360 will start the replication\move before it calculates the total amount of data being replicated\moved. The progress percentage bar will automatically adjust up or down until the total calculation is complete. This option is recommended when the data in the source is more than 500k files and folders or the source has a high latency. Disabling this option may slow the start of the replication/move but will provide a more accurate percentage from the start.
- 8) **Copy Options**: There are several copy options that can be used and you must select one of them:
 - a. **Copy Changes Only**: Copy only files and folders that are new or modified from the source to destination (Deltas only). This option **will not** delete files from destination if they do not match in source. If the destination has the same replica files, then those files will be skipped.
 - b. **Mirror**: Mirror the destination to the source. Please note that if a file is deleted from the source, it will be deleted from the target.
 - c. **Move**: Move files and directories (delete from source after copying).
 - d. **DIR**: Copy the directory tree structure only.
 - e. **Copy All**: Copy all files and folders from source to destination (Overwrite files and folders that match in the destination). This option will not skip any files if the files in destination are exact replicas as in the source.
- 9) **Copy Flag**: There are options to choose from when copying:
 - a. **Locked**: If checked, this option will copy locked and open files via VSS integration. In order for the open file copy to work properly, the source has to be on the local computer as GS RichCopy 360 would work seamlessly with VSS (Volume Shadow Service) to copy the locked\open file(s).
 - b. **File Compare**: This sets the file comparison element to compare whether a file in source and destination match or if it needs to be overwritten in destination. The options are:

1. **File size comparison:** If this option is selected then comparison is determined by the file size.
 2. **Last-modified Timestamp:** If this option is selected then comparison is determined by the last-modified time stamp.
 3. **Both:** This option would use the Last-modified timestamp and file size, if both match, then the file will be skipped, otherwise if one of the two options returns a mismatch, then the source file is copied to the destination.
- c. **ACLs:** Copies all of the NTFS security permissions, including inheritance blocking and advanced ACL settings. If the destination file or folder matches the source except for the NTFS security settings, then only the security settings will be replicated over and it will not trigger a retransmission of the entire file or folder. For example, if a word doc exists in both source and destination but the permissions are different, then GS RichCopy 360 would detect that the files are identical and it would just replicate the permissions to destination so that they are fully the same.

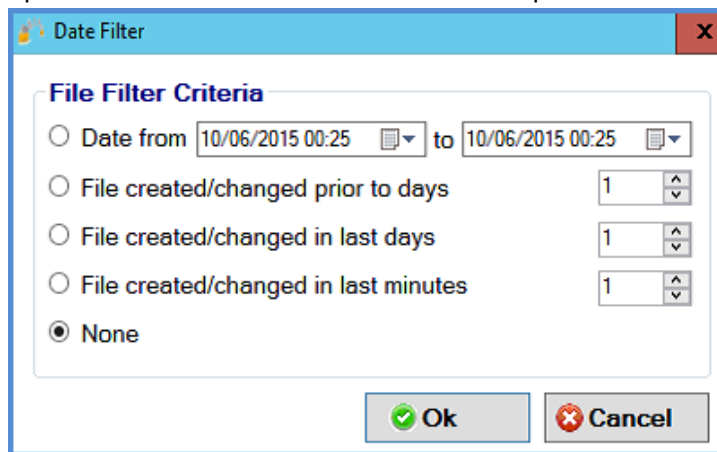
Skipped files ACLs (slow): This option checks the ACL NTFS permissions even on files that have been skipped to ensure that NTFS permissions set on files in the destination match permissions set on the source side. While setting NTFS permissions on the file level is not a recommended practice, this option is available and triggering may increase the duration of the job while it compares the NTFS permission on every file.

- d. **Detect File Changes Real-time:** If this option is checked, the job will monitor changes to files in Real-Time and use these changes as triggers for file synchronization. If selected, user will be presented with a configure option to monitor file ACL changes and file attribute changes. Furthermore, the option to exclude or include specific file extensions to be used in real-time replication (Note: This option is only available in GS RichCopy 360 Enterprise).



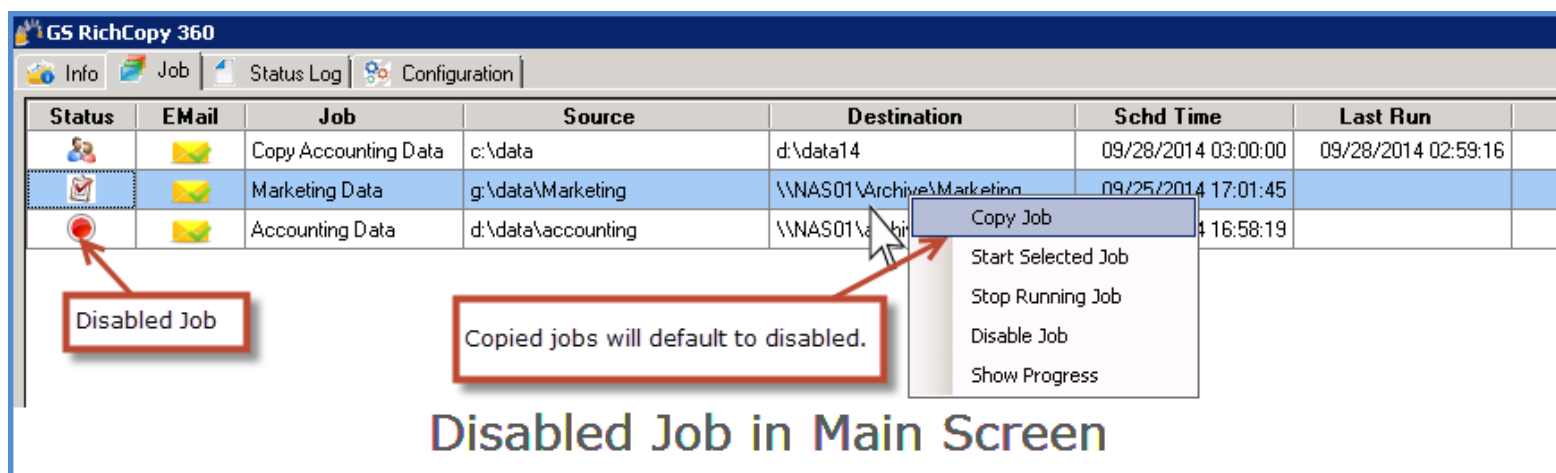
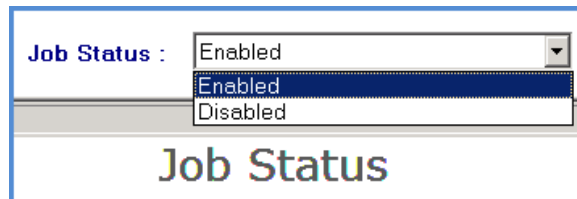
- e. **Block Level Copy:** Select this option to enable/disable byte level replication. Byte Level allows you to transfer just the changed data in a file when synchronizing, instead of the entire file. This is useful in saving bandwidth especially when dealing with large file sizes. (Note: This option is only available in GS RichCopy 360 Enterprise).
- f. **Folder Time Stamp:** Folders in the destination will have their timestamps copied from the source.

- g. **Attributes:** If this option is selected, file and folder attributes will be synchronized from source to the destination. If the destination file or folder matches the source except for the attributes, then only the attribute settings will be replicated over and it will not trigger a retransmission of the entire file.
- h. **Date Filter:** This feature provides the option to copy\move files whose last modified date are before (prior) or within the specified number of days. A date range can also be set as a date filter. Files not matching the date criteria set will be excluded. Date filters will not be applied to folders. Once this feature is selected, the user is presented with different option to set the filter date criteria which is presented in the screen shot below.



- i. **Terminate Job if Machines are unreachable:** This option is highly useful in the event the source or destination machines are unreliable. If this option is selected, then GS RichCopy 360 will continue to attempt to copy files instead of timing out. This option can be useful when copying across high latency links or over strained or unreliable WAN connections.
- 10) **Misc:** There are three different options under Miscellaneous:
- a. **Logs:** You can type or browse where you want the log file to be placed. **Note:** Path variables is supported in this field. Refer to [Environment Variable](#) section for more details.
 - b. **Log App:** If a log file already exists, then logging will just append to the file instead of overwriting it.
 - c. **Log Size:** If a number is specified (in MB), then once the file log sizes reaches that limit the job will start logging to new file (however the job will continue to run). This option is useful to avoid large log files.
- 11) **Job Status:** Jobs are created as Enabled jobs by default. This means they can be run on demand or as scheduled jobs. Jobs that are set to disabled will NOT run on demand or as scheduled.

It is also worth noting that if a job is duplicated, the duplicated job is going to default to “Disabled”.




- 12) **Run As Service:** If the box is checked, then the job will run as a service using the service credential specified in the Configuration Tab (default is Local System Account). If the box is not checked, then the software will utilize the session of the logged on user that is running the application.

There are many advantages to running a job under a service account. The first and foremost reason is that jobs will not terminate due to a user logging off or closing the GS RichCopy application. A service account can run as the Local System Account, which is an account that has full access to every file and folder on the system (in most scenarios). For example, a machine that has locked down permissions may have issues copying folders and files as the user credentials used may not have sufficient rights. Using a service account running as Local System Account may provide better results.

It is worth noting that jobs have to be set to run at a scheduled time in order to be configured to run using service account. A scheduled job can always be triggered to start manually which would in that sense run the job on demand as a service.

Creating a New Job Using the Wizard

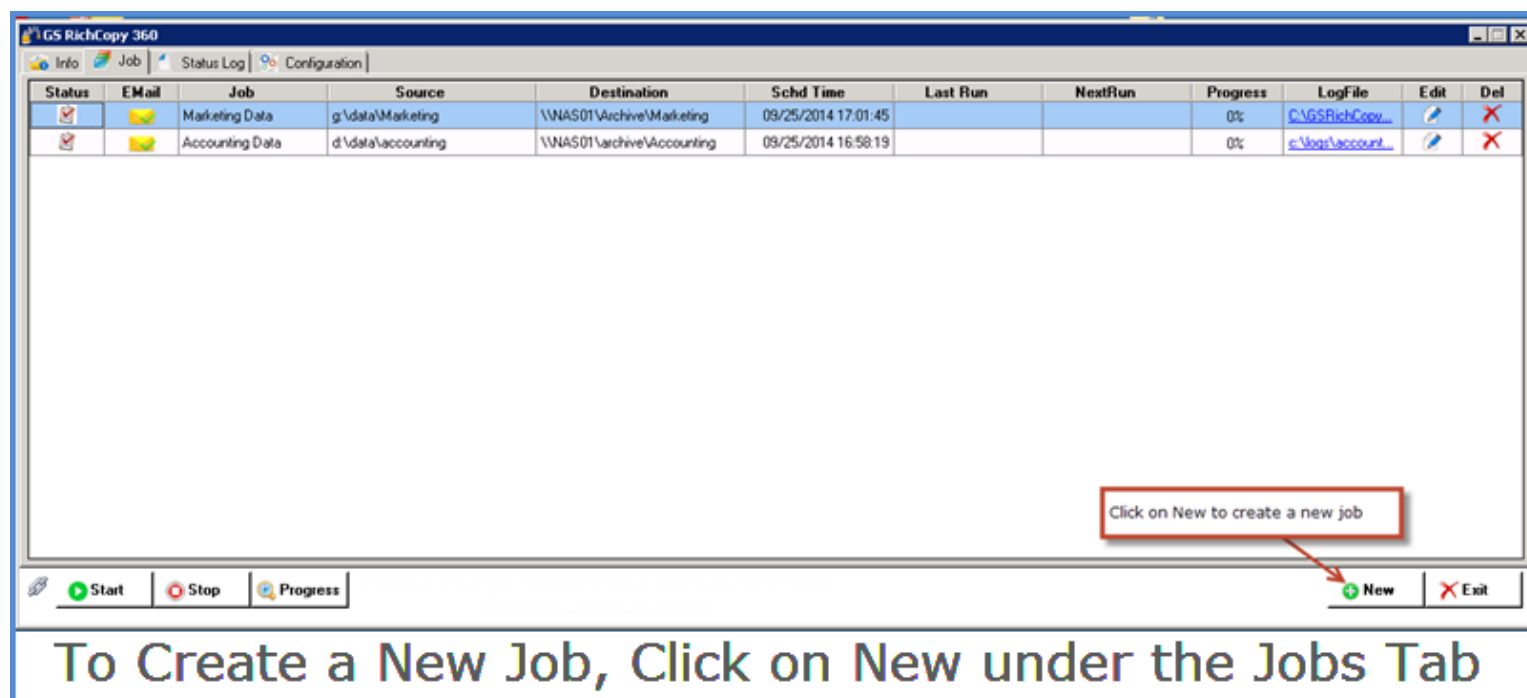
GS RichCopy 360 offers a simple job creation wizard. The wizard walks IT administrators through most commonly used settings (a total of three steps) and a full summary of the selected options is displayed at the end for confirmation.

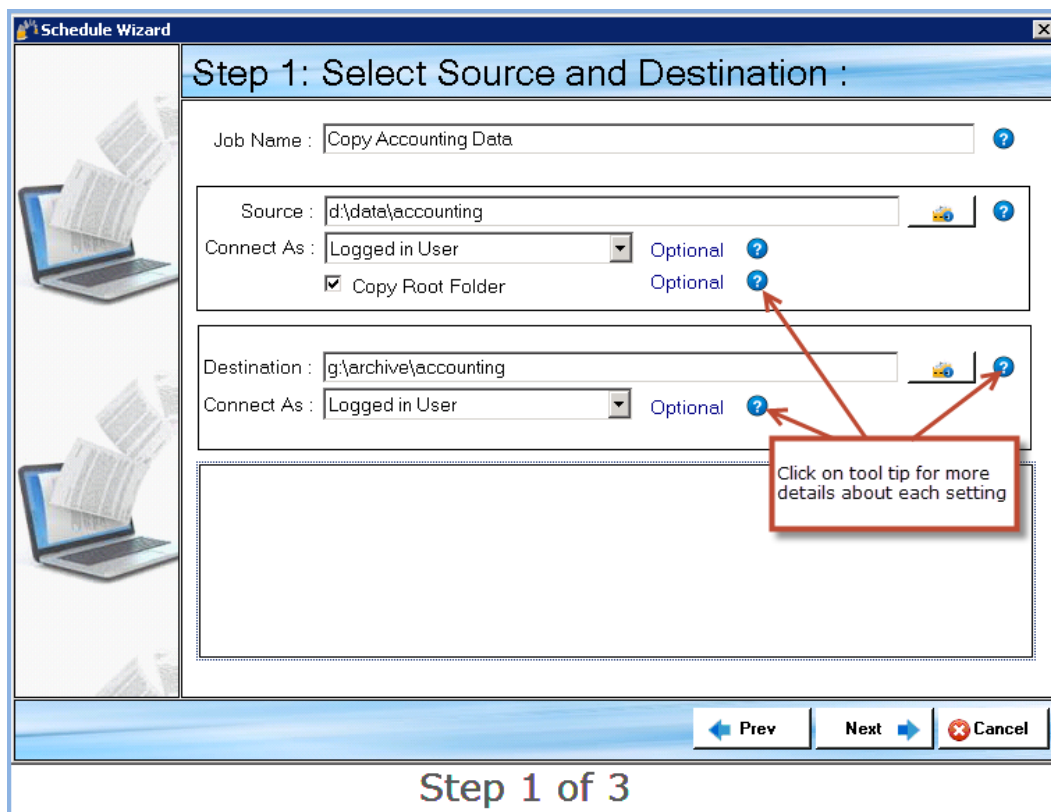
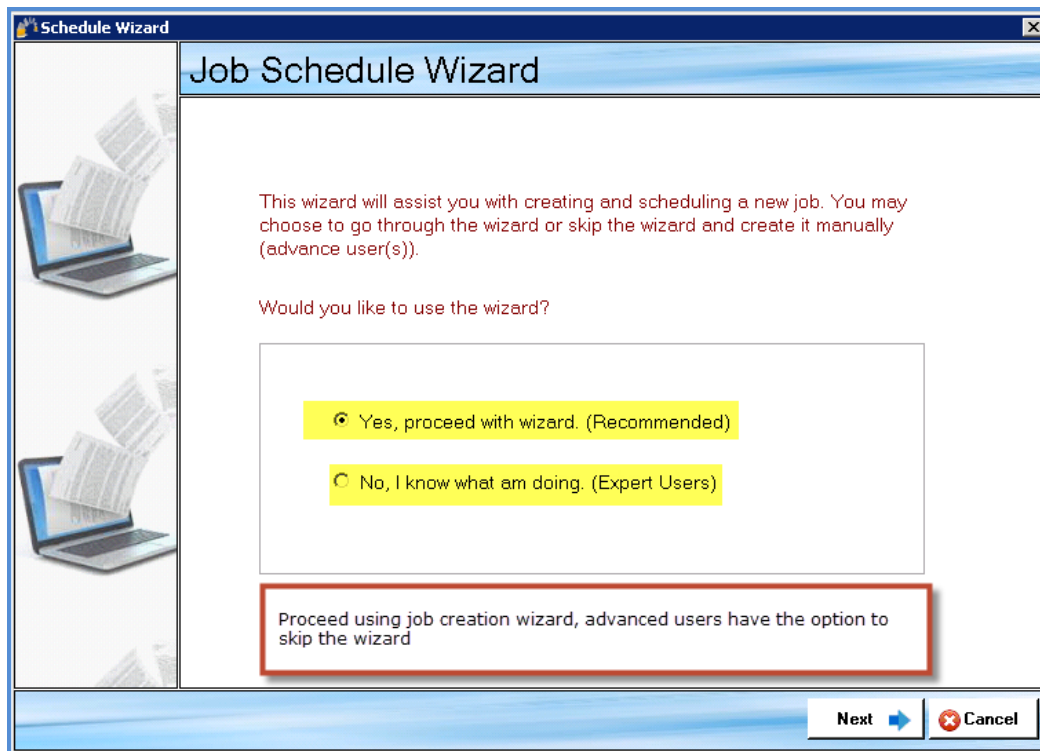
While most of the available options are self-explanatory, help tool tips are displayed next to each setting to further clarify its role, purpose and how it impacts the job if selected. Tool tips are represented by the icon .

Moreover, expert users have the option to skip the wizard and jump directly to the detailed job screen and create the job that way.

It is worth noting that once a job is created (whether through the wizard or by jumping directly to the detailed job's screen), it can always be modified at a later time if the need arises.

Reference screen shots to learn more about the job creation wizard.





Step 2: Set Copy Options :

Copy Options :

- ☒ Copy changed file(s) and folder(s) from source to destination.
- ☐ Mirror file(s) and folder(s) from the source to destination.
- ☐ Move file(s) from source to destination.
- ☐ Copy only the directory structure.
- ☐ Copy all file(s) and folder(s) from source to destination.

Copy Features:

File Compare Options : Both

Copy with Security : None

- ☐ Copy open/locked file(s) (VSS).
- ☐ Copy date and time stamp on destination folder(s) to match source.
- ☐ Copy Attributes
- ☐ Stop Job if Machines Unreachable
- ☐ Copy File RealTime
- ☐ Copy ACL for Skipped Files

Prev Next Cancel

Step 2 of 3

Step 3: Logging, Alerting and Scheduling :

Logging

- ☒ Enable Logging
- Log File Location : c:\logs\accountingcopy.log
- ☐ Append to Log
- ☐ Log File Size: 0 MB

Alerting

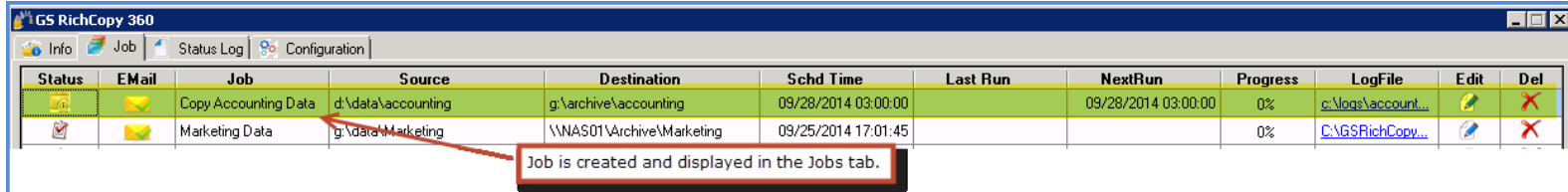
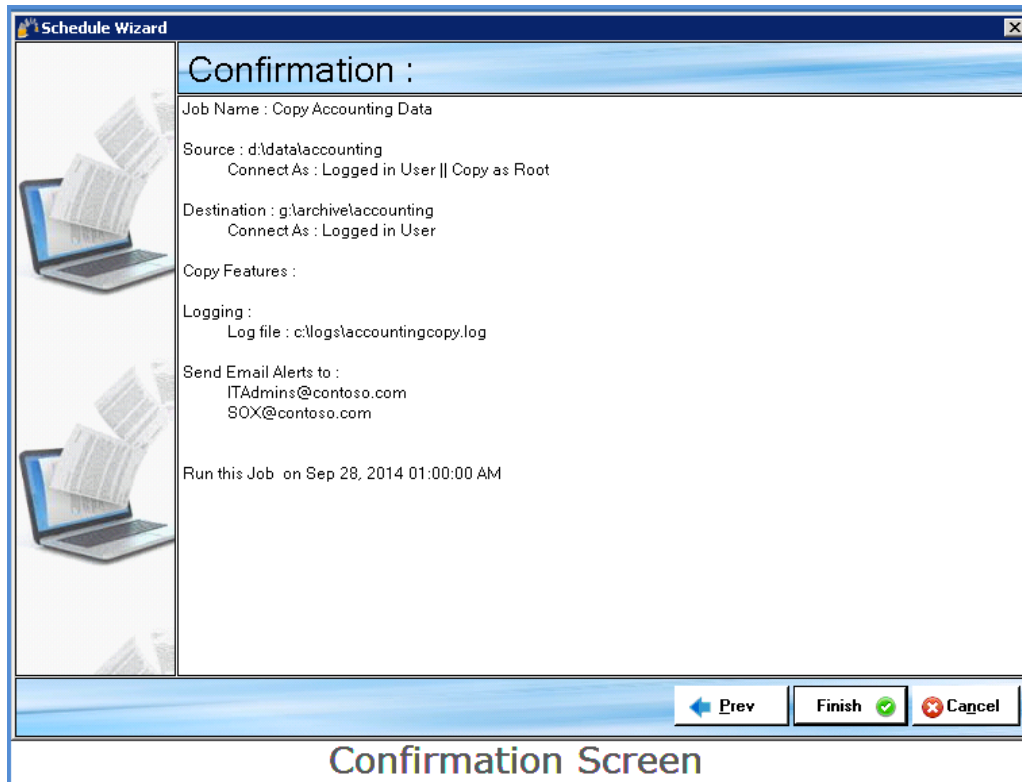
- ☒ Enable Job Status Notification
- To : ITAdmins@contoso.com
- CC : SOX@contoso.com
- BCC :

Scheduling

- ☐ Run this Job Manually
- ☒ Run this job at this time 09/28/2014 1:00:00 AM
- ☐ Run as Service

Prev Next Cancel

Step 3 of 3



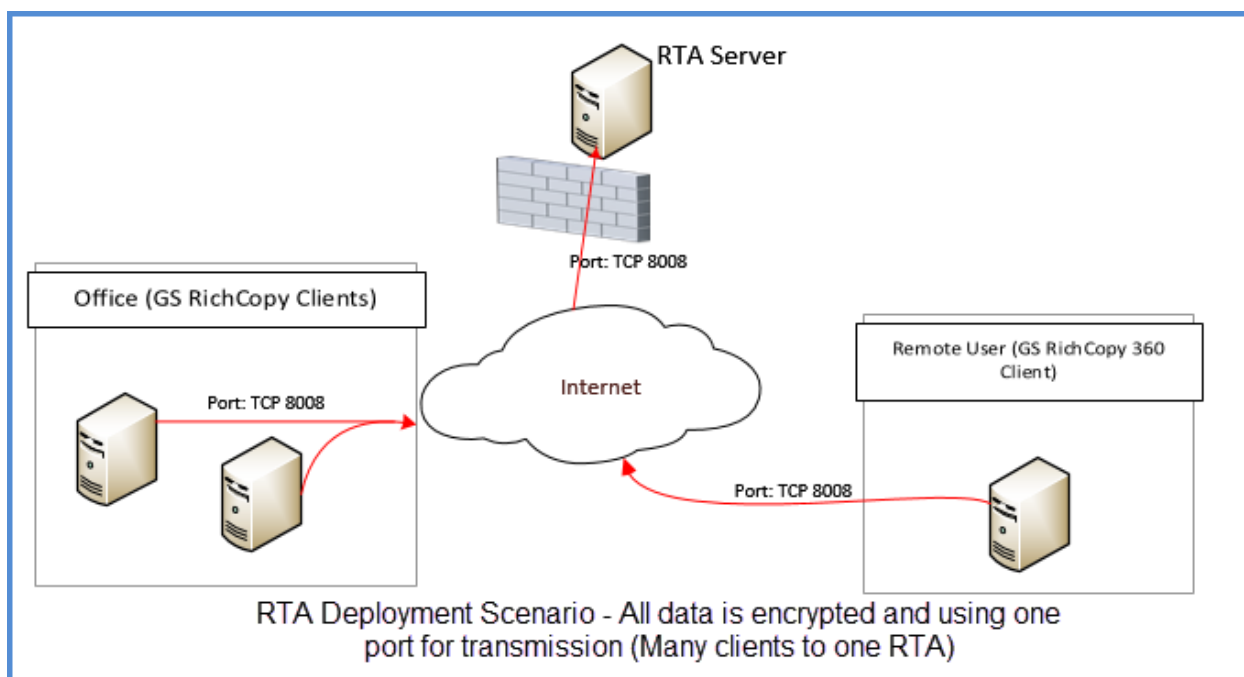
Once a user click on **Finish** in the job confirmation screen, the job is then created and displayed in the Jobs tab. It can then be triggered to run by selecting **Start** or modified by double clicking anywhere on the job. We will discuss the job details screen in the next section.

Creating a TCP Copy Job (Enterprise Only):

Utilizing the TCP copy job offers a lot of advantages. It only requires one single port between source and destination to transmit the data to be copied yet still offers robust and reliable performance.

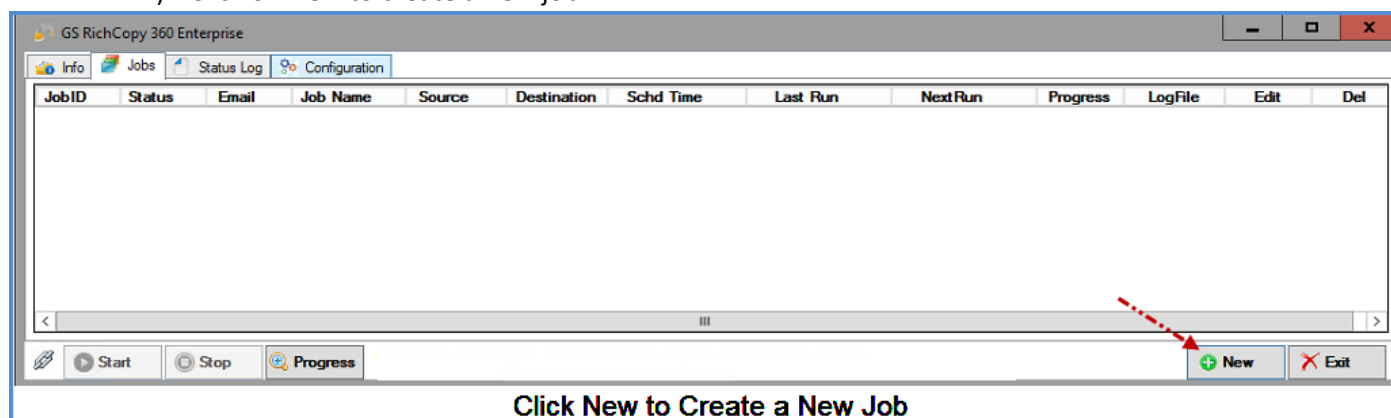
A TCP job requires minimal configuration on the client side (source machine) and a Remote Transfer Agent (RTA) to be installed on the recipient machine (Destination) to receive the data as it gets transmitted.

It is worth noting that TCP jobs provides additional features that are not available in the Normal copy method. Those features are Encryption and File Compression while data transfer.

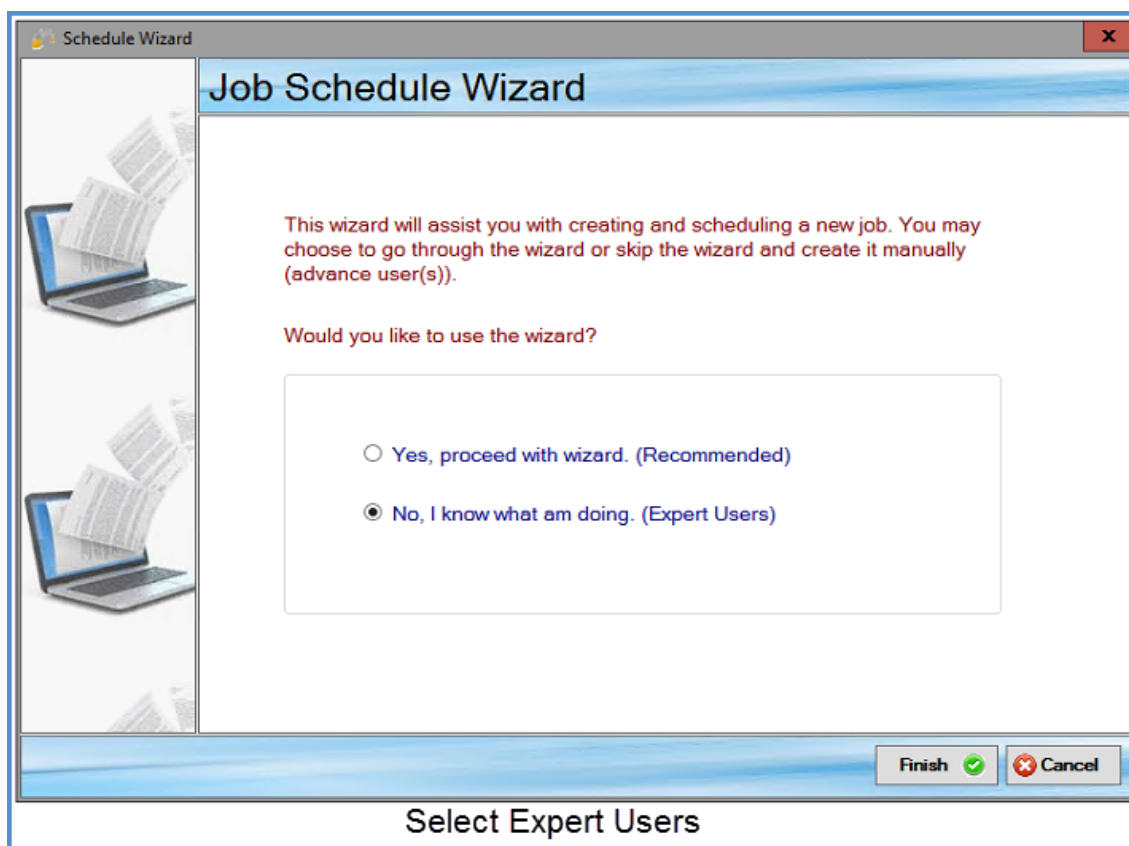


Please refer to the following screenshots to create a new TCP job:

- 1) Click on New to create a new job



- 2) Select “No I know what I am doing (Expert Users)” and click Finish to bypass the wizard as it currently does not offer creating TCP jobs.




- 3) Populate the Job Name and Source and the rest of the options as desired except for Destination, select TCP Method and click on the copy clipboard to copy the Job Serial. Then click to configure the Remote Transfer Agent. It is **important** to note: The Job Serial is a unique number that is randomly created on the source per job. The admin will provide the job serial on the target machine (RTA) as he\she creates the receiving end of the job.

Note: Job Serial can be set by the administrator if so is required. It can be done from the command line. All manually set Serial Jobs have to be prefixed by 99999 and should be 13 character long numeric value. This can be useful in scenarios where the administrator wants to automate job creation on the client and the RTA server. Refer to [GS RichCopy 360 Client CLI](#) for more information and examples or type `gsrichcopy360 /?` From the command prompt (must be in the folder: Program Files\GuruSquad\GS RichCopy 360 Enterprise).

Copy Job Configuration


Job Name : Users Share

Description : This job will copy the users share to Fileserve08

Source : d:\users  Connect As : Logged in User

☒ Copy as Root Folder

Destination Type : ☐ Normal ☒ TCP 1 ←-----

Destination : JobSerial: 1005010020503  [Configure Remote Transfer Agent](#) 2 ←-----

Options

Copy Options

☒ COPY CHANGES ONLY ☐ MIRROR ☐ MOVE ☐ DIR ☐ COPY ALL

Copy Flag

File Compare : Both

ACL(s) : None ☐ Skipped File's ACL (slow)

☐ Locked ☐ Folder Timestamp ☐ Attribute

☐ Terminate Job If Machines are Unreachable

☐ Block Level (Configure through RTA) ☐ Real Time




Misc



☒ Log

☐ Log Append Log Level : Error

☐ Log Size MB

ID	File Name or Pattern	Inc/Exc
----	----------------------	---------

Scheduling



☒ Run Manual

☐ Start 08/21/2015 4:35:00 PM

Job Concurrency

Copy Threads : 4 [Change](#)

Job Status : Enabled ☐ Run as Service

 Save  Cancel

Select TCP and Click Configure RTA

- 4) Once you click on the Configure Remote Transfer Agent, you will be presented with different options to configure as displayed in the screenshot below. Please examine the different available options. Once all the options are selected and set then click Ok and go to configure rest of the job on the Remote Transfer Agent (RTA) side.

Remote Agent Client Configuration

Remote IP Address/Host Name: 1 fileserver08
example: 192.168.0.101 or server1 or server1.contoso.com
If Destination and Source machine is same then enter "Localhost" as host name.

Remote Port: 2 8008

Block Size: 3 10000 KB
☒ Dynamically adjust block size based on file size (recommended)

☐ Byte Replicator (delta copy) 4
☐ Exclude File less than KB's 0

Exclusions Extension (separated by semicolon(;))

☒ Use Encryption 5
User Name: XA3F5765
8 out of 25 (minimum 8)
Passphrase: ABCYHS12
8 out of 32 (minimum 8)
☐ AES-128 bit ☒ AES-256 bit

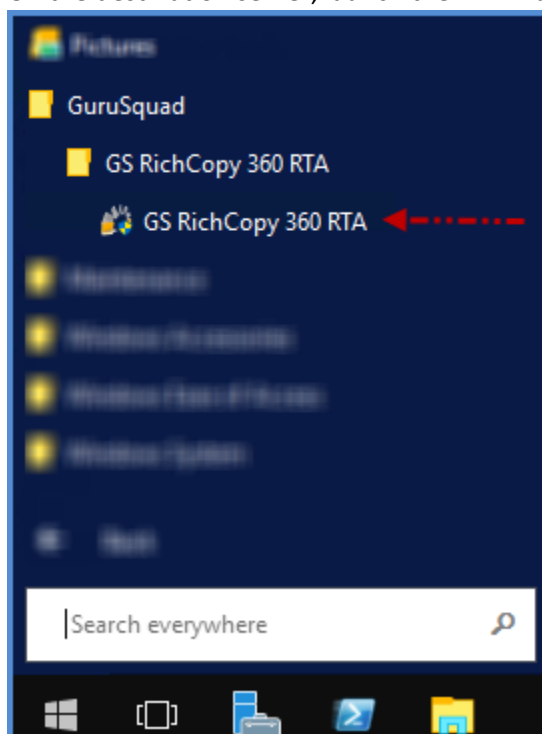
☒ Apply Compression before sending/transfer data from/to Remote Agent 6

Test 7 Ok Cancel

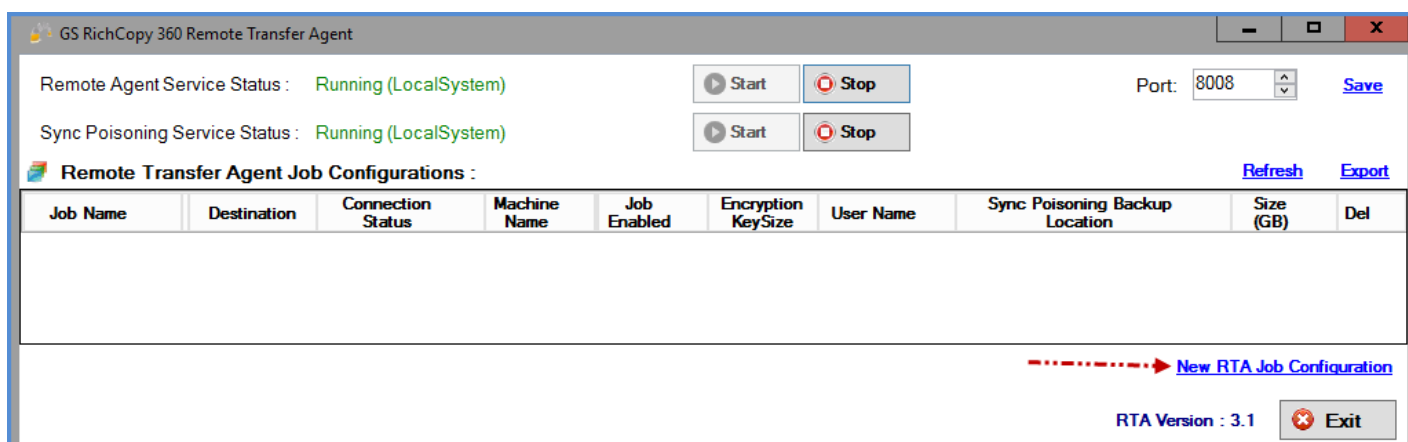
Configure Remote Transfer Agent

1. **Remote IP Address/Host Name:** This will be the recipient server (destination server) where data will be sent to where the RTA agent is installed. This could be the IP address of the destination server, short name (NetBIOS), or FQDN name for as long as the source machine can resolve to connect to the RTA machine.
2. **Remote Port:** By default, GS RichCopy 360 uses TCP 8008 for its communication needs. This port is configurable. If changed, it is important to change it on the RTA agent as well (refer to RTA agent configuration).
3. **Block Size:** GS RichCopy 360 transmits the files in chunks when using the TCP method. It is highly recommended to leave it set to dynamic as it will determine the best chunk size. However, this option can be changed if needed. The default setting is 10MB and the accepted range is between 50KB and 25MB.
4. **Byte Replicator:** Byte Level allows you to transfer just the changed data in a file when synchronizing, instead of the entire file. This is useful in saving bandwidth especially when dealing with large file sizes. If this option is selected, then there are two additional parameters that can be configured:
 - Exclude Files Less than KB's:** Files that are smaller than the specified size will not go through byte level comparisons instead they will be copied fully in the event the source and target mismatch. This size should be greater than Block size.
 - Exclusion Extension:** Administrators may decide not to have files of certain extensions go

- through block level comparison for various reasons. If so, then setting those extensions and separating them with a semicolon if more than one extension is needed.
5. **Use Encryption:** Using encryption in GS RichCopy 360 is very easy to implement. What is required is to provide a User Name and a Passphrase. The combinations will later need to be retyped in the RTA agent (destination machine). GS RichCopy 360 supports AES 128 and AES 258. Encryption adds very little to no noticeable overhead when using modern CPUs which support AES instruction set.
 6. **Apply Compression before sending data to RTA agent:** One other advantage of using TCP method is the option to compress data before transmission. GS RichCopy 360 uses high and robust level of compression which is one of the most trusted, reliable, and robust compression algorithms defined to date.
 7. **Test:** If the Remote Transfer Agent is installed on the recipient (receiving) machine, then the test button can confirm if it can establish communication. If it reports that it is failing, then it is likely a firewall port issue or the RTA agent service is not started on the recipient machine.
- 5) Once a TCP job is configured on the client side (Source machine), similar configurations need to take place on the Remote Transfer Agent (destination machine). The RTA agent must first be installed on the destination machine before it can be configured (very light installation package). In the event the RTA is not installed, please refer to [installing Remote Transfer Agent](#). If the RTA is already installed on the destination machine, then follow these steps to complete the TCP job configuration.
- 6) On the destination server, launch the RTA management application



7) Click on New RTA Job Configuration



8. New RTA Agent screen you will be presented with different options to configure as displayed in the screenshot below. Please examine the different available options. Once all the options are selected and set then click Ok

The screenshot displays the 'RTA Job Configuration' window. It includes the following elements:

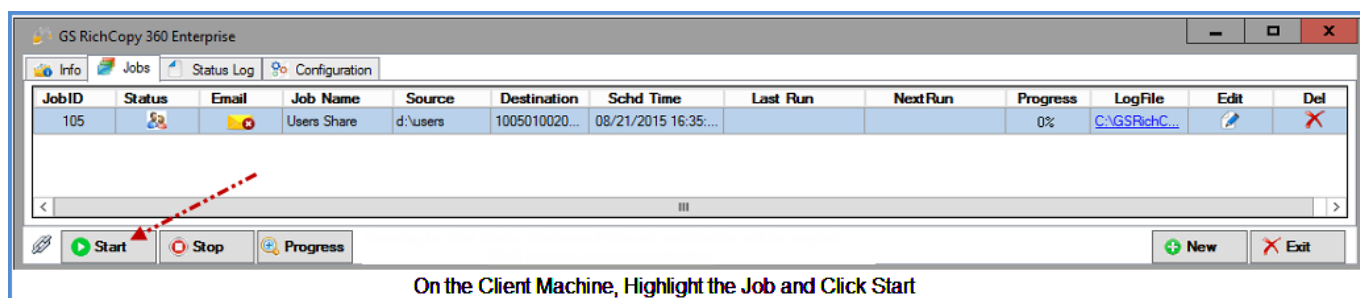
- Job Name:** A text field containing 'User Share from Fileserve01' with a red box labeled '1' over it.
- Description:** A text field containing 'User Share Replication from Fileserve01' with a red box labeled '2' over it.
- Job Serial:** A text field containing '1005010020503' with a red box labeled '3' over it. A 'Reset' button is located to its right.
- Destination:** A text field containing 'd:\data\users' with a red box labeled '4' over it. A folder icon button is to its right.
- Encryption:** A section with a checked checkbox and a red box labeled '5' over it. It contains:
 - User Name:** A text field with 'XA3F5765'.
 - Passphrase:** A text field with 'ABCYHS12'.
 - Encryption Options:** Radio buttons for 'AES-128 bit' and 'AES-256 bit' (which is selected).
- Sync Poisoning:** A section with an unchecked checkbox and a red box labeled '6' over it. It contains:
 - Backup Location:** A text field.
 - Max Size:** A text field followed by '(GB)'.
- Job Enabled:** A checked checkbox with a red box labeled '7' over it.
- Buttons:** 'Save' (with a green checkmark icon) and 'Cancel' (with a red X icon) buttons.
- Caption:** 'RTA Configuration Screen' at the bottom.

- 1) **Job Name:** This is the name of the job by which you will identify it. The name has to be unique. It is highly suggested to use a descriptive name such as “Accounting Data” or

“Copy Email Archive” so that other users/administrators can relate to the role of this job in the future.

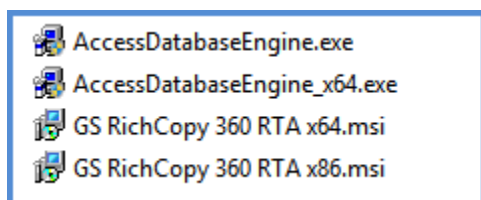
- 2) **Description:** This field is available to enter a description for the job.
- 3) **Job Serial:** The job serial **must match** the job serial presented on the client side (Source machine).
- 4) **Destination:** Type or browse to the path (folder) where you want to copy to. Note: This is relative to the destination machine not the source machine. **Note:** Path variables is supported in this field. Refer to [Environment Variable](#) section for more details.
- 5) **Encryption:** If encryption is set in the source job, then the user name and passphrase need to be provided to match what is configured in the source job.
- 6) **Sync Poisoning:** Sync Poisoning provides a safety net where data on the RTA server is backed up in the event it is about to get overwritten or deleted by its source job. Sync poisoning works in a very simple process. Should a file get deleted or overwritten by a newer file coming from the source job, then this file is moved over to the specified backup folder. The Max Size will purge files from the “backup location” as the Max Size threshold is reached. The deletion process will use FIFO as it is deletion criteria.
Note: Path variables is supported in this field. Refer to [Environment Variable](#) section for more details.
- 7) **Job Enabled:** This option enables the RTA server to accept incoming connections directed with this job serial. If the job is not enabled, any connections directed with this job serial will be rejected.

8) Click Save on the RTA configuration screen. The job is now ready to execute. Just start it from client screen.



Installing Remote Transfer Agent (RTA) Enterprise Only:

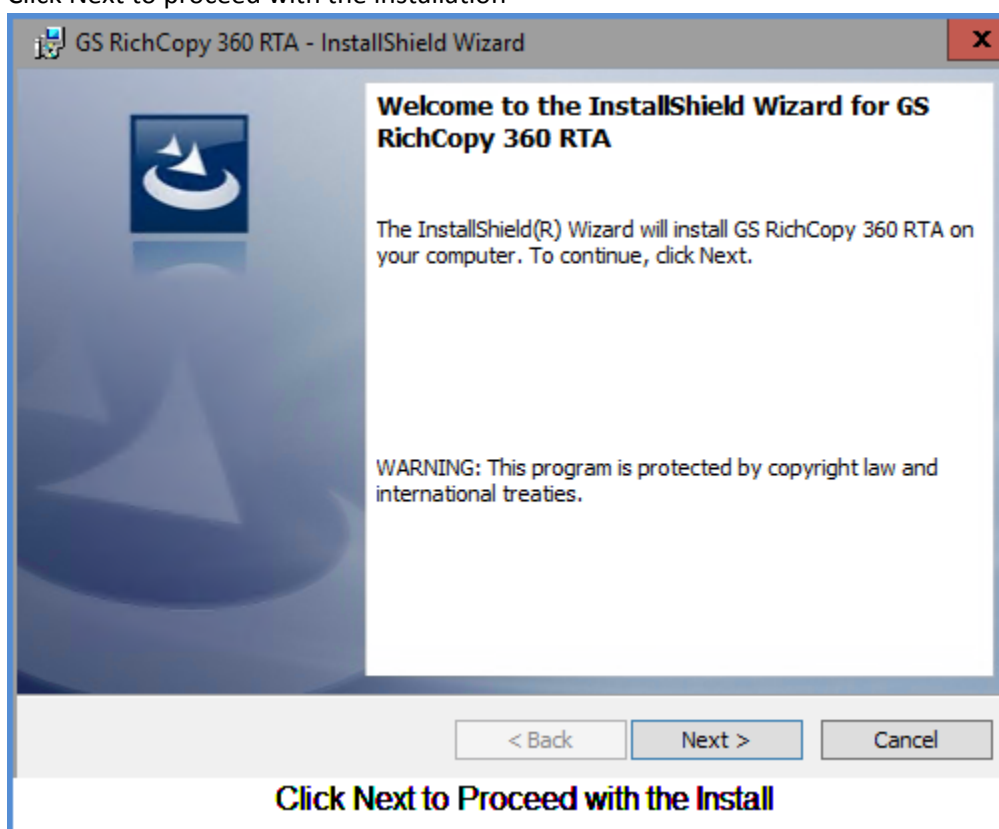
The Remote Transfer Agent comes in its own standalone installation packages. There is an installation package for 32 bit machines (GS RichCopy 360 RTA x86.msi) and one for 64 bit machines (GS RichCopy 360 RTA x64.msi) as reflected in the screenshot below.



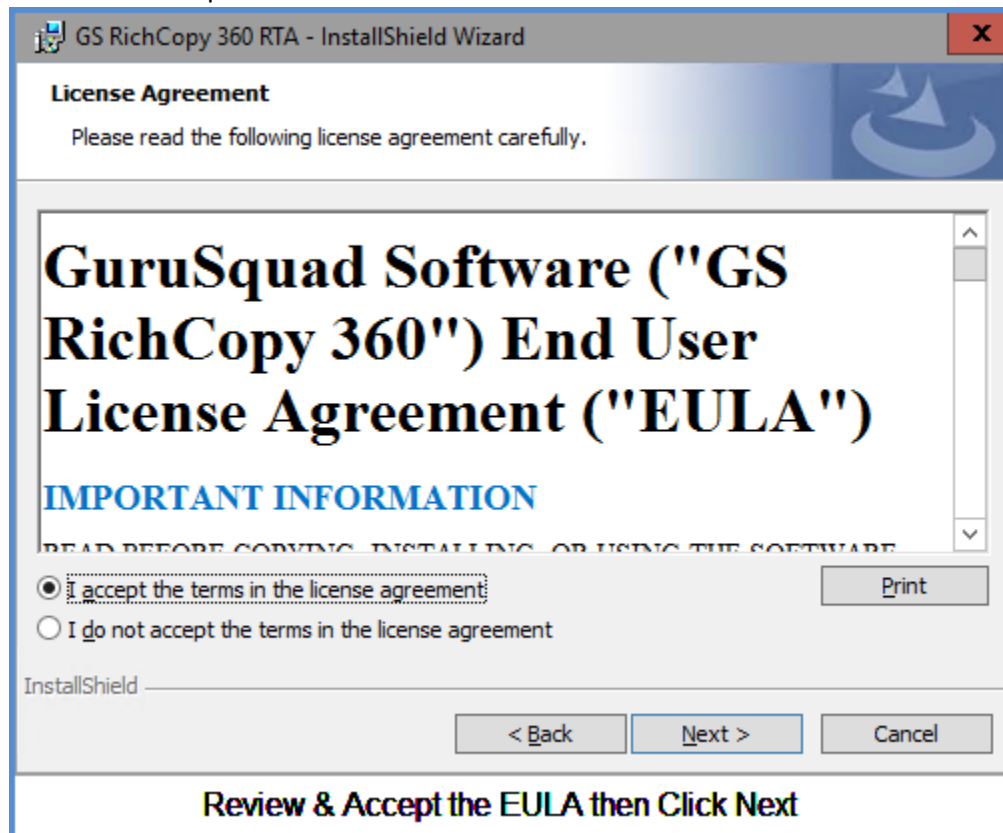
Please note Access Database engine is a prerequisite for RTA to function properly, it will be installed silently if needed. It needs to be in the same folder as the RTA MSI installation folder to get installed.

To install the RTA:

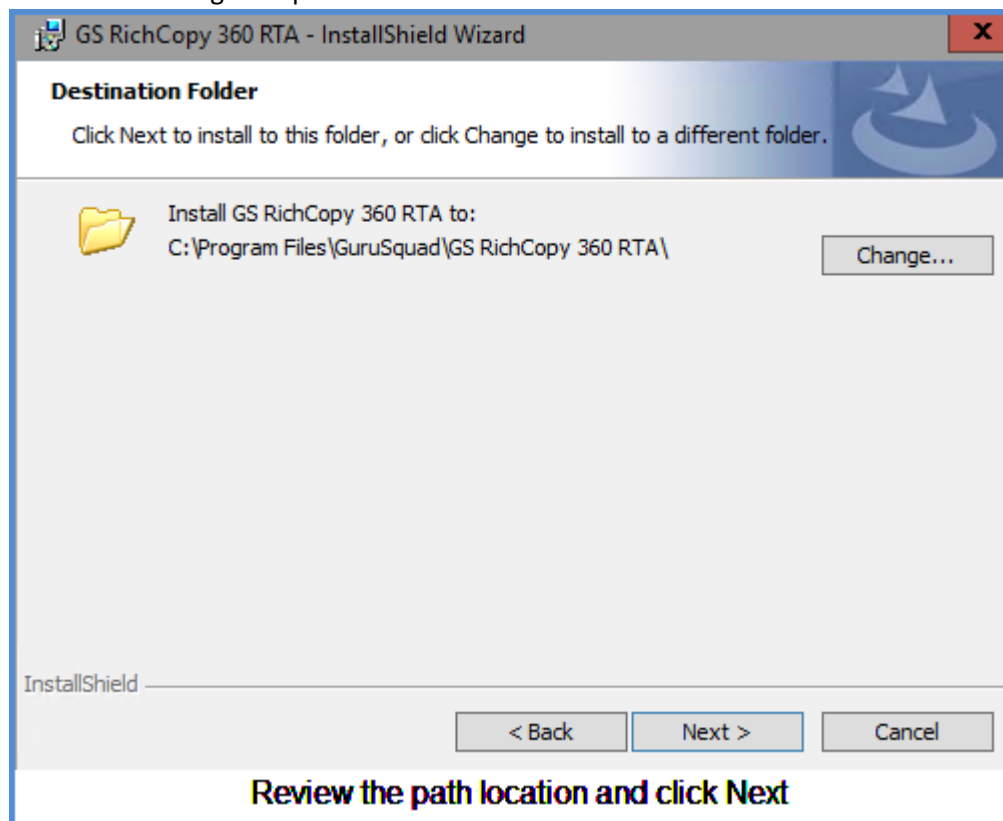
- 1) Double click on the installation MSI package corresponding to your OS platform (x86 or x64).
- 2) Click Next to proceed with the installation



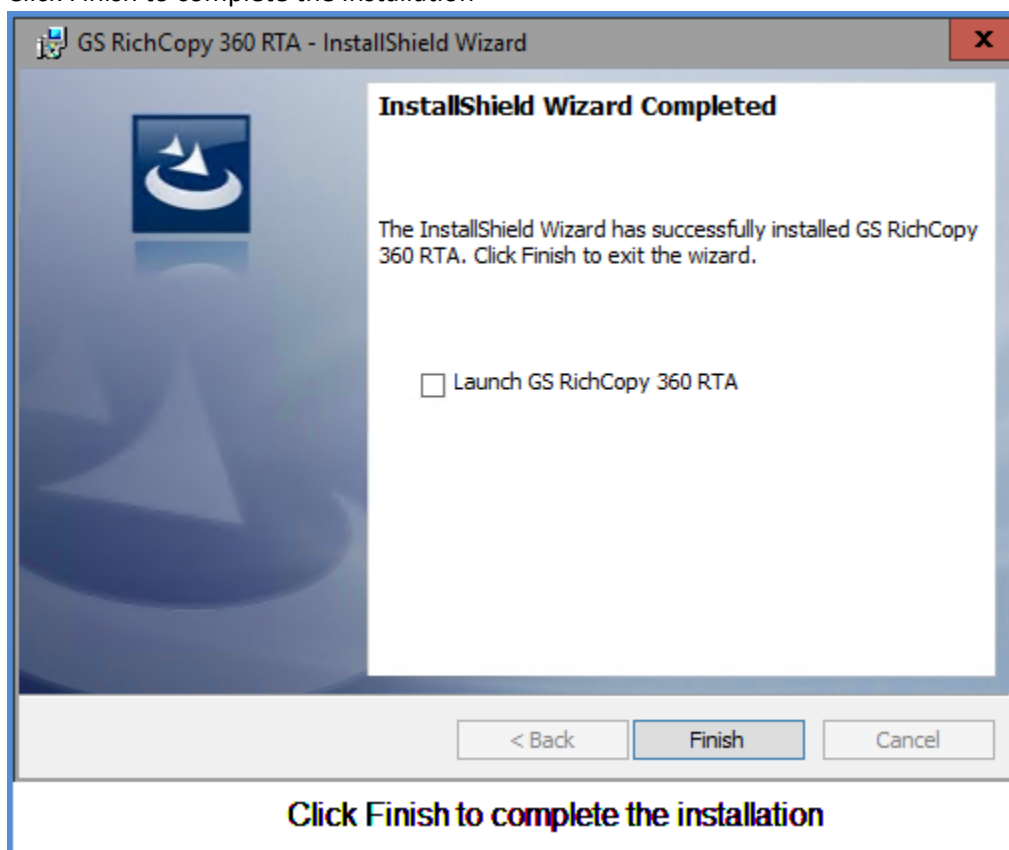
- 3) Review and accept the EULA then Click Next



- 4) Review and change the path location if needed then Click Next twice to start the installation



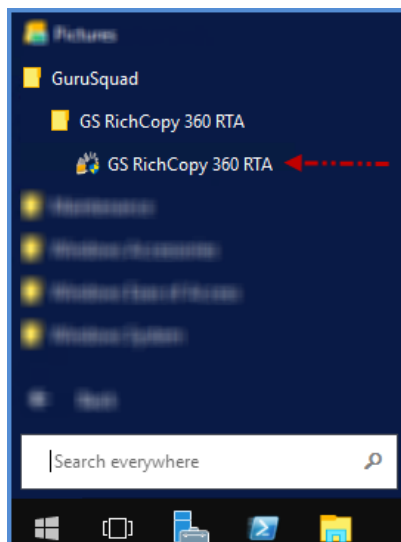
- 5) Click Finish to complete the installation



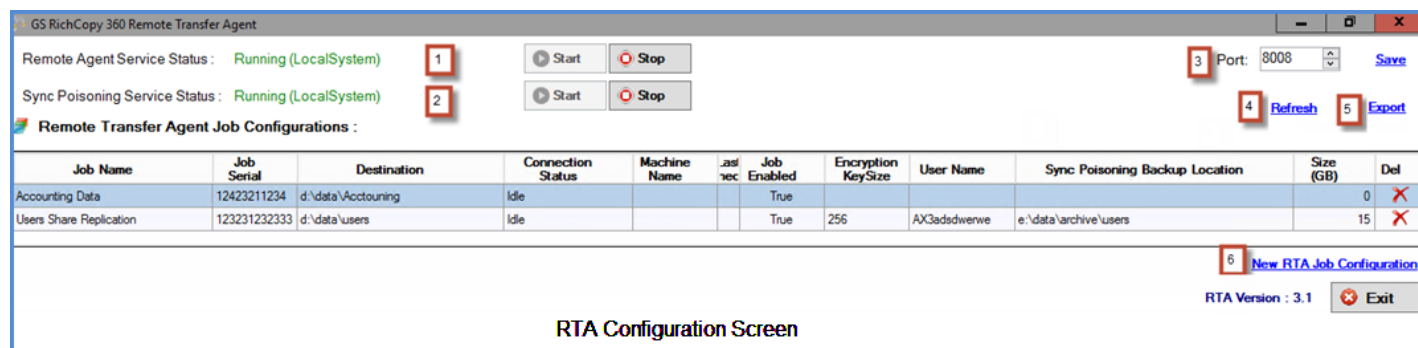
Configuring and Administering the Remote Transfer Agent (RTA) Enterprise Only

Once the RTA is installed on the target machine (destination machine). There are some minimal configurations that could be changed. However, upon a successful install, it should work out of the box. Here we will examine and familiarize you with the different available options in RTA screen.

There is a single management interface for RTA which could be launched from the start menu.



The RTA management screen provides a single pane of glass showing all current job activities in addition to overall configurations. Please examine the different settings to get more familiar with it.

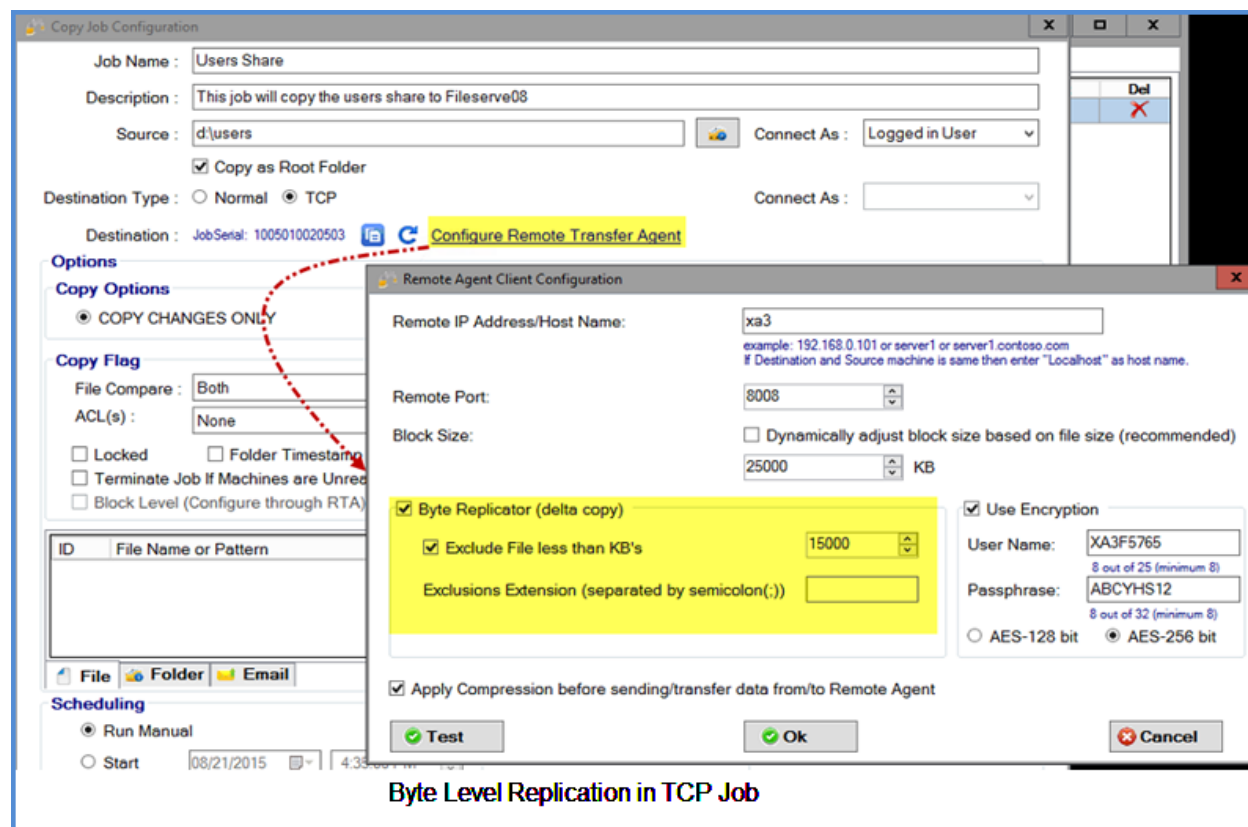


- 1) **Remote Agent Service Status:** RTA runs as a service. The service will either show as running or stopped along with the account it is running under. By default, it uses local system which has full access right to all local drives. The account can be changed from services.msc. The service is called: GS RichCopy 360 Enterprise RTA Service. The stop and start buttons change the status of the service. Stopping the service terminates all current jobs as well as stops the server from accepting any new connections.
- 2) **Sync Poisoning Service Status:** The service is in charge of keeping defined sync poisoning locations in various jobs below their assigned threshold. Note that by default it runs under the context of local system. Should there be a need to use a different account then the account credentials need to be changed in services.msc for the service named GS RichCopy 360 Enterprise Sync Poisoning Service. Similar to the RTA service, the start and stop buttons change the status of the sync poisoning service.

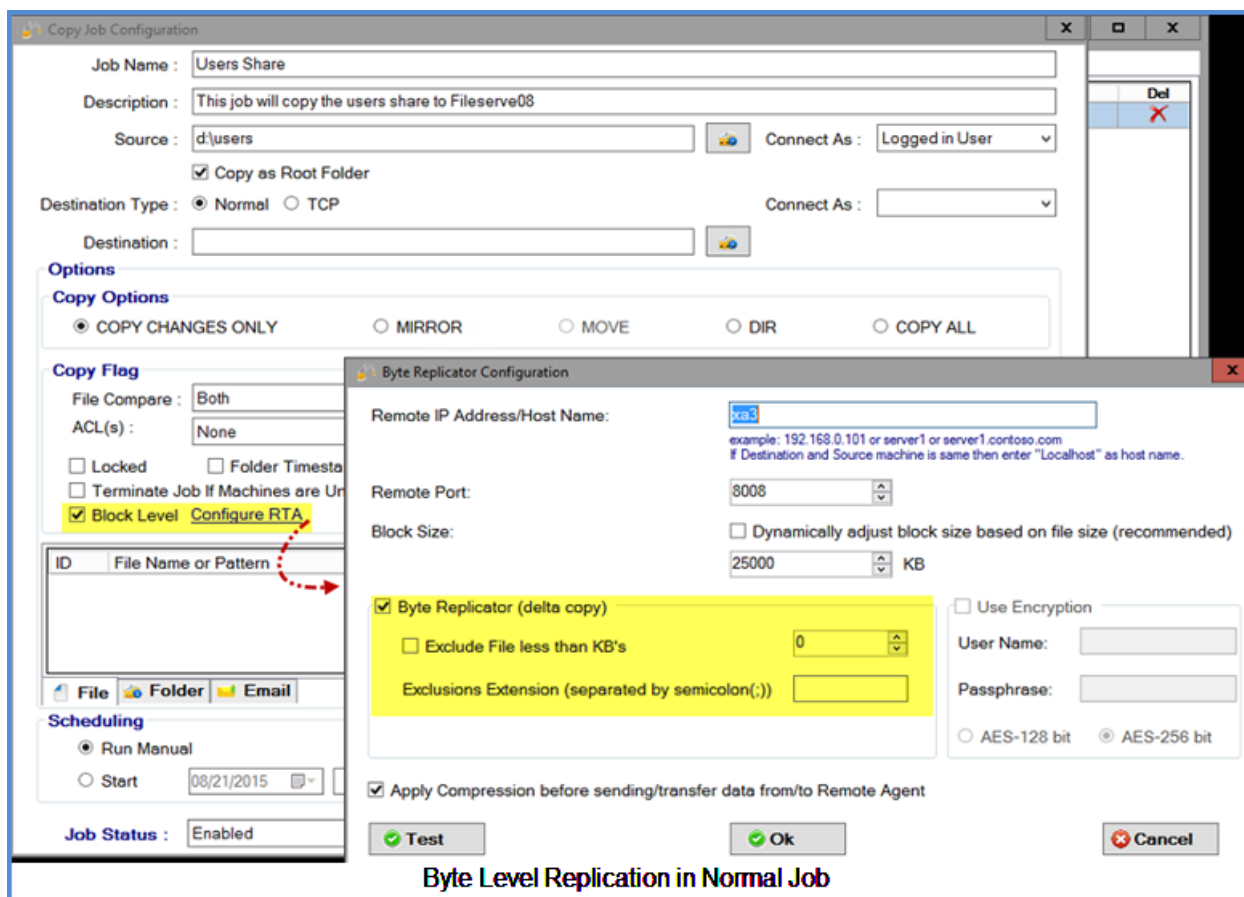
- 3) **Port:** RTA service uses port TCP 8008 by default. Should there be the need to use a different port, then this number can be changed and applied by clicking the save link. Recycling of the RTA service is going to be required for the new defined port to be used.
- 4) **Refresh:** The refresh link refreshes the current job activity screen. By default, the job activity screen refreshes every 15 seconds but the administrator has the option to refresh as needed.
- 5) **Export:** Export provides the option to export currently defined jobs to a CSV file.
- 6) **New RTA Job Configuration:** TCP jobs require to be setup on the RTA server (receiving end). Clicking on this link presents a new TCP job configuration screen.

Byte Level Replication (Enterprise Only):

Byte Level allows you to transfer just the changed data in a file when synchronizing, instead of the entire file. This is useful in saving bandwidth especially when dealing with large file sizes. Byte level replication is available in both copy methods TCP and Normal however in TCP jobs it has to be enabled from the RTA configuration screen where in Normal jobs it is configured from. Please see screenshot below for further clarification.



Byte Level Replication in TCP Job



Byte Level Replication in Normal Job

It is **important** to note that byte level replication requires the installation of RTA on the target (destination) machine even if the job is set as a normal job. There are no configuration settings required on the RTA side once the RTA agent is installed. Refer to [Installing RTA agent](#).

One added feature when using Byte Level Replication is that the application of permissions, date and time stamp and attributes is offloaded to the RTA agent on the target machine which could cut down the time taken to apply them by as much as 90%. There are no additional requirements needed to turn this feature on as it automatically works as soon as Byte level replication is enabled and configured.

In TCP jobs, the RTA configuration on the client side inherits the settings of the TCP job when it comes to hostname, port, block size, and compression. In Normal jobs however, byte level replication requires to have the settings set. The settings are:

1. **Remote IP Address/Host Name:** This will be the recipient server (destination server) where data will be sent to where the RTA agent is installed. This could be the IP address of the destination server, short name (NetBIOS), or FQDN name for as long as the source machine can resolve to connect to the RTA machine.
2. **Remote Port:** By default, GS RichCopy 360 uses TCP 8008 for its communication needs. This port is configurable. If changed, it is important to change it on the RTA agent as well (refer to RTA agent configuration).
3. **Block Size:** GS RichCopy 360 transmits the files in chunks when using the TCP method. It is highly recommended to leave it set to dynamic as it will determine the best chunk size.

However, this option can be changed if needed. The default setting is 10MB and the accepted range is between 50KB and 25MB.

4. **Byte Replicator:** Byte Level allows you to transfer just the changed data in a file when synchronizing, instead of the entire file. This is useful in saving bandwidth especially when dealing with large file sizes. If this option is selected, then there are two additional parameters that can be configured:
Exclude Files Less than KB's: Files that are smaller than the specified size will not go through byte level comparisons instead they will be copied fully in the event the source and target mismatch.
Exclusion Extension: Administrators may decide not to have files of certain extensions go through block level comparison for various reasons. If so, then setting those extensions and separating them with a semicolon if more than one extension is needed.
5. **Apply Compression before sending data to RTA agent:** One other advantage of using TCP method is the option to compress data before transmission. GS RichCopy 360 uses LZ4 compression which is one of the most trusted, reliable, and robust compression algorithms defined to date.

Encryption is not available in Normal jobs thus the encryption option is greyed out in byte level configuration screen. Encryption with byte level replication is not available when using TCP jobs.

Sync Poisoning Protection (Enterprise Only):

Replication is a powerful tool, but it also isn't discriminating. If a series of files becomes corrupt or a user incorrectly alters a file at the source drive, those unwanted changes will be replicated to the copy location as well, unless the replication is handled by GS RichCopy 360 Enterprise. Whenever a file is modified at the source, 360 Enterprise offers Sync Poisoning feature to back up the copied original at the destination target drive location to another location before replicating the newly altered file. This ensures that you always have a prior version of every adulterated file that you can go back to. GS RichCopy 360 Enterprise ensures that the availability and integrity of your files is always preserved.

Sync Poisoning is defined and configured per job basis. Each job has a configurable threshold to set a quota if desired which is monitored real-time, so backup disk never goes out of space.

Sync Poisoning is only available in TCP Jobs and is configured from the RTA server. Please refer to the screens below on how to configure it.

The screenshot shows the 'RTA Job Configuration' dialog box. The 'Job Name' is 'HRData' and the 'Description' is 'HR Data from NYCFLS09'. The 'Job Serial' is '1065040225402' with a 'Reset' button. The 'Destination' is 'D:\Data\HRData'. The 'Encryption' section is collapsed. The 'Sync Poisoning' checkbox is checked and highlighted with a yellow box, with a red box labeled '1' next to it. Below it, the 'Backup Location' is 'z:\backup\HRData' with a red box labeled '2' next to it. The 'Max Size' is '500' (GB) with a red box labeled '3' next to it. The 'Job Enabled' checkbox is checked. At the bottom are 'Save' and 'Cancel' buttons.

- 1) **Sync Poisoning:** It is available and defined per TCP job basis. To enable it, simply check its box and define its sub settings.
- 2) **Backup Location:** The backup location is where files and folders in the destination location will be moved to this backup location should that version of the file get deleted or overwritten by a

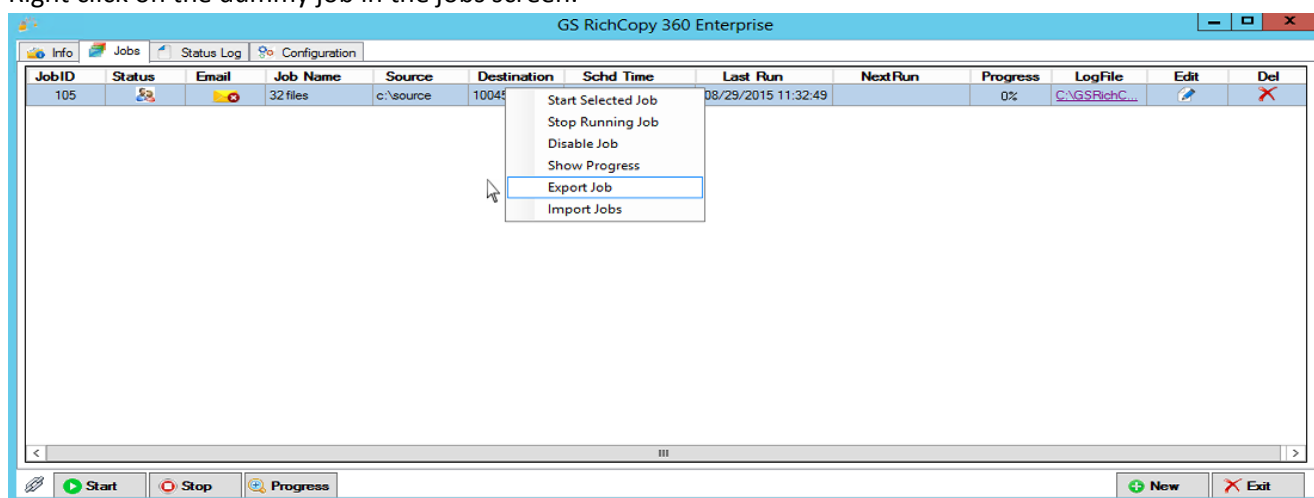
newer file coming from the source job. The same directory structure is mirrored in the backup location so that files can quickly be identified.

- 3) **Max Size:** To prevent the backup location from running out of space, system administrator may set a threshold so that should the backup location reach that threshold, Sync Poisoning will clean it up using FIFO algorithm (First In First Out).

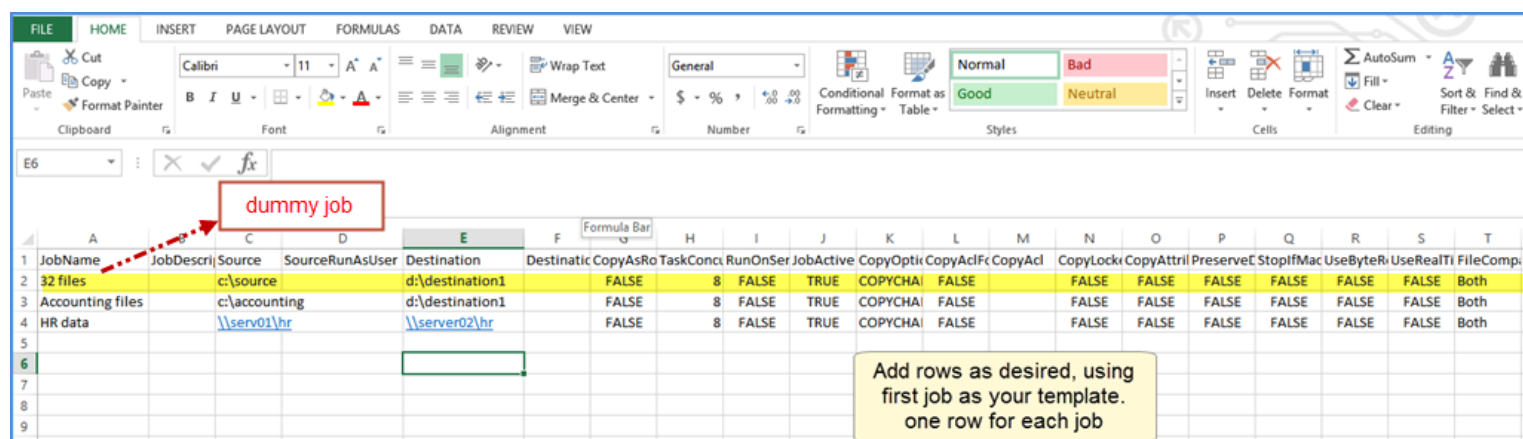
Exporting and Importing batch jobs from CSV (Enterprise Only):

System administrators have the ability to import thousands of jobs in a matter of a few clicks. Here are the steps to do so:

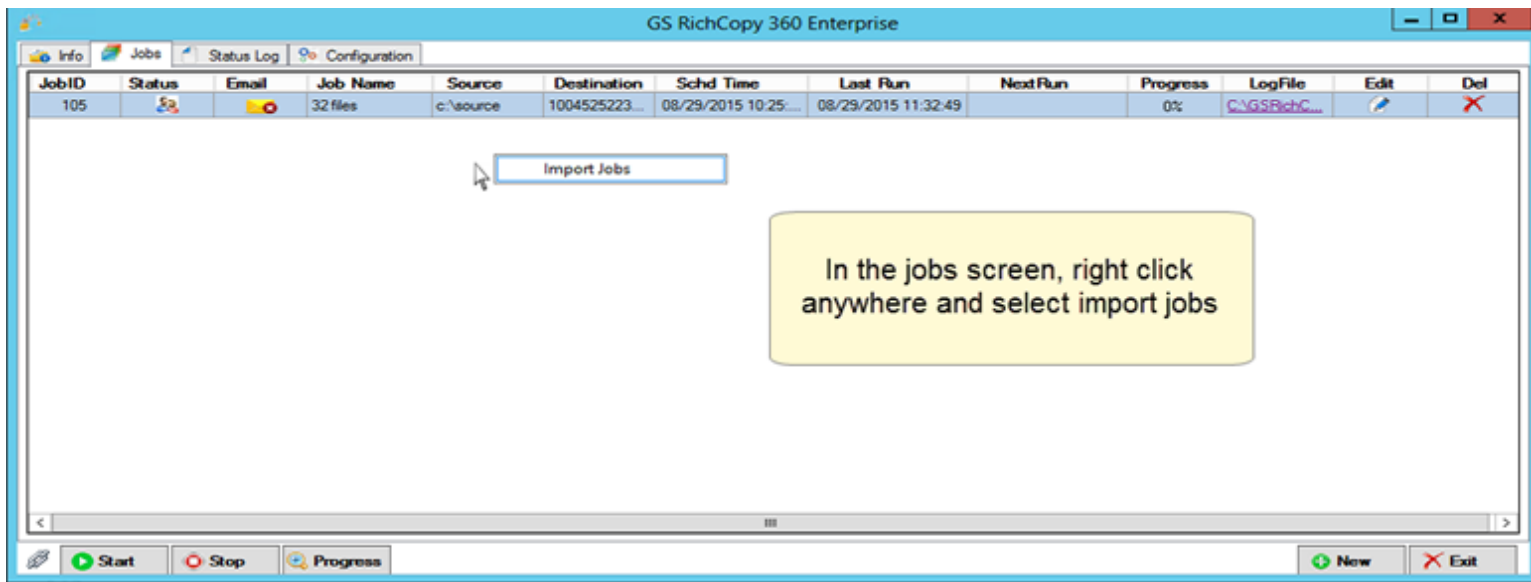
- 1) Create a dummy job which would act as a template for the jobs you want to import. The main focus is to make all the necessary selections such as type of job (copy changes, mirror, directory structure), inclusion\ exclusion filters, whether to run once, run at a specific time, repeat intervals ...etc. Then click on Save to save the job.
- 2) Right click on the dummy job in the jobs screen.



- 3) Save the exported CSV file.
- 4) Open up the CSV file in a spreadsheet program such as MS Excel and copy and duplicate the dummy job. Each row will be imported as a job. Each job must contain a different job name. Make sure you specify the source and destinations as needed and save the file (as a CSV)



- 5) Go back to GS RichCopy 360, click on the Jobs tab and right click anywhere and select import jobs



- 6) The import screen will pop up. Then:
 - a. Click browse to browse to the file.
 - b. Click Validate to validate the jobs are not duplicated and all the set values in the CSV are as expected. Once the validation runs through, any green rows are valid jobs, any red rows are rows with errors. If there are any errors, then the errors can be seen scrolling to the right would under the error column
 - c. Click import to start importing the jobs. Jobs with error will be skipped.
- 7) Confirmation will be displayed once the job import is successful.
- 8) Going back to the jobs screen, all imported jobs should be displayed.

Status Log Screen:

Status Log Tab displays a summary of all jobs that are running or have run already. Very useful information can be obtained from the Status Log Tab such as:

- 1) Job Name
- 2) Job status (In Progress, Successful, Stopped, or Failed).
- 3) Which user context the job ran under
- 4) Start and End time (if job completed)
- 5) Job ID (in the event contacting technical support for further assistance.
- 6) If the job encountered errors or warnings, then it would give what these error and warnings were.
- 7) Job summary. Note placing the mouse on a field would display the full text contained in the field.

Please refer to the screen shot below

History ID	Job Id	Job Name	Start At	Finish At	RunBy	Status	Error	Warning	JobSummary
8440	106	Copy of Users Share	08/25/2015 11:05:05	08/25/2015 11:06:31	aamin	Error	Files not copied : 1Locked...		Delete files on target : 0De...
8439	106	Copy of Users Share	08/25/2015 11:02:25	08/25/2015 11:03:59	aamin	Error	Files not copied : 1Locked...		Delete files on target : 0De...

Command Line Support:

GS RichCopy 360 Standard and Enterprise both offer command line support. This is highly useful for administrators that are looking to automate job management and creation from the command line.

The command line offers the ability to manage installed GS RichCopy 360 clients installed locally and ones that are installed on remote machines. This provides administrators the option to mass configure\manage clients from one central machine.

Over the next few sections we will cover the different command line options and where they are used along with simple to follow examples. Most importantly, we will cover the Generate Command Line Script which provides a full syntax from a pre-defined job so that administrators can save time and efforts in terms of figuring out the right syntax to use.

Note: The CLI fully supports environment variables. Refer to [Environment Variable](#) section for more details.

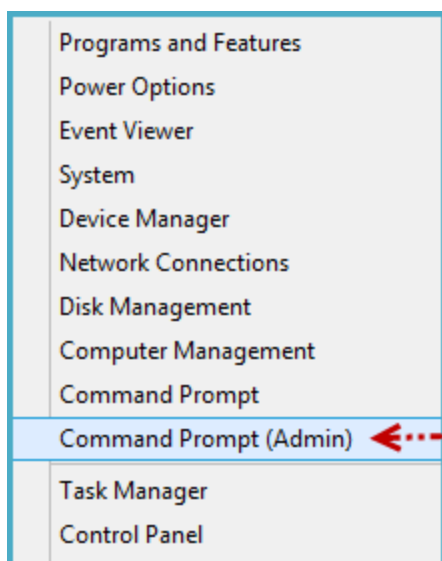
We will break down the command line into two different sections:

- 1) GS RichCopy 360 Clients: This section will cover how to manage clients using CLI. There are two CLI commands that can be used:
 - a. **GSRichCopy360.exe**: This is used to set actions such as creating, deleting, enabling and disabling job.
 - b. **GSAPI.exe**: GSAPI is used to retrieve information about jobs defined in GS RichCopy 360 Clients. It can report on job running status, job history, and list of jobs defined. Note that GSAPI is only available in GS RichCopy 360 Enterprise.
- 2) GS RichCopy 360 RTA: This section will cover how to manage RTA servers using CLI.

GS RichCopy 360 Client CLI “GSRichCopy360.exe”:

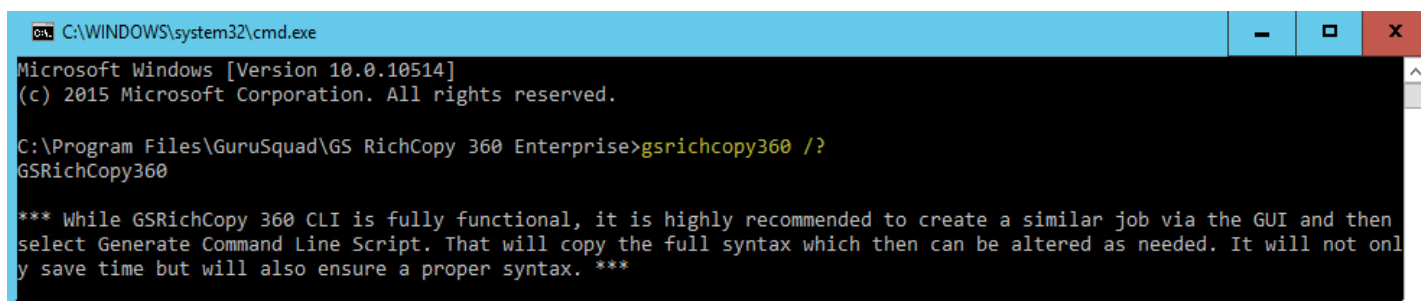
As stated earlier, GS RichCopy 360 client CLI is used to manage installed clients locally and on remote machines.

To access the CLI version of GS RichCopy 360, run command prompt as an administrator (right click on the start menu and select Command Prompt (Admin) as the screenshot below. **Note:** If there is a requirement where users without admin privileges need the ability to run GS RichCopy 360 CLI, then refer to “[Enable Remote Management and Grant Access for Users without Admin Privileges](#)”

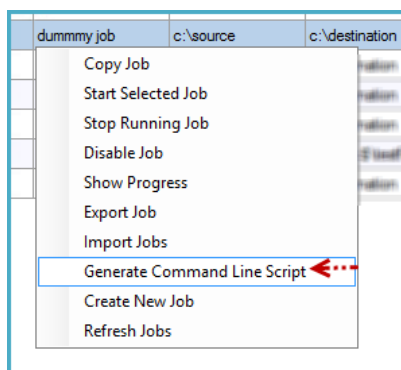


Once in the command prompt navigate to the GS RichCopy 360 folder. By default, it is installed in (C:\Program Files\GuruSquad\GS RichCopy 360 Enterprise) for the enterprise and (C:\Program Files\GuruSquad\GS RichCopy 360) for the standard version.

To list all the available parameters in the command line, type **gsrichcopy360.exe /?** and it will display all available commands and optional parameters as per the screen below.



Important Tip: Before we dig any deeper, it is important to know that an administrator can create a template job in the GS RichCopy 360 GUI and generate a command line script for that job. This would simplify the need of having to find out the right syntax and save on time spent to script the job via CLI.



This is most useful when the intent is to script a job creation. It is extremely easy to generate a command line script from the GUI. All what is required after the “dummy job” is created with all of its options (copy options, scheduling, include\exclude filters...etc) is to right click on the job and select Generate Command Line Script which would copy the full syntax to the clipboard which can later be pasted in Notepad or CLI to be changed or executed.

Usage: **GSRichCopy360.exe** [Action Command] [Required Parameters] [Options]

Action Commands: There are several action commands that can be issued via CLI. Please note that different commands will have different required and optional parameters. Studying supplied examples will provide great clarity on when and how to use each of them. It is important to note that jobs must be configured to run as a service to be set to run from the CLI.

:: Action Commands: The following are the available commands that can be used:

Command	Description
enablejob	Enable an existing job.
disablejob	Disable an existing job.
runexistingjob	Run an existing job that has already been created.
deleteexistingjob	Delete an existing job.
stopexistingjob	Stop an existing job that is currently running.
createjob	Create a new job.
createandrunjob	Create a new job and run it.

The commands EnableJob, DisableJob, RunExistingJob, DeleteExistingJob, and StopExistingJob share the same required parameters which is basically to specify which job to apply the action to. Jobs can be referenced by Job ID (JobID) or Job Name (JobName). Syntax would look something similar to this:

Enablejob jobname:"Account Job" OR **DeleteExistingJob** jobid:115

As for CreateJob and CreateAndRunJob, they have several required and optional parameters. Please reference below to get familiar with the available parameters. (**Remember**, using Generate CLI Script from the GUI would save administrators from having to assemble a job creation command. However, it is strongly advised to get familiar with the different options so that once a job is CLI generated from the GUI, it can be modified as desired.)

Note: Administrators have the ability to set the Job Serial via the command line. All manually set Serial Jobs have to be prefixed by 99999 and should be 13 character long numeric value. This can be useful in scenarios where the administrator wants to automate job creation on the client and the RTA server. For more information, type `gsrichcopy360 /?` From the command prompt (must be in the folder: Program Files\GuruSquad\GS RichCopy 360 Enterprise) or study [example 7](#) below.

<deletejobwhencomplete> --It will be used only with createjob and createandrunjob. Default is false.

<"jobdescription:<jobdescription>">

"source:<source folder path>"

"destination:<destination folder path>"

<"sourceusername:username <sourcepassword:password>> | <sourcerunasuser:<account name connect as configured in app>">

if sourcepassword is not passed with sourceusername then it will be prompted and will not be stored in the database for future use. Note: this option cannot be associated with recurring jobs.

SourceUserName:domain\username or user@domain.com

<"destinationusername:username <destinationpassword:password>> | <destinationrunasuser:<account name connect as configured in app>">

if destinationpassword is not passed with destinationusername then it will be prompted and will not be stored in the database for future use. Note: this option cannot be associated with recurring jobs.

DestinationUserName:domain\username or user@domain.com

<preservecredentials> --Default is Off. it will be use with sourceusername,destinationusername and if user has not selected to prompt for password.

<fileexc:<Comma separated values>>

<fileinc:<Comma separated values>>

<folderexc:<Comma separated values>>

<filderinc:<Comma separated values>>

<jobinactive> --Default is Active/Enabled

<runonservice> --Default is Off -- Note: This parameter must be used with createandrunjob, and jobs that are scheduled.

<copyasroot> --Default is Off

<instantcopy> --Default is Off

<copylockedfile> --Default is Off

<copyattributes> --Default is Off

<preservedatetimestamp> --Default is Off

<stopifmachineunreachable> --Default is Off

<copyacl:FileFolder|File"> --Default is Off

<copyaclforskipppedfiles> --It may be used only if CopyAcl is FileFolder

<COPYALL|MIRROR|MOVE|DIR|COPYCHANGES>

<"filecompareoption:COPY ONLY NEWLY CREATED FILES|SKIP IF DESTINATION IS NEWER|TIMESTAMP + SIZE|FILE SIZE|MODIFIED TIMESTAMP"> --Default is TIMESTAMP + SIZE

<"taskconcurrency:<1-256>"> --Task Concurrency must be in range of 1-256. Default is 4.

<"folderdepth:<folder depth to scan>"> --Default is 0. Folder depth must be in range of 1-99.

<userealtime <realtimeonacl> <realtimeonattribute> "realtimeincext|realtimeexext:<comma separated extension>"> (Note: UseRealTime is only available in GS RichCopy 360 Enterprise).

<"datefilterfromdate:<dd-MMM-yyyy HH:mm>" "datefiltertodate:<dd-MMM-yyyy HH:mm>" | "datefilterlastdays|datefilterpriordays|datefilterlastmins:value must be 1-10000">

--Default Log is Off

<logenabled "loglevel:All|Error(Default)|Diagnostic" "logpath:<log file path>" logappend(Default is off) logsize:<logsize> --Log File Size must be in range of 1-50000 MB. Default is 5000 MB.>

<mailactive mailto:<mail address> mailcc:<mail address> mailbcc:<mail address> --Default is Off

"recurrencescheduled:RunOnSchedule|RunOnce"

"startdatetime:<dd-MMM-yyyy HH:mm>"

--Following recurrence settings are applicable only if recurrencescheduled is selected RunOnSchedule.

"recurstartdate:<dd-MMM-yyyy>" "recurstarttime:<HH:mm:ss>" "recurendtime:<HH:mm:ss>"

<TerminateCondition:<ENDAFTEROCCURENCE|ENDBYDATE> <terminateconditionvalue:<numeric with ENDAFTEROCCURENCE|date with ENDBYDATE>>

"recurinterval:<it should be in Once, 2 minutes, 5 minutes, 10 minutes, 15 minutes, 30 minutes, 60 minutes, 4 hours, 8 hours, 12 hours, 16 hours,23 hours. Default is 2 minutes.>"

"recurpattern:DAILY|WEEKLY|MONYHLY|YEARLY"

"recurevery:1"

"monthno:MonthNo must be in range 0-11." "monthdayno:MonthDayNo must be in range 0-30."

"weekno:WeekNo must be in range 0-4." "weekdayno:<WeekDayNo must be in range 0-6.>" --user can pass multiple entries comma separated.

--RTA Configuration if TCP Copy or Block Copy is selected (Note: TCP and Block copy are only available in GS RichCopy 360 Enterprise).

<usebyterepliator extensiontoexclude:<comma separated extensions>

excludefilesizeinkb:<ExcludeFileSizeinKB must be in range of 0-1000000 KB. Default is 15000 KB. it must be greater than MinBlockSizeKB.>>

usetcpcopy

<"jobserial:<jobserial prefixed with 99999 and should be 13 character long numeric value.>"> --If value not passed for jobserial and TCPCopy is selected then job serial will be calculated internally.

"ipaddress:<RTA IpAddress>"

"port:<RTA Port must be in range of 1-65535. Default is 8008.>"

"minblocksizekb:<MinBlockSizeKB must be in range of 50-25000 KB. Default is 10000 KB.>"

<usecompression> --Default is Off

--Encryption may be used with only usetcpcopy parameter. Default encryption is Off.

"<useencryption username:<minimum 8 character length> passphrase:<minimum 8 character length> encryptionkeytype:<AES-128|AES-256(Default)>>"

CLI GSRichCopy360.exe Examples:

[Example 1:](#) This command will copy changes only from c:\source to \\server\share with several copy flags:

```
GSRichCopy360.exe createjob "jobname:Test Job" "source:c:\source" "destination:\\server\share"
"taskconcurrency:4" runonservice DIR "copyacl:Folder" "filecompareoption:File Size"
"recurrencescheduled:RunOnce" "startdatetime:13-Feb-2016 19:30"
```

[Example 2:](#) This command will mirror c:\source to \\server\share and send an email to multiple recipients. The is scheduled to run once at 19:30 of that day (7:30PM in military time):

```
GSRichCopy360.exe createjob "jobname:Test Job" "jobdescription:Mirror Job" "source:c:\source"
"destination:\\server\share" copyasroot "taskconcurrency:4" runonservice MIRROR "copyacl:Folder"
"filecompareoption:File Size" logenabled "loglevel:Error" "logpath:c:\logs\testjob.log" mailactive
"mailto:user1@company.com,user2@company.com" "mailcc:user3@company.com"
"mailbcc:user4@company.com" "recurrencescheduled:RunOnce" "startdatetime:19:30"
```

[Example 3:](#) This command will move data from c:\source to \\server\share and will run every day and repeat every 5 minutes:

```
GSRichCopy360.exe createjob "jobname:Test Job" "jobdescription:Mirror Job" "source:c:\source"
"destination:\\server\share" copyasroot "taskconcurrency:4" runonservice MOVE "copyacl:Folder"
"filecompareoption:File Size" "recurrencescheduled:RunOnSchedule" "startdatetime:12-Feb-2016
19:30" "recurstartdate:12-Feb-2016" "recurstarttime:00:00:00" "recurendtime:23:59:59"
"recurinterval:5 minutes" "recurpattern:DAILY" "recurevery:1"
```

[Example 4:](#) This command will create and run DIR command from c:\source to \\server\share using a specified username and will prompt for password Then will delete the job once it is completed:

```
GSRichCopy360.exe createandrunjob "jobname:Test Job" "jobdescription:Mirror Job"
"source:c:\source" "destination:\\server\share" destinationusername:corp\admin1 "taskconcurrency:4"
runonservice DIR "copyacl:Folder" "filecompareoption:File Size" "recurrencescheduled:RunOnce"
"startdatetime:13-Feb-2016 19:30" deletejobwhencomplete
```

[Example 5:](#) This command will enable a job on a remote machine:

```
GSRichCopy360.exe serviceip:192.168.0.10 enablejob jobid:115
```

[Example 6:](#) This command will create a TCP copy job using AES256 encryption and compression and will repeat every Monday:

```
GSRichCopy360.exe createjob "jobname:Test Job" "jobdescription:Mirror Job" "source:c:\source"
"taskconcurrency:4" runonservice DIR "copyacl:Folder" "filecompareoption:File Size"
"recurrencescheduled:RunOnSchedule" "startdatetime:13-Feb-2016 19:30" "recurstartdate:13-Feb-
2016" "recurstarttime:00:00:00" "recurendtime:23:59:59" "recurinterval:Once"
```

```
"recurpattern:WEEKLY" "recurevery:1" "WeekDayNo:1" usetcpcopy "ipaddress:192.168.0.200"
"port:8008" "minblocksizekb:10000" usecompression useencryption "username:DC4ZE2QOQP"
"passphrase:OLMECAE4P31P3MZZ1B1UQJXDF1EFYUNR" "encryptionkeytype:AES-256"
```

Example 7: This command will create a TCP copy job and set the Job Serial to 9999912345678

```
GSRichCopy360.exe createjob "jobname:Accounting Archive" "source:c:\source" copyasroot
"taskconcurrency:4" runonservice COPYCHANGES copylockedfile copyattributes
"filecompareoption:Timestamp + Size" logenabled "loglevel:Error" "logpath:c:\logs\accounting.log"
mailactive "mailto:itahmed@hotmail.com" "recurrencescheduled:RunOnSchedule" "startdatetime:16-
Feb-2016 21:49" "recurstartdate:15-Feb-2016" "recurstarttime:07:00:00" "recurendtime:10:59:59"
"recurinterval:5 minutes" "recurpattern:DAILY" "recurevery:1" usetcpcopy
"ipaddress:rtaserv01.acme.com" "port:8008" "minblocksizekb:10000" jobserial:9999912345678
```

Retrieving Job Information from GS RichCopy 360 Client “GSAPI” CLI (Enterprise Only)

GSAPI is used to retrieve information about jobs defined in GS RichCopy 360 Clients. It can report on job running status, job history, and list of jobs defined.

GSAPI.exe is accessed from Windows Command Prompt. Once in the command prompt navigate to the GS RichCopy 360 folder. By default, it is installed in (C:\Program Files\GuruSquad\GS RichCopy 360 Enterprise).

To list all the available parameters in the command line, type **GSAPI.exe /?** and it will display all available commands and optional parameters as per the screen below.

```
C:\WINDOWS\system32\cmd.exe
C:\Program Files\GuruSquad\GS RichCopy 360 Enterprise>GSAPI.exe /?
Usage:
GSAPI [-serviceip:<localhost is default> -serviceport:<8889 is default>] -<getjoblist|getjobstatus|getjobhistory>
id:job#>|<jobname:name of job> [-ft]|-json [-list:int]
```

Usage: **GSAPI.exe** [Action Command] [Options]

Action Commands: There are several action commands that can be issued via CLI. Please note that different commands will have different required and optional parameters. Studying supplied examples will provide great clarity on when and how to use each of them. It is important to note that jobs must be configured to run as a service to be set to run from the CLI.

:: Action Commands: The following are the available commands that can be used:

Command	Description
Getjoblist	Provides a list of all existing jobs.
Getjobstatus	Provides status of an existing job (running, stopped...etc.).
Getjobhistory	Provides history job details.

If GSAPI.exe is not used with any optional parameters then it will report on all jobs. However, it can also be narrowed down to a specific job using the parameters “-JobName” and “-JobID” at which point it would report information relating to the specified job.

GetJobHistory parameter can make use of one more optional parameter “-list”. GetJobHistory by default reports back the entire when reporting on specific job. Using list however, returns only the latest X job history details for specified job.

Results of GSAPI.exe will be displayed in a tabular format by default (-ft). Administrator may pass the parameter -json which displays results in JSON format.

CLI GSAPI Examples:

Please reference the details below about GSAPI.exe and study the provided examples.

[Example 1:](#) GSAPI.exe -getjobhistory -jobname:"Accounting Data Archive"

[Example 2:](#) GSAPI.exe -getjobstatus -json -jobid:103

[Example 3:](#) GSAPI.exe -getjoblist -json

[Example 4:](#) GSAPI.exe -getjobstatus -ft -jobid:103

[Example 5:](#) GSAPI.exe - getjobhistory -jobname:"Accounting Data Archive" -list:5

[Example 6:](#) GSAPI.exe - getjobhistory -jobid:"105" -list:5

[Example 7:](#) GSAPI.exe - getjobhistory -jobid:"105"

Enable Remote Management and Remove Admin Privileges Restriction:

By default, the CLI commands (GSRichCopy360.exe and GSAPI.exe) will execute on the local machine they are run on. However, GS RichCopy 360 extends the option to issue commands to a remote machine. To do so, the command should include the parameter: serviceip:<IP Address or hostname>. By default, it would use the port TCP 8889. If the default port is changed on the client, then the command serviceport:<portnumber> should be used.

Here is an example that would enable a job on a remote machine to further clarify:

GSRichCopy360.exe ServiceIP:192.168.0.10 enablejob jobid:115

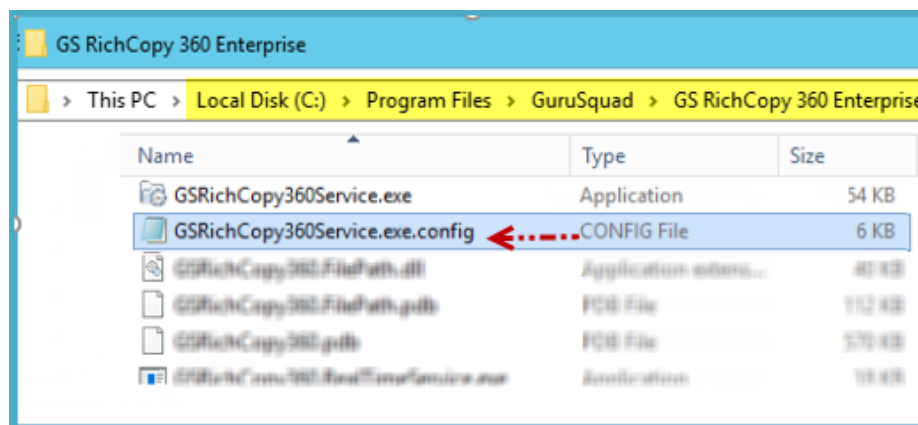
GSAPI.exe -ServiceIP:192.168.0.10 -getjobhistory

Please note that by default GS RichCopy 360 clients:

- 1) Only allow CLI from the local machine itself by default. If a client needs to be managed from another machine, then a config file must be edited on the client that is allowing its management to specify the allowed IP addresses.

Complete the following steps grant other machine remote CLI access:

- a) Go to C:\Program Files\GuruSquad\GS RichCopy 360 Enterprise



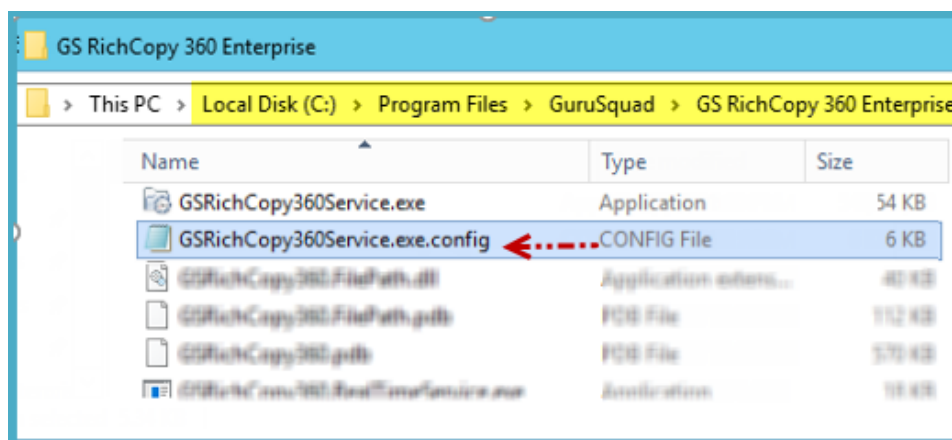
- b) Open the **GSRichCopy360Service.exe.config** file with notepad.

- c) Add the IP addresses in the section named **AllowedIPAddress** as per the screen below. Note they must be separated by commas. Do not leave this section blank as it would set it to accept from commands from any IPs.

```
<add key="AllowedIPAddress" value="127.0.0.1,192.168.0.5"/><!-- Allowed from RichCLI-->
```

- d) Save the file **GSRichCopy360Service.exe.config**.
e) Restart the GS RichCopy 360 Service.

- 2) Only users with admin privileges can use the GS RichCopy 360 command line by default. Should there be a need to have users without admin privileges use the GS RichCopy 360 CLI, then a config file must be edited to remove the admin privileges restriction.
- a) Go to C:\Program Files\GuruSquad\GS RichCopy 360 Enterprise



- b) Open the **GSRichCopy360Service.exe.config** file with notepad.
c) Set the value to **false** in the section named **IsOnlyAdminAllowedfromCLI** as per the screen below.

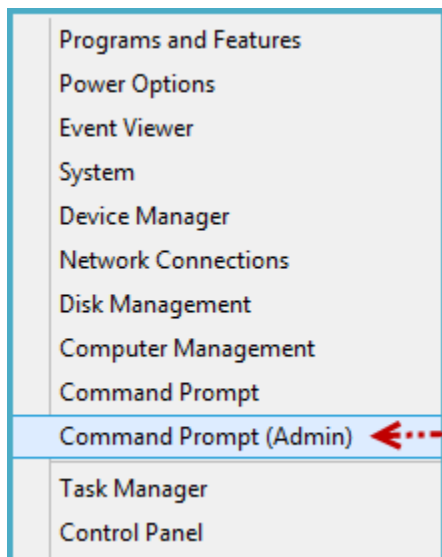
```
<add key="IsOnlyAdminAllowedfromCLI" value="true"/> <!-- Allowed from RichCLI-->
```

- d) Save the file **GSRichCopy360Service.exe.config**.
e) Restart the GS RichCopy 360 Service.

GS RichCopy 360 RTA (Remote Transfer Agent) CLI (Enterprise Only):

The RTA comes with its own command line that can be triggered directly from the RTA server or from a remote machine that has an installation of an RTA server.

To access the CLI version of RTA, run command prompt as an administrator (right click on the start menu and select Command Prompt (Admin) as the screenshot below. **Note:** If there is a requirement where users without admin privileges need the ability to run RTA CLI, then refer to [“Enable RTA Remote Management and Grant Access for Users without Admin Privileges”](#)



Once in the command prompt navigate to the GS RichCopy 360 folder. By default, it is installed in (C:\Program Files\GuruSquad\GS RichCopy 360 RTA).

To list all the available parameters in the command line, type **GSRichCopy360.TransferAgent.exe /?** and it will display all available commands and optional parameters as per the screen below.

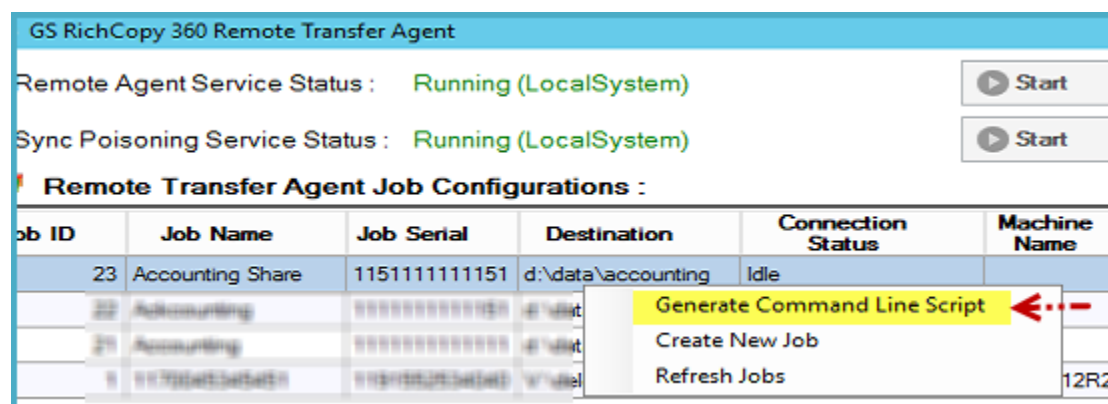
```

C:\Program Files\GuruSquad\GS RichCopy 360 RTA>GSRichCopy360.TransferAgent.exe /?
GSRichCopy360.TransferAgent.exe

*** While GSTAPI is fully functional, it is highly recommended to create a similar job via the GUI and then select Generate Command Line Script.
ed. It will not only save time but will also ensure a proper syntax. ***

GSRichCopy360.TransferAgent.exe createjob|deleteexistingjob|enablejob|disablejob|resetjobserial
serviceip:<IpAddress/HostName> --This is GS RichCopy 360 RTA Service IPAddress/HostName. (Optional) If not specified, will connect to localhost.
serviceport:<port> --This is GS RichCopy 360 RTA Service port number to communicate. Default is 8008. (if not specified, will assume 8008).
<jobid:<jobid> --It will be used only with deleteexistingjob|enablejob|disablejob|resetjobserial
  
```

Important Tip: Before we dig any deeper, it is important to know that an administrator can create a template RTA job in the GS RichCopy 360 RTA GUI and generate a command line script for that job. This would simplify the need of having to find out the right syntax and save on time spent to script the job via CLI.



This is most useful when the intent is to script an RTA job creation. It is extremely easy to generate a command line script from the GUI. All what is required after the “dummy RTA job” is created with all of its options (Job Name, Description, Job Serial,...etc) is to right click on the job and select Generate Command Line Script which would copy the full syntax to the clipboard which can later be pasted in Notepad or CLI to be changed or executed.

Usage: [GSRichCopy360.TransferAgent.exe](#) [Action Command] [Required Parameters] [Options]

Action Commands: There are several action commands that can be issued via CLI. Please note that different commands will have different required and optional parameters. Studying supplied examples will provide great clarity on when and how to use each of them. It is important to note that jobs must be configured to run as a service to be set to run from the CLI.

:: Action Commands: The following are the available commands that can be used:

Command	Description
enablejob	Enable an existing RTA job.
disablejob	Disable an existing RTA job.
deleteexistingjob	Deletes existing RTA job.
resetjobserial	Replaces jobserial with another one.
resetclient	Allows a different client to use this job.
createjob	Create a new RTA job.

The commands EnableJob, DisableJob, DeleteExistingJob, ResetClient share the same required parameters which is basically to specify which job to apply the action to. Jobs can be referenced by Job ID (JobID) or Job Name (JobName). Syntax would look something similar to this:

[GSRichCopy360.TransferAgent.exe](#) Enablejob jobname:“Account Job” OR DeleteExistingJob jobid:115

The optional parameters that can be used are jobname, JobSerial, and JobId. Note: only one can be used.

ResetJobSerial on the other requires one more additional parameter which is NewJobSerial. Please reference example below to follow the proper syntax:

[GSRichCopy360.TransferAgent.exe jobserial:1234567890123 newjobserial:1122334455667](#)

In the stated example, we are switching the old jobserial "1234567890123" with a new jobserial "1122334455667".

As for CreateJob, it has several required and optional parameters. Please reference below to get familiar with the available parameters. (**Remember**, using Generate CLI Script from the RTA GUI would save administrators from having to assemble a job creation command. However, it is strongly advised to get familiar with the different options so that once a job is CLI generated from the GUI, it can be modified as desired.)

"jobname:<jobname>" (Required)

"jobdescription:<jobdescription>" (Required)

"destination:<destination folder path>" (Required)

"jobserial:<jobserial>" (Required)

<jobdisabled> --Default is Active/Enabled (Optional)

"<useencryption username:<minimum 8 character length> passphrase:<minimum 8 character length>" (Optional)

encryptionkeytype:<AES-128|AES-256(Default)>>" (Optional)

"<usesyncpoison backuppath:<backuppath> backupsize:<1-99999 GB>>" (Optional)

Example of a job creation command:

```
GSRichCopy360.TransferAgent.exe createjob "jobname:test" "jobdescription:test"
"destination:c:\destination" "jobserial:2034241500223" useencryption "username:dsfdfsdfsdf"
"passphrase:dfsdfsdfsdfsdf" "encryptionkeytype:AES-256" usesyncpoison
"backuppath:c:\destination11" "backupsize:111"
```

CLI RTA Examples:

[Example 1:](#) This command will create an RTA job with the name "Accounting", destination:d:\data\accounting, JobSerial:1234567890123 and sync poisoning of 5GB:

```
GSRichCopy360.TransferAgent.exe createjob "jobname:Accounting" "jobdescription:Accounting
Server" "destination:d:\data\accounting" "jobserial:1234567890123" useencryption
"username:ABCDEFGHI" "passphrase:12345678" "encryptionkeytype:AES-256" usesyncpoison
"backuppath:e:\sync\accounting" "backupsize:5"
```

[Example 2:](#) This command will enable an existing RTA job with the name Accounting:

```
GSRichCopy360.TransferAgent.exe enablejob jobname:"accounting"
```

GSRichCopy360.TransferAgent.exe enablejob jobserial:1234567890123 **Note:this is another example using JobSerial

[Example 3:](#) This command will change JobSerial:1234567890123 to 111111111111 for an existing RTA job:

```
GSRichCopy360.TransferAgent.exe resetjobserial jobserial:1234567890123
newjobserial:111111111111
```

```
GSRichCopy360.TransferAgent.exe resetjobserial jobname:"accounting" newjobserial:111111111111
**Note:this is another example using JobName
```

[Example 4:](#) This command will reset an existing RTA job so that it can be used by another GS RichCopy 360 client:

```
GSRichCopy360.TransferAgent.exe resetclient jobserial:1234567890123
```

```
GSRichCopy360.TransferAgent.exe resetclient jobname:"accounting"
**Note:this is another example using JobName
```

[Example 5:](#) This command will delete an existing RTA job:

```
GSRichCopy360.TransferAgent.exe deleteexistingjob jobserial:1234567890123
```

[Example 6:](#) This command will create a RTA job from a remote machine:

```
GSRichCopy360.TransferAgent.exe serviceip:192.168.0.5 createjob "jobname:Accounting"
"jobdescription:Accounting Server" "destination:d:\data\accounting" "jobserial:111111111111"
useencryption "username:ABCDEFGH" "passphrase:12345678" "encryptionkeytype:AES-256"
usesyncpoison "backuppath:e:\sync\accounting" "backupsize:5"
```

Enable RTA Remote Management and Remove Admin Privileges Restriction:

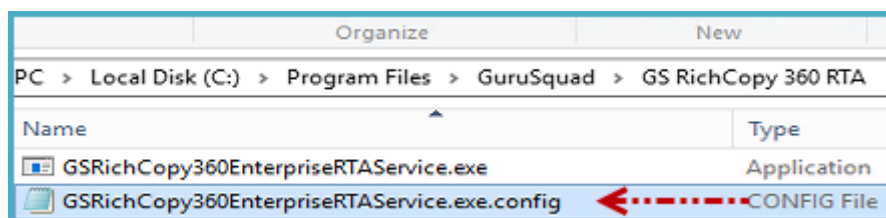
By default, the CLI commands will execute on the local machine they are run on. However, GS RichCopy 360 RTA extends the option to issue commands to a remote machine. To do so, the command should include the parameter: serviceip:<IP Address or hostname>. By default, it would use the port TCP 8008. If the default port is changed on the client, then the command serviceport:<portnumber> should be used.

Here is an example that would enable a job on a remote machine to further clarify:

```
GSRichCopy360.TransferAgent.exe serviceip:192.168.0.10 enablejob jobid:115
```

Please note that by default GS RichCopy 360 RTA:

- 1) Only allow CLI from the local machine itself by default. If a client needs to be managed from another machine, then a config file must be edited on the client that is allowing its management to specify the allowed IP addresses.
Complete the following steps grant other machine remote CLI access:
 - a) Go to C:\Program Files\GuruSquad\GS RichCopy 360 RTA



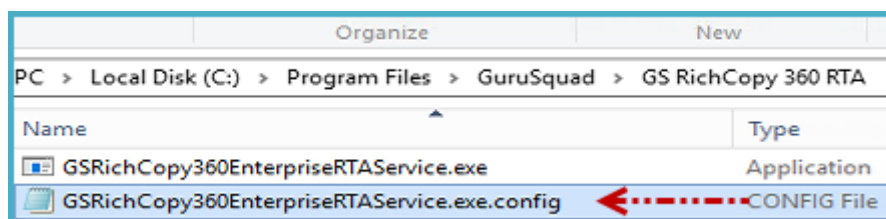
- f) Open the **GSRichCopy360EnterpriseRTAService.exe.config** file with notepad.
- g) Add the IP addresses in the section named **AllowedIPAddress** as per the screen below. Note they must be separated by commas. Do not leave this section blank as it would set it to accept from commands from any IPs.

```
<add key="AllowedIPAddress" value="127.0.0.1,192.168.0.5"/><!-- Allowed from RichCLI-->
```

- h) Save the file **GSRichCopy360EnterpriseRTAService.exe.config**.
- i) Restart the GS RichCopy 360 Enterprise RTA Service.

- 2) Only users with admin privileges can use the GS RichCopy 360 command line by default. Should there be a need to have users without admin privileges use the GS RichCopy 360 CLI, then a config file must be edited to remove the admin privileges restriction.

- a) Go to C:\Program Files\GuruSquad\GS RichCopy 360 RTA



- f) Open the **GSRichCopy360EnterpriseRTAService.exe.config** file with notepad.
- g) Set the value to **false** in the section named **IsOnlyAdminAllowedfromCLI** as per the screen below.

```
<add key="IsOnlyAdminAllowedfromCLI" value="true"/> <!-- Allowed from RichCLI-->
```

- h) Save the file **GSRichCopy360EnterpriseRTAService.exe.config**.
- i) Restart the GS RichCopy 360 Enterprise RTA Service.

Environment Variables:

GS RichCopy 360 (Standard and Enterprise) support environment variables in the GUI and the command line interface (CLI). Environment variables support is not limited to paths only; it is fully supported in the following areas:

- 1) Source and Destination.
- 2) Log location.
- 3) Folder and File (Inclusion\Exclusion) filters.
- 4) Mail fields (from, to, CC, and BCC).
- 5) Destination path and Sync Poisoning path on RTA server. (Enterprise Only).

All Windows environment variables can be used to include system and user defined variables, they can be inserted like so: %VARIABLE% or ^VARIABLE^ (Note: it is recommended to use ^VARIABLE^ format if using the CLI).

To find out environment variables defined in a windows system, go to the command prompt and type **SET** then press enter.

Popular environment variables are:

%USERNAME% -- current window user name

%USERPROFILE% -- current user profile directory.

%COMPUTERNAME% -- windows name of this computer.

GS RichCopy 360 also provides another set of variables that can be used in creating dynamic archives for yearly, monthly, weekly and/or daily backups or based on date:

Variable	Description
%GSRICH%	App Startup path
%YYYY%	YEAR 4 Digit 2016
%YY%	YEAR 2 Digit 16
%MM%	MONTH 2 DIGIT 02 (case sensitive)
%MMM%	MONTH Feb
%MMMM%	MONTH February
%DD%	Day 26
%DDD%	Day Fri
%DDDD%	Day Friday
%DOW%	Day of Week 5
%hh%	Hour 05 in 12 hour format (case sensitive)
%HH%	Hour 17 in 24 hour format (case sensitive)
%mm%	Minute (case sensitive)
%SS%	Seconds
%TT%	AM/PM
%MS%	Milliseconds
%WOM%	Week of Month

. Here is a good example of using GS RichCopy 360 special variables:

Copy Job Configuration

Job Name : Backup Share

Description :

Source : C:\share

Connect As : Logged in User

☒ Copy as Root Folder

Destination Type : ☒ Normal ☐ TCP

Connect As : Logged in User

Destination : \\xa3\c\$\archive\%COMPUTERNAME%\%DDDD%

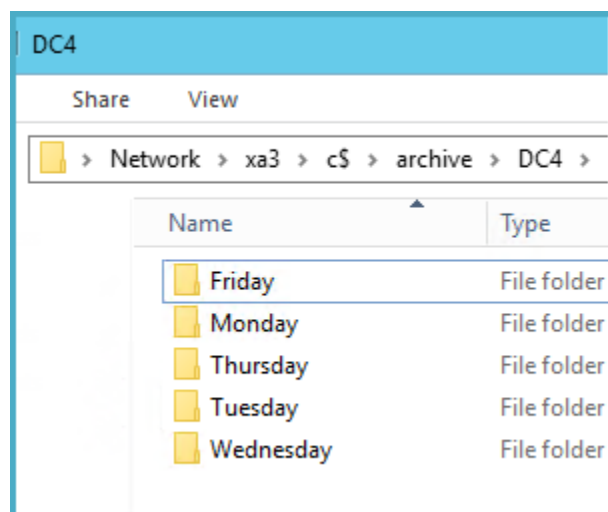
☐ Copy Files Instantly

☐ COPY CHANGES ONLY ☒ MIRROR ☐ MOVE

Copy Flag

Logging

Assuming the job above is scheduled to run weekdays only, then it would create this folder structure in destination (NOTE: DC4 is the name of the computer used in this example)



Another good example of using environment variables is using it in the mail to field. Variables can be appended to an email address or act as a full email address if desired. In the screenshot below, %StoreNumber% would be an environment variable that is pre-defined by the system administrator. If the value for instance was 12, then the email would have been sent to manager12@contoso.com. Similarly, if the %headquarters% translated to a value of management@contoso.com then an email is sent to this address. Please reference the screenshot below

☒ Enable Job Status Notification

To : manager%StoreNumber%@contoso.com

CC : %headquarters%

BCC :

FAQs:

Below are some of the frequently asked questions our support and sales staff have received. We have compiled this list and are continually updating it to provide you with the best support possible.

If you do not find your question or need some assistance, feel free to contact us by email or phone and we will gladly work with you.

Email: support@gurusquad.com

Phone: +1 703 868-9252

Assigning Log On as a Service

Q1: When we specify a username and password to use for our GS RichCopy 360 server, the service fails to start. This account is already an administrator. How can we start the service?

A1: In windows 2008 R2 and later, When specifying a user name and password for GS RichCopy Service to use (under the configuration tab) and the service fails and cannot start, it is because the user specified requires “log on as a service” privileges. This can be accomplished in two different ways:

Method 1:

- 1) Go to the “start” menu → search → Type “services.msc”

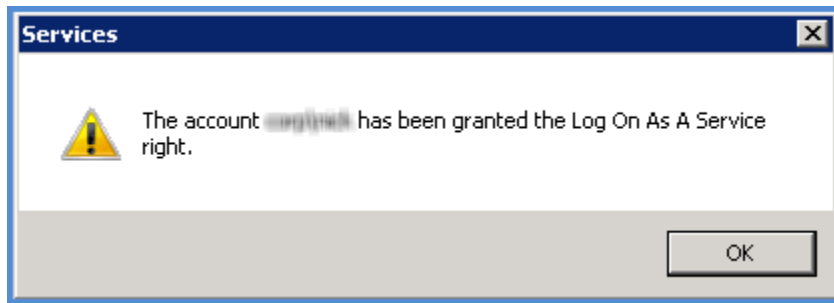


- 2) Locate GS RichCopy 360 Service and double click on it.

Group Policy Client	The serv...	Started	Automatic	Local System
GS RichCopy 360 Rich Copy Service	GS RichCo...	Started	Automatic	Local System
GS RichCopy 360 Service	This servic...	Started	Automatic	Local System
Health Key and Certificate Management	Provides K...		Manual	Local System
Human Interface Device Access	Enables ge...		Manual	Local System
IEE and AuthIP Flow Keying Modules	The IEEEK...	Started	Automatic	Local System
Interactive Services Detection	Enables us...		Manual	Local System
Internet Connection Sharing (ICS)	Provides n...		Disabled	Local System

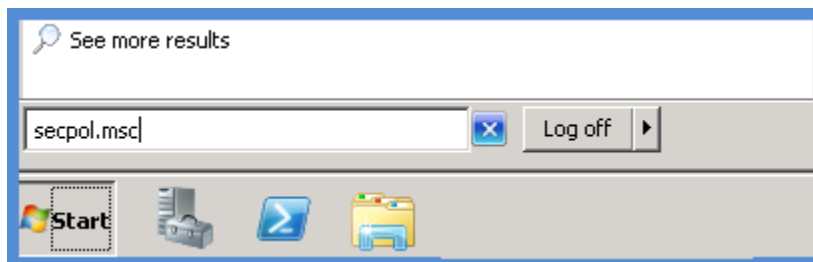
- 3) Click on the logon tab → Click on This account and type the user name and password for the user you want GS RichCopy 360 service to use → Click ok.

Doing so, would automatically grant the username you specified logon as service rights. You should receive a notification that the right to logon as a service has been granted. Please ensure that you have to stop and start the service for the change to take effect.

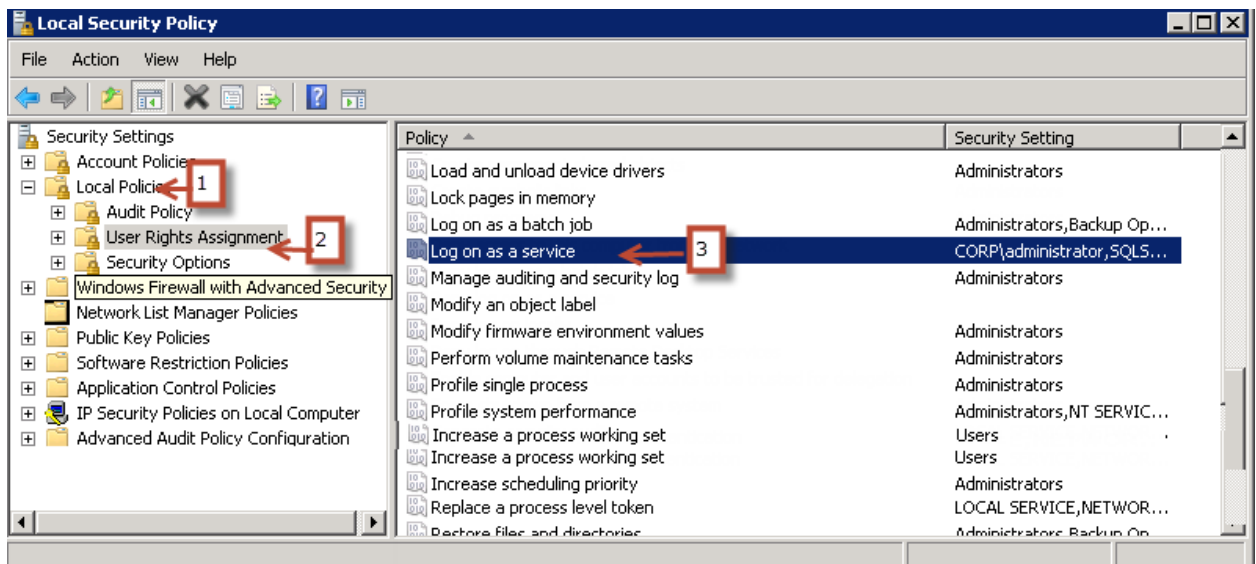


Method 2:

- 1) Go to the "start" menu → search → Type "secpol.msc"



- 2) Click on Local Policies → User Rights Assignment → Double click on Log on as a service



- 3) Click on Add User or Group → type the user name and password for the user you want GS RichCopy 360 service to use → Click ok and Ok all the way out. → Doing so, would grant the username you specified logon as service rights. GS RichCopy 360 service must be stopped and

started again for the change to take effect.

