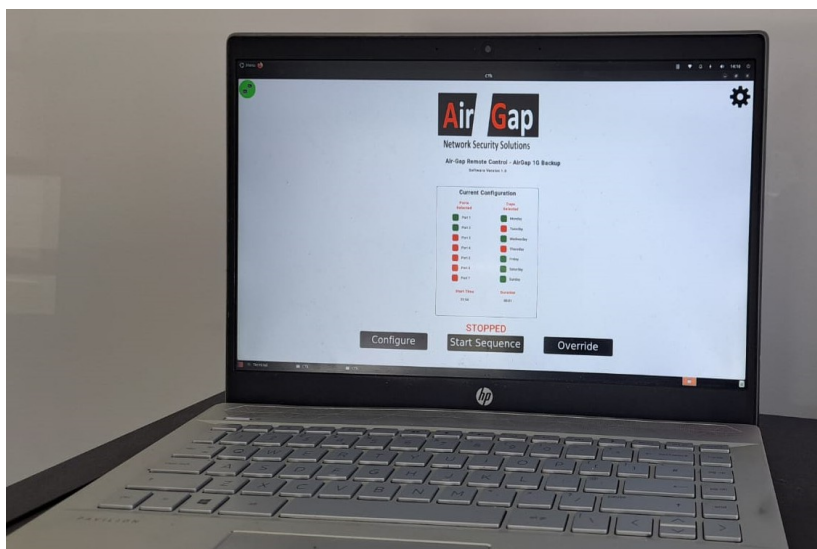


Air Gap

Network Security Solutions

AG000-018 Replicate & Restore User Manual



Overview

The Air Gap Replicate & Restore is an application which can run on either Windows or Linux laptop or desktop computers and provides Replicate & Restore operation of the Air Gap Backup products.

The Air Gap Replicate & Restore user interface replicates the user interface of the Air Gap Backup and operates the functions of the Air Gap Backup in the same way as a local user would.

When the Air Gap Replicate & Restore is connected to the Air Gap Backup local control of the Air Gap Backup is inhibited and the GUI is greyed out.

The Air Gap Replicate & Restore allows a user to select folders and files to backup, set the backup schedule remotely and monitor the performance of the Air Gap Backup product and backup process.

Installation Instructions

The Air Gap Replicate & Restore is distributed on a USB drive and is installed on a Laptop or Desktop computer.

Insert USB stick into computer to which it will be installed.

Windows

Double click on Air-Gap_Replicate_And_Restore.exe

When asked “Do you want to allow this app from an unknown publisher to make changes to your device?” select “Yes”.

Follow all subsequent instructions.

Connecting to the Air Gap Backup

Setup the Air Gap Backup in accordance with the Air Gap Backup User Manual.

Start the Air Gap Replicate & Restore application.

The Air Gap Replicate & Restore initially displays the Main screen as shown below.

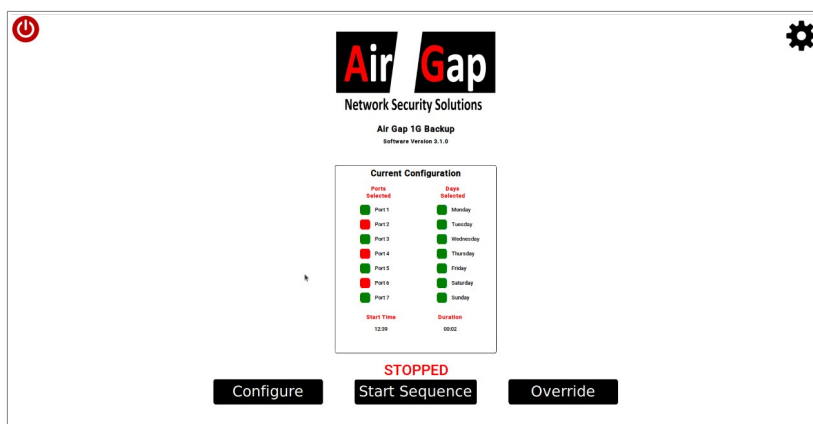


Fig 1 - Air Gap Replicate & Restore Main screen

On Main Screen Press settings icon - top right – to display the Settings screen as shown in Figure 2 below.

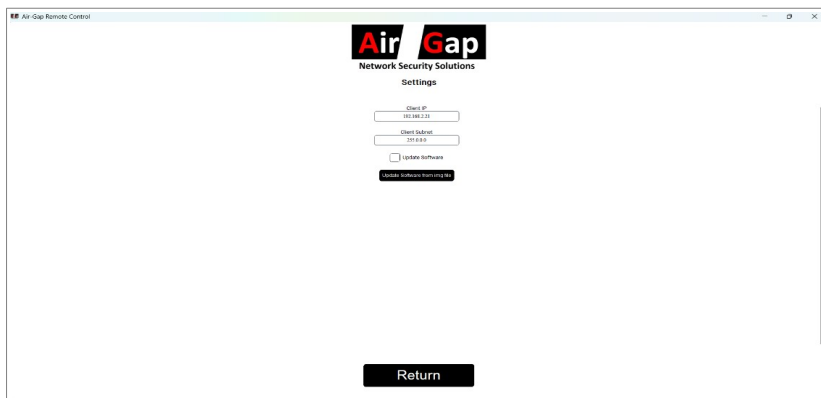


Fig 2 - Air Gap Replicate & Restore Settings screen

Obtain the Air Gap Backups IP address from the settings screen on the Air Gap Backup.

Entered the Air Gap Backup's Ethernet address into the Air Gap Remote Control Client IP address box.

Press Return to return to the Main screen.

On Main Screen press the Red Connection icon - top left.

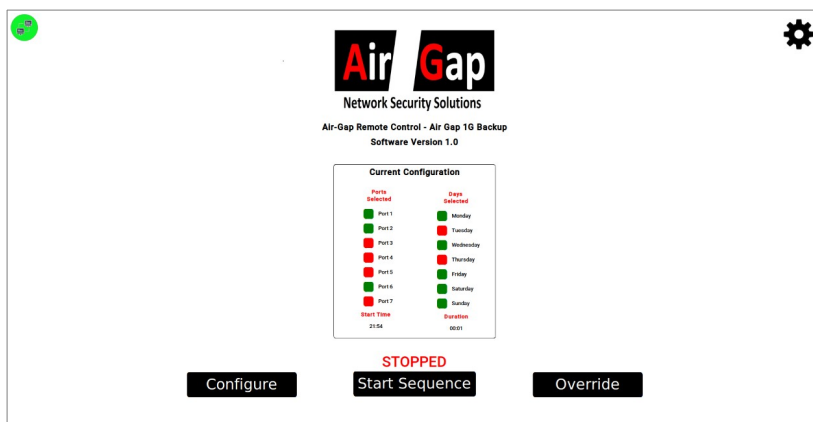


Fig 3 - Air Gap Backup Main screen as shown on Air Gap Replicate & Restore

The connection icon will initially display in orange whilst the Air Gap Replicate & Restore is connecting to the Air Gap Backup and will display green when connected to the Air Gap Backup.

Once connected the Air Gap Backup GUI will become greyed out to signify to a user that the GUI on the Air Gap Backup is inoperable and the Replicate & Restore Main screen will replicate the settings on the Air Gap Backup.

The Air Gap Remote Control Main Screen will display the type of product (Air Gap 1G Backup for instance) that is connected to the Air Gap Replicate & Restore below the Air Gap Logo for example “Air Gap Replicate & Restore – **Air Gap 1G Backup**”.

Prior to being connected via Ethernet to an Air Gap Backup the GUI of the Air Gap Replicate & Restore will only allow a user to access the Settings screen via the Settings icon (top right) and the connection icon (top left) on the Main screen.

Configuring the Air Gap Backup

Configuring the Air Gap Backup set the ports to be used, backup schedule (day and time) and folders and files to be replicated at the scheduled day and time.

To configure the Air Gap Backup from the Air Gap Replicate & Restore press the Configure button on the Main screen.

The Configure screen will display as shown below

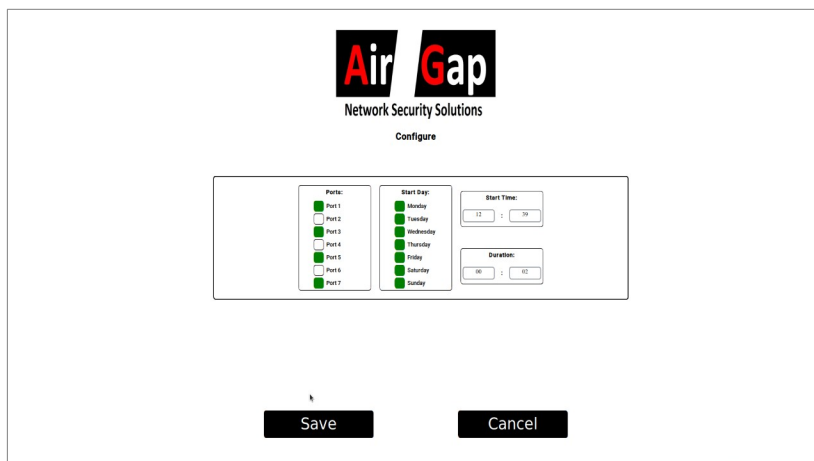


Fig 4 - Air Gap Backup Configure screen as shown on Air Gap Replicate & Restore

The configuration screen will be display 7 ports, 7 days and a start time.

The configure screen allows the user to change the Air Gap Backup product's current configuration by allowing the user to select which ports are to be connected as part of the backup sequence, the days, start time of the backup process, folders

and files to be backed up during the backup process and the location of the backed up files in the backup process.

Select the ports to which there are backup devices connected and to which backups are to be made.

Select the days on which the backups will occur.

Select the start time of the backup process.

Press OK

A dialogue box will be displayed allowing a choice of files and folders to be backed up. Select the folders of the files to be backed up and select OK.

Multiple folders can be selected to be copied. Whole folders copied are shown with a tick whilst folders which have only some folder to be copied are shown with a square box.

A dialogue box to select the folder where the backup will store the selected folders for backup, during the backup process.

Whilst the selecting of the backup location occurs the Air Gap Backup will connect the lowest numbered port from the list of ports selected to allow the user to select a location on the normally air gapped backup device.

The user should select a location on this device to ensure that the backup process is made to a backup device which is normally air gapped.

When a folder has been selected press Select Folder to return to the Main screen.

The inbuilt scheduler will check the current day of the week and compare this to the days of the week as set in the configuration settings.

When the current day is the same as one of the days set in the configuration the scheduler will compare the current time and the time set in the configuration settings.

When the time of day is reached the Air Gap Backup product will connect the first port configured and the files selected for backup will be copied to the destination location (on the normally air gapped backup device) until all files and folders have been backed up after which time the port will be disconnected disconnecting the normally air gapped backup device.

The scheduler continues on each successive day set in the configuration settings moving to the next active port. After all ports selected have been connected in sequence the scheduler goes back to the first configured port selected in the configuration settings and repeats the cycle.

For example, to make the unit to close ports 1 and 3 in sequence every day at 5 pm for 1 hr.

Select Port 1, 3, deselecting port 2, 4, 5, 6 and 7.

Select Mon, Tue, Wed, Thu, Fri, Sat, Sun.

Select the Start Time, 17:00.

Select the files and folders to be backed up and the destination, which should be the normally air gapped backup

devices.

In this configuration, when the unit is set running, port 1 will connect for 1 hour on the first day and port 3 will connect on the second day. On the third day port 1 will connect and fourth day port 3 and so on until the unit is stopped running.

Press OK to accept the configuration or Return to return to the main screen without changing the current configuration.

With the example above Ports 1 and 3 should display on the Air Gap Backup with green LEDs lit on the front and rear panels indicating that they are selected ports and the main screen should display the set configuration.

The specific configuration will display differently.

Press the Start button on the Main screen to start the scheduler for the backup up process. At the time and day selected the backup process will run copying the selected files and folders to the backup location.

Setting the Air Gap Backup Running / Stopping the Air Gap Backup

To set the Air Gap Backup Running – select the Start Sequence button.

The front panel green Run LED should display lit and the main screen of both the Air Gap Replicate & Restore an Air Gap



Backup should display “Running” in green.

This will load the configured sequence as described above into the devices scheduler.

In the example case at 5pm on the first day Port 1 will connect to the input port and the selected folders and files will be backed up to the normally air gapped backup device. This will be signified by the Port 1 orange LED illuminating during this time.

At 5pm on the subsequent day Port 3 will connect to the input port and the selected folders and files will be backed up to the normally air gapped backup device. This will be signified by the Port 3 orange LED illuminating during this time.

The ports will alternate on subsequent days until the unit is set to Stopped by pressing the Stop button. This will set the front panel status LED to red and “Stopped” will be displayed on the main screen.

Restoring a Backup

There are in general two reasons for a backup to be restored.

The first of these is in the case where a user wishes to restore a file due to some inadvertent but not malicious action such as accidentally deleting or amending a specific file or set of files. In this scenario it is common to create a new copy of the backup to not overwrite any files which are art of the backup process but not accidentally deleted.

The second of these is in the event of a cyber attack to restore a full backup to a new drive. In this scenario the overwriting of files is not a concern.

It is important to understand the above when selecting a directory to restore backups to to avoid the overwriting of wanted files and folders.

To restore a backup from an air gapped backup device on the Main screen press the Restore button to go to the Restore screen as shown below

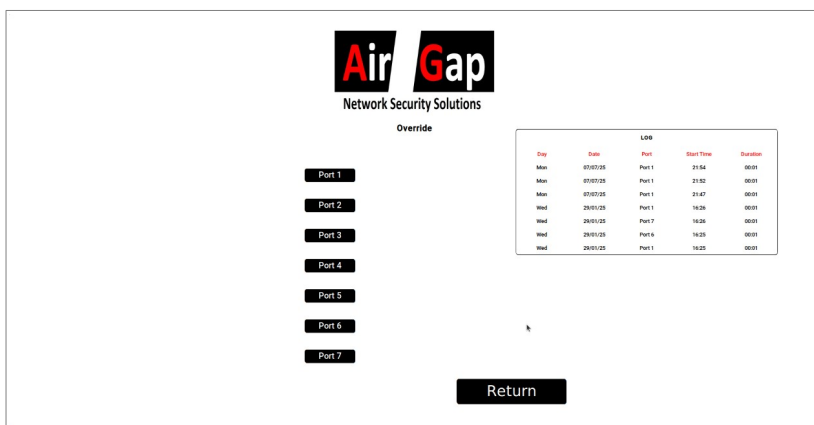


Fig 5 - Air Gap Backup Restore screen as shown on Air Gap Replicate & Restore

On the Restore screen the 7 possible air gapped backup devices are shown with a log of the date, time and port of the last 7 backups.

Select an air gapped backup device to recover data from by pressing the Port n button where n is the number of the backup device.

The backup device will be connected to the network through the Air Gap Backup device and a dialogue box will be shown to select the specific backup to restore files and folders from.

Select a specific backup to restore from and press OK.

A dialog box will be shown to select a folder to restore the backup to.

Note that default location is the root directory of the system and as such if this is selected the restoration will overwrite any copies of the backup made from this location as the files will be restored to the original locations. This default location should only be used if a direct copy of the backup is to be made such as to a brand new network drive.

If in the case a copy of the backup is to be restored where a user wishes to obtain a backup which has not been attacked by a hacker then select a different location to restore to as this will leave the original version of the file in place.

Updating the Backup Software

Air Gap Backup software can be updated to a newer version from time to time.

Download an img update from the website www.air-gap.co.uk and place this on a memory stick or other removable media.

Within the settings screen select “Update from removable media” button and select software update img file from the removable media.

The Air Gap Replicate & Restore should start transferring the software update to the Air Gap Backup in the background which should not affect operation of the Air Gap Backup or Air Gap Replicate & Restore.

Once the Air Gap Backup software update has been successfully transferred the Air Gap Backup will reboot so long as the Air Gap Backup has finished the closing of ports and the Air Gap Replicate & Restore has completed the transferring of files process.

The Air Gap Replicate & Restore will disconnect from the Air Gap Backup and attempt to re-connect once the Air Gap Backup has rebooted. The Air Gap Backup and Air Gap Replicate will commence operation where operation was left off.

Errors

Error	Possible Solution
Air Gap Replicate & Restore Connect button remains orange	This signifies the Air Gap Replicate & Restore can not connect to an Air Gap Backup Ensure the IP address for the Air Gap Backup has been entered correctly. Ensure Air Gap Backup is not behind a firewall. The Air Gap Replicate & Restore and Air Gap Backup communicate on port 55555. If the Air Gap Backup is behind a firewall or router this port will need to be forwarded to the Air Gap Backup.