GV File
Trial Installation Guide Windows

Version History

Table 1: Version Table

Date	Version	Released by	Reason for Change
22/01/2014	1.0	Andy Gingell	Initial release
04/02/2014	1.1	Andy Gingell	Added NVIDIA GPU TCC configuration
24/02/2014	1.2	Andy Gingell	Package installation and server service logon DNxHD issue
03/03/2014	1.3	Andy Gingell	Run the command-line prompt using the **Run as administrator** mode when running the Nvidia command
09/04/2014	1.4	Andy Gingell	Stating VM (Virtual Machines) are not currently supported for Alchemist-XF
24/04/2014	1.5	Andy Gingell	Revised the NVIDIA driver version
14/05/2014	1.6	Andy Gingell	Revised edit for Alchemist XF Version 1.1.0.6
02/09/2014	1.7	Andy Gingell	Title change
16/03/2014	2.0	Jeremy Courtney	Revised edit for V2.*.*.*
08/09/2015	2.1	Andy Gingell	Edit for XF rebrand
01/10/2015	2.2	Greg Emerson	Updated links and Store images
26/01/2016	2.3	Greg Emerson	Completed rebrand
23/02/2016	2.4	Andy Gingell	Minor detail correction in framework picture
19/10/2016	2.5	Jon Metcalf	Update Support web links
10/01/2019	3.0	Jon Metcalf	GV Rebrand
24/03/2021	3.1	Jon Metcalf	Post Belden rebrand

Table of Contents

List of Figures

List of Tables

1. Introduction

1.1 Purpose

The purpose of this document is to demonstrate how to successfully install and license the GV File Trial software. By following this guide all the GV File applications and services will be installed on to a single host machine.

1.2 Assumptions

- The host machine has at least the minimum specification, including a GPU with the correct GPU driver installed.

- The host machine should be able to be accessed using the local display, keyboard and mouse, or remote console access to the Host machine is available.

- The Trial installation offers a 15 day license which can only be used once on any one server.

- Output files will contain a visible GV File banner.

 Version Number: 3.1

1.3 Definitions, Acronyms and Abbreviations

Table 2: Table of Terminology

Term	Definition
API	**Application Programming Interface**. An API specifies how some software components should interact with each other.
Destination folder	Folder where finished jobs are written to (access and authorisation is required).
FIMS	**Framework for Interoperable Media Services**. A framework of service definitions for implementing media related operations using a Service Orientated Architecture (SOA).
GPU	**Graphical Processing Unit**. Very efficient, highly parallel compute engine for advanced image processing techniques.
Install / Installation	Installation of the services within the GV File framework
Locking code	Lock code base on specified locking criteria
License file	Defines the quantity of products available
License Server	Manages product licenses
XF	**xFile** – former name of GV File
Profile (default/user)	Describes a collection of parameters for a given job. User and a selection of read only default profiles are available.
REST	**Representational state transfer**. Rest is a simple way of sending and receiving data between client and server. A RESTful web service is a web API implemented using HTTP and REST principles. Request methods include GET, POST, PUT, DELETE.
GV File Browser	Service which provides access and directory listings for local and remote shares to the client. Enables the use of **browse** feature in the client.
GV File Deployment	A collection of GV File services which touch the actual media assets. This might be dictated by geographic location and/or SAN configuration. The services which touch the media are the GV File Node, GV File Browser and GV File Watcher.
GV File Node	Service which executes the jobs within the job queue. It performs all data processing (image/audio/metadata).
GV File Server	Service which orchestrates the framework and manages the products, profiles, licenses available within a given server. One server can manage multiple deployments.
GV File Watcher	Service to monitor watch folders and automatically add jobs to the job queue. Monitoring can be based on notification or polling.

Term	Definition
SOAP	**Simple Object Access Protocol.** SOAP is a method of transferring messages, or small amounts of information, over the Internet. SOAP messages are formatted in XML and are typically sent using HTTP (hypertext transfer protocol).
Source file	Location of the source file. Path can be entered explicitly or via the "browse" feature (access and authorisation is required).
TCC	NVIDIA Tesla Compute Cluster Mode. Professional NVIDIA GPUs which offer a graphics output need to have TCC mode enabled if they are to be used as a compute engine. Enabling TCC will disable the graphical output
WDDM	Windows Display Driver Model- is the graphic driver architecture for a video card drivers.

2. Hardware Requirements and Software Requirements

Please refer to the website for details of the hardware and software required to run GV File.

Alchemist-File:

https://www.grassvalley.com/products/alchemist_file/

Kronos-File:

https://www.grassvalley.com/products/kronos_file/

Quasar-File

https://www.grassvalley.com/products/quasar_file/

For more detailed info, please see Optimising Performance documents here:

Alchemist-XF:

Alchemist_File_Optimizing_Performance.pdf

Kronos-XF:

Kronos File Optimizing Performance.pdf

3. GV File Architecture

3.1 Overview

The GV File framework benefits from a Service Orientated Architecture (SOA). This SOA design philosophy aids your ability to develop your installation and allow it grow as your needs evolve.

The minimum required services are:

- GV File Client

- GV File Server

- GV File Node (minimum of one)

Optional Services are:

- GV File Browser

- GV File Watcher

Without the Browser installed and started the **Browse** feature will not work in the client.

Without the Watcher installed and started the **Watch Folders** feature will not work.
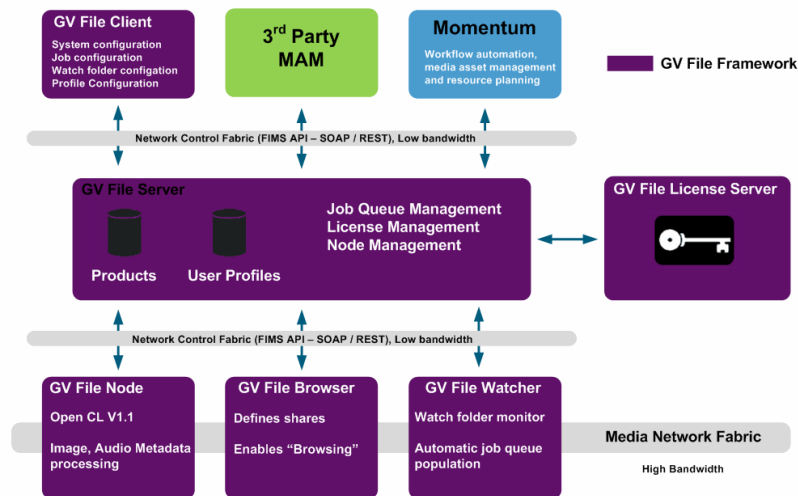
Figure 1: GV File Framework

3.2 Deployment Components

The GV File Trial.exe will install the following applications and services onto a single host machine. The package comprises of:

- GV File Client   (Client application)

- GV File Server   (Service)

- GV File Node   (Application)

- GV File Browser   (Service)

- GV File Watcher   (Service)

- License Server   (Service)

GV File Client is the application used to connect to the GV File server. It will be installed automatically as part of the install process locally on the host machine.

It is possible to run a Client on a remote computer which is running a 64 bit version Microsoft Windows (Win 7 / Win 8 / Win 10 / Win Server 2008 / Win Server 2012 / Win Server 2016). However, a separate Client Installer will be required (not included in the Trial installer package). Customers will need to send a request to Customer Support in order to obtain the GV File Client Installer.

A Mac Client is also available, enabling the GV File system to be controlled via a remote Apple Mac workstation. Again this can be obtained by contacting GV Support.

Multiple Clients can be connected to a single server. The client offers intelligent profile creation, job creation, visibility of available products (and associated quantity of licenses), framework configuration and status.

GV File Server is the service responsible for the main orchestration of the framework. It organizes the various deployments and their associated services and manages; the job queue, the license server and products and their associated profiles (users/default). Job priority can be specified. Jobs of an equal priority are executed on a first come, first served basis. For a job to start the required node and license must be available.

GV File Node is the service/application which transforms/converts the video/audio/metadata. For successful operation an OpenCL V1.1 environment is required. This can be achieved using single or multiple GPUs within a host machine.

Details of supported GPUs can be found in the appropriate Datasheet on the web site (see section 2 above).

Multiple GPUs within a host machine can be used to increase the speed of processing up to real time.

Dependant on the network topology, this service may require authorisation to access the media on specified shares.

From V2.0.0.10 onwards the GV File Node will be installed as an application as this supports the greatest range of GPUs.

GV File Browser is a service which provides access and directory listings for local and remote shares to the Client. This enables the browsing feature within the Client.

Dependant on the network topology, this service may require authorisation to access the media on specified shares.

GV File Watcher is a service which monitors user specified Watch Folders and automatically creates jobs and adds them to the job queue.

Monitoring can be based on file system notifications or dedicated polling.

The user specifies a Profile to be applied to each asset which is copied to a Watch Folder. The processed asset is then written to the associated Drop Folder.

Filters and output filenames can be assigned to each Watch Folder.

Dependant on the network topology, this service may require authorisation to access the media on specified shares.

License Service is the service that manages licensing of the with the GV File framework.

In the case of the GV File Trial, the License Server and License will be automatically installed on the Host Machine as part of the install process.

4. Trial Framework Topology

The GV File software framework benefits from a Service Orientated Architecture (SOA) which has been engineered to support a range of deployments from a single node through to a cluster of nodes within a data centre.

This SOA design philosophy aids your ability to evolve your installation and allow it to grow as your needs change. Whether you want a centralized job queue managing many processing nodes, or prefer singular job queues managing individual nodes, the framework can accommodate your requirements.

The trial will employs the following configuration:
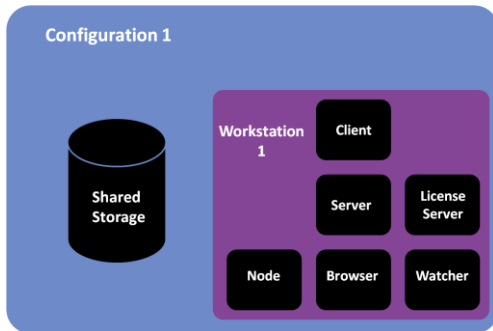
4.1 Use of the Client

The Client can be installed directly on the workstation/server or it can run remotely on a desktop/laptop. Any number of clients can access a single GV File Server.
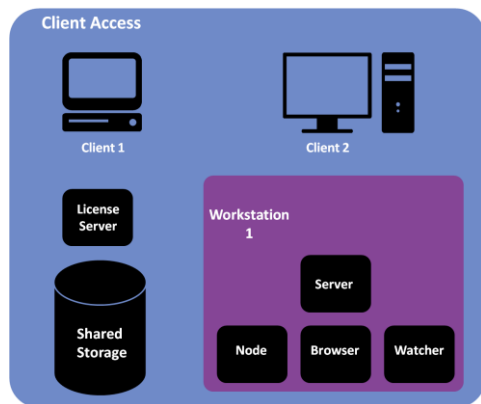
4.2 Considerations for Trial Installations

Key Considerations:

1. GV File Node must have one or more GPUs offering an OpenCL environment.

2. GV File Watcher and GV File Browser all require authorisation to access the media files.

3. GV File Node requires high bandwidth access to shares.

5. Package Content

Download and unzip the **GV File Trial.exe** to a folder on the Host Machine:
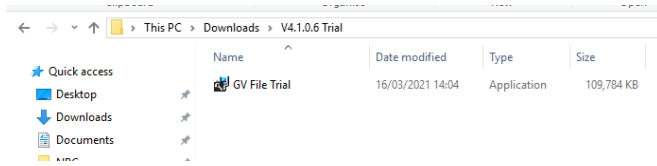
6. Software Installation

6.1 Overview

Double click on the GV File Trial.exe to begin the installation process.

If you plan to work with media files which are located on remote shares, you will need to add the appropriate account credentials on the options page. These account credentials will be used as the logon account for each service. It is recommended that the nominated account has the required authorization to access all remote shares within the installation.

At the end of the installations you will be prompted to restart the host machine/server.

Once the install is complete there will be a shortcut added to the desktop for the **GV File Client** and the **GV File Node** (if installed as an application), Please note even when installed as an application the GV File Node will start automatically on boot.

6.2 Service Install

The installation procedure is described below.

1. Locate the GV File Trial.exe file that was downloaded as described in part 5 above.
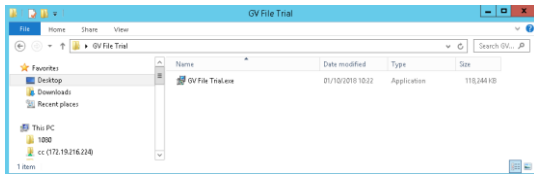
Double click on the **GV File Trial.exe** file to start the installation program.
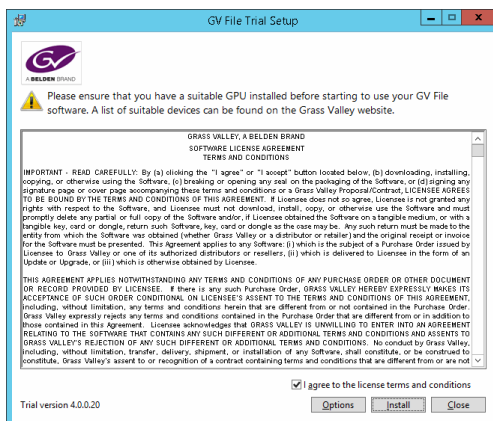
Click on **I agree to the license terms and conditions.**

2. Select **Options.**

The **Setup Options** window will appear.
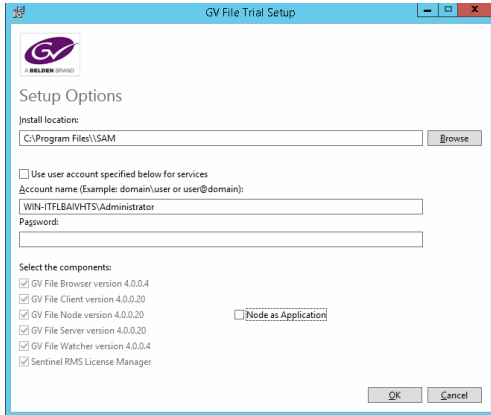
It is recommended to use the default settings.

3. If it is desired to install the Node as an Application, then select the **Node as Application** checkbox:
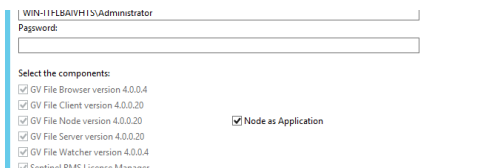
Click **OK** and the **GV File Trial Setup** window will reappear

4. Select **Install.**

The GV File Installation process will now start:
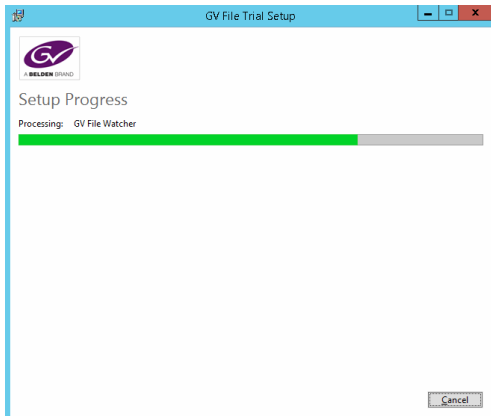
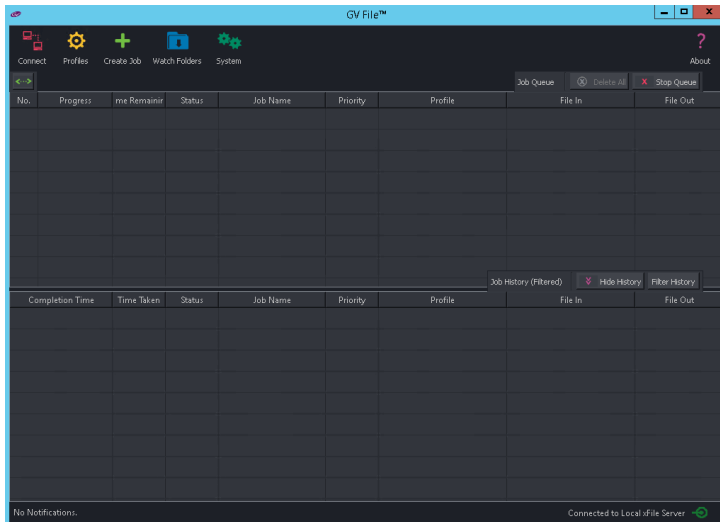The **Setup Successful** screen will be displayed when the installation finishes.
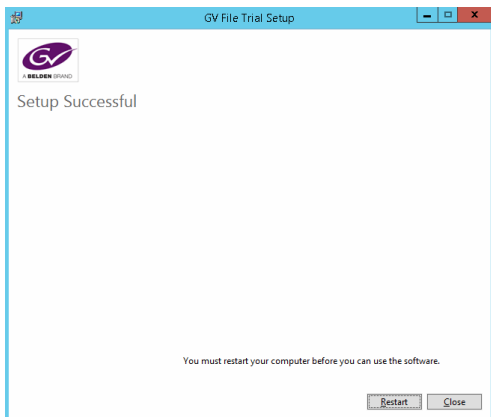
Click **Restart** to complete the installation process.

7. Trial Operation

1. Launch the **GV File Client** using the desktop shortcut:

The Trial GV Client will now open:

2. If the Node is running as an Application, ensure the GV File Node has automatically started
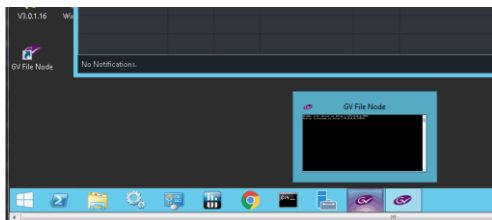
Confirm the GV File Node application is running in the command prompt as follows:
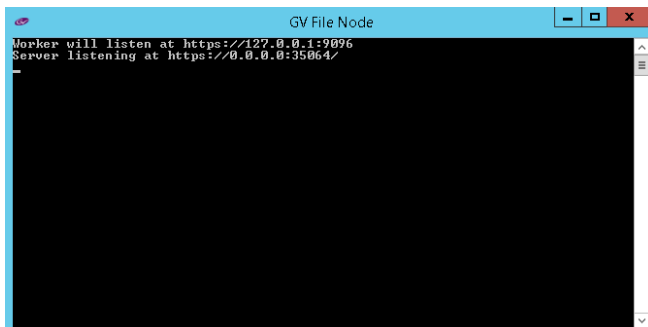
3. The client will automatically **connect** to the **Server.** This can be confirmed by looking at the bottom right corner of the client. Successful connection should look like this:
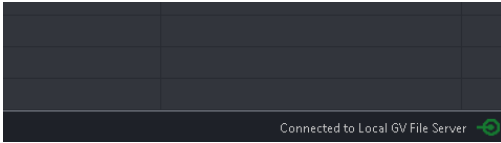
4. Check the default deployment has been successfully configured. Click on the **System** icon, followed by **Deployment.** The Deployment should appear:
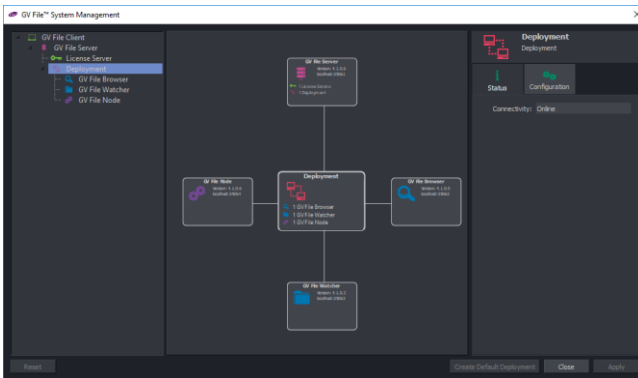
Key points of interest:

 Connect is used to define the GV File Server you wish to connect to.

 Profiles is used to configure **User Profiles**.

 Create Job is used to add a new manual job to the job queue.

 Watch Folders is used manage Watch Folder Configuration.

 System is used to configure, manage and maintain the xFile deployments and services.

 About is used to inform the user of the client version currently in use.

 Connection to is used to indicate Server connection success (green) or failure (red).

8. Trial Service Status

Click on the **System** button to view a graphical view of the configured system. As all the services for the Trial are installed on one server the system will automatically configure a **Default** deployment and configure all the services.

Click on the **system** icon to open the system management window.

Now click on the **Deployment**. The output from the selection is displayed below. Note the deployment status is **Online**.


System icon

Select **GV File Server**

Local deployment

License Server
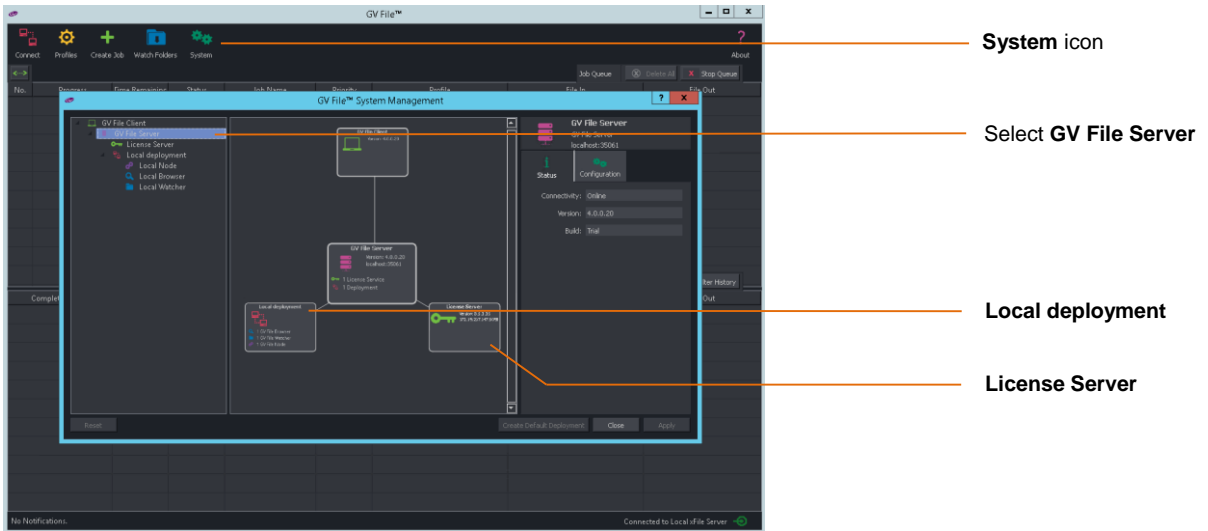
You can also do a quick service status check of the service by clicking on the **Notification** button located in the bottom left of the connected screen.
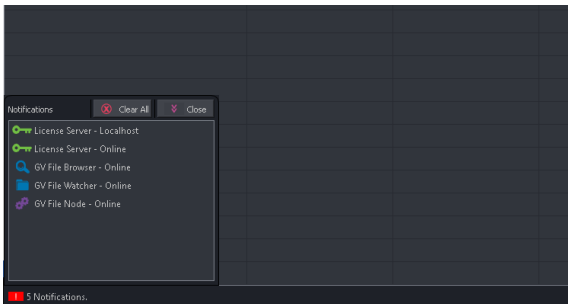
8.1 Node Configuration

GPUs can be enabled and disabled by changing the configuration of the **GV File Node**. To access this control, click on the **Configuration** tab of the Node on the **System page.**

The Node's Status tab will show the status of each GPU installed into the host machine. Using this status information the user can decide which GPUs to disable/enable.
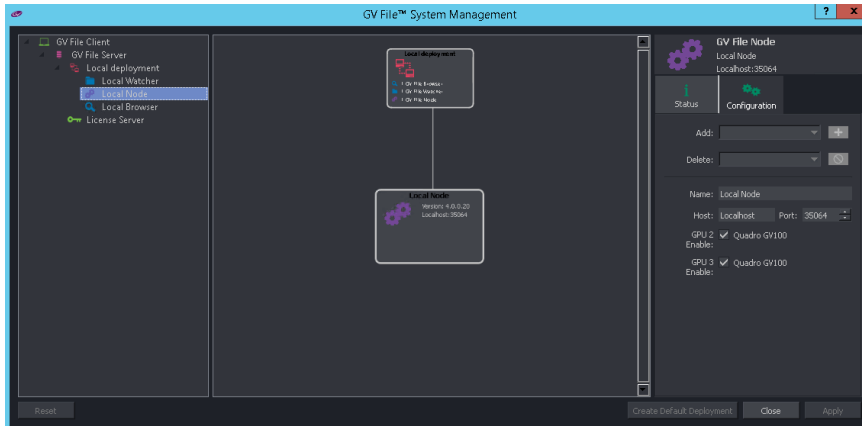
Typical reasons for disabling a GPU might be:

- A low specification GPU is installed to drive a monitor

- The system has a mixture of GPUs installed and the user wants to maximise performance.

- Check the performance of a specific GPU.

Remember!

Multiple GPUs should be matched.

If different GPUs are used, higher specification GPUs will only operate at the speed of the lowest specification GPU. It is recommended only GPUs from the same vendor are used within a host machine.

9. Remote Shares

For assistance setting up Remote Shares please refer to the help document on the website here:

GV File How to Setup Remote Shares Windows.pdf

10. Programs and Features Listing

The GV File installation package adds entries in the *Programs and Features* listing.

Click on **Start>Control Panel>Programs and Features**
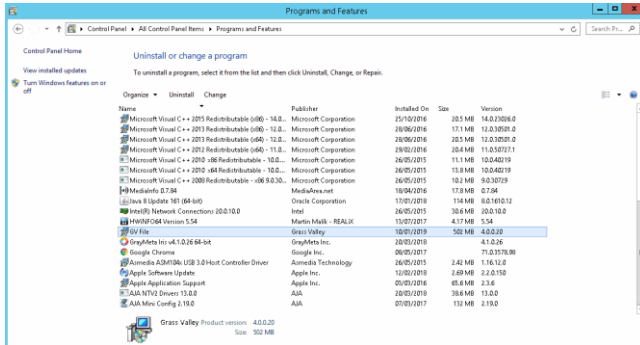
11. Services Listing

To view the GV File services click on **Start > Control Panel > Administrative tools > Services.**

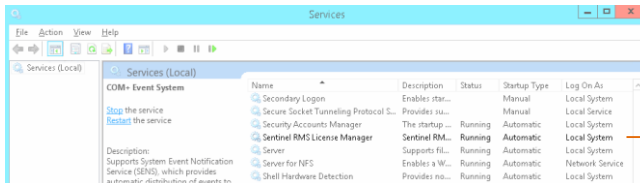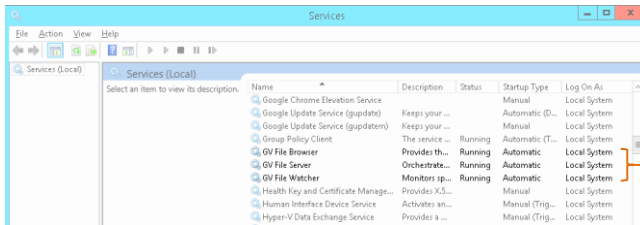Scroll down the presented list to the GV File services and the License Manager Service.

GV File Services

GV File License Service

Figure 2: GV File Services Listing

Note: the GV File Node, with regard to the GV File Trial, will be installed as an Application, hence does not appear in the list of Services.

12. Uninstall GV File Trial

1. To uninstall the GV File Trial navigate to **Start > Control Panel > Programs and Features.**

2. Using the right mouse button Click on the **GV File** icon and select **Uninstall**.
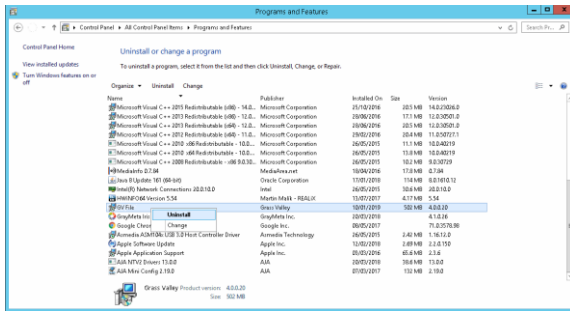
3. The uninstall program will remove all the GV File applications and services. Click on Uninstall button to complete the uninstall process.
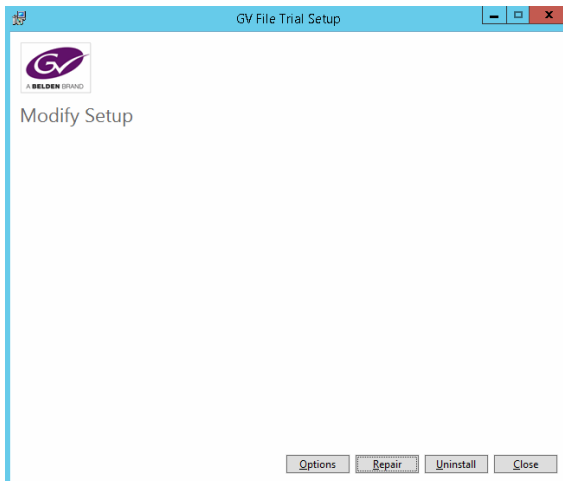
Appendix A.   Package Download

The GV File Trial software package is downloaded from the SAM store.

Using your internet browser go to: http://store.s-a-m.com/GV File

Scroll down the page and select the GV File product you wish to trial. Please note all product trials use the same GV File trial installer, which will install all products. Each product can be used for 15 days.

Add the **GV File Product** to your **Cart**, go to the **Cart** and **checkout**.

You will have to register or login if you're Returning customer, and complete the order.

Once an order has been placed, you will be given access to a download package within the Downloads section of the SAM Store.

Download and store the software package on your server you wish to install.