

System Galaxy Quick Guide

CONFIGURATION AND OPERATION



DIVA[®] N-DVR and VMS

DIGITAL INTELLIGENT VIDEO ARCHITECTURE
Networked DVR & Video Management Software

(DIVA Integration was introduced in SG 10.2.0 (Rls. MAR 2013))

JAN 2023 | SG 11.8.X

System Galaxy 11

Integrating System Galaxy with

DIVA® NVR System and VMS Software

Information in this document is subject to change without notice.
No claims are made as to the accuracy or completeness of this document.

Galaxy Control Systems makes no claims about the requirements, compatibilities or limitations of 3rd Party software or devices. Every effort is made to include all known requirements, dependencies and capabilities as they relate to the System Galaxy integration. Information herein may not supersede requirements of 3rd party manufacturers.

This guide does not cover the DIVA manufacturer's documentation for installing, registering and configuring DIVA products.

Diva Integration was introduced with SG 10.2.0 (MAR 2013)

1st Edition

Copyright © 2013 ♦ Galaxy Control Systems ♦ All rights reserved

No part of this document may be reproduced, copied, adapted, or transmitted, in any form or by any means, electronic or mechanical, for any purpose, without the express written consent of Galaxy Control Systems. Copyright protection claims include all forms and matters of copyrighted material and information, including but not limited to, material generated from the software programs, which are displayed on the screen such as icons, look and feel, etc.

Microsoft®, Windows®, Windows NT®, Active Directory®, MS-DOS®, SQL Server®, and Windows Server System®, are registered trademarks of the Microsoft Corporation in the U.S. and other countries.

DIVA® is a registered trademark of TKH Group

Adobe® and Acrobat® are registered trademarks of Adobe Systems Inc.

Technical illustrations are creations of the technical author.

Galaxy Control Systems

3 North Main Street
Walkersville MD 21793

301-845-6600

www.galaxysys.com

Table of Contents

1	Introduction & Overview of the Diva Interface	6
1.1	INTRODUCTION TO DIVA - Networked Digital Video Recording System	6
1.2	ABOUT SYSTEM GALAXY VIDEO SOLUTION WITH DIVA	7
1.3	LIST OF SUPPORTED DVR FEATURES.....	8
1.3.1	TERMS AND DEFINITIONS	8
2	Requirements & Dependencies	9
2.1	DIVA MANAGEMENT SERVER DEPENDENCIES.....	9
2.2	DIVA CLIENT PREREQUISITES & DEPENDENCIES	10
2.3	SYSTEM GALAXY CLIENT REQUIREMENTS.....	11
2.4	DIVA DVR INTERROGATOR UTILITY REQUIREMENTS.....	12
3	About Configuring the Diva System.....	13
3.1	SYSTEM OVERVIEW.....	14
3.2	DESIGNATING A MAIN MANAGEMENT SERVER.....	15
3.3	ABOUT CONFIGURING CAMERA NAMES.....	16
3.4	DIVA CLIENT INSTALLATION OPTIONS.....	17
3.5	CONFIGURING DIVA CLIENT LAYOUTS	17
4	Setting 'Diva Client IDs' at each Galaxy Client PC.....	18
4.1	ASSIGNING 'DIVA CLIENT IDs' to GALAXY REGISTRY	18

4.2	RUNNING THE DIVA INTERROGATOR UTILITY	19
4.2.1	INSTALLING THE DIVA INTERROGATOR UTILITY.....	19
4.2.2	TESTING AND SAVING THE 'DIVA CLIENT IDs'	20
5	Configuring System Galaxy for DVR Support.....	22
5.1	Registering System Galaxy for DVR Support.....	23
5.2	Enabling/Disabling DVR Support per Galaxy Workstation.....	24
5.3	Setting Auto DVR call-up for Armed Alarms (per Workstation).....	25
5.4	Adding a DVR (the Diva Management Server).....	26
5.5	Importing or Renaming Cameras in System Galaxy	27
5.5.1	IMPORTING CAMERA NAMES FROM THE HARDWARE TREE.....	27
5.5.2	RENAMING CAMERAS FROM THE CAMERA PROGRAMMING SCREEN	27
5.6	Linking Cameras to Hardware in System Galaxy	28
5.6.1	LINKING A CAMERA TO A READER	28
5.6.2	LINKING A CAMERA TO AN INPUT	29
5.6.3	VALIDATING CAMERA MAPPING IN SG.....	30
6	Operating the DVR Viewer in SG	31
6.1	Methods of Requesting Live Video	31
6.1.1	AUTOMATIC VIDEO CALL-UP (ALARM TRIGGERED).....	31
6.1.2	MANUAL VIDEO CALL-UP (OPERATOR REQUESTED)	31
6.2	Runtime Modes for Diva's Client Viewer	32
6.2.1	NORMAL INTEGRATED MODE	32
6.2.2	DIAGNOSTIC MODE (Using the Diva Interrogator Utility).....	32
6.2.3	BLOCKING VIDEO AT A WORKSTATION	32
6.3	Viewing Modes of the DVR Viewer.....	33
6.3.1	LIVE VIDEO FEED.....	33

6.3.2	RECORDED VIDEO (HISTORIC RETRIEVAL)	33
6.4	Getting Live Video	34
6.4.1	GET LIVE VIDEO FROM THE HARDWARE TREE.....	34
6.4.2	GET LIVE VIDEO FROM THE DEVICE STATUS SCREEN.....	35
6.4.3	GET LIVE VIDEO FROM AN EVENT	36
6.4.4	GET LIVE VIDEO FROM AN ARMED ALARM EVENT	37
6.4.5	GET LIVE VIDEO FROM THE GRAPHICS SCREEN.....	38
7	Appendix A: Camera Validation List	39
8	Appendix B: Ping the DVRs	40

1 Introduction & Overview of the Diva Interface

This chapter describes the system, terms and concepts of integrating System Galaxy (SG) with the DIVA Networked Video Recorders (NVR) & Video Management Software (VMS).

1.1 INTRODUCTION TO DIVA - Networked Digital Video Recording System

DIVA (Digital Intelligent Video Architecture) is a PC-based, **networked digital video recording system** that offers advanced features such as *face and license plate recognition*.

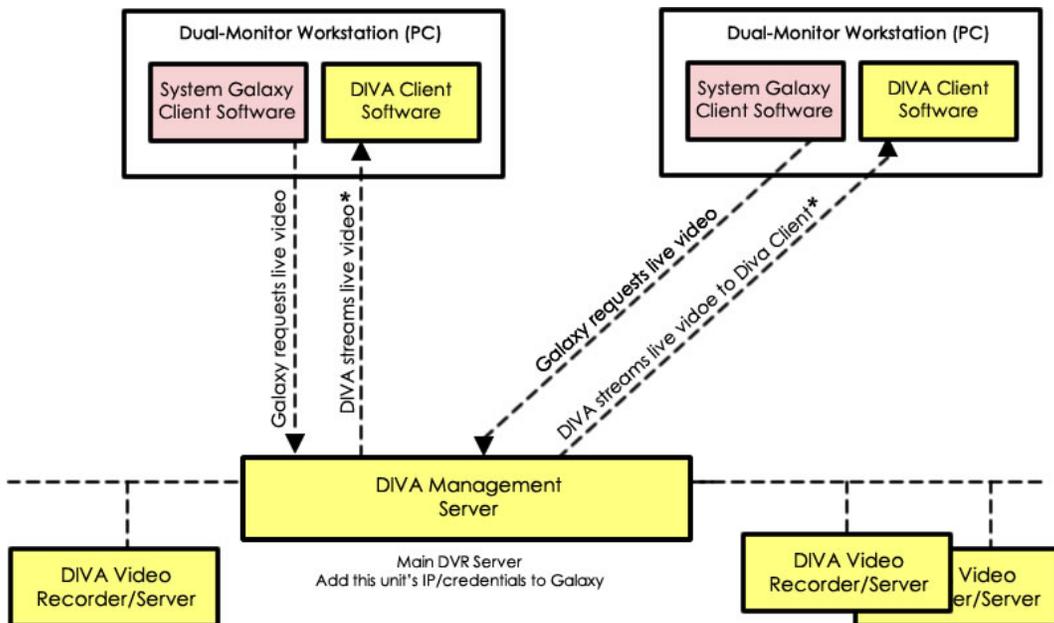
- Diva uses networked client-server architecture over LAN/WAN via TCP/IP protocol.
- Diva supports IP-based cameras and uses a PostgreSQL Database, an open-source RDBMS.

The **DIVA Video Management Software (VMS v2.1.6)** is the DIVA software that installs/runs on the Diva servers and clients. **Using the DIVA SDK version 2.5.1**

- One Diva server is designated to function as the main server, i.e. “Management Server”. The remaining video recorders are configured use the main server’s IP address.
- The Management Server takes *video requests* from SG clients and *streams live video* from the chosen camera to the appropriate Diva Client (monitor, layout, and panel).
- DIVA Client uses *multi-panel layouts* (such as 2x2 or 2x3, 3x3, etc.) on their monitors. One panel of the layout can be dedicated to displaying video for System Galaxy clients.

The interface with System Galaxy allows SG Clients to request live video from the Management Server, which will be streamed to a designated Diva Client (monitor, layout and panel).

FIGURE 1 – Concept: Diva Server Managing Video via Galaxy Request



* Live video displays on the designated monitor in the designated layout-panel. Client, Monitor, Layout, and Panel designation is set in workstation configuration.

1.2 ABOUT SYSTEM GALAXY VIDEO SOLUTION WITH DIVA

The **System Galaxy video solution with Diva** always uses the Diva Client monitor to display all requested video from System Galaxy.

The Galaxy client will request live video from the **Diva Management Server**. The Diva Server will stream live video to the appropriate Diva Client monitor based on the 'Diva Client ID's stored in the Galaxy client registry.

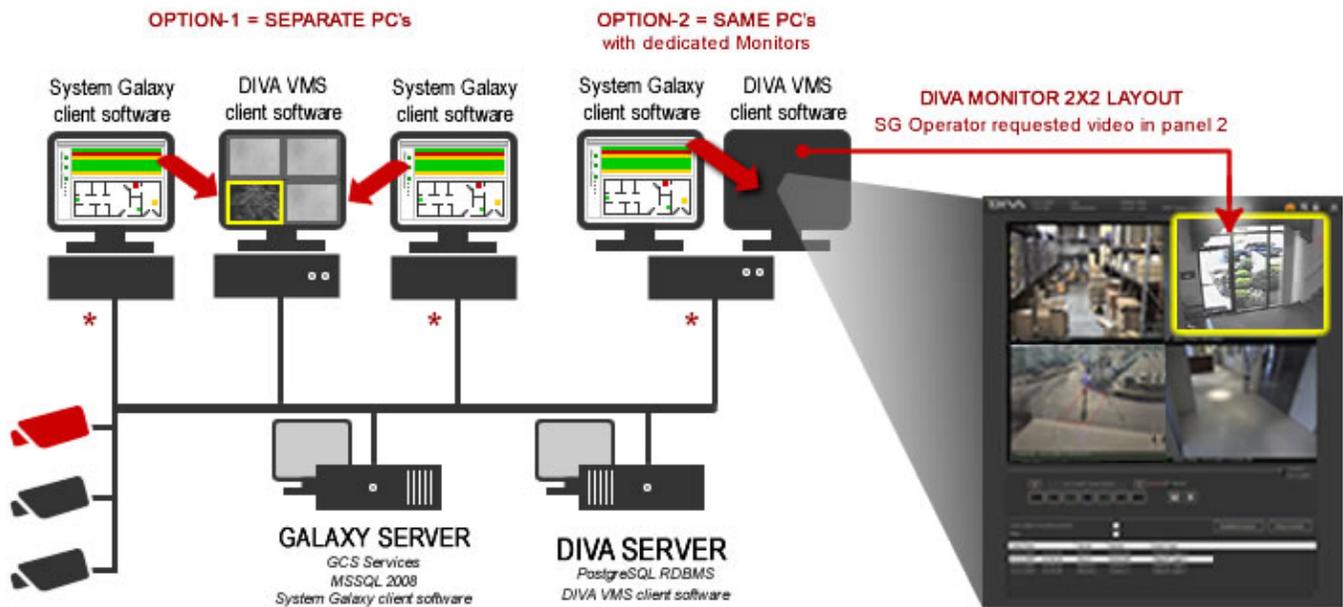
Video is requested by Galaxy under two conditions.

- when the SG operator manually commands video to start for a specific camera.
- when a door or alarm input automatically triggers video to start for a camera that is linked to the door or input based on SG software configuration.

. SG operator-requested video or alarm-triggered video will always display on the same monitor in the same designated layout & panel, regardless of which camera is selected.

The Diva Client software and monitor can be on the same workstation as the Galaxy client software, or they can be on separate clients – as you can see depicted in the drawing below.

FIGURE 2 – CONCEPT: SG Operator Viewing Video with Diva



* the *Diva Client IDs* must be saved in the Galaxy Client workstation registry - using the Diva Interrogator Utility, whether they are on the same PC or separate PCs.

1.3 LIST OF SUPPORTED DVR FEATURES

- **Add/use multiple DVRs**, site-wide (Corporate and Enterprise product levels)
 - **Import pre-configured Camera Names** from DVR
 - NEW** • **Video Viewing and PTZ and preset controls provided through the DIVA client software**
[Note: Diva client software must be installed on the SG client workstation.]
 - NEW** • Supports **Galaxy-designated DIVA video panel** (one panel on the DIVA Layout is **reserved for SG Operator** video calls to any configured camera).
 - Supports **Live Video from alarm-triggered* or operator-triggered requests** via camera linking to inputs or readers (based on SG configuration).
 - * Alarm-triggered video requires ‘Automatic Call-up on alarm condition’ to be enabled.
 - SG Operator able to **request live video from within SG** – from incoming alarm events and hardware-tree commands within System Galaxy software.
- TIME SYNCHRONIZATION:** System Galaxy is Network Time Synchronization (NTS) compliant. **NTS must be supported by the DVR also.** You must refer to the DVR manufacturer’s instructions to determine whether their DVR can reside on a domain and how to use time synchronization. See the appendix for tips on setting up time-synchronization.

1.3.1 TERMS AND DEFINITIONS

DIVA	Digital Intelligent Video Architecture (the Diva acronym is trademarked)
Alarm-Triggered Video Request	Is an <i>automatic call-up of live video</i> that is triggered by an armed alarm condition in System Galaxy for a door or input that is linked to a camera? Live video from the linked camera is streamed to the dedicated* panel at the designated* Diva Client.
Diva Client IDs	The numeric values of the target Diva Client (workstation ID, Monitor #, Layout ID & Panel #) that a Galaxy client will use or transmit when requesting video.
Diva Client	Refers to the PC that is running the Diva Client Software or the software itself.
Galaxy Client	The PC that runs the System Galaxy software or the software itself.
Management Server	One of the recording servers must be designated to be a management server. The management server handles the video requests for the Galaxy Client
Recording Server(s)	The DIVA servers that the cameras are attached to.
Target Diva Client	The Diva Client that is chosen to display video for Galaxy when operator requests it.
Dedicated or Designated	A Diva Client or one of it’s video panels can be designated to the purpose of playing live video requests from a System Galaxy client.

2 Requirements & Dependencies

This section lists the known requirements to integrate Galaxy with the DIVA System. These requirements are divided into sections as they apply to the server or client. Requirements are listed in order of their dependency. If you find that something isn't working as expected, then review the requirements in sequence beginning with section 2.1 until you discover the .

2.1 DIVA MANAGEMENT SERVER DEPENDENCIES

Fulfill these dependencies at the DIVA Servers before adding DVRs and cameras to System Galaxy software programming.

- 1) At least one of the Diva recording servers must be designated as the “management server” – this is the unit that will be added to System Galaxy.

NOTE: You must know the **IP parameters (IP address & port #) and login credentials** of the Diva Management Server for adding the server as a DVR to the System Galaxy software.

- 2) The **DIVA recording servers** must be configured with the IP address of the management server and properly licensed for the number of camera channels needed.
- 3) ***Client Layouts cannot be shared between Diva clients.*** You must create a unique, individual **video layout for each DIVA client using the Diva software.** This must be done before you can run the Diva Interrogator Utility at the Galaxy clients.

TIP: Give layouts a descriptive name to make it easy to determine which layout goes with which Diva client.

- 4) **SHORTCUT:** If you wish to **import camera names** from the Diva Server into System Galaxy, you must first configure the **descriptive camera names** at the DIVA Server(s).

Note: You can always manually edit camera names in Galaxy if you did not do so at the server before importing. However, by naming cameras at the DVR server, you ensure the names are correctly and match in both places and avoid having to manually program camera names twice.

- 5) **NOTICE:** The Diva Management Server and target Diva Client must be running and logged-in to support System Galaxy requesting video. The Recording Servers and cameras must be online also.



SEE: the ***Diva Manufacturer's Documentation*** for instructions on how to install and configure the DVR Servers, cameras, or Client workstations associated with DIVA.

2.2 DIVA CLIENT PREREQUISITES & DEPENDENCIES

Fulfill these dependencies at the DIVA Clients before running the Diva Interrogator Utility and before System Galaxy video viewing can begin operation.

- 1) **DIVA client software can be installed on the same PC or a separate PC as the System Galaxy client software.**
 - a. If Diva and SG are installed on the same PC, you must have two monitors. One must be dedicated to the **DIVA client software** and the other monitor must be dedicated to SG.
 - b. If they are on separate PC's you only need one monitor for each client.
- 2) **Galaxy-requested Live video** will always display in the designated panel # of the DIVA monitor. This is based on preconfigured registry settings that are saved at the local workstation of the Galaxy client. These settings are captured and written to the Galaxy workstation using the Diva Interrogator Utility. See the Galaxy client requirements for more about the Diva Interrogator. See the Galaxy client requirements for more about the Diva Interrogator.
- 3) **A unique DIVA Layout must be created at the Diva Server and be available to the DIVA client.** *This is a prerequisite for the Interrogator Utility and the System Galaxy client.*

Note: a layout is available when it is not being used at a different client. Layouts cannot be reused/shared between Diva clients. The layout can be already running or just available to call up. When video is requested by Galaxy, the layout and panel # are included and the layout and video should start up at the Diva monitor provided that the VMS software is running.
- 4) **DIVA client software must be logged-in and running in order to play the requested video.**



SEE: the ***Diva Manufacturer's Documentation*** for instructions on how to install and configure the DVR, cameras, or any client-side components associated with the DVR.

2.3 SYSTEM GALAXY CLIENT REQUIREMENTS

These requirements are listed in dependent order. The Diva requirements in sections 2.1 and 2.2 must be completed before you can add a DVR, import cameras and set the Diva client IDs.

- 1) **System Galaxy must be registered for ‘DVR Support’ (i.e. DVR option must be checked/ON and the number of DVR units must be set in the ‘System Registration’ screen)** per the purchase agreement or maintenance upgrade. *Registration is done at the System Galaxy communication server for customers using Corporate or Enterprise product levels. Registration is performed by the Installer/Dealer through the Galaxy Customer Service or the Dealer’s Online Registration service (secure dealer login is required).*
- 2) **Each Galaxy Client* must have its System Settings configured in the SG Software:**
 - a. the **DVR Enabled** checkbox must be “checked” on the General Options tab of the SG System Settings screen.
 - b. the **Automatically Call-up Video** option must be “checked” on the Alarm Options tab of the SG System Settings screen.
- 3) **You must add the IP address, port and log-in credentials of the Diva Management Server(s) to the System Galaxy programming – this is done in the DVR Programming screen.** *There must be at least one Management Server – regardless of how many recorders there are. The recorders are not added to Galaxy.*
- 4) It is possible to **import the Camera Names** into SG – in order to do this, the camera names must have already been created at the DVR server before they are imported in SG. *It is possible to change the camera names in SG after adding them, but it may cause confusion if they don’t match the DVR’s list of names. It is best practice to make the camera names at the server and import them once into SG.*
- 5) **For alarm-triggered video**, cameras must be linked to doors & inputs in order for ‘armed alarms’ to **automatically call-up video** at the designated DVR panel. This is done in the reader or input properties screen. *Alarm-triggered video should automatically start the correct layout as long as the Diva client software is running. Steps 1 thru 4 must be completed first.*
- 6) **The Diva Client IDs must be saved in the local registry of each Galaxy client PC*** that supports operator-requested or alarm-triggered video. *This is accomplished by running the Galaxy’s DIVA Interrogator Utility at the local client. This is done at the Galaxy client whether it is on a separate or same PC as the Diva Client. (see next section for details on the Utility dependencies)*

*** The PC registry settings and client software settings do not have to be enabled at an SG Client that is not designated to monitor alarms and video.**
- 7) **OPERATION: To view video at a Diva Client**, the Diva servers, clients and cameras must all be online/running. The Management Server and target client must be logged-in. The necessary layout must have been created and available. And the Diva Client IDs must be saved to the SG client PC registry. System Galaxy client software must be running at the local PC also.

2.4 DIVA DVR INTERROGATOR UTILITY REQUIREMENTS

The SG operator's ability to direct the video to the correct workstation, monitor, and video panel is dependent upon having the DIVA component IDs saved in the local workstation registry. Setting the client registry values is performed by Galaxy's DIVA Interrogator Utility.

- 1) **You must copy the Interrogator executable files (.exe and .dll) to the local Galaxy workstation so you can run the utility against the local registry.** The *Diva Interrogator Utility* will be provided to the installer on a discrete CD.
- 2) **You must run the Diva Interrogator Utility on any Galaxy client that supports 'requested video'.** The utility will save the **DIVA Client IDs** to the local registry of the Galaxy client.
- 3) You must **enter the IP address and log-in credentials of the Diva Management server** in order to connect and retrieve the list of *Diva Client IDs*.

BEST PRACTICE: Stop all DIVA clients except the desired target DIVA client that you are retrieving the IDs from. The Interrogator Utility will pull back all clients that the Diva server thinks are online. This way you will not accidentally chose the wrong client or monitor.

IMPORTANT: you must know the Monitor # of the Diva Client if the Diva client is installed on a shared workstation (a shared workstation has 2 monitors). To find the monitor #, sign into the Diva client software and look to the top of the Diva window.

- 4) In order to connect, retrieve and save the **DIVA Client IDs** to the Galaxy workstation ...
 - a. The DIVA Management Server must be running and signed-in
 - b. the target DIVA client software must be running and signed-in and
 - c. the correct Diva layout must be created and available to run on the Diva client (meaning it is already selected and running at the Diva client or is available to be called-up (it cannot be in-use by a different client).
- 5) *See the instructions in this guide for more in-depth instructions.*

3 About Configuring the Diva System

This chapter briefly outlines the known Diva configuration that System Galaxy depends upon.



QUICK STEPS: SETTING UP THE DVR INTERFACE

- 3.1) Installation of the Diva servers and clients
- 3.2) Designating a Management Server
- 3.3) Configuring the Camera Names
- 3.4) Configuring the client layouts



SEE: the brand ***Manufacturer's DVR Documentation*** for instructions on how to install and configure the DVR and camera hardware or client-side components associated with branded DVRs.



SEE: the ***System Galaxy Software Installation Help*** for instructions on how to install System Galaxy software. These installation instructions are found on the HELP module on the CD 1 menu.

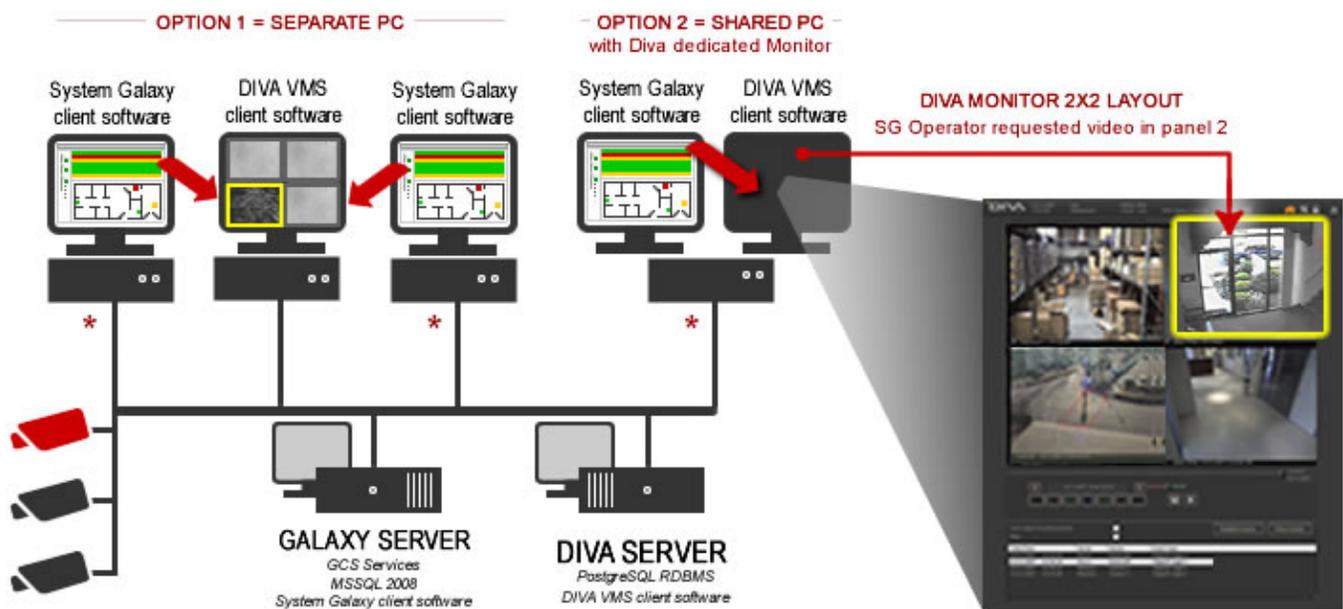
3.1 SYSTEM OVERVIEW

The Diva system consists of a Diva Management Server, Recording Servers and Diva Clients. One of the recording servers will be designated as the management server.

System Galaxy clients will request video for a specific camera (from the management server) which will be called-up from the appropriate recording server and streamed to the designated Diva Client monitor.

System Galaxy knows which Diva Client (monitor/layout/panel) to designate for video once the *Diva Client IDs* have been saved in the Galaxy client PC registry.

FIGURE 3 – OVERVIEW OF SYSTEM INSTALLATION



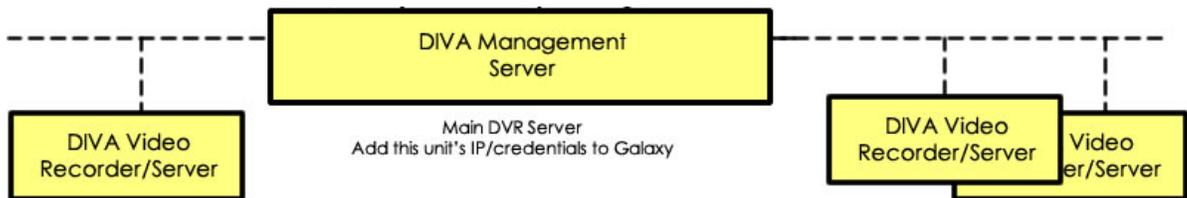
* the *Diva Client IDs* must be saved in the Galaxy Client PC registry - using the Diva Interrogator Utility, whether they are on the same PC or separate PCs.

3.2 DESIGNATING A MAIN MANAGEMENT SERVER

1) At least one Diva recording server must be designated as the **“Management Server”**.

- It is possible to have more than one *management server*.
- The management server will be added to the System Galaxy software as the DVR Unit.

FIGURE 4 – CONCEPT: Management Server



* Live video displays on the designated monitor in the designated layout-panel.
Client, Monitor, Layout, and Panel designation is set in workstation configuration.

2) The Management Server IP address, port and log-in credentials must be added to System Galaxy.

- make sure you know the IP address and Login credentials
- or have someone with clearance on-hand who knows these credentials.

Tip: The installer can use DIVA’s default log-in and password to perform the initial configuration of Diva servers/clients and programming into System Galaxy.

IMPORTANT: If the System Owner changes log-in Credentials at the Management Server, the credentials must be changed in System Galaxy also.

3) The Diva Recording Servers must be configured with the IP address of the “Management Server” via the VMS software.

- The management server will call-up live video from the appropriate recording server & camera.

3.3 ABOUT CONFIGURING CAMERA NAMES

Camera channels must be licensed at the Diva Recording Servers and named appropriately.

1. The **camera names** should be pre-configured in the Diva System before importing the names into the System Galaxy software.
2. Camera names can be imported after the Management Server is added to SG.
3. If you pre-configure the camera names in the Diva System, you can avoid duplicate work of having to configure matching camera names in both systems. You also reduce the risk of mistakes.
 1. TIP: Use descriptive naming scheme that identify the video channel number at the recorder and includes a identifies the location or direction of a camera. For example, "Front/Parking Cam 01", "Roof/West Cam 02", or "Tech Hall".
 2. Descriptive naming helps technicians trace down equipment problems and helps security operators quickly identify and respond to trouble areas.
4. If you do not pre-configure the camera names in the Diva System, you can still configure and name the cameras within System Galaxy. See the section on adding cameras to SG.

3.4 DIVA CLIENT INSTALLATION OPTIONS

There are two options when configuring the DIVA Client monitoring:

OPTION-1 SEPARATE WORKSTATIONS: The Diva Client software can be installed on a separate PC from the Galaxy client. The Galaxy client will be configured with the target *Diva Client IDs*.

Theoretically, multiple Galaxy clients can be pointed to a Diva Client workstation. In such a case, you must decide if the Galaxy clients will all point to the same viewing panel or different viewing panels.

IMPORTANT: If more than one Galaxy client is pointed to the same Diva viewing panel, then the last one to request video will be the camera that is displayed.

OPTION-2 SHARED WORKSTATIONS: Diva Client software can be installed on the same PC as the Galaxy client. The Galaxy client will be configured with the *Diva Client IDs*. System Galaxy client and the Diva Client must both have a dedicated monitor on this shared workstation.

3.5 CONFIGURING DIVA CLIENT LAYOUTS

You must create unique and separate layouts for each Diva Client. Layouts cannot be shared. From a Galaxy perspective, the layout must be available when a Galaxy client requests video. “Available” means it has been created and is either already running at the target Diva monitor or is free to run (i.e. not in use by another client/monitor).

NOTE: A layout determines how many video panels (# of cameras) that will be displayed at once. There are typically 2x2 (4), 2x3 (6), or 3x3 (9) panels in the layout. One panel will be reserved for Galaxy requests.

IMPORTANT: The Layout ID is one of the required *DIVA Client IDs* that must be set in the Galaxy Client’s local registry. The layout ID is assigned by Diva when the layout is created. See the section in this guide about *Setting the Diva Client IDs* using the Interrogator Utility.

Use the table here to help map which Diva Client, monitor, layout, panel (Diva client IDs) you want to designate for streaming Galaxy Client-requested video.

Galaxy Client PC Local workstation	Target Diva Client Workstation ID	Diva Monitor ID	Layout ID	Panel ID

4 Setting 'Diva Client IDs' at each Galaxy Client PC

4.1 ASSIGNING 'DIVA CLIENT IDs' to GALAXY REGISTRY

When *System Galaxy* sends a video request for a specific camera to the *Diva Management Server*, the message must include the **Diva Client ID's** for the desired (target) Diva Client. The Diva Management Server uses those 'Diva Client IDs' to determine where to stream video.

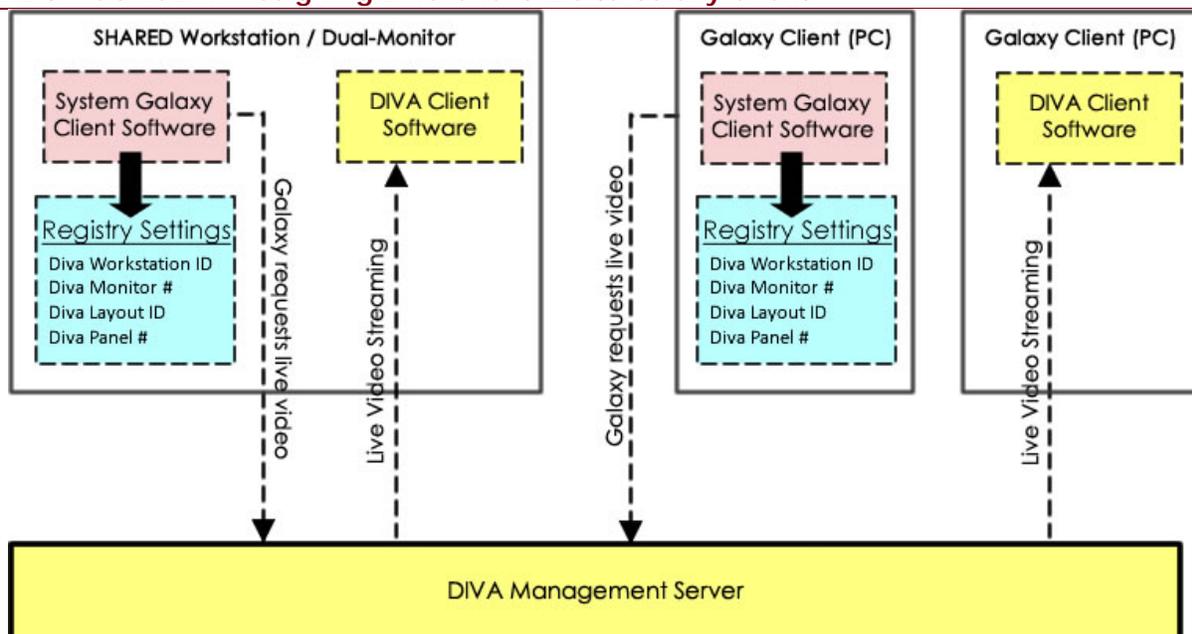
The *Diva Interrogator Utility* is used to retrieve the *Diva Client ID's* and record/save them into the local PC registry at Galaxy Client. You must install and run the Interrogator on every Galaxy client – see the section pertaining to the Interrogator for details.

Once the Diva Client ID values are set in the local Galaxy client registry, all video requested by System Galaxy will always display at the same Diva Client, using the same Layout and Panel.

The "Diva Client ID" values are ...

- **Workstation ID** (this is the machine number of the target Diva Client PC)
- **Monitor ID** (this is the monitor that will display the Diva Client software - the monitor number is shown at the top of the Diva client software)
- **Layout ID** (this ID is assigned by Diva at time the Layout Name is created; the Interrogator Utility will show the Layout ID when you pick the Layout Name in its droplist.)
- **Panel ID** (the possible values will display in the Interrogator droplist when you choose your Layout; which Panel is chosen will be at the discretion of the system programmer)

FIGURE 5 - CONCEPT: Assigning Diva Client IDs to Galaxy Client



4.2 RUNNING THE DIVA INTERROGATOR UTILITY

The *Diva Interrogator Utility* must be installed and executed at any Galaxy client that requests video.

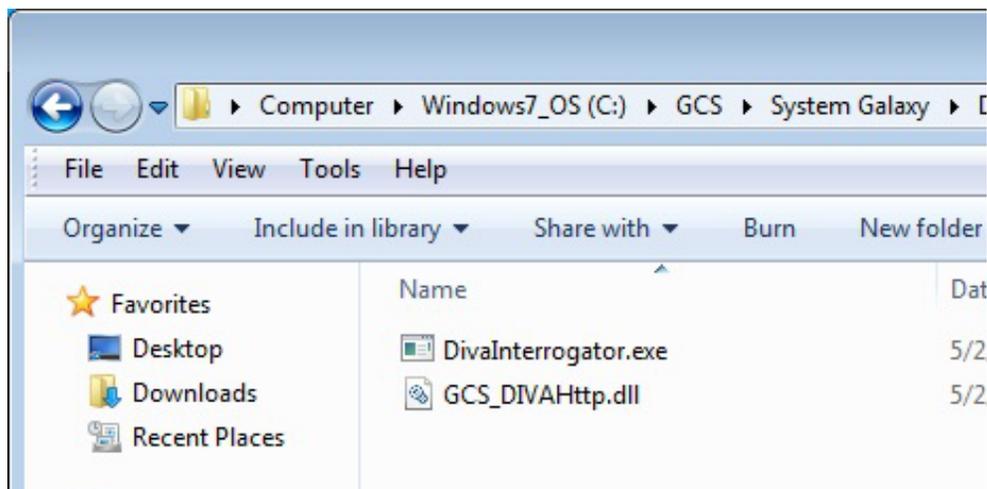
You must copy the Diva Interrogator Utility files (.exe and .dll) to the local Galaxy Client PC that will be issuing requests for video. Any Galaxy clients that are restricted from requesting video will not need to set the Diva Client values into its registry.

4.2.1 INSTALLING THE DIVA INTERROGATOR UTILITY

1) Copy the *Diva Interrogator Utility* files to the local Galaxy Client PC that will issue requests for video.

- DivaInterrogator.exe
- GCS_DIVAHttp.dll

FIGURE 6 – INSTALLING DIVA INTERROGATOR UTILITY



4.2.2 TESTING AND SAVING THE 'DIVA CLIENT IDS'

The Interrogator Utility must use the correct IP address and log-in credentials of the Diva Management server in order to solicit the server for the lists of Diva Client component values.

PREREQUISITES:

- All Diva Servers must be running and cameras must be online in order to fulfill testing of settings.
- You must be fully logged into the Management Server.
- You must have already created the Layout you will be choosing.
- The target Diva Client must be running and you must be logged into the Diva Client software.

1. Enter the **DIVA address and log-in credentials** of the Management Server
2. Click **CONNECT** to connect to the Management Server
3. Once you connect, the Diva Servers and Cameras droplists will be populated. If the Cameras are PTZ types, the presets will also populate.

Note: The camera's and presets are not saved to the PC registry. They are available for the purpose of testing the video streaming.

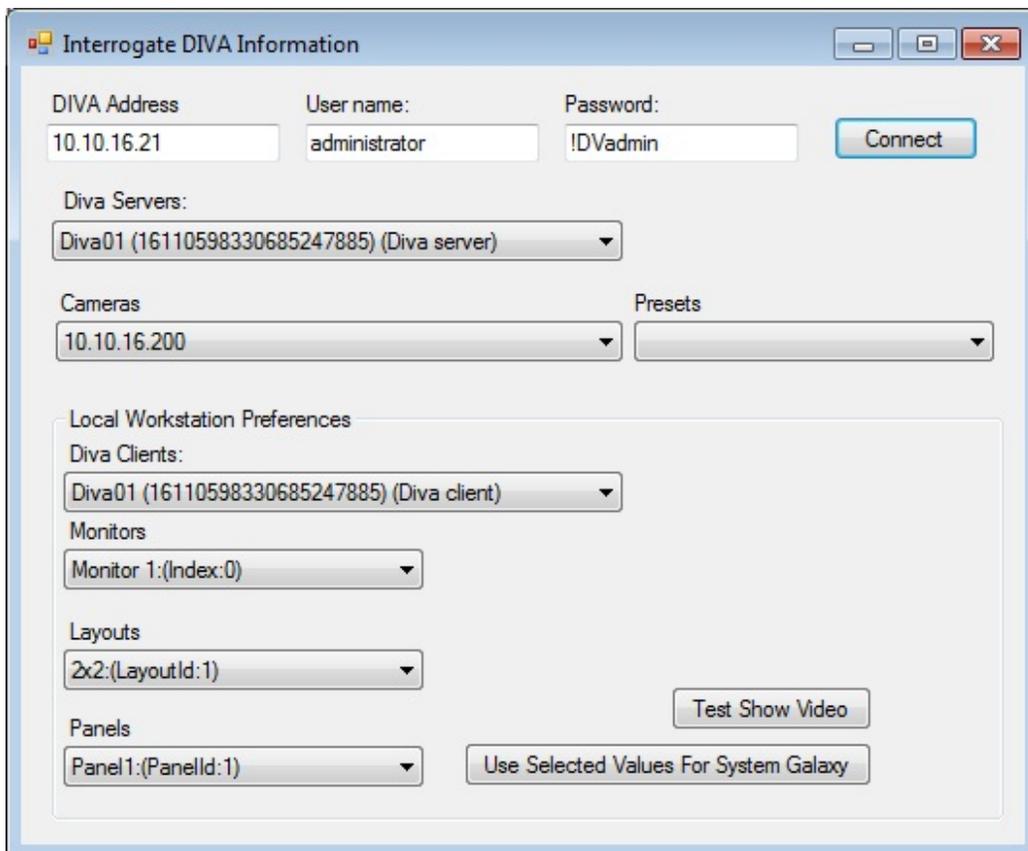
FIGURE 7 – CONNECTING TO THE MANAGEMENT SERVER

The screenshot shows the 'Interrogate DIVA Information' dialog box. It features a title bar with standard window controls (minimize, maximize, close). The main area contains the following elements:

- DIVA Address:** Text input field containing '10.10.16.21'.
- User name:** Text input field containing 'administrator'.
- Password:** Text input field containing '!DVadmin'.
- Connect:** Button to the right of the password field.
- Diva Servers:** Dropdown menu.
- Cameras:** Dropdown menu.
- Presets:** Dropdown menu.
- Local Workstation Preferences:** A section containing:
 - Diva Clients:** Dropdown menu.
 - Monitors:** Dropdown menu.
 - Layouts:** Dropdown menu.
 - Panels:** Dropdown menu.
- Test Show Video:** Button located below the 'Local Workstation Preferences' section.
- Use Selected Values For System Galaxy:** Button located below the 'Local Workstation Preferences' section.

4. Select the desired DIVA Recording Server and Camera in order to test your settings in a later step.
5. Choose the **DIVA Client workstation** to be designated for Galaxy video. NOTE: the target Diva Client & Diva software must be running and signed-in.
6. Choose the **monitor number** (this is found/displayed at the top of the Diva Client screen)
7. Choose the **desired layout** (must be created and available)
8. Choose the **desired panel** (at the preference of the system programmer/owner)
9. Click **TEST SHOW VIDEO** if you want to confirm that your choices give the desired results (the target Diva client must be online and logged-in)
10. Click the **USE SELECTED VALUES** in order to write the selected values to the local PC registry (System Galaxy will always use these Diva Client IDs when requesting video until you change them).
11. Restart the System Galaxy software to reinitialize with new settings.

FIGURE 8 – SELECTING THE DIVA CLIENT IDs



5 Configuring System Galaxy for DVR Support

This chapter describes the registration and configuration in System Galaxy.



QUICK STEPS: SETTING UP THE DVR INTERFACE

- 4.1) Registering the SG System for the DVR
- 4.2) Enabling DVR Support in System Settings
- 4.3) Adding a DVR (the Diva Management Server) in System Galaxy
- 4.4) Importing the Camera Names into System Galaxy
- 4.5) Linking Cameras to hardware devices in System Galaxy

After the initial system programming is completed, the SG Operator can begin using the DVR features.



SEE: the brand ***Manufacturer's DVR Documentation*** for instructions on how to install and configure the DVR and camera hardware or client-side components associated with branded DVRs.



SEE: the ***System Galaxy Software Installation Help*** for instructions on how to install System Galaxy software. These installation instructions are found on the HELP module on the CD 1 menu.

5.1 Registering System Galaxy for DVR Support

DVR Support is registered during the initial System Registration for a new install.

DVR Support can also be added to an existing system by upgrading.

A new registration code must be acquired from Galaxy Control Systems when adding *DVR support* through an upgrade (Certified Dealer required).

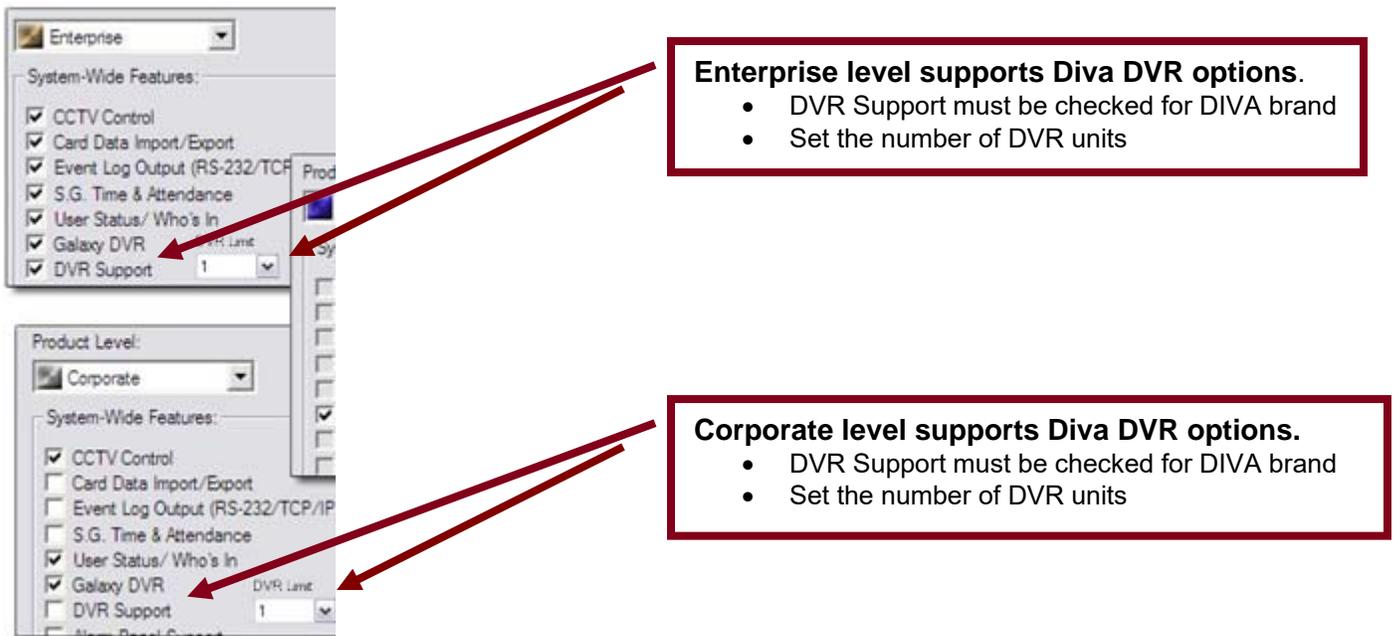
1) Open the System Registration screen – *Configure > Options > Registration > System.*

- In the *System-Wide Features*, you will check the DVR option to enable it.
 - Check the “**DVR Support**” option
 - and select the number of units** needed.
- Complete the normal registration process as needed
- Enter a valid Registration Code (if you are upgrading, this code will be changed)
- Click [Apply] and [OK] buttons

2) Complete the Workstation Registration as required for new installs.

3) Restart System Galaxy software after registration is complete. (If you are changing the workstation options, you can restart software after completing that – see next step)

FIGURE 9 - PRODUCT REGISTRATION SCREEN - DVR SUPPORT OPTION



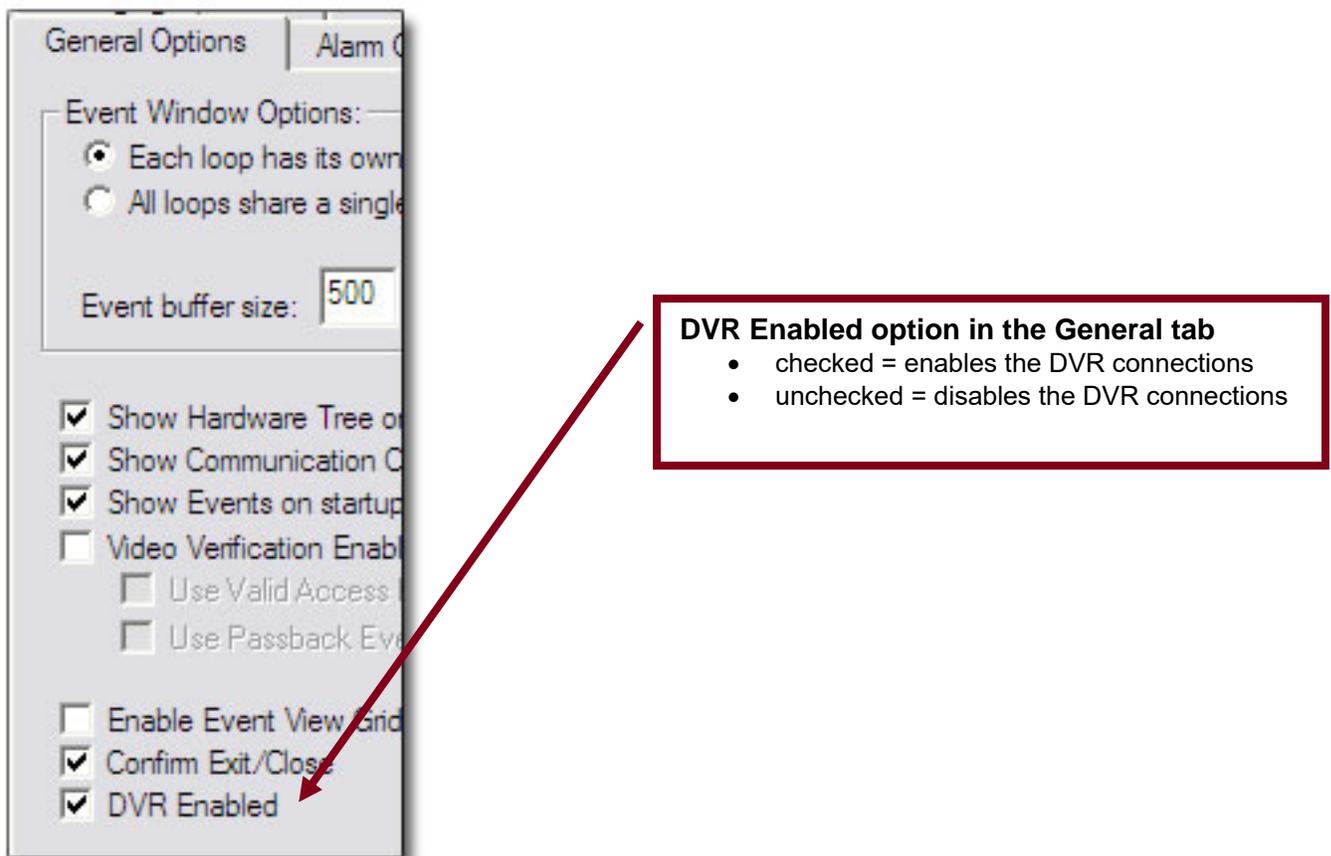
SUPPORT: Dealers may use **GCS Online Registration** website 24/7 (dealer online logon is required), or call customer service. A valid maintenance agreement is required for upgrading systems.

5.2 Enabling/Disabling DVR Support per Galaxy Workstation

You can enable or disable the DVR Interface at each Galaxy workstation individually through the System Settings screen. You may not want every workstation in your system to be able to request video. This option is ON/enabled by default when you install the client software.

- 1) Open the System Settings screen - from menu **Configure > Options > System Settings**
- 2) Select the *General Options* tab
- 3) “check” the **DVR Enabled** option to enable it. (If “unchecked”, you will not be able to see the DVR Types droplist in the DVR programming screen.)
- 4) Click the APPLY button and OK button to save your changes.
- 5) Restart the System Galaxy software to initiate the changes. (NOTE: see next step before restarting)

FIGURE 10 – ENABLE DVR SUPPORT IN SYSTEM SETTINGS SCREEN



5.3 Setting Auto DVR call-up for Armed Alarms (per Workstation)

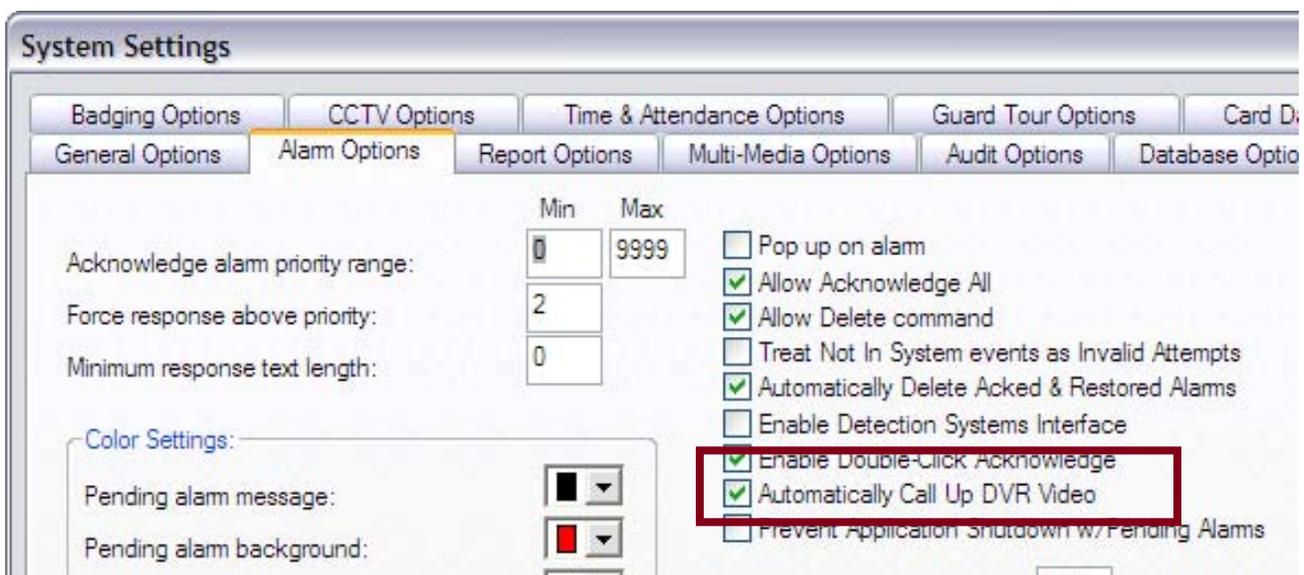
You can configure the workstation to automatically show INSTANT LIVE FEED when an **armed alarm** occurs in the System Galaxy system. This is enabled by checking the **'Automatically Call-up DVR Video'** option in System Settings screen.

IMPORTANT:

- ▶ This is a *per workstation* setting, and will not affect other workstations in the Galaxy system.
- ▶ A master operator login is required to edit System Settings (or System Settings) screen.
- ▶ The **'Automatically Call-up DVR Video'** shows video for cameras that are linked to an input or door/reader that has been configured to need acknowledgement and that are armed.
- ▶ Alarm Priority: Be aware that if you are using alarm priorities, that the live feed will come from the camera with the highest priority.

- 1) Open the System Settings screen - from menu **Configure > Options > System Settings**
- 2) In the *Alarm Options tab*, you will check the **'Automatically Call-up DVR Video'** option to enable it. Unchecked means the option is disabled and the DVR Viewer will not Auto-call LIVE feed for any armed alarms.
- 3) Click the APPLY button and OK button to save your changes.
- 4) Restart the System Galaxy software to initiate the changes.

FIGURE 11 – ENABLE DVR SUPPORT IN SYSTEM SETTINGS SCREEN



5.4 Adding a DVR (the Diva Management Server)

The following steps describe adding a DVR Unit to the System Galaxy software and configuring the connection settings.

- 1) **Open the DVR Programming Screen** from menu, [Configure > Hardware > DVR's](#)
- 2) **Click the [Add] button** in the DVR screen to add a DVR.
- 3) **Enter a unique name for the DVR** in the [Name] field (i.e. "DVR Unit 01"). This name will appear in [DVR droplists] in the *Camera Programming* screen and in the *Reader/Input Programming* screens.
- 4) **Choose a DVR type** from the [Type] droplist that matches the type of DVR you will connect to.
- 5) **Enter the IP address** or DNS Name of the DVR Unit.
- 6) **Enter IP Port Number** if it will be different from the default value automatically shown.
- 7) **Enter the User Name & Password (logon):** The login used here must exist at the DVR Unit and does not necessarily need to be the highest logon, but must allow viewing and controlling video.
- 8) **Click the [Apply] button** to save settings.
- 9) **Restart System Galaxy software.**



Use the [edit] and [delete] buttons to edit or delete an existing DVR Unit's configuration.

FIGURE 12 – DVR PROGRAMMING SCREEN

The screenshot displays the DVR Programming interface with the following fields and controls:

- Select a DVR:** A dropdown menu showing "DIVA01".
- Name:** A text input field containing "DIVA01".
- ID Number:** A text input field containing "1".
- DVR Type:** A dropdown menu showing "VDG DIVA HTTP".
- Vendor Code:** A dropdown menu showing "Normal DVR (NORMALDVR)".
- Buttons:** A vertical stack of buttons: Add, Edit, Delete, Apply, and Cancel.
- Connection Settings:**
 - IP Address or DNS Name:** A text input field containing "10.10.16.21".
 - IP Port #:** A text input field containing "80".
- Security Settings:**
 - User Name:** A text input field containing "administrator".
 - Password:** A masked text input field showing "xxxxxxxx".
 - Confirm Password:** A masked text input field showing "xxxxxxxx".

5.5 Importing or Renaming Cameras in System Galaxy

This section describes importing or renaming Cameras in System Galaxy. System Galaxy auto-fills the DVR's camera droplist with 16 cameras when you add the DVR.

NOTES

CAMERA MAPPING: the Camera NUMBER/ID in System Galaxy maps to the camera channel number at the DVR Recorder. The names can be imported.

CAMERA NAMING: When manually naming cameras ...

- **Use logical names** to identify the camera's physical location, such as "lobby", "guard desk", "dock-5", "break room", "east gate", etc.

UPDATING THE HARDWARE TREE'S CAMERA LIST: Close and reopen the Hardware Tree to refresh the Camera list if needed. From the menu select View > Hardware Tree to reopen it.

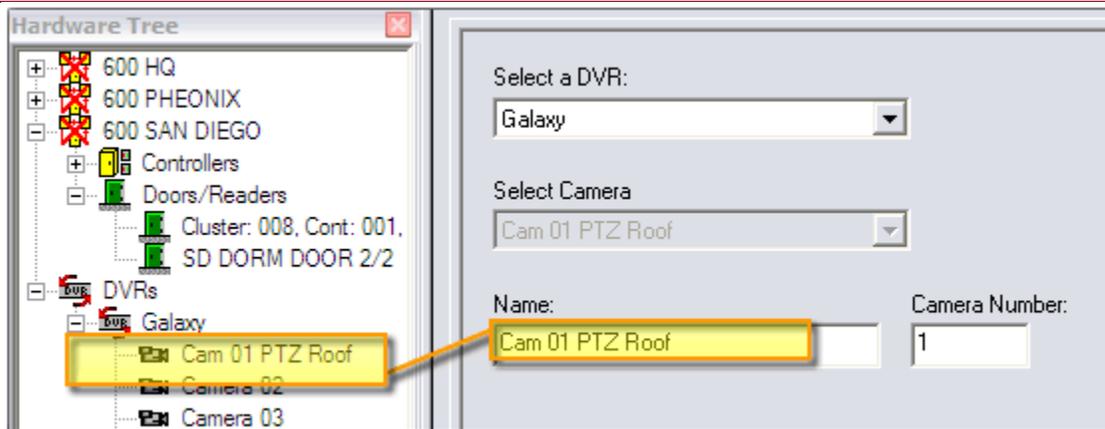
5.5.1 IMPORTING CAMERA NAMES FROM THE HARDWARE TREE

1. right-click the DVR Icon in the Hardware Tree
2. selecting the Menu Option to 'Import Cameras' (refresh Hardware Tree by reopening it from View menu)

5.5.2 RENAMING CAMERAS FROM THE CAMERA PROGRAMMING SCREEN

- 1) **Open the Camera Programming Screen** from menu, [Configure > Hardware > DVR Cameras](#)
- 2) **Click the [Edit] button** in the Camera screen to rename a Camera.
- 3) **Select a DVR name** from the [Select DVR] droplist that you wish to configure the cameras for.
- 4) **Type a unique name for the Camera** in the [Name] field (i.e. "Lobby 01"). This name will appear in [Camera droplists] in the *Reader/Input Programming screens*.
- 5) **Click the [Apply] button** to save settings. **Camera Name will appear in the HARDWARE TREE.** *Refresh the hardware tree by re-opening it from the View menu.*

FIGURE 13 – CAMERA PROGRAMMING SCREEN



5.6 Linking Cameras to Hardware in System Galaxy

Cameras can be linked with a Door Reader, Elevator Reader or Input Device.

5.6.1 LINKING A CAMERA TO A READER

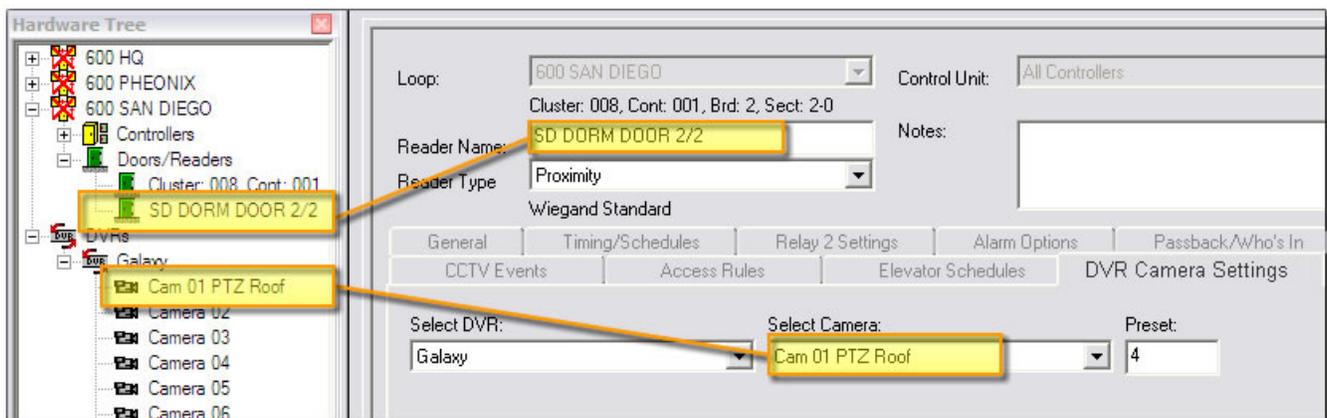
- 1) Open the Reader Programming Screen from menu, *Configure > Hardware > Door/Reader*
- 2) Select the Loop, Control Panel, and Reader you want to link to a camera.
- 3) Select the 'DVR Camera Settings' tab and click [Edit] button
- 4) Click EDIT to configure the CAMERA link
 - Select the *DVR* then *Camera* you want to link to.
 - If the chosen camera is a PTZ and your DVR supports client-side presets (such as Discovery-3)
- 5) (optional) To cause this device to trigger an alarm condition within System Galaxy, set the Ack option to "checked". This option is in the *Alarm Options* tab. NOTE: see the section on *Auto Calling Video on Alarm* to configure automatic start up GCS DVR Viewer and live video feed plays back. The highest priority alarm will be displayed.
- 6) Click [Apply] button to save changes.

NOTES

LINKING MULTIPLE READERS TO A CAMERA: You can link more than one reader with a camera.

UNLINKING READERS FROM A CAMERA: You can UN-link a reader from a camera by setting the DVR field to "NONE".

FIGURE 14 – LINK CAMERA TO A DOOR/READER – PROGRAMMING SCREEN



5.6.2 LINKING A CAMERA TO AN INPUT

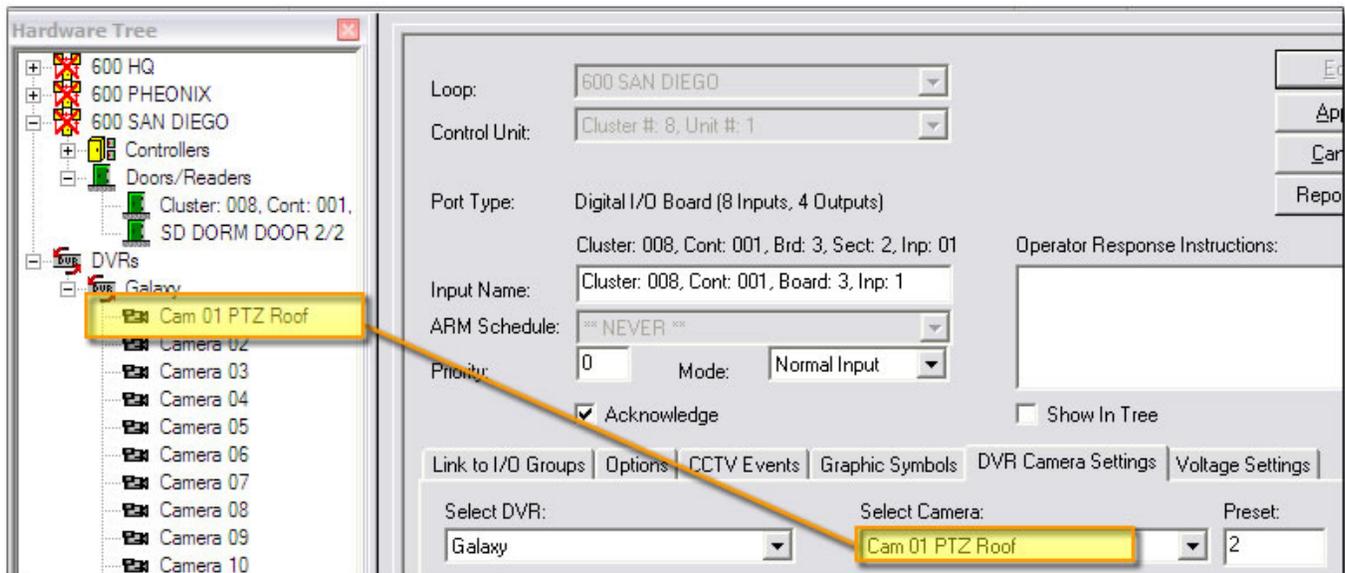
- 1) Open the *Input Properties* screen from menu select **Configure >Hardware >Input Devices**
- 2) Choose the desired **Loop, Control Unit and Input Name** from drop lists as necessary.
- 3) Select the **'DVR Camera Settings'** tab and click **[Edit]** button.
- 4) Select the desired **DVR and Camera** from the drop lists.
- 5) Set the **Show in Tree** option to "checked" to allow the input's camera option to be selectable from the short-menu in the SG Hardware Tree.
- 6) Set the **Acknowledge** option to "checked" to allow the input to trigger an alarm if desired.
NOTE: that an alarm condition can be used to automatically start up GCS DVR Viewer and live video feed.
- 7) Click **[Apply]** button to save changes, then refresh Hardware Tree (close and re-open) to display the input icon in the tree. Hardware Tree can be reopened from the **View Menu**.

NOTES

LINKING MULTIPLE INPUTS TO A CAMERA: You can link more than one Input with a Camera.

UNLINKING READERS FROM A CAMERA: You can UN-link a reader from a camera by setting the DVR field to "NONE".

FIGURE 15 – LINK CAMERA TO AN INPUT - PROGRAMMING SCREEN



5.6.3 VALIDATING CAMERA MAPPING IN SG

Once the configuration is complete, test the input / reader devices to prove they are correctly mapped to the corresponding camera and that you can connect to each camera / display video for the area you expect.

Follow the numbered steps to test each device. (The table below assists your verification).

1. **Select the Event Monitoring Screen** (System Galaxy is running and connected to loops)
2. **Open the Hardware Tree and expand the objects to see all inputs and readers.**
3. **Induce an event for the device from hardware tree icon** (i.e. right-click the icon and pulse / shunt).
4. **Select the resulting event on the Event screen and right-mouse-click to pick the ‘View Live Video’ option** from the short-menu. See Figure-8 in Chapter 3 for an example.
5. **Verify the DVR Viewer opens/displays video for correct area.**
6. **Unshunt any input after verification is complete.** (inputs only)
7. **Repeat steps 3 through 6 for each device in the list.**

Camera Connections Validation List (extra copy in the back – see Appendix A)

DVR NAME:		DVR LOCATION:		
Device Name/type	Camera #	Camera Name	Location/Area Displayed	Check
	1			<input type="checkbox"/>
	2			<input type="checkbox"/>
	3			<input type="checkbox"/>
	4			<input type="checkbox"/>
	5			<input type="checkbox"/>
	6			<input type="checkbox"/>
	7			<input type="checkbox"/>
	8			<input type="checkbox"/>
	9			<input type="checkbox"/>
	10			<input type="checkbox"/>
	11			<input type="checkbox"/>
	12			<input type="checkbox"/>
	13			<input type="checkbox"/>
	14			<input type="checkbox"/>
	15			<input type="checkbox"/>
	16			<input type="checkbox"/>

6 Operating the DVR Viewer in SG

This chapter covers the operator-requested and alarm-triggered methods of streaming video to Diva Clients.

6.1 Methods of Requesting Live Video

You can retrieve (or 'call up') video manually or automatically in System Galaxy.

6.1.1 AUTOMATIC VIDEO CALL-UP (ALARM TRIGGERED)

- ▶ (Automatic call-up / instant Live Feed) an armed alarm is generated from an input or door that is linked to a camera (provided the workstation *auto call-up* option is ON and that device's ACK option is ON)

6.1.2 MANUAL VIDEO CALL-UP (OPERATOR REQUESTED)

- ▶ (Live Feed) Operator calls video from the icon of a camera-linked device (reader/input)

The example below shows operator calling video for a door/reader that is linked to a camera.

1. right-click the door icon in the Hardware Tree to open the command-menu
2. choose the *View Live Video* option to open/start playing live feed for that camera in the GCS DVR Viewer.

FIGURE 16 OPERATOR-REQUESTED VIDEO: Call-up live video for a linked camera



6.2 Runtime Modes for Diva's Client Viewer

There are two runtime modes for the DVR Viewer; Normal/Integrated Mode and Standalone Mode.

6.2.1 NORMAL INTEGRATED MODE

The Diva Client streams Live video in the designated layout/panel when video is requested by System Galaxy. Video is called by either manual operator-requested or alarm-triggered.

NOTES:

- ▶ The 'View Live Video' option only displays on command menus from the device icons or event messages provided the device is linked to a camera.
- ▶ Manual and automatic calling video is covered in the previous section of this chapter.
- ▶ See chapter 4 for instructions on linking cameras.

6.2.2 DIAGNOSTIC MODE (Using the Diva Interrogator Utility)

The Interrogator can SHOW VIDEO based on filtered selections (workstation, monitor, layout and panel). This can be done for trouble shooting purposes. You must supply the IP connection parameters and log-in credentials to the Diva Management Server.

6.2.3 BLOCKING VIDEO AT A WORKSTATION



Blocking Video per Workstation: The GCS DVR Viewer can be disabled on a per workstation basis. See Chapter 2 in this manual for info on enabling/disabling the Viewer at individual workstations.

6.3 Viewing Modes of the DVR Viewer

The DVR Viewer has two **viewing modes**, LIVE and RECORDED.

	WHERE VIDEO CALLS FROM...	DIVA PANEL
Automatic call up	from an incoming armed alarm	YES
Operator Commanded	from SG Hardware Tree <ul style="list-style-type: none"> ▶ a device icon ▶ a camera icon ▶ an incoming event 	YES
	from SG Graphic Floor plan <ul style="list-style-type: none"> ▶ an icon on a floor plan 	
Operator Selected	from DIVA Client - LIVE <ul style="list-style-type: none"> ▶ a chosen camera (droplist) 	YES
Operator Selected	from DIVA - RECORDED <ul style="list-style-type: none"> ▶ a chosen camera (droplist) 	Not supported
	from SG HISTORY REPORT <ul style="list-style-type: none"> ▶ historical event 	

6.3.1 LIVE VIDEO FEED

System Galaxy allows the operator to select live video from a single camera or multiple cameras at once.

NOTES:

- ▶ PAN / TILT / ZOOM controls are supported provided the DVR and camera are capable.
- ▶ PRESET controls are supported provided DVR and camera supports preset programming.
- ▶ Galaxy is **Net Time Sync compliant** as are the Discovery 3 & selected brand DVRs

6.3.2 RECORDED VIDEO (HISTORIC RETRIEVAL)

NOTES:

- ▶ Not supported in preliminary release of integration (10.2.0)

6.4 Getting Live Video

There are several ways to get Video from System Galaxy.

6.4.1 GET LIVE VIDEO FROM THE HARDWARE TREE

The 'View Live Video' option is available on the short-menu when a [Door/Reader icon] or an [Input icon] is selected from the *Hardware Tree* in System Galaxy.

- 1) Right-click on a [Reader Icon] or an [Input Icon] in the **SG Hardware Tree** that has been linked to a camera.
 - ▶ Elevator icons (red door icon) will behave the same as standard door icon.
 - ▶ You can also get video from a camera icon in the Hardware Tree.
- 2) Select the 'View Live Video' option from the short-menu: This opens the GCS DVR Viewer and shows Live Video feed for the camera linked to the device.

IMPORTANT: For trouble shooting tips see Chapter 5.

FIGURE 17 – LIVE VIDEO FROM AN ICON ON HARDWARE TREE



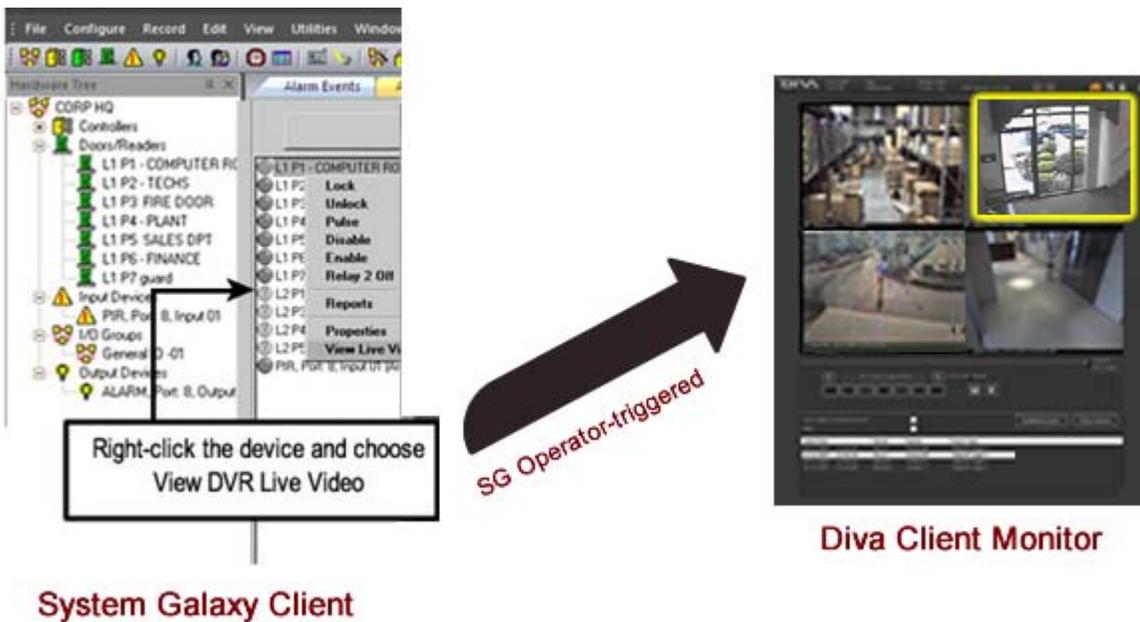
6.4.2 GET LIVE VIDEO FROM THE DEVICE STATUS SCREEN

The 'View Live Video' option is available on the short-menu from a Device Status item:

- 1) **Open the Device Status window** by selecting *View>Device Status* from the SG main menu and select the desired 'Status Group' with the desired readers and inputs included (or add/edit a Status Group as needed). Click [OK] to open the Device Status screen.
- 2) **Right-click a [Device Status icon/item]** linked to a camera to get the short-menu.
- 3) **Select the 'View Live Video' option from the short-menu:** This opens the GCS DVR Viewer and shows Live Video feed.

IMPORTANT: For trouble shooting tips see Chapter 5.

FIGURE 18 - LIVE VIDEO FROM A DEVICE STATUS



6.4.3 GET LIVE VIDEO FROM AN EVENT

The 'View Live Video' option is available on the event item's short-menu in the Loop Monitoring screen. The *Loop Monitoring* screen and the *Alarm Event* screen are opened by default when System Galaxy is started running. The screens show active logging of events and alarms depending on

- 1) From the Event screen, right-click an Event which is linked to a camera to get the short-menu.
- 2) Select the 'View Live Video' option from the short-menu: The DVR Viewer opens and shows Live Video feed.

IMPORTANT: For trouble shooting tips see Chapter 5.

FIGURE 19 - LIVE VIDEO FROM LOOP MONITOR EVENT SCREEN



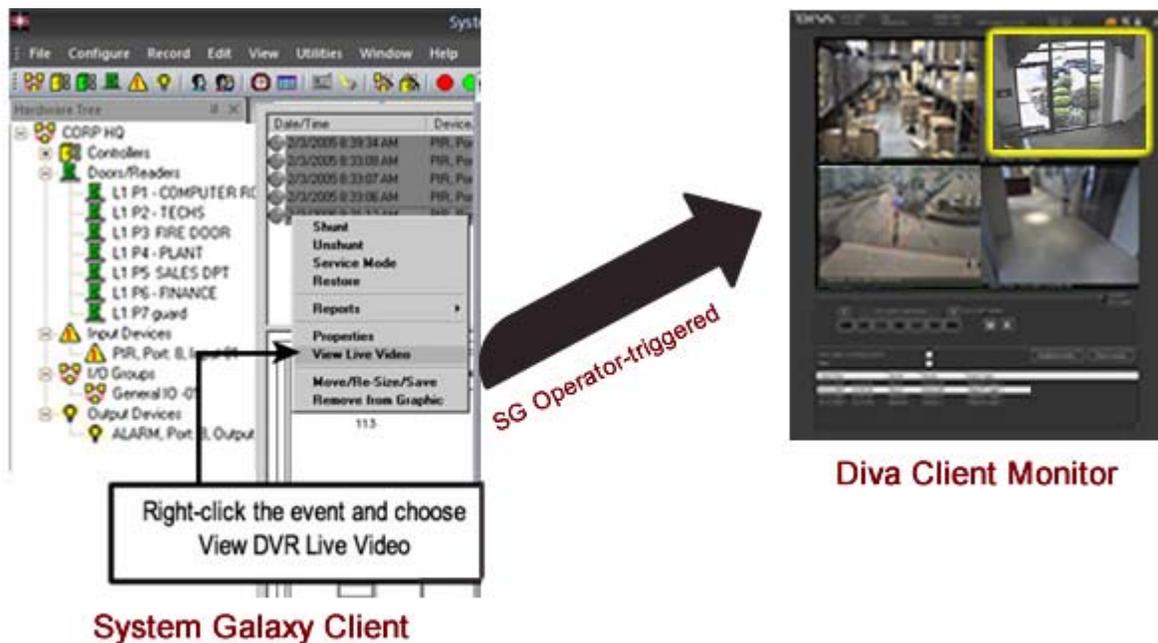
6.4.4 GET LIVE VIDEO FROM AN ARMED ALARM EVENT

Viewing live video is available from the Alarm screen. There are several ways to see video from this screen.

- a) **Automatic Call-up:** The GCS DVR Viewer automatically opens when an armed alarm comes in for a device that is linked to a camera (if the Automatic Call-up Video) is enabled in System Settings.
 - ▶ The GCS DVR Viewer shows live video feed **for the priority alarm** when the alarm device is in the “ARMED” condition. Thus, if more than one device is in the alarm state, and priorities are used, the video comes from the device with highest priority
 - ▶ If a device becomes activated in the unarmed condition, the DVR Viewer will not automatically start up.

- b) **Manual Call-up:** Operators can right-click an Alarm Event from the Alarm events List. Select the ‘View Live Video’ option from the short-menu.

FIGURE 20 – LIVE VIDEO FROM ALARM SCREEN WITH ALARMS



6.4.5 GET LIVE VIDEO FROM THE GRAPHICS SCREEN

The 'View Live Video' option is available on the short-menu from the Graphics screen:

- 1) From the SG menu, select View>Graphics and right-click a Door or Input icon of a device that has been linked to a camera to get the short-menu.
- 2) Select the 'View Live Video' option from the short-menu: The GCS DVR Viewer opens and shows video feed with Real-Time clocking/time stamp.

Remember that the clocks on the System Galaxy PC's and the DVR unit should be synchronized to a common master clock source for accurate clocking/time stamping.

FIGURE 21 - LIVE VIDEO FROM GRAPHICS SCREEN WITH DOOR AND INPUT ICONS



7 Appendix A: Camera Validation List

Additional Camera Mapping Validation check list - Photocopy as needed.

Table 1 System Galaxy Camera Mapping Validation check list

DVR NAME:		DVR LOCATION:		
Device Name/type (Front Door / reader)	Camera # (1)	Camera Name (Lobby Cam)	Location/Area Displayed (Front Door and Lobby Area)	Check Good
	1			<input type="checkbox"/>
	2			<input type="checkbox"/>
	3			<input type="checkbox"/>
	4			<input type="checkbox"/>
	5			<input type="checkbox"/>
	6			<input type="checkbox"/>
	7			<input type="checkbox"/>
	8			<input type="checkbox"/>
	9			<input type="checkbox"/>
	10			<input type="checkbox"/>
	11			<input type="checkbox"/>
	12			<input type="checkbox"/>
	13			<input type="checkbox"/>
	14			<input type="checkbox"/>
	15			<input type="checkbox"/>
	16			<input type="checkbox"/>

8 Appendix B: Ping the DVRs

To ping a DVR Unit from the command prompt at the System Galaxy PC/Workstation do the following.

Open a Command Window:

1. Click [Start] button on the Windows® Task Bar
2. Select the 'Run' option
3. Type "cmd" in the field provided.
4. Click [OK] button



To ping: Once the Command Window opens, type the ping command with the target (DVR) IP Address. See figure below. **Syntax is important, so type one space between command and IP Address.**

Type "**ping nn.nnn.nnn.nnn**"; where "n" stands for the numeric characters in the IP Address

Example 1 shows a reply. Example 2 shows that the target IP Address is not able to reply.

Example 1 – Ping with Reply – good connection

```
C:\WINNT\system32\cmd.exe
C:\WINNT\Profiles\croberts>ping 61.111.140.130
Pinging 61.111.140.130 with 32 bytes of data:
Reply from 61.111.140.130: bytes=32 time=10ms TTL=128
Reply from 61.111.140.130: bytes=32 time<10ms TTL=128
Reply from 61.111.140.130: bytes=32 time<10ms TTL=128
Reply from 61.111.140.130: bytes=32 time<10ms TTL=128
Ping statistics for 61.111.140.130:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 10ms, Average = 2ms
```

Example 2 – Example Ping with Request Time Out – failed to connect

```
(C) Copyright 1983-2000 Microsoft Corp.
C:\WINNT\Profiles\croberts>ping 61.111.140.130
Pinging 61.111.140.130 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 61.111.140.130:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

