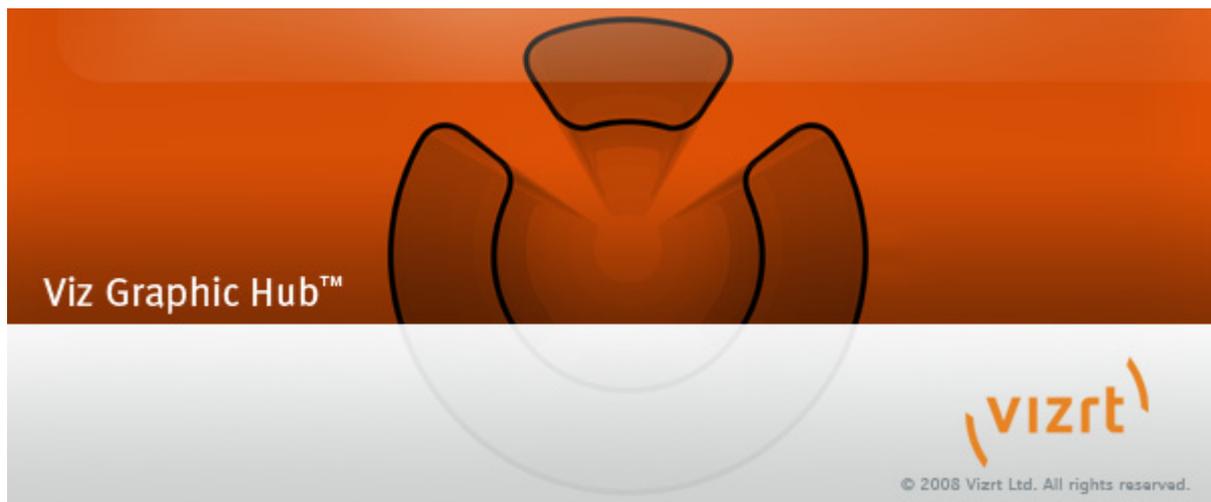




Viz Graphic Hub User's Guide

Product Version 2.1





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1 Introduction

This is the user's guide for Viz Graphic Hub.

1.1 About this Document

This document is designed to fit people with no or little experience in using Viz Graphic Hub. The purpose of the document is to help new users of Viz Graphic Hub become familiar with the system.

A typical user of Viz Graphic Hub is the head of the graphics department in a company. The person that typically installs and sets up the Viz Graphic Hub is the network administrator in a company.

1.1.1 Document Structure

The first sections of this document give an introduction to Viz Graphic Hub. Section 3 describes the fundamentals of the Viz Graphic Hub Server and Viz Graphic Hub Namingservice. Sections 4 and 5 give step-by-step instructions about how to install and set up regular and cluster Viz Graphic Hub configurations. The Viz Graphic Hub Terminal application is described in section 6, while section 7 describes the Viz Graphic Hub Manager. Section 8 lists the available keyboard shortcuts, while sections 9 and 10 presents troubleshooting information and answers to frequently asked questions.

1.1.2 Related Documents

For complementing information, see the following documents:

- ◆ *Viz Artist 3 user's guide*

1.1.3 Conventions

The following typographic conventions are used in this document:

- ◆ *Italic refers to related documents.*
- ◆ Underline indicates references.

1.2 Contact Information

We encourage your suggestions and feedback regarding the products and this documentation. Our support e-mail address is support@vizrt.com. You are also welcome to use the web-based support at www.vizrt.com, or to contact your local Vizrt support person by telephone.

2 Viz Graphic Hub

Viz Graphic Hub is the database solution where all Viz Artist 3 journal entries are taken care of. Entries can be either scenes, geometry, images, materials, fonts, and so on.

In order to start Viz Artist 3 successfully, the user must log in to a running Viz Graphic Hub. The database can either be a local instance, where only one user can log in, or it can be a multi-user database.

The Viz Graphic Hub solution consists of various applications; Viz Graphic Hub Server, Viz Graphic Hub Namingservice, Viz Graphic Hub Terminal, and Viz Graphic Hub Manager.

The **Viz Graphic Hub Terminal** provides a user interface to configure and start/stop both the Viz Graphic Hub Namingservice and the Viz Graphic Hub Server. For more information about this application, see [6 Viz Graphic Hub Terminal](#).

The **Viz Graphic Hub Namingservice** monitors all applied servers in the network. For more information about this application, see [3.2 Viz Graphic Hub Namingservice](#).

The **Viz Graphic Hub Server** is the physical back-end server where the database content is stored.

The **Viz Graphic Hub Manager** is used to administer one or more databases. For example, the server items and access levels for users and groups can be managed from this application. For more information, see [7 Viz Graphic Hub Manager](#).

2.1 General Database Information

The Viz 3 product family uses a database to store the items that the clients work with. The items can be one of the following types:

- ◆ Scenes
- ◆ Objects
- ◆ Materials
- ◆ Advanced materials
- ◆ Images
- ◆ Fonts
- ◆ Audio files

Tip: For more information about the various item types, see the *Viz Artist 3 user's guide*.

The individual items are stored in the Viz Graphic Hub data directory as file objects. The database itself manages the items in terms of properties and Universally Unique Identifiers (UUIDs).

Clients can work with and organize items through the Viz Artist GUI in a logical project and folder structure provided by the database. Although each item can be listed in/referenced from more than one project/folder, it will reside in the database only once. A checksum will be calculated for each item, so that duplicate items can be easily found. For more information about finding duplicates, see [7.6.11 Locating Duplicates](#).

2.1.1 Item Properties

Various properties are associated to each individual item in the database:

- ◆ Name
- ◆ Path
- ◆ Item type
- ◆ File size
- ◆ Checksum
- ◆ UUID
- ◆ Rights
- ◆ Keywords
- ◆ File-links
- ◆ References
- ◆ And so on...

For more information about the properties, see [7.6.10 Item Properties](#).

2.1.2 Projects and Folders

The database is able to maintain a logical structure composed of projects and folders. This helps Viz Artist 3 users to keep an overview of the items they work on. The tree of projects/folders is only virtual, the items are not actually stored on the harddisk with such a structure. All the projects/folders an item is shown in, are stored in the properties of the item. The main benefit of this virtual structure is that the item itself is stored only once in the database, with links to it. The harddisk space is then kept low and the administration of the items is much easier.

2.1.3 Links and References

In the database, items are linked and referenced. Every item “knows” which project/folder it is placed in, which other items it uses, and also by which other items it is used. For example, in a scene, fonts and images are used. If one of the items that are used in the scene changes, the scene will use the item in its new state. Every item holds a list of links and references in its properties. For more information, see [7.6.10.3 References and Links](#).

Three types of links and references are handled by the database: folder-links, file-references, and file-links.

2.1.3.1 Folder-Links

Every item in the database holds information about the projects/folders it is placed in. These entries are called folder-links. Each item can hold as many folder-links as necessary. The item is physically stored in the database only once,

but it can be virtually available in various folders. The UUID of the item will be identical in all folders.

Tip: If an item is deleted within a project/folder, only the folder-link to this project/folder will be removed. The item will remain in the database, unless every folder-link is removed. When the last folder-link is removed, the item will be deleted from the database.



In the Explorer, an item that holds more than one folder-link will be displayed as an icon with a green arrow.

2.1.3.2 File-References

In everyday use, it is necessary for an item to reference other items. For example, a scene can contain images. The root item must be linked to all the items it utilizes. The file-reference feature keeps track of all other items that are being used by this item.

2.1.3.3 File-Links

In everyday use, it is also necessary for an item to be referenced by other items. The root item must be linked to all the items it is utilized by. The file-links feature keeps track of all other items the item is used by.

2.1.4 Keywords

In order to help users organize their work, keywords can be applied to items. Up to 20 keywords can be applied to each item. Every item holds a list of keywords in its properties. For more information, see [7.6.5 Keywords](#).

Tip: Keywords can be used as a database search criteria.

2.1.5 Data Locking

Three different types of data locking exist within the database: session lock, check out, and access rights.

2.1.5.1 Session Lock

As long as the session lock is active, only the user who has locked the item is able to save it in the database. Other users can only view the item.



A locked item is marked in Viz Artist and Viz Graphic Hub Manager (if the files view type is set to icons) with a keyhole icon.

A session lock is automatically applied to an item when a user opens it in Viz Artist. The session lock is removed once the item is closed. A session lock is valid as long as the user who has locked the item is connected to the server. When the user disconnects, the lock is opened. To end a session lock, the user who locked it, or the administrator, can manually cancel it.

2.1.5.2 Check Out

As long as the check out is active, only the user who has checked out the item is able to save it in the database. Other users can only view the item.



A checked out item is marked in Viz Artist and Viz Graphic Hub Manager (if the files view type is set to icons) with a stop icon.

Every item in the database can be checked out. The check out of an item is valid until it is checked in again. Check in can be performed by the user who checked out the item, or the check out can be cancelled by the administrator.

2.1.5.3 Access Rights

The database is able to maintain rights on items and projects/folders. Individual rights for user, group, and world can be set either to allow or disallow reading and/or writing rights.

- ◆ **User** – Sets the rights for the owner of an item or project/folder.
- ◆ **Group** – Sets the rights for all the members of the group the owner belongs to.
- ◆ **World** – Sets the rights for all database users.

For more information about applying rights to items or projects/folders, see [7.6.4 Setting Rights for Items](#) and [7.4.7 Setting Rights for Projects/Folders](#).

2.1.6 Columns

In Viz Graphic Hub Manager, columns are used to describe elements in lists.

The column headings can be dragged around to change the order of the columns. Also, the width of the columns can be changed by dragging the separator between two columns. Double-clicking the separator will shrink the size of the column to the left so that it fits the content of the column.

2.1.6.1 Column Menu

By right-clicking a column heading, a shortcut menu will open. From this menu it is possible to show or hide columns according to personal preferences. The following options are available:

- ◆ **Remove This Column** – Removes the column that was clicked. When removing a column, the information that would normally be listed is neither shown nor loaded. When displaying the column later, the information cannot be viewed until the Explorer is refreshed. For more information, see [7.3.1 Refreshing the Explorer](#).
- ◆ **Hide This Column** – Hides the column that was clicked. When hiding a column, the item information that would normally be listed is not shown, although it is loaded. When displaying the column later, the information can be viewed.
- ◆ **Remove Column** – Opens a menu from where it is possible to remove columns. When removing a column, the item information that would normally be listed is neither shown nor loaded. When displaying the column later, the information cannot be viewed until the Explorer is refreshed. For more information, see [7.3.1 Refreshing the Explorer](#).

- ◆ **Hide Column** – Opens a menu from where it is possible to hide columns. When hiding a column, the item information that would normally be listed is not shown, although it is loaded. When displaying the column later, the information can be viewed.
- ◆ **Display Column** – Opens a menu from where it is possible to show columns that have been removed.
- ◆ **Remove All Non-Mandatory Columns** – Removes all columns, except for the mandatory columns. When removing columns, the item information that would normally be listed is neither shown nor loaded. When displaying the columns later, the information cannot be viewed, unless the Explorer is refreshed. For more information, see [7.3.1 Refreshing the Explorer](#).
- ◆ **Display All Columns** – Shows all available columns.
- ◆ **Size All Visible Columns** – Resizes all the shown columns, so that they fit on the screen.

2.1.6.2 Sorting Columns

To change the way the items should be sorted, click one of the column headers. For example, if clicking a column heading labelled Size, the items in the list will be sorted by size. If the clicked column is already set as sorting column, the sorting order will be reversed. The icons  and  indicate the sorting order.



It is possible to sort the items according to more than one column. To add multiple columns to the sorting order, press CTRL while clicking the column headers. To remove a column from the selection, press SHIFT while clicking the header of the column that should be removed. The other columns will remain in the selection. The selected columns will be labelled (1), (2), and so on. The sequence of how the columns are selected defines the priority of the sorting.

3 Server and Namingservice

This section of the document describes the basic operating fundamentals of both the Viz Graphic Hub Server and Viz Graphic Hub Namingservice, and also how the two systems work together.

3.1 Viz Graphic Hub Server

The Viz Graphic Hub Server makes the database available to clients in the network. In order to log in to and work with Viz Artist 3, the user must connect to a running Viz GH Server on a machine in the network. The server is started and shut down from the Viz Graphic Hub Terminal.

.....
Note: Servers in a replication configuration must be shut down from the Viz Graphic Hub Manager. For more information, see [7.11.1 Shutting Down Server](#).
.....

Various parameters can be defined for the server in Viz Graphic Hub Terminal before startup, for example the server name and the data directory to where the database should have its root folder. For more information, see [6.2.1.2 Settings](#).

3.2 Viz Graphic Hub Namingservice

As there can be many Viz Graphic Hub Servers running on the same network, the Viz Graphic Hub Namingservices monitor and keep track of all the servers. A Viz Graphic Hub Server cannot run without a running namingservice. A namingservice can be started together with a server, or a running namingservice in the network can be applied.

When a server is started, the applied namingservice will be informed. The namingservice then knows that the server is available for client connections.

The namingservice application is started and shut down from the Viz Graphic Hub Terminal. The port used for the communication between the namingservice and the clients can be defined in the terminal before startup.

3.2.1 Supported Configurations

Both the Viz Graphic Hub Namingservice and Viz Graphic Hub Server can run independently of each other, even on separate physical machines. The following two configuration scenarios are supported.

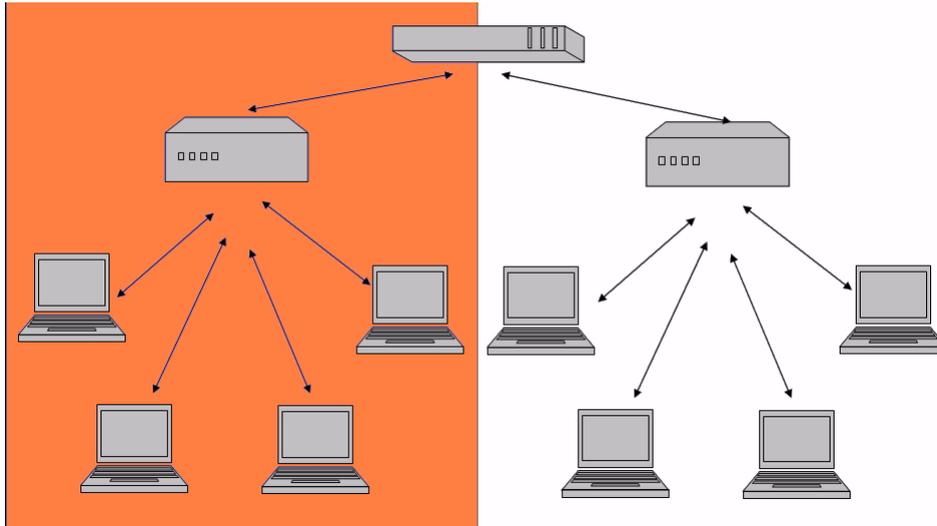
3.2.1.1 Each Server Connecting to its own Namingservice

In this type of configuration, the clients are able to connect to only one server. Such a configuration is used when working in single-user mode. In single-user mode, the server, namingservice, and all other Viz 3 products that connect to the database must be installed on the same physical machine. As the server is working on the "localhost" in this configuration, other clients cannot see the namingservice or server.

Tip: Although a localhost can never be accessed from client applications such as Viz Artist, it is possible to monitor and start/stop localhost servers/namingservices if enabling this in Viz Graphic Hub Manager.

This type of configuration is typically used when working on a stand-alone computer, or for debugging purposes in case of failure or restoration.

3.2.1.2 Multiple Servers Connecting to one Namingservice



In this type of configuration, the clients are able to connect to all servers managed by the defined namingservice. In multi-user mode, the server and namingservice will be available to all clients in the network. The namingservice will use the hostname of the computer it runs on as its name. By default, the name of the server will be "VizDbServer", but this can be modified in Viz Graphic Hub Terminal before startup. For more information, see [6.2.1.2 Settings](#).

4 Installing Viz Graphic Hub

The Viz Graphic Hub solution comes with an install wizard that helps to setup the system.

There are five various server modes. Two of the modes (Viz GH Localhost and Viz GH 5/4 Free) require no special dongle and are available with every Viz Artist installation. Three other modes (Viz GH Multiuser, Viz GH Main Server, and Viz GH Replication Server) require a special Viz Graphic Hub dongle in order for the server to run. For more information about the various server modes, see [6.2.1.1 Server Modes](#).

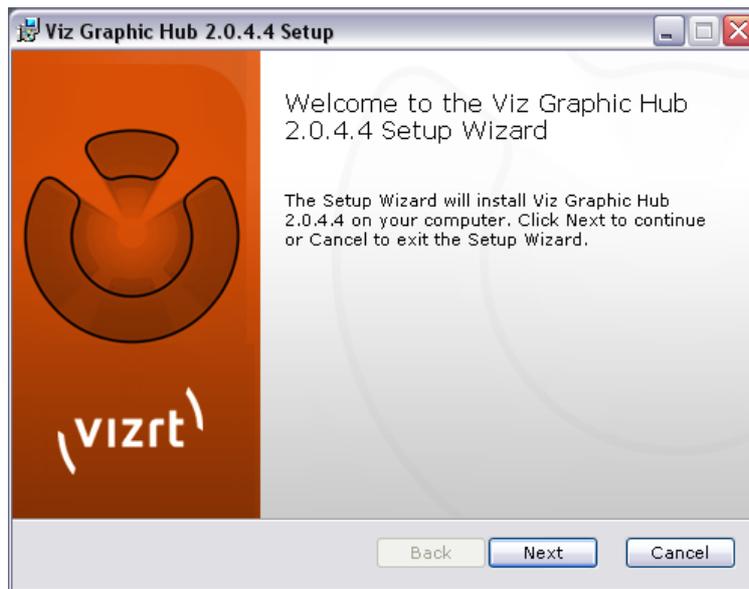
This section of the document describes how to setup a single-database solution. To setup a cluster solution that handles failover situations, a combination of the Main and Replication server modes must be setup. For information about installing Viz Graphic Hub in replication mode, see [5 Configuring a Replication](#).

4.1 Important Before Installation

- ◆ When upgrading Viz Graphic Hub, make sure that there are no open transactions in the existing system. Then remove the old version of the system before reinstalling it.
- ◆ Do not use Windows Remote Desktop to install and/or work with Viz Graphic Hub. Instead, use another remote tool, for example VNC.
- ◆ On the server machine, make sure that no other applications on the same workstation can cause performance problems. Examples of situations when databases should not be installed; the general CPU usage is above normal, Viz Artist is used on the same machine, other databases run on the same machine, the network traffic is extensive, and so on. Also note that running a virus scanner on the Viz Graphic Hub machine can decrease the performance of the database.
- ◆ The performance of the database depends upon the performance of the physical machine the database runs on. As system performance increases, so does the database performance. This is why it is highly recommended to use a server with high performance.
- ◆ The cluster solution is the only server setup with built-in backup. For all other server modes, it is imperative that other backup procedures are manually applied. Note that backup operations can only be performed when the server is shut down.

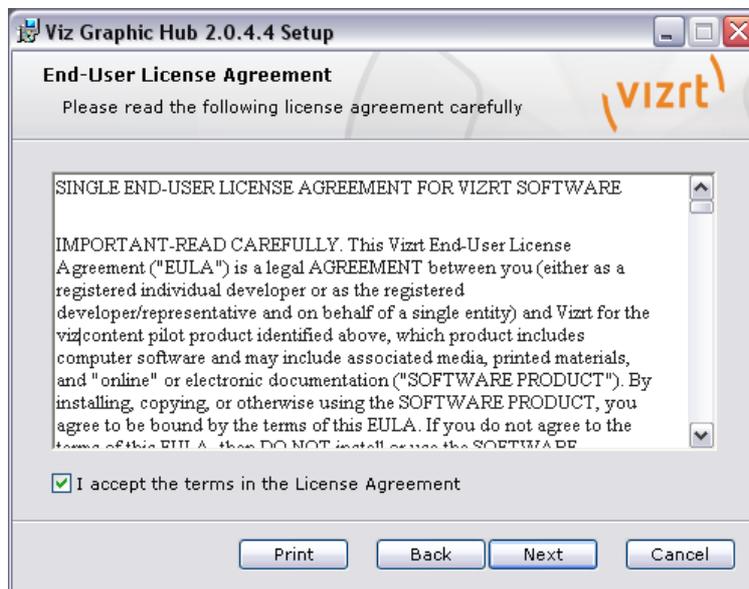
4.2 Installation

The Viz Graphic Hub solution comes with an install wizard that sets up the system. The following steps show how to install Viz Graphic Hub on a machine.

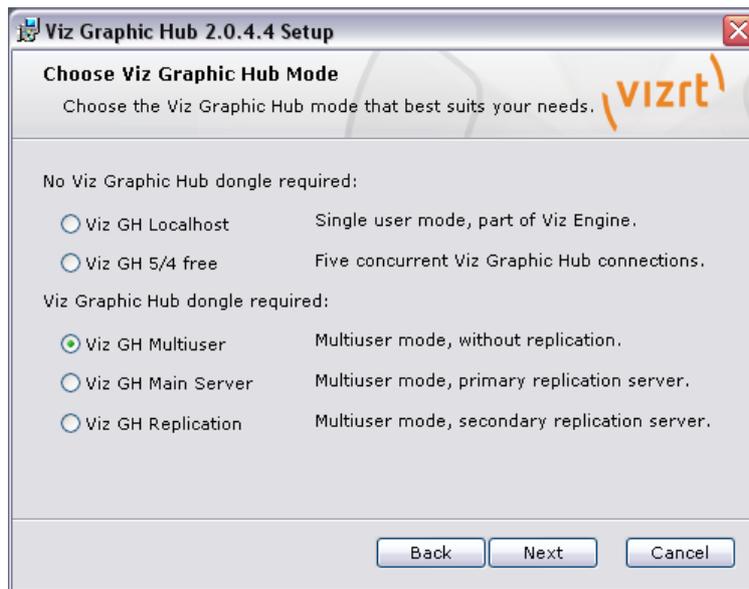


Note: If Viz Graphic Hub is already installed on the machine, first remove the old version before installing the new one.

1. Run the Viz Graphic Hub install wizard, and then in the Welcome panel, click the **Next** button.

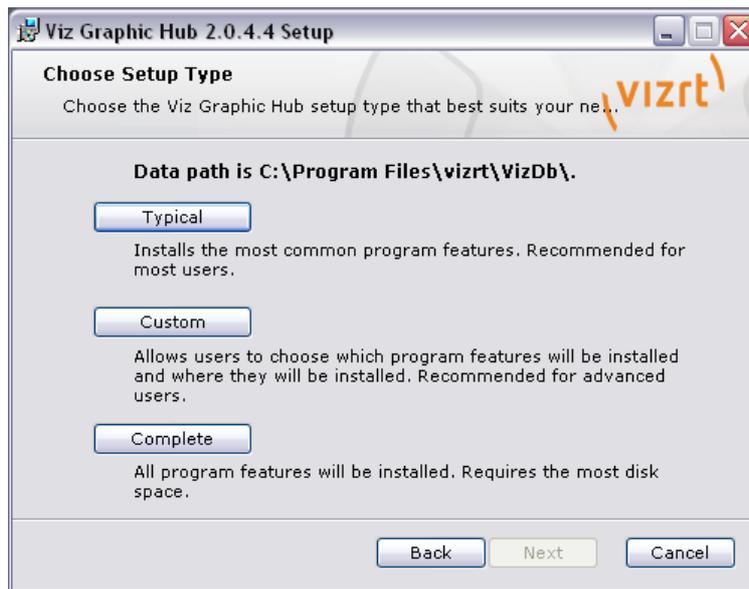


2. In the End-User License Agreement panel that opens, select the **I accept the terms in the License Agreement** check box.
3. Then click the **Next** button.



4. In the Choose Viz Graphic Hub Mode panel that opens, select the server mode that should be installed.
 - **Viz GH Localhost** is a single-user server mode that requires no extra dongle.
 - **Viz GH 5/4 Free** is a multi-user server mode for up to five concurrent users that requires no extra dongle.
 - **Viz GH Multiuser** is a multi-user server mode that requires a special Viz Graphic Hub dongle.
 - **Viz GH Main Server** is a multi-user server mode that works in conjunction with a replication server and requires a special Viz Graphic Hub dongle.
 - **Viz GH Replication Server** is a multi-user server mode that works in conjunction with a main server and requires a special Viz Graphic Hub dongle.

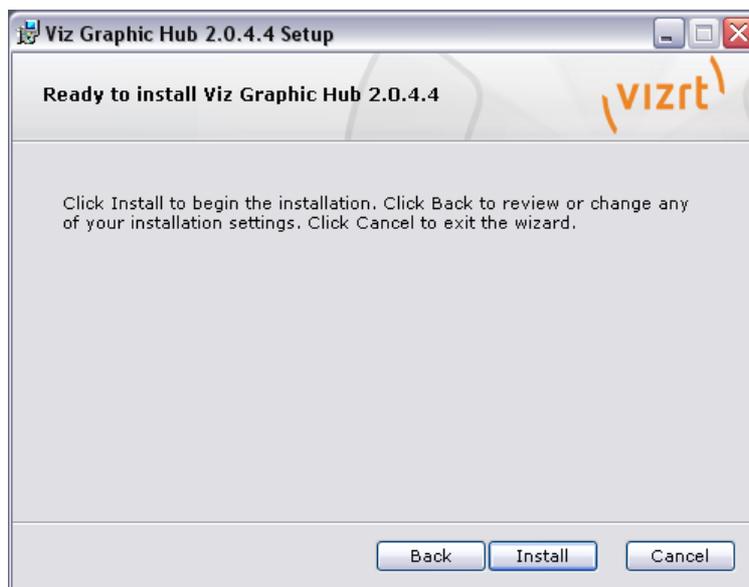
Tip: For more details about the various server modes, see [6.2.1.1 Server Modes](#).



5. In the Choose Setup Type panel that opens, select an installation type.
 - **Typical** installs the most common program features.
 - **Custom** allows selecting which program features that should be installed, and also the paths to where these features should be stored. It is also possible to define the location of the data directory.

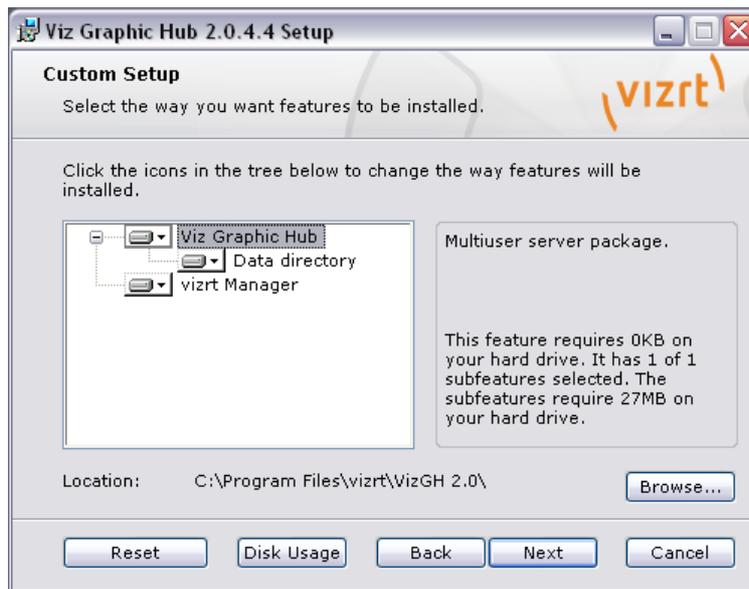
Note: Make sure that the location of the data directory is unique, so that no other data directory is pointed to the same folder.

- **Complete** installs all program features.



For a Custom installation type, proceed to step 7.

6. For a Typical or Complete installation type, click the **Install** button in the Ready to Install Viz Graphic Hub panel that opens.



7. For a Custom installation type, in the Custom Setup panel that appears, select the drop-down lists in front of the program feature labels in order to define if the program features should be installed, and the paths to where these should be stored.
8. Select the drop-down list in front of the data directory label, and define if the data directory should be installed, and the location.

Tip: Clicking the Reset button clears all the custom settings, and re-applies the default settings. Also, clicking the Disk Usage button opens the Disk Space Requirements panel, where it is possible to see an overview of the disk space that is required for the installation of the selected features.

9. When the settings are complete, click the **Next** button.
10. From the Ready to Install Viz Graphic Hub panel that opens, click the **Install** button.

The install wizard will then install Viz Graphic Hub according to the selected installation type and settings, and Viz Graphic Hub Terminal will automatically be launched. Viz Graphic Hub Terminal provides a user interface to configure and start/stop the Viz Graphic Hub Server and Viz Graphic Hub Namingservice. For more information, see [6 Viz Graphic Hub Terminal](#).

5 Configuring a Replication

It is possible to setup the Viz Graphic Hub solution in replication mode.

5.1 What is a Replication?

Replications in Viz Graphic Hub means that every transaction performed on the primary server is immediately mirrored on the replication server. In failover situations where the main server becomes unavailable, the system will automatically redirect all clients from the main server to the replication server.

5.2 What is a Failover Situation?

A failover situation occurs when one of the servers become unavailable due to hardware failure, software errors, power loss, and so on. A main server crash results in a failover situation, where the main server will switch to the replication server in real-time. A regular Viz Artist user will not detect the server switch. On the main server machine, the Viz Graphic Hub Terminal GUI will now display the "Cluster Not Connected" status, and if the e-mail functionality is enabled, one or more error e-mails will be sent.

5.3 Real-Time Replication and Recovery Mode

Usually a Viz Graphic Hub Server in a cluster configuration is running in real-time replication. In case of network overload, loss of another server in the cluster, or other serious system instabilities, Viz Graphic Hub automatically switches to recovery mode. This means that one server buffers all necessary transactions, for example saving files. Then Viz Graphic Hub deploys these files to the other server in the cluster when the resources are available again. After 30 seconds of no incoming transactions, Viz Graphic Hub Server will switch to real-time replication again, and the data structure will be updated so that it is reflected on both servers. If clients were directed to another server than the primary during the down-time, the clients will be re-directed to the primary server again.

5.4 Important Before Installation

There are a few things that must be taken into notice before uninstalling/ installing a Viz Graphic Hub solution.

- ◆ When upgrading Viz Graphic Hub, make sure that there are no open transactions on either of the existing systems. To check this, open Viz Graphic Hub Manager on both the machines (main and replication), and then from the Main menu, select Tools. From the menu that appears, select Monitor Servers, and then verify that Open Transactions are zero. Then remove the old version of the system before reinstalling it.

Note: The Open Transactions setting is only available for servers in a cluster environment.

- ◆ In a cluster configuration, the Viz Graphic Hub version number must be identical on the Main and Replication machines.
- ◆ Make sure that the data directories of the main and replication servers are unique, so that no other solutions share these directories.
- ◆ Do not use Windows Remote Desktop to install and/or work with Viz Graphic Hub. Instead, use another remote tool, for example VNC.
- ◆ Make sure that no other applications on the server workstations can cause performance problems. Examples of situations when databases should not be installed; the general CPU usage is above normal, Viz Artist is used on the same machine, other databases run on the same machine, the network traffic is extensive, and so on. Also note that running a virus scanner on the Viz Graphic Hub machine can decrease the performance of the database.
- ◆ The performance of the database depends upon the performance of the physical machine the database runs on. As system performance increases, so does the database performance. This is why it is highly recommended to use a server with high performance.

5.5 Installation

To setup a Viz Graphic Hub solution in replication mode, two separate workstations must be available. A special Viz Graphic Hub dongle must be applied to both machines, otherwise the installation will not be successful. On one machine, the Main server will be installed and configured. On the other machine, the Replication server will be installed and configured.

5.5.1 Installing the Main Server

The following steps show how to install Viz Graphic Hub on the main machine.

1. Run the Viz Graphic Hub install wizard, and then in the Welcome panel, click the **Next** button.
2. In the End-User License Agreement panel that opens, select the **I accept the terms in the License Agreement** check box.
3. Then click the **Next** button.
4. In the Choose Viz Graphic Hub Mode panel that opens, select **Viz GH Main Server**.
5. Then click the **Next** button.
6. In the Choose Setup Type panel that opens, select the **Custom** installation type.
7. In the Custom Setup panel that opens, select the **Data Directory** from the tree, and then click the **Browse** button.
8. From the Change Destination panel that opens, define the location of the data directory, and then click the **Ok** button.

Note: Make sure that the location of the data directory is unique, so that no other data directory is pointed to the same folder.

9. Back in the Custom Setup panel, click the **Next** button.
10. In the Ready to Install Viz Graphic Hub panel that opens, click the **Install** button.

The setup wizard will then install Viz Graphic Hub on the main machine, and Viz Graphic Hub Terminal will automatically be launched.

5.5.2 Installing the Replication Server

The following steps show how to install Viz Graphic Hub on the replication machine.

1. Run the Viz Graphic Hub install wizard, and then in the Welcome panel, click the **Next** button.
2. In the End-User License Agreement panel that opens, select the **I accept the terms in the License Agreement** check box.
3. Then click the **Next** button.
4. In the Choose Viz Graphic Hub Mode panel that opens, select **Viz GH Replication Server**.
5. Then click the **Next** button.
6. In the Choose Setup Type panel that opens, select the **Custom** installation type.
7. In the Custom Setup panel that opens, select the **Data Directory** from the tree, and then click the **Browse** button.
8. From the Change Destination panel that opens, define the location of the data directory, and then click the **Ok** button.

Note: Make sure that the location of the data directory is unique, so that no other data directory is pointed to the same folder.

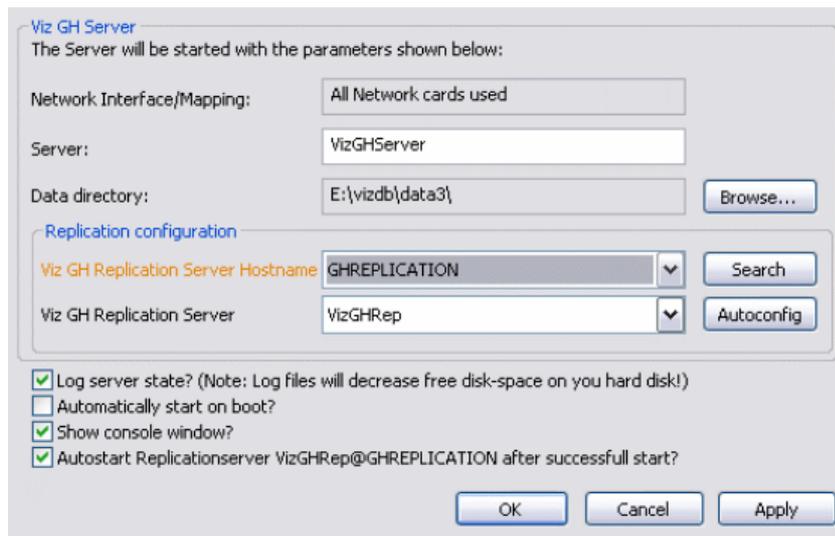
9. Back in the Custom Setup panel, click the **Next** button.
10. In the Ready to Install Viz Graphic Hub panel that opens, click the **Install** button.

The setup wizard will then install Viz Graphic Hub on the replication machine, and Viz Graphic Hub Terminal will automatically be launched.

5.6 Setup in Viz Graphic Hub Terminal

This section of the document describes how to setup a cluster configuration in Viz Graphic Hub Terminal.

Tip: For detailed information about how to operate the Viz Graphic Hub Terminal, see [6 Viz Graphic Hub Terminal](#).



1. In Viz Graphic Hub Terminal on the main machine, make sure that the replication machine is defined as the **Viz GH Replication Server Host**.
2. Also verify that the server on the replication machine is defined as the **Viz GH Replication Server Name**.

If the system cannot detect the replication server automatically in the drop-down list, try clicking Search to locate it. If no replication server is found through the search, and Viz Graphic Hub Terminal is running on the Replication machine, see [9 Troubleshooting](#).

3. Next, make sure that the data directory is equal to the one defined in the install wizard.

Note: If a previous Viz Graphic Hub version has been installed on the machine before, the system will remember the old data directory and use this by default instead of the new one.

4. Select the **Autostart Replication Server After Successful Start** check box.
5. Next, click the **Autoconfig** button.

This will automatically configure the replication server so that it corresponds to the settings of the main server.

6. To save the changes on the main machine, click either the **Ok** or **Apply** button.
7. To verify that the configuration has been auto-configured correctly on the replication machine, view the Viz Graphic Hub Terminal settings on the replication machine.

The replication cluster is now ready to be started.



8. On the main machine, click the Start button.

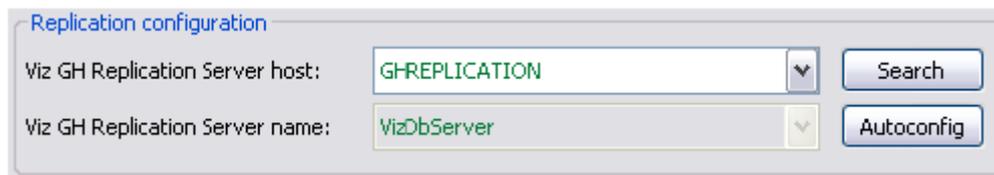
Note: Always make sure that the main server is started before the replication server.



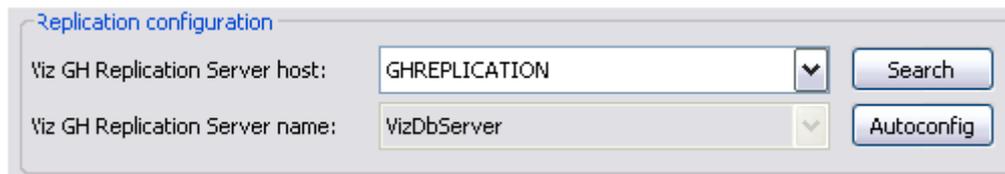
After a successful start on the main machine, the server on the replication machine should start automatically in replication server mode. During startup, when only the main server is up and running, the status is Cluster Down. After a successful startup, the status is changed to Cluster Running, and the server/namingservice icon turns orange. The label on the Start button also switches to Shutdown. Clicking the Shutdown button shuts down the server.

5.6.1 Main/Replication Colors

The labels related to the main/replication configuration in the Viz Graphic Hub Terminal can be colored in various ways.



- ◆ **Green (Valid)** – Viz Graphic Hub Terminal is ready to start Viz Graphic Hub Server with the current cluster configuration.



- ◆ **Black (Incomplete Configuration)** – One of the cluster machines has not selected the other machine as its dependant, so the current cluster configuration cannot be started. To verify the cluster configuration, click the Autoconfig button, or manually select the server on the dependant terminal. Always remember to click the Ok or Apply button to commit any changes.



- ◆ **Red (Invalid)** – The main/replication server is already running in another cluster, so it is not possible to start the current configuration.

Replication configuration

Viz GH Replication Server host:

Viz GH Replication Server name:

- ◆ **Orange (Connected in Running Cluster)** – A replication server is configured and running in the current cluster. The main server that is currently being configured is not running. It is possible to start and modify some of the parameters, but it is not possible to change for example the current server start up mode.

5.7 Testing a Replication

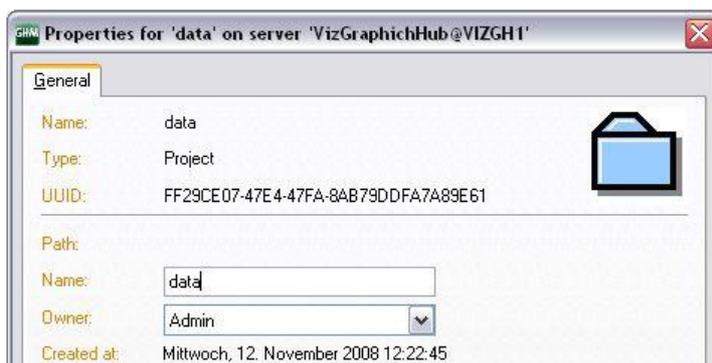
This section of the document describes how to verify a running replication, including failover.

Note: Before testing, make sure that no clients are working on any of the servers in the cluster. Also, verify that the Viz Graphic Hub solution is a fresh setup of a replication cluster, and that the data directories on both servers are empty.

5.7.1 Step by Step

1. On the main machine, start Viz Graphic Hub Manager, and log in as administrator.
2. On the replication machine, start Viz Graphic Hub Manager, and log in as administrator.

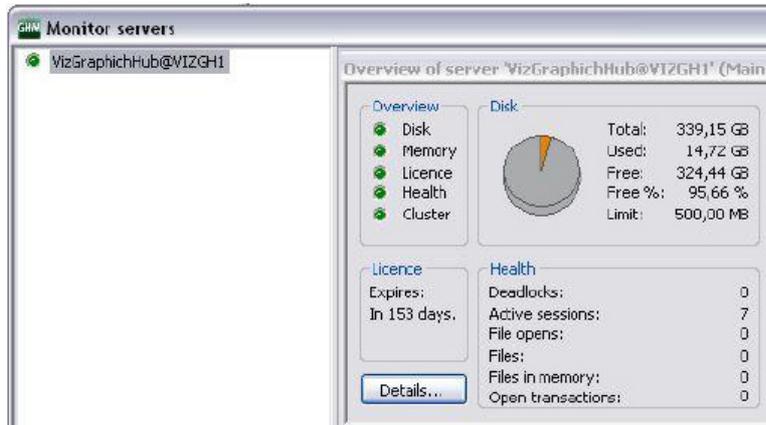
Note: Only the administrator can modify the settings for the replication server.



3. Open the properties of the data directory on both machines (right-click the data folder, and then from the menu that appears, select Properties), and then make sure that the UUIDs on both machines are identical.

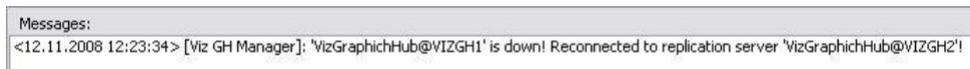
Note: If they are not identical, shut down the servers, and then in the two Viz Graphic Hub Terminal applications, make sure that the data directories point to the same folder.

- Next, log out from Viz Graphic Hub Manager on the replication machine.



- In Viz Graphic Hub Manager on the main machine, select Tools from the Main menu. From the submenu that appears, select Monitor Servers. Verify that the Health LED is green.
- Select View from the Main menu, and then from the menu that appears, select Messages (Chat).
- Unplug the network cable on the main machine, and then wait for a few seconds.

The main server should now automatically shut down to prevent data loss and corrupt configurations in the cluster environment.



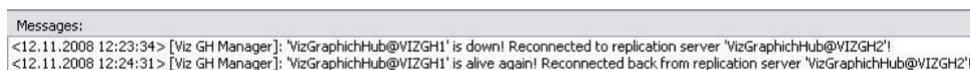
The Viz Graphic Hub Manager chat panel should display that the main server is down and that the replication server has automatically taken over.



The main server name in the Servers and Folders panel should also be colored red.

- Plug in the network cable again on the main machine, and then start the main server from the Viz Graphic Hub Terminal.
- If no users have been working with the system while the main server was down, proceed to the next step. Otherwise, wait a minute or two for the system to refresh.

The Viz Graphic Hub Manager chat panel should now display that the main server is up and running again, and that the main server has automatically taken over as the primary server in the cluster.



If the steps above have been carried through correctly, the cluster configuration has been tested sufficiently and is ready to work in a real production environment.

5.8 Detecting and Solving Server Differences

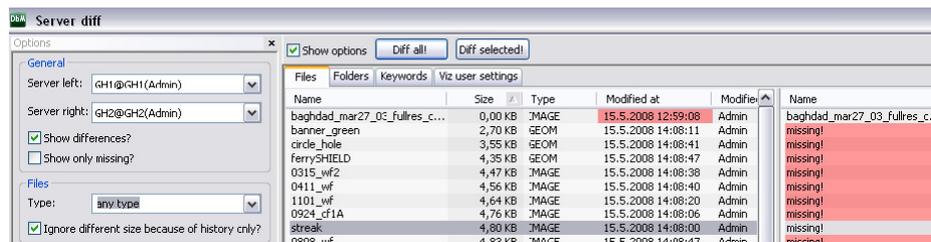
When Viz Graphic Hub is running in a cluster environment and switching from real-time replication to recovery mode, or the replication server has been performing a cluster rebuild, the data on the servers could differ. In such situations, Viz Graphic Hub may not be able to perform an automatic rebuild.

5.8.1 Step by Step

To perform a manual rebuild of the cluster servers, perform the following steps:

1. Make sure that the replication and main servers are up and running.
2. On the main server machine, log in to Viz Graphic Hub Manager.
3. On the replication server machine, log in to Viz Graphic Hub Manager as administrator.
4. From the Main menu, select Server, and then from the menu that appears, select Differences. Alternatively, press SHIFT+CTRL+F5.

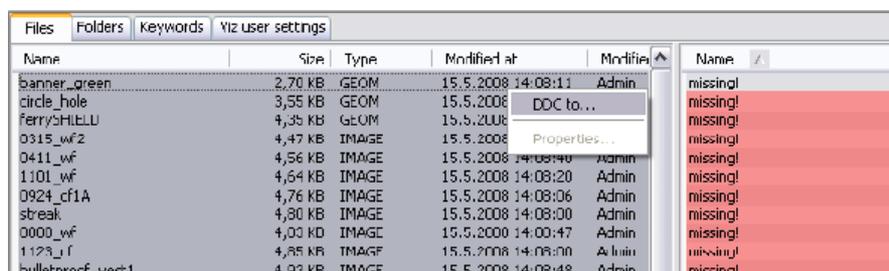
The Server Diff window should then open.



5. In the Server Diff window, click the Diff All button.

This will scan all items on the selected servers.

6. Sort the entries on both servers by size (click the size columns), and then delete all files with a size of 0,00 KB.
7. Click the Diff All button one more time.
8. Now sort the entries by type, and then select all entries of type Scene, where the row on the opposite side is labelled "Missing".

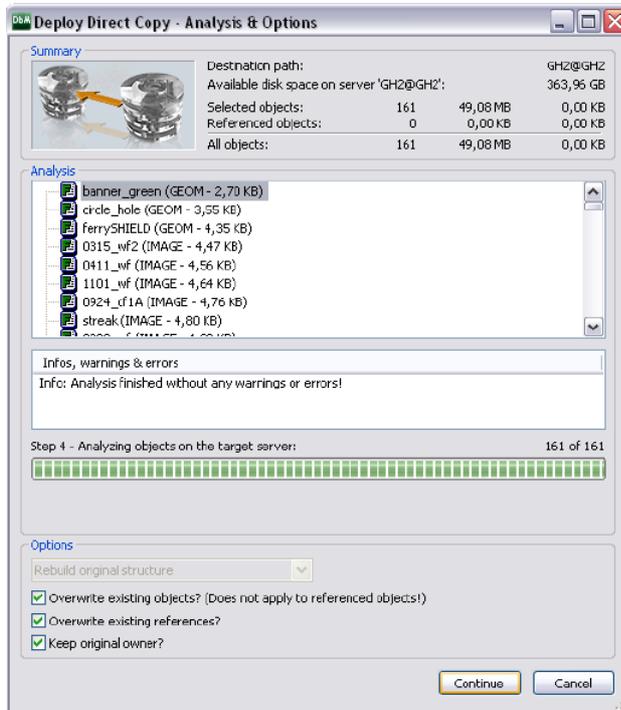


9. Right-click the scene entries, and then from the menu that appears, select DDC To.
10. From the Deploy Direct Copy window that opens, click the Continue button.

For more information about the deploy feature, see [7.19 Deploying Files from one Server to Another](#).

11. The Action Log for deploying files will then be activated, and in the window that opens, click the Do It button.

The entries will then be deployed from one server to the other.



12. Repeat steps 7–10, and this time sort the entries by type Geom.

13. Repeat steps 8–10 for all other entry types.

6 Viz Graphic Hub Terminal

This section of the document describes the features of Viz Graphic Hub Terminal.

The Viz Graphic Hub Terminal provides a user interface to configure and start/stop both the Viz Graphic Hub Namingservice and the Viz Graphic Hub Server.

6.1 Starting Up

Start Viz Graphic Hub Terminal by double-clicking the Viz GH Terminal desktop icon, or alternatively launch the application from *Start > All Programs > Vizrt > Viz 3 > Viz GH Terminal*.

6.2 Main Window

At system startup, the Main window appears on the screen.

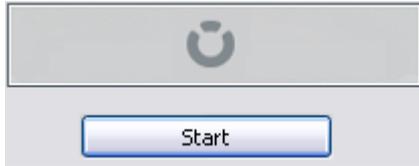


At the top of the Main window is the Main menu, which contains two options:

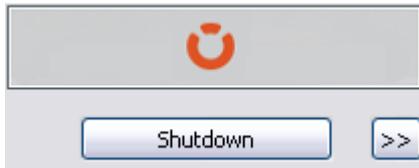
- ◆ **Terminal Options** – Opens the Options window, where it is possible to define various settings. Alternatively, press ALT+O. Note that it is only possible to open this window when no server is running. For more information, see [6.3 Options Window](#).
- ◆ **Refresh** – Checks the available dongle, and updates the available server modes. If for example exchanging the regular dongle with a Viz Graphic Hub specific dongle, the refresh operation must be performed in order for the additional server modes to be available. Alternatively, press ALT+R.

6.2.1 Starting Viz Graphic Hub Server

At the bottom left of the Main window are various buttons that define the Viz Graphic Hub mode.



To start Viz Graphic Hub with default configuration settings, select one of the server modes, and then click the Start button.



When Viz Graphic Hub has been started successfully, the Server icon above the Start button turns orange and the label on the button switches to Shutdown. Clicking the Shutdown button shuts down the server.

Note: Servers in multi-user configurations should be shut down from Viz Graphic Hub Manager. For more information, see [7.1.1.1 Shutting Down Server](#).

6.2.1.1 Server Modes

As mentioned, there are five various server modes. The first two modes require no extra dongle and are available with every Viz Artist installation. For information about settings related to these two modes, see [6.3.1 Options for all Server Modes](#).

- ◆ **Viz GH Localhost** – The Localhost mode is a single connection Viz Graphic Hub installation. This mode is aimed at local Viz Artist installations without permanent network connections.
- ◆ **Viz GH 5/4 Free** – The 5/4 Free mode provides five concurrent connections to the Viz Graphic Hub Server. This mode is aimed at sharing content in small Viz Artist workgroups.

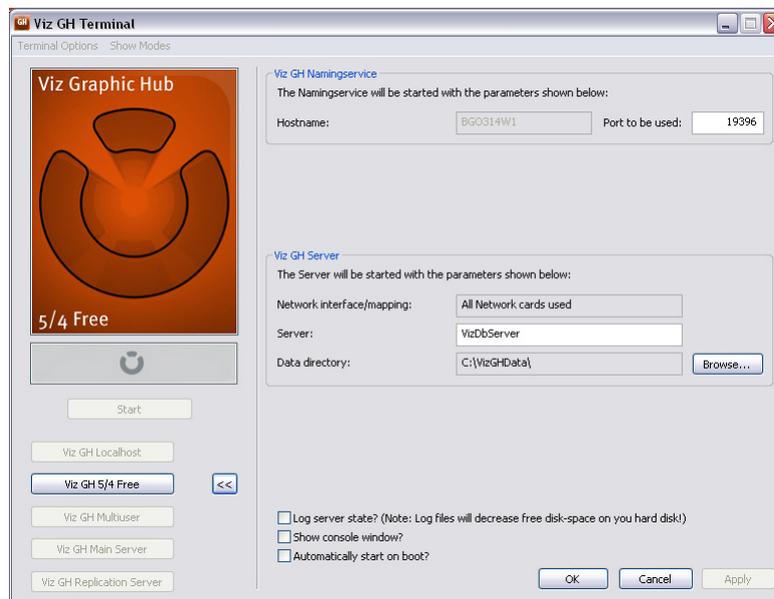
The following three modes require a special Viz Graphic Hub dongle in order to run. For information about settings related to these three modes, see [6.3.2 Options for Server Modes with Viz Graphic Hub Dongle](#).

- ◆ **Viz GH Multiuser** – The Multiuser mode provides multiple concurrent connections to the Viz Graphic Hub Server. This mode is recommended for all scalable Viz Artist workgroups.
- ◆ **Viz GH Main Server** – The Main Server mode is similar to the Multiuser mode. The difference however is that the main server provides mirroring to a running replication server. In failover situations, the system automatically redirects all clients from the main server to the replication server.
- ◆ **Viz GH Replication Server** – The Replication server is a duplication of the Main server. For more information, see [5 Configuring a Replication](#).

6.2.1.2 Settings



To modify some settings for the namingservice and server, click the arrow button at the far right of the Main window. This will display the Settings panel.



The settings in this panel differ according to the various server modes. For example, the Viz GH Namingservice frame is not available in the Server Only start mode, and the Viz GH Server frame is not available in the Namingservice Only start mode.

When a server is running, it is only possible to view the settings. When no server is running, it is possible to modify the settings.

Tip: The labels of settings that have been modified will be colored orange.

- ◆ **Viz GH Namingservice** – The namingservice will be started according to the specified hostname and port number.
 - **Hostname** – If working in single-user mode, the hostname is “localhost”. In multi-user mode, the name equals the hostname of the physical machine where the namingservice is running. This parameter cannot be modified.
 - **Port to be Used** – The listening port used for communication between the namingservice and other applications.
- ◆ **Viz GH Server** – The server will be started according to the following parameters:
 - **Network Interface/Mapping** – The server should connect to all available network cards.
 - **Server** – Defines the name of the server. The server name is used for example when logging in to Viz Artist. Then the user must select which machine to connect to, and also the name of the running server on this machine. By default, the server name is set to “VizDbServer”.
 - **Data Directory** – Defines the directory where the database has its root folder. This destination can be defined during setup in the install wizard if

the Custom setup type is used, and can be modified by clicking the Browse button, and then defining the path from the dialog box that opens.

Note: Make sure that the location of the data directory is unique, so that no other data directory is pointed to the same folder.

The following options are only available in Server Only start mode, which can be selected from the Options window, see [6.3 Options Window](#):

- **Name of Host (Namingservice)** – In configurations where only the server is started, a remotely running namingservice must be defined. In the box, type the hostname of the machine running the namingservice.
- **Port to be Used** – The listening port used for communication between the namingservice and other applications.

The following options are only available for cluster configurations:

- **Viz GH Replication/Main Server Host** – On a main machine, shows the hostname of the replication machine. On a replication machine, shows the hostname of the main machine. To search for available Viz Graphic Hub servers in the network, click the Search button.
- **Viz GH Replication/Main Server Name** – On a main machine, shows the server name of the replication machine. On a replication machine, shows the server name of the main machine.
- ◆ **Log Server State** – If enabled, the system will create log files that report the state of the server. The state will be reported every 60 seconds.

Note: The Log Server State option is not available in Namingservice Only start mode. Also, enabling the log feature will occupy disk-space. The log files are stored in the LogFiles subfolder of the data directory. In case of low disk-space, old log files should be deleted.

- ◆ **Show Console Window** – If enabled, a Viz Graphic Hub console window is automatically displayed as long as the server is running. The console window shows various server status settings.

Note: If closing the console window, the server will be shut down.

- ◆ **Automatically Start On Boot** – If enabled, the Viz Graphic Hub will automatically be launched at computer startup. The server/namingservice will be started with settings identical to how the previous configuration was defined.

The following option is only available for cluster configurations:

- ◆ **Autostart Replication Server After Successful Start** – When the main server has been started successfully, the system will automatically try to start the replication server. When the replication environment is up and running, the status will be changed to Cluster Running.

6.2.1.3 Managing Viz Graphic Hub from Notification Area

At Viz Graphic Hub Terminal startup, an icon appears in the notification area at the far right of the Windows taskbar. The icon shows the status of the namingservice and server.



- ◆ Both the namingservice and server are down.



- ◆ The namingservice is running, but the server is down.



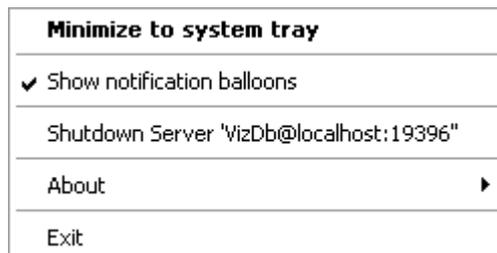
- ◆ The namingservice is down, but the server is running.



- ◆ Both the namingservice and server are running.

Holding the mouse pointer over the icon displays various information, for example whether or not the namingservice and server is running.

Right-clicking the icon opens a context menu with the following options:



- ◆ **Minimize To System Tray/Restore To Desktop** – If the Viz Graphic Hub Terminal GUI is maximized, it is possible to minimize the application to the notification area. The server will continue to run. If the application is minimized, it is possible to restore the GUI to the desktop.
- ◆ **Show Notification Balloons** – If enabled, balloon tips are displayed in the notification area, for example when the server is started or shut down.

Note: The Show Notification Balloons option should be disabled if Viz Artist is running in on-air mode.

- ◆ **Start/Shutdown Server [Server Name]** – If no server is running, it is possible to start the server by selecting this option. If a server is running, it is possible to shut down the server.
- ◆ **About** – Shows various information about the Viz Graphic Hub Terminal, for example product version number.
- ◆ **Exit** – This will exit the Viz Graphic Hub Terminal application.

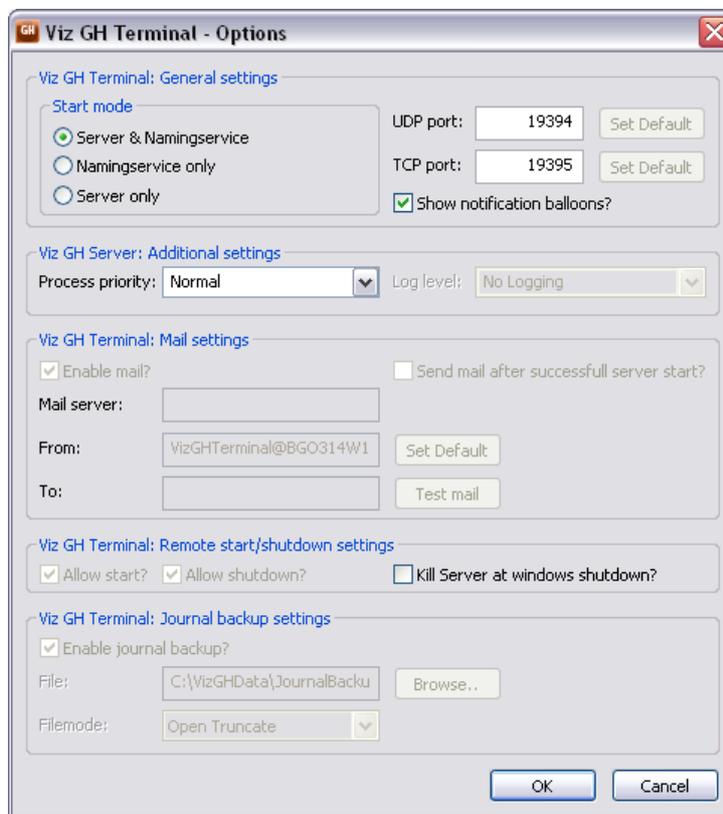
Note: It is not recommended to exit a running Viz Graphic Hub Terminal. The namingservice and server will keep their status, but various Viz Graphic Hub

functionality will be lost. For example, it will no longer be possible to start the server or namingservice remotely from Viz Graphic Hub Manager.

Tip: Clicking the Close button in the Viz Graphic Hub Terminal GUI, or alternatively pressing ALT+F4, will not exit the terminal, but minimize it to the notification area.

6.3 Options Window

From the Options window it is possible to define certain settings for the system. The Options window opens when selecting Terminal Options from the Main menu. Alternatively, press ALT+O. Note that it is only possible to open this window when no server is running.



The options in this window vary according to the server mode that is selected in the Main window. Certain settings are available for all server modes, while others are only available for server modes that require the special Viz Graphic Hub dongle.

6.3.1 Options for all Server Modes

The following settings apply for all server modes.

- ◆ **Start Mode** – When starting or shutting down the system, the mode can be configured to start/shutdown the server, namingservice, or both.



- **Server & Namingservice** – When starting the system, both the server and namingservice will be started.
- **Server Only** – If starting the server only, the namingservice must run on another host. The namingservice hostname must be defined in the Settings panel, see [6.2.1.2 Settings](#). If the remote namingservice is not running or configured properly, the server cannot be started.
- **Namingservice Only** – If starting the namingservice only, the hostname of this machine will be available to all clients, for example Viz Artist. This makes it possible to connect one or more multi-user servers running in Server Only mode with this machine that runs in Namingservice Only mode.
- ◆ **UDP Port** – Defines the UDP port number the namingservice uses to directly communicate with the other applications in the network.
- ◆ **TCP Port** – Defines the TCP port number, which can be used to start the Viz Graphic Hub Server remotely from Viz Graphic Hub Manager.
- ◆ **Show Notification Balloons** – If enabled, balloon tips are displayed in the notification area, for example when the server is started or shut down.

Note: The Show Notification Balloons option should be disabled if Viz Artist is running in on-air mode.

- ◆ **Process Priority** – Defines Viz Graphic Hub's Windows process priority level.

Caution! Setting the process priority level above normal may cause serious system stability issues.

- ◆ **Kill Server at Windows Shutdown** – This feature is disabled by default, so that Windows cannot shut down without Viz Graphic Hub being properly terminated. If enabled, Windows can shut down without Viz Graphic Hub being properly terminated, and end all Viz Graphic Hub related processes without warning.

Caution! Enabling this feature may lead to serious data corruption problems, which can result in loss of Viz Graphic Hub data.

6.3.2 Options for Server Modes with Viz Graphic Hub Dongle

The following advanced settings only apply for the server modes that require a special Viz Graphic Hub dongle (Multiuser, Main Server, and Replication Server).

- ◆ **Log Level** – The log level defines how the system write journal entries and which entries that should be included in the e-mail functionality. Available log levels:
 - **No Logging** – Disables the logging functionality
 - **All** – Logs all the entries listed below
 - **Errors** – Logs fatal errors, replication errors, and so on
 - **Warnings** – Logs errors and warnings
 - **File News** – Logs errors, warnings, and new file entries
 - **File Deletes** – Logs errors, warnings, and deleted file entries
 - **File Updates** – Logs errors, warnings, and updated file entries



- ◆ **Enable Email** – It is possible to enable the mail functionality, so that e-mails are sent to the defined recipients when for example unexpected server shutdown occurs, or the license is about to expire or is invalid. The system will also send e-mails according to the defined log level.
- ◆ **Send Mail after Successful Server Start** – In addition to the default and log level e-mails, notifications can be sent when the server is started successfully.
- ◆ **Mail Server** – Defines a valid SMTP server.
- ◆ **From** – Defines the e-mail account that the messages should be sent from.
 - **Set Default** – Sets the address to the predefined format (VizGHTerminal@<HostName>).
- ◆ **To** – Defines the default e-mail accounts that the messages should be sent to. To add more than one recipient, insert a blank between the addresses.
 - **Test Mail** – Sends a test mail to the defined recipients.

Tip: Different e-mail recipients can be applied to each alert type from the Alerts window. For more information, see [7.17 Configuring Alerts](#).

If problems occur during sending, make sure that the mail server and recipient e-mail addresses are correct, and then contact the system administrator for e-mail account/server details.

An e-mail filter can easily recognize messages from Viz Graphic Hub. The subject of every e-mail sent by Viz Graphic Hub always contains the text "Viz Graphic Hub Terminal". For example, when journal entries are sent, the subject is built like this: "Viz Graphic Hub Terminal: + alert level + alert description". For more information, see [7.17 Configuring Alerts](#).

- ◆ **Enable Journal Backup** – If enabled, allows scheduled backups of Viz Graphic Hub journal entries to an XML file. By default, the journal backup interval is set to once a week, starting one week from 01.01.2007 at 00:00:00. The backup scheduling can be configured from Viz Graphic Hub Manager's Administer Journal Entries panel, see [7.8 Administering Journal Entries](#).
- ◆ **File** – Defines the file name and path to where the journal backup XML file should be placed.
- ◆ **File Mode** –
 - **Open Truncate** – Means that only one journal backup XML file exists. The first time this operation is performed, a new file is created. Later, the system overwrites the existing journal file.
 - **New By Date** – Every journal backup generates a new separate XML file. The current date is added to the file name.

7 Viz Graphic Hub Manager

This section of the document describes the features of Viz Graphic Hub Manager.

The Viz Graphic Hub Manager is an administration tool used for example to manage the content in the database, define the access levels for users and groups, and control the sessions running on the various servers.

Note: There are no undo operations available in the Viz Graphic Hub Manager.

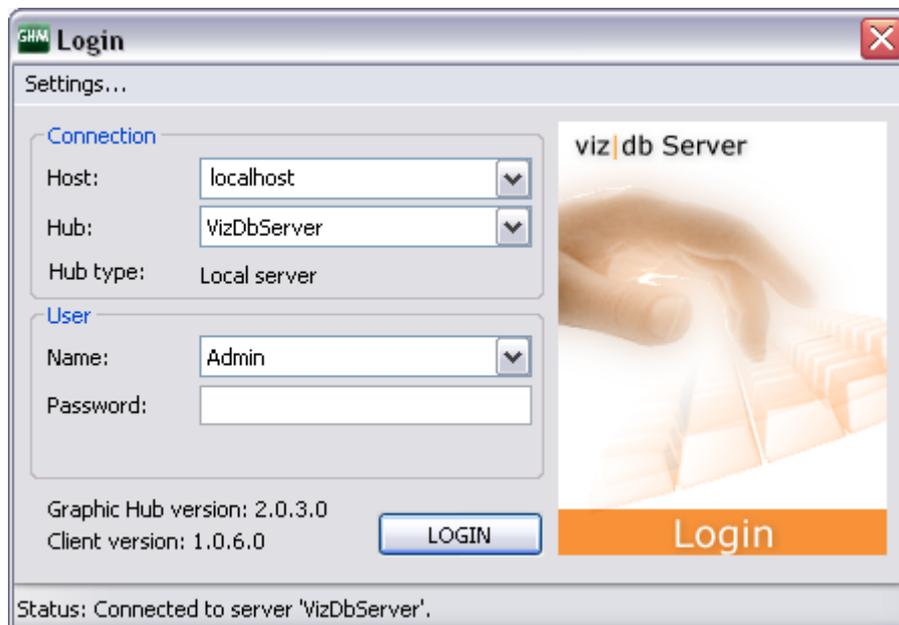
Tip: It is possible to run multiple simultaneous instances of Viz Graphic Hub Manager on the same physical machine.

7.1 Starting Up and Logging In/Out

Start Viz Graphic Hub Manager by double-clicking the Viz GH Manager desktop icon, or alternatively launch the application from *Start > All Programs > Vizrt > Viz 3 > Viz GH Manager*.

7.1.1 Login

After starting up Viz Graphic Hub Manager, the Login window appears.



In order to log in, a Viz Graphic Hub Server must be running in the network. Also, it is possible to log in to multiple simultaneous databases, and one database can also be logged in to from multiple manager applications. Note however that each user can only log in to each database once. If logging in to the same database from two different machines, separate usernames must be used.

When logging in to a new empty database, two users are registered in the database; Admin and Guest. To log in as Admin, set the password to "VizDb". Although it is possible to keep the default password, it is highly recommended to change it. To log in as Guest, no password is required.

Connect to a database by entering the following settings:

- ◆ **Host** – Defines the hostname of the machine where the server is running.

Note: A single-user configuration will be available as "localhost", and not as the server hostname.

- ◆ **Hub** – Defines the name of the running server.
- ◆ **Name** – Shows a list of all the users registered in the database on the selected server.
- ◆ **Password** – Defines the password for the selected user profile.

Click the Login button, or alternatively press ENTER, to finish the login procedure.

The database login can be skipped by clicking the Close button in the upper right corner of the Login window. The Viz Graphic Hub Manager will still open, although it is not logged in to any database.

To open the Login window from within the Viz Graphic Hub Manager, select Server from the Main menu, and then from the menu that appears, select Login. Alternatively, press F7 or CTRL+G.

7.1.2 Logout

It is possible to log out from a database at any time. To open the Logout window, select Server from the Main menu, and then from the menu that appears, select Logout. Alternatively, press F8 or CTRL+O.



From the Server list, select the server to log out from, and then click the Ok button. This will disconnect Viz Graphic Hub Manager from the selected server. The server will continue to run as normal even though being logged out from the manager application.

Note: When closing the Viz Graphic Hub Manager, the system automatically logs out from all connected databases.

7.2 Main Menu

At system startup, the Main window appears on the screen. At the top of the Main window is the Main menu.

Server View Tools Info

From the Main menu, it is possible to perform various actions.

7.2.1 Server

- ◆ **Login** – Opens the Login window. From this window it is possible to log in to a database. For more information, see [7.1.1 Login](#).
- ◆ **Logout** – Opens the Logout window. From this window it is possible to log out from a database. For more information, see [7.1.2 Logout](#).
- ◆ **Terminals** – Opens the Terminals window. From this window it is possible to monitor the available terminals in the network. For more information, see [7.10 Monitoring Terminals](#).
- ◆ **Shutdown** – Opens the Shutdown window. From this window it is possible to remotely shut down a server. For more information, see [7.11.1 Shutting Down Server](#).
- ◆ **Import** –
 - **Viz 2.x Data** – Opens the Import window. From this window it is possible to import a Viz 2.x data folder to the selected database. For more information, see [7.16 Importing Data and Archives](#).
 - **Viz 2.x Archive(s)** – Opens the Import window. From this window it is possible to import one or more Viz 2.x archives from a folder to the selected database. For more information, see [7.16 Importing Data and Archives](#).
 - **Manually Selected Viz 2.x Archive(s)** – Opens the Import window. From this window it is possible to import one or more Viz 2.x archives to the selected database. For more information, see [7.16 Importing Data and Archives](#).
 - **Resume from Cancelled or Crashed Import** – Opens the Import window. From this window it is possible to resume from a failed import by using an automatically created backup file. For more information, see [7.16.4 Resuming a Cancelled/Crashed Import](#).
 - **Edit Preferences** – Opens the Preferences window. From this window it is possible to define various preferences for the import operation, for example the root directory for import log files. For more information, see [7.15 Defining Preferences](#).
- ◆ **Differences** – Opens the Server Diff window. From this window it is possible to detect differences between the servers in a cluster environment. For more information, see [5.8 Detecting and Solving Server Differences](#).

Note: The Differences option is only available if logged in to a server in a cluster configuration.

- ◆ **Administer Journal Entries** – Shows/hides the Administer Journal Entries panel in the Main window. For more information, see [7.8 Administering Journal Entries](#).

- ◆ **Configure Alerts** – Opens the Alerts window. From this window it is possible to define e-mail notifications that should be sent when errors occur in the system. For more information, see [7.17 Configuring Alerts](#).
- ◆ **Exit** – Shuts down the Viz Graphic Hub Manager, and also automatically logs out from all connected databases. Alternatively, click the Close button in the upper right corner of the window.

7.2.2 View

- ◆ **Servers and Folders** – Shows/hides the Servers and Folders panel in the Main window. For more information, see [7.4 Servers and Folders Panel](#).
- ◆ **Messages (Chat)** – Shows/hides the Chat panel in the Main window. For more information, see [7.7 Sending/Receiving Messages \(Chat\)](#).
- ◆ **Duplicates** – Opens the Duplicates window. From this window it is possible to locate duplicate server items. For more information, see [7.6.11 Locating Duplicates](#).
- ◆ **Object Types** – Opens the Object Types window. From this window it is possible to monitor the item types on the available servers. For more information, see [7.6.12 Monitoring Item Types](#).
- ◆ **Active Sessions** – Opens the Active Sessions window. From this window it is possible to monitor all active database sessions. For more information, see [7.11 Monitoring Active Sessions](#).
- ◆ **Refresh Explorer** – Refreshes the Explorer. For more information, see [7.3.1 Refreshing the Explorer](#).

7.2.3 Tools

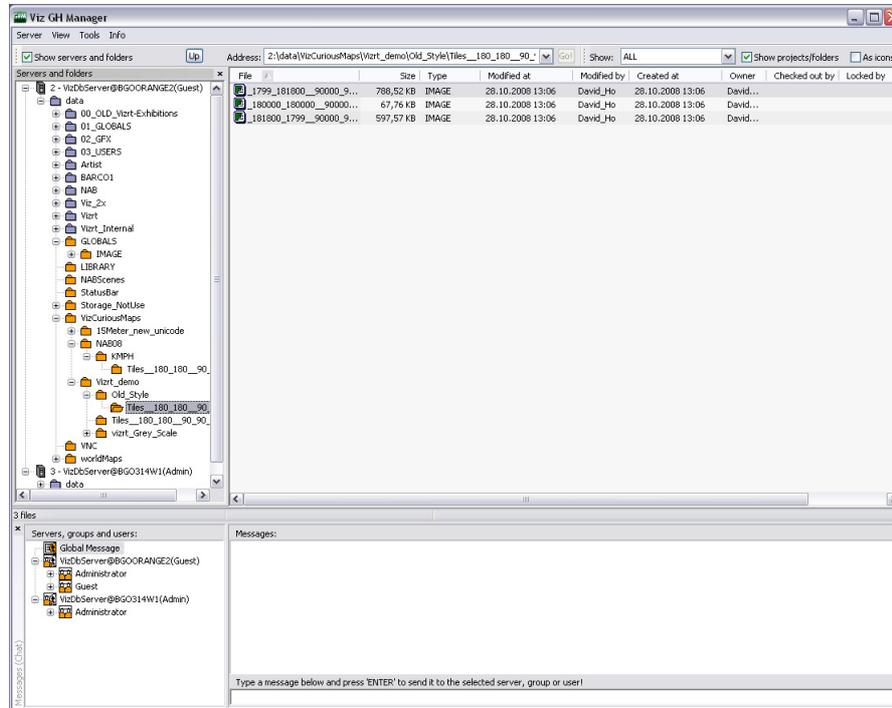
- ◆ **Monitor Servers** – Opens the Monitor Servers window. This window shows an overview of all the servers Viz Graphic Hub Manager is logged in to. For more information, see [7.14 Monitoring Servers](#).
- ◆ **Administer Users and Groups** – Opens the Administer Users and Groups window. From this window it is possible to manage users and groups on the various servers. For more information, see [7.12 Managing Users and Groups](#).
- ◆ **Administer Keywords** – Opens the Administer Keywords window. From this window it is possible to manage the keywords in the database. For more information, see [7.13 Managing Keywords](#).
- ◆ **Search** – Opens the Search window. From this window it is possible to search for items in the available databases. For more information, see [7.9 Searching](#).
- ◆ **Search by UUID** – Opens the Search by UUID window. From this window it is possible to search for database items through the use of UUIDs. For more information, see [7.9.5 Search by UUID](#).
- ◆ **Edit Preferences** – Opens the Preferences window. From this window it is possible to define various preferences for the system. For more information, see [7.15 Defining Preferences](#).

7.2.4 Info

- ◆ **License Info** – Opens the License Info window. From this window it is possible to monitor the license information for the available servers.
- ◆ **About** – Shows the software version and build number of the Viz Graphic Hub Manager.

7.3 Explorer

Below the Main menu is the Explorer of the Viz Graphic Hub Manager.



At the top left of the Explorer is the Servers and Folders panel, which shows a tree structure of the connected databases. For more information, see [7.4 Servers and Folders Panel](#). At the top right is the Files panel, which shows the content of the selected project/folder. For more information, see [7.5 Files Panel](#). It is also possible to enable the Chat panel, where it is possible to send/receive messages, and the Administrator Journal Entries panel, where it is possible to search for and view details of server items. For more information, see [7.7 Sending/Receiving Messages \(Chat\)](#) and [7.8 Administering Journal Entries](#). At the top is Viz Graphic Hub Manager's Toolbar, see [7.3.3 Toolbar](#).

Tip: The panels in the Explorer are resizable, and they can be dragged around. Also, it is possible to navigate through the trees in the Explorer with the mouse pointer, arrow keys, or by typing the first character of the desired project/folder/item.

7.3.1 Refreshing the Explorer

The Explorer is automatically updated immediately after a database change, but a manual refresh of the Explorer is sometimes necessary, for example after re-enabling columns.

To do a manual refresh, select View from the Main menu, and then from the menu that appears, select Refresh Explorer. Alternatively, press F5.

7.3.2 Icons

Various icons are used in the Explorer:

- ◆  represents a project
- ◆  represents a folder
- ◆  represents a project that has subprojects or subfolders
- ◆  represents a folder that has subfolders
- ◆  represents an item
- ◆  represents an item that has more than one folder-link

7.3.3 Toolbar

At the top of the Explorer is the Viz Graphic Hub Manager's Toolbar.

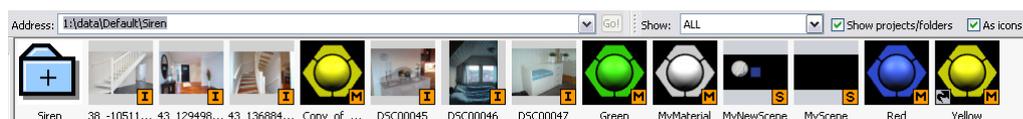
- ◆ **Show Servers and Folders** – Shows/hides the Servers and Folders panel. Alternatively, select View from the Main menu, and then from the menu that appears, select Servers and Folders.
- ◆ **Up** – Jumps one level up in the Servers and Folders tree structure.
- ◆ **Address** – Shows the current folder path. From the drop-down list, it is possible to see the history of all folders that have been used within this session. To re-open to one of these folders, simply select it from the list. The format in which the history is shown, is as follows: “<ServerNumber>:\data\<path>”.

Note: The history of a server that has been disconnected will no longer be available.

- ◆ **Show** – Defines the item types that should be available in the Files panel. “All” defines that all item types should be listed, “Image” defines that only images should be listed, and so on.
- ◆ **Show Projects/Folders** – If enabled, the subprojects/subfolders of the selected project/folder will be added to the list in the Files panel.
- ◆ **As Icons** – If enabled, the items will be displayed in the Files panel as icons. For more information, see [7.3.4 Displaying Items as Icons](#).

7.3.4 Displaying Items as Icons

By default, the items in the Files panel are presented with text details. Selecting the As Icons check box in the Toolbar presents the items as icons, similar to how the items can be displayed in Viz Artist. The icons can also be enabled from the shortcut menu of the Files panel.



When using icons-display, in the lower right corner of the item icons, characters will indicate the item type:

- ◆  represents scene

- ◆  represents object
- ◆  represents image
- ◆  represents material
- ◆  represents font
- ◆  represents audio file

Additional information may also be applied to the icons:

- ◆  indicates that the item holds more than one folder-link
- ◆  indicates that the item is session locked
- ◆  indicates that the item is checked out
- ◆  indicates that the item is both session locked and checked out

7.4 Servers and Folders Panel

In the Servers and Folders panel, the projects/folders, as well as the servers they are on, are displayed in a tree.

To hide the Servers and Folders panel, click the Close button in the upper right corner of the panel. Alternatively, clear the Show Servers and Folders check box in the Toolbar, or select View from the Main menu, and then from the menu that appears, select Servers and Folders.

By right-clicking a server or project/folder in the tree, a shortcut menu will open. From this menu it is possible to for example expand/collapse all branches in the tree, create new folders/projects, or set access rights.

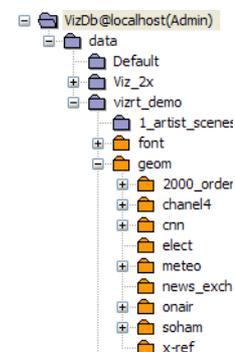
Tip: To undock the Servers and Folders panel from the Explorer, double-click the header of the panel. The panel can then be dragged around. Double-clicking the header of the undocked panel, will dock the panel to the Explorer again.

7.4.1 Tree Structure

Within the database, the items are organized in a virtual structure of projects and folders. This structure is shown as a tree in the Servers and Folders panel.

In this panel, all connected servers are shown as root entries. These entries display the name of the Viz Graphic Hub Server, the Viz Graphic Hub Namingservice the server is registered at, and the current username.

The level below the root entry contains the *data* project, which other clients refer to. New projects/folders/items can be added under the *data* project.



Tip: It is possible to create projects/folders on the same hierarchy level as *data*, but these projects/folders will not be accessible from client applications such as

Viz Artist. Into these projects/folders it is practical to move data that should not be worked on anymore, yet is not ready to be deleted.

The *data* directory holds projects/folders that the server items are stored in. Projects are represented by , while folders are represented by .

In order to view the content of a project/folder, select it from the tree. The server items in the selected project/folder will then be displayed in the Files panel. Alternatively, double-click a subproject/subfolder in the Files panel, or right-click the project/folder, and then from the menu that appears, select Open.

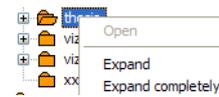
To jump one level up in the Servers and Folders tree structure, click the Up button from the Toolbar.

7.4.2 Expanding/Collapsing Projects/Folders

It is possible to expand and collapse the projects/folders in the Servers and Folders panel.

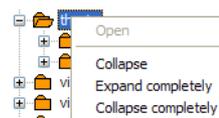
After logging in to a database, the branch representing this database will be collapsed. To expand the branches, use one of the following options:

- ◆ Click  to the left of the branch.
- ◆ Double-click the branch that should be expanded.
- ◆ Right-click the desired branch, and then from the menu that appears, select Expand.
- ◆ Selecting Expand Completely from the shortcut menu will expand the branch that was right-clicked, and also all subbranches below this branch.



If many branches are expanded, it can be practical to collapse them, in order to gain a better overview. To collapse the branches, use one of the following options:

- ◆ Click  to the left of the branch.
- ◆ Double-click the branch that should be collapsed.
- ◆ Right-click the desired branch, and then from the menu that appears, select Collapse.
- ◆ Selecting Collapse Completely from the shortcut menu will collapse the branch that was right-clicked, and also all subbranches below this branch.



7.4.3 Creating Projects/Folders

To create a new project/folder, right-click the project/folder that the new project/folder should be placed under. From the menu that appears, select New, followed by either Project or Folder, according to the type that should be created.

Alternatively, open the project/folder that the new project/folder should be placed under, and then right-click anywhere in the Files panel. From the menu that appears, select New, followed by either Project or Folder, according to the type that should be created.

Note: It is not possible to create a project under a folder.



When creating a new project, the default name is "New_Project". It is recommended to type a new descriptive project name, and then pressing ENTER to save the name.

When creating a new folder, the default name is "New_Folder". It is recommended to type a new descriptive folder name, and then pressing ENTER to save the name.

.....
Note: Special characters, such as space, are not allowed in project/folder names. Also, project/folder names must be unique.
.....

7.4.4 Renaming Projects/Folders

To rename a project/folder, click it twice. Alternatively, select the project/folder, and then press F2 or CTRL+R, or right-click the project/folder, and then from the menu that appears, select Rename. Next, type in a descriptive project/folder name, and then press ENTER to save the new name.

.....
Note: The *data* project below the server root entry cannot be renamed. Also, special characters, such as space, are not allowed in project/folder names, and project/folder names must be unique.
.....

A project/folder can also be renamed from the Project/Folder Properties window. For more information, see [7.4.8 Project/Folder Properties](#).

7.4.5 Moving Projects/Folders

This section of the document describes how to move projects/folders within one single server. For information about moving projects/folders between multiple servers, see [7.19 Deploying Files from one Server to Another](#).

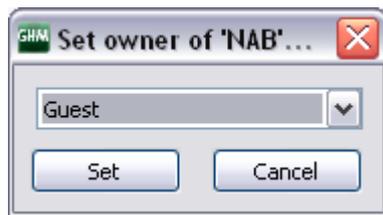
To move a project/folder, drag it from either the Servers and Folders panel or Files panel onto the source destination. The Action Log for moving projects/folders will then be activated, and in the window that opens, click the Do It button. For more information, see [7.18 Action Log](#).

Another way to move a project/folder is to select the project/folder that should be moved, and then pressing CTRL+X. Next, select the target folder, and then press CTRL+V.

A third way to move a project/folder is to right-click the project/folder that should be moved, and then from the menu that appears, select Move (Cut) from the Files menu, or Move This from the Servers and Folders menu. Next, right-click the target project/folder, and then from the menu that appears, select Move Here.

7.4.6 Changing Owner of Projects/Folders

Each project/folder belongs to a database user.

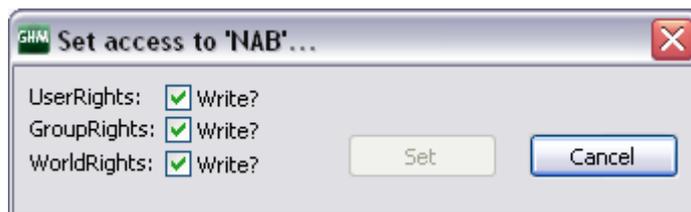


To change the owner, right-click the desired project/folder, and then from the menu that appears, select Set Owner. In the Set Owner window that opens, select the new owner from the list, and then click the Set button. The Action Log for changing the owner will then be activated, and in the window that opens, click the Set Owner button. The owner of the project/folder will then be changed. For more information about the Action Log, see [7.18 Action Log](#).

The owner of a project/folder can also be assigned from the Project/Folder Properties window. For more information, see [7.4.8 Project/Folder Properties](#).

7.4.7 Setting Rights for Projects/Folders

It is possible to modify the rights for a project/folder.



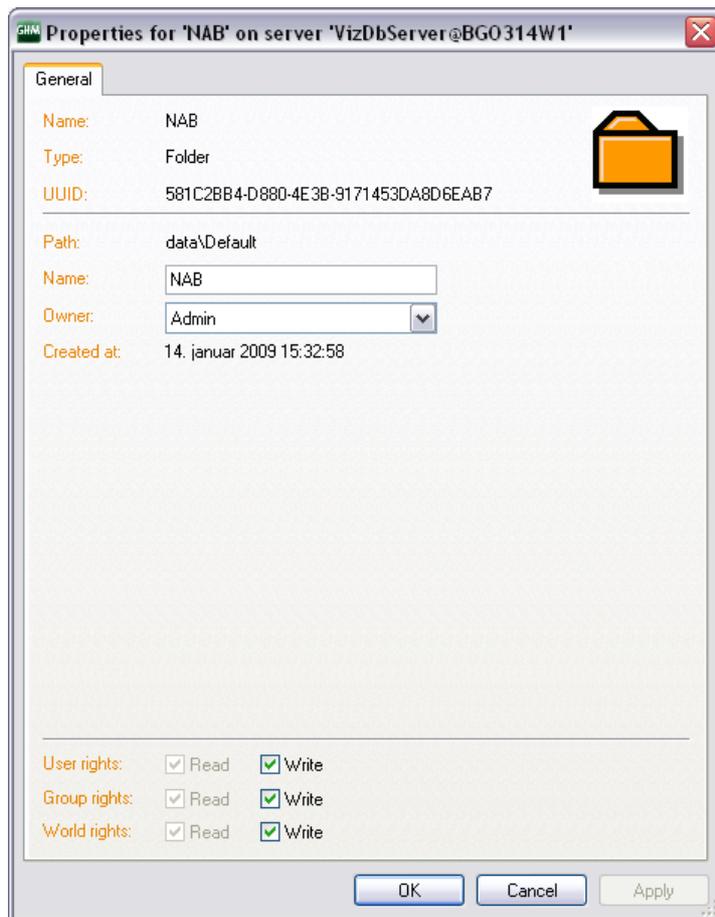
To change the rights settings, right-click the desired project/folder, and then from the menu that appears, select Set Access. In the Set Access window that opens, define the new rights, and then click the Set button.

User refers to the owner of the project/folder, group refers to all the members of the group the owner belongs to, and world refers to all database users. The Action Log for changing the rights will then be activated, and in the window that opens, click the Set Access button. The rights for the project/folder will then be changed. For more information about the Action Log, see [7.18 Action Log](#).

The rights for a project/folder can also be assigned from the Project/Folder Properties window. For more information, see [7.4.8 Project/Folder Properties](#).

7.4.8 Project/Folder Properties

To view the properties assigned to a project/folder, right-click a project/folder, and then from the menu that appears, select Properties.



The following project/folder properties are available:

- ◆ **Name** – Shows the name of the project/folder.
- ◆ **Type** – Shows if the folder is a regular folder or a project.
- ◆ **UUID** – Shows the automatically generated UUID of the project/folder.
- ◆ **Path** – Shows the path of the project/folder within the data directory of the database.
- ◆ **Name** – Shows the name of the project/folder. To rename the project/folder, type a new name in the box.
- ◆ **Owner** – Shows the user that owns the project/folder. To reassign the project/folder to a new user, select a user from the list.
- ◆ **Created At** – Shows the date and time when the project/folder was created.
- ◆ **Access Rights** – Shows the access rights for the project/folder. To change the rights, enable/disable one or more check boxes. For more information about access rights, see [2.1.5.3 Access Rights](#).

Click either the Ok or Apply button to save the changes.

Tip: The labels of settings that have been modified will be colored red.

7.4.9 Deleting Projects/Folders

To delete a project/folder, select it, and then press DELETE. Alternatively, right-click the project/folder, and then from the menu that appears, select Delete. The Action Log for deleting files will then be activated, and in the window that opens, click the Delete button. The project/folder will then be deleted. For more information about the Action Log, see [7.1.8 Action Log](#).

Note: Only empty projects/folders can be deleted. Also, by deleting a project/folder from the database, the respective folder-links in the properties of the items will be deleted too.

7.5 Files Panel

In the Files panel, the items within the project/folder selected in the Servers and Folders panel are shown in a list. If the Show Projects/Folders check box is selected in the Toolbar, subprojects/subfolders are also shown.

Tip: If the expected items are not listed in the Files panel, make sure that the desired setting has been defined in the Show drop-down list in the Toolbar.

The items in the list can be displayed in regular or icons view, depending on the status of the As Icons check box in the Toolbar. For more information, see [7.3.4 Displaying Items as Icons](#).

Tip: By right-clicking the Files panel, a shortcut menu will open. From this menu it is possible to for example create new projects/folders, search for or check in/out items.

7.5.1 Columns

When the server items are displayed in regular view, columns are used to display information about the items. The following columns are available:

- ◆ **File** – Shows the name of the item.
- ◆ **Size** – Shows the size of the item.
- ◆ **Type** – Shows the item type, for example material.
- ◆ **Modified At** – Shows the date and time when the item was modified the last time.
- ◆ **Modified By** – Shows the name of the user that modified the item the last time.
- ◆ **Created At** – Shows the date and time when the item was created.
- ◆ **Owner** – Shows the name of the user that owns the item.
- ◆ **Checked Out By** – If the item is checked out, shows the name of the user that has checked it out.
- ◆ **Locked By** – If the item is session locked, shows the name of the user that is working on it.
- ◆ **No. of Folder Links** – Shows the number of folder-links (number of projects/folders the item is placed in).

- ◆ **Access Rights** – Shows the access rights for user, group, and world. For more information, see [2.1.5.3 Access Rights](#).
- ◆ **Checksum** – Shows the automatically calculated checksum, which is used to ensure that all items in the database are unique.
- ◆ **UUID** – Shows the automatically generated UUID of the item.

Tip: For more information about columns, see [2.1.6 Columns](#).

7.6 Server Items

The items in the database can be of various type; they can be scenes, images, materials, and so on. The items are available in the Files panel.

7.6.1 Renaming Items

To rename an item, click it twice. Alternatively, select the item, and then press F2 or CTRL+R, or right-click the item, and then from the menu that appears, select Rename. Next, type in the new item name, and then press ENTER to save it.

Note: Special characters, such as space, are not allowed in item names. Also, item names within the same item type must be unique.

If changing the name of an item that has more than one folder-link, only the name of the link in the current folder will be altered.

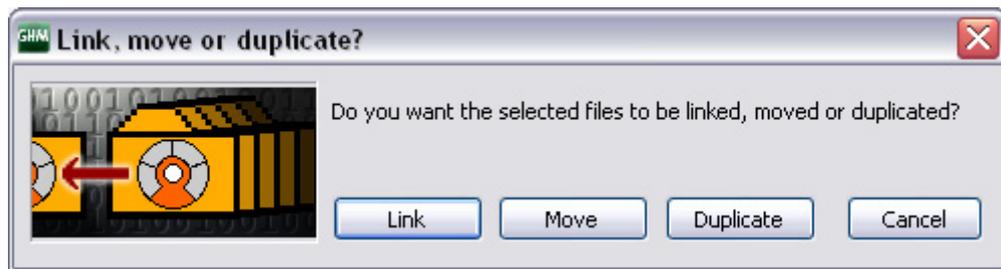
An item can also be renamed from the Item Properties window. For more information, see [7.6.10 Item Properties](#).

7.6.2 Linking, Moving, or Duplicating Items

This section of the document describes how to link, move, or copy items within one single server. For information about moving items between multiple servers, see [7.19 Deploying Files from one Server to Another](#).

The items in the database can be linked to different projects/folders, moved from one project/folder to another, or duplicates of an item can be created in another project/folder. The difference between these three operations is as follows:

- ◆ **Link** – This operation will add another folder-link to an item. The item will be shown in all the projects/folders it was already placed in, as well as the new project/folder it was linked to.
- ◆ **Move** – When moving an item from one project/folder to another, the folder-link mapped to the project/folder it was moved from will be replaced by the one it was moved to. The item will be shown in the new project/folder, but not in the old.
- ◆ **Duplicate** – This operation will create an exact duplicate of the item in another project/folder. The source item and duplicate will not be linked to each other, as the UUIDs of the items are different. Changing the source will not change the duplicate, or vice versa. When duplicating an item, a new item instance is created, with new creation date, owner, and so on.



To move an item, drag it from the Files panel onto the source project/folder in the Servers and Folders tree. From the Link, Move, or Duplicate window that appears, select the operation that should be performed. The Action Log for moving items will then be activated, and in the window that opens, click the Do It button. For more information, see [7.18 Action Log](#).

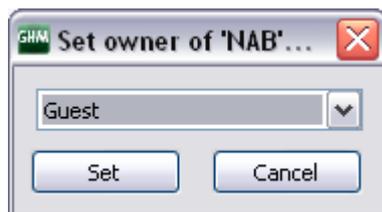
Another way to move an item is to select the item that should be moved, and then pressing CTRL+X. Next, select the target folder in the Servers and Folders tree, and then press CTRL+V.

A third way to move an item is to right-click the item, and then from the menu that appears, select Link (Create Shortcut), Move (Cut), or Duplicate (Copy). Next, right-click the target project/folder, and then from the menu that appears, select Link Here, Move Here, or Duplicate Here.

Tip: Multiple items can be linked/moved/copied at once. If projects/folders are selected along with items, it is possible to manipulate the files together. Note however, that projects/folders can only be moved.

7.6.3 Changing Owner of Items

Each server item belongs to a user.



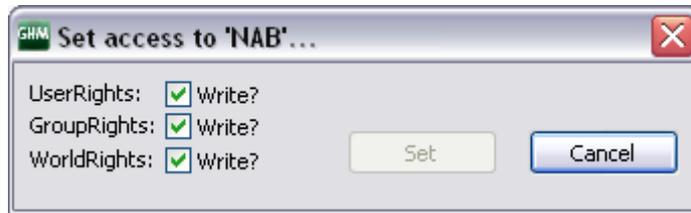
To change the owner, right-click the desired item, and then from the menu that appears, select Set Owner. In the Set Owner window that opens, select the new owner from the list, and then click the Set button. The Action Log for changing the owner will then be activated, and in the window that appears, click the Set Owner button. The owner of the item will then be changed. For more information about the Action Log, see [7.18 Action Log](#).

Tip: Multiple items can be assigned to a new owner at once.

The owner of an item can also be assigned from the Item Properties window. For more information, see [7.6.10 Item Properties](#).

7.6.4 Setting Rights for Items

It is possible to modify the rights for an item.



To change the rights, right-click the desired item, and then from the menu that appears, select Set Access. In the Set Access window that opens, define the new rights, and then click the Set button. User refers to the owner of the item, group refers to all the members of the group the owner belongs to, and world refers to all database users. The Action Log for changing the rights will then be activated, and in the window that opens, click the Set Access button. The rights for the item will then be changed. For more information about the Action Log, see [7.18 Action Log](#).

Tip: Rights for multiple items can be defined at once.

The rights for an item can also be assigned from the Item Properties window. For more information, see [7.6.10 Item Properties](#).

7.6.5 Keywords

In order to help users organize their work, keywords can be applied to items. Up to 20 keywords can be applied to an item. Each item holds a list of keywords in its properties. The keywords assigned to an item can be managed from the Item Properties window, see [7.6.10.2 Keywords](#).

Tip: Keywords can be used as a database search criteria.

For information about administering the keywords in the database, see [7.13 Managing Keywords](#).

7.6.5.1 Adding Keywords to Items



To add one or more keywords to an item, right-click the desired item, and then from the menu that appears, select Add Keywords. In the Add Selected Keywords window that opens, type the first characters of the desired keyword. All keywords that match the string will then be shown in the list. To show all keywords in the database, type *. Next, select one or more check boxes corresponding to the keywords, and then click the Add button. The Action Log for adding keywords will then be activated, and in the window that opens, click the Add button. The keywords will then be added to the item. For more information about the Action Log, see [7.18 Action Log](#).

Tip: Keywords can be added to multiple items at once. Also, wildcards such as * or ? can be used in the keywords search string.

If changing the search string while some keywords are already selected, they will remain selected and displayed in the list.

7.6.5.2 Removing Keywords from Items

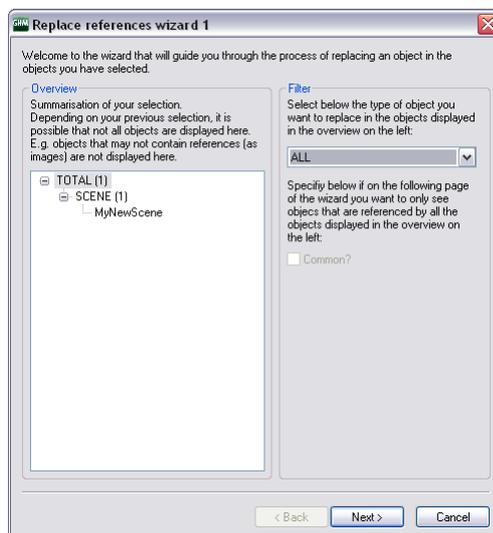


To remove one or more keywords from an item, right-click the desired item, and then from the menu that appears, select Remove Keywords. In the Remove Selected Keywords window that opens, select one or more keywords, and then click the Remove button. The Action Log for removing keywords will then be activated, and in the window that opens, click the Remove button. The keywords will then be removed from the item. For more information about the Action Log, see [7.18 Action Log](#).

Tip: Keywords can be removed from multiple items at once.

7.6.6 Replacing Item References

By replacing references it is possible to replace images or fonts referenced by scenes or geometries by other ones. It is only possible to replace an image with an image, or a font with a font. Replacing references is practical for example when changing corporate identity.



To replace the references of one or more scenes or objects, right-click the desired items, and then from the menu that appears, select Replace Reference. In the Replace References wizard that opens, select the item type that should be replaced, and then click the Next button. If multiple scenes/geometries have been selected, it is possible to include only the images/fonts that are common to all scenes/geometries by enabling the Common check box. In the next tab, drag an image/font from the Explorer onto the Replace References wizard, and then click the Finish button. The Action Log for replacing references will then be activated, and in the window that opens, click the Replace button. For more information, see [7.18 Action Log](#).

Note: Use the replace item references feature with care, as it can be potentially harmful, for example if the scene that is having its image replaced is on-air.

7.6.7 Checking Items In/Out

Every server item can be checked out, so that only the user who checked it out will be able to save it. Other users can then only view the item. Checking out an item lasts until it is checked in again. For more information, see [2.1.5.2 Check Out](#).

To check out one or more items, right-click the desired items, and then from the menu that appears, select Check Out. The Action Log for checking out items will then be activated, and in the window that opens, click the Ok button. For more information, see [7.18 Action Log](#).

To check in items, repeat the method described above, but instead of Check Out, select Check In from the shortcut menu.

7.6.8 Locking/Unlocking Items

Every server item can be locked, so that only the user who locked it will be able to save it. Other users can only view the item. Locking an item lasts until it is unlocked, or until the user that has locked the item ends the log in session. For more information, see [2.1.5.1 Session Lock](#).

To lock one or more items, right-click the desired items, and then from the menu that appears, select Lock. The Action Log for locking items will then be activated, and in the window that opens, click the Ok button. For more information, see [7.18 Action Log](#).

To unlock items, repeat the method described above, but instead of Lock, select Unlock from the shortcut menu.

7.6.9 Deleting Items

To delete an item, select it, and then press DELETE. Alternatively, right-click the item, and then from the menu that appears, select Delete. The Action Log for deleting files will then be activated, and in the window that opens, click the Delete button. This item instance will then be deleted. For more information about the Action Log, see [7.18 Action Log](#).

.....
Tip: Multiple items can be deleted at once.
.....

To delete not only this instance of the item, but delete the item from the database all together, click Delete Everywhere Else instead of Delete from the shortcut menu.

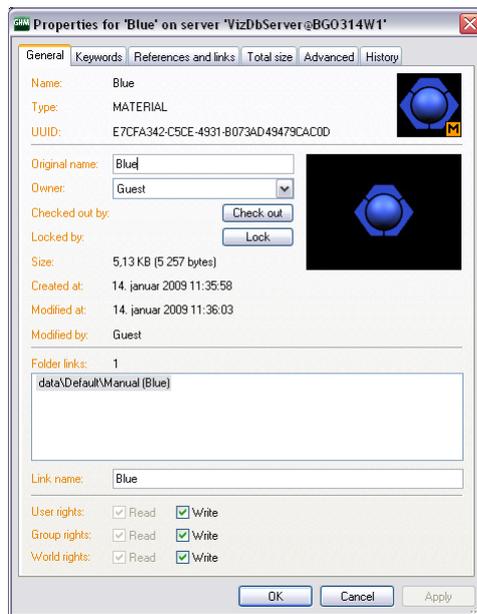
7.6.10 Item Properties

To view the properties assigned to an item, double-click an item in the Files panel. Alternatively, right-click an item, and then from the menu that appears, select Properties. The Item Properties window will then open.

The Item Properties window contains various tabs and panels.

7.6.10.1 General

Clicking the General tab opens the General panel.



The following properties are available in the General panel:

- ◆ **Name** – Shows the name of the item.
- ◆ **Type** – Shows the item type, for example material.
- ◆ **UUID** – Shows the UUID of the item.

The three properties above (name, type, and UUID) are available in all Item Properties panels. The following properties are only available in the General panel:

- ◆ **Original Name** – Shows the name of the item. To rename the item, type a new name in the box. If changing the name of an item that has more than one folder-link, only the name of this link will be altered. In other projects/folders, the name will not be changed.
- ◆ **Owner** – Shows the name of the user that owns the item. To reassign the item to a new user, select a user from the list.
- ◆ **Checked Out By** – If the item is checked out, shows the name of the user that has checked it out. To check out the item, click the Check Out button. To check in the item, click the Check In button.
- ◆ **Locked By** – If the item is session locked, shows the name of the user that is working on it. To session lock the item, click the Lock button. To unlock the item, click the Unlock button.
- ◆ **Size** – Shows the size of the item.
- ◆ **Created At** – Shows the date and time when the item was created.
- ◆ **Modified At** – Shows the date and time when the item was modified the last time.
- ◆ **Modified By** – Shows the name of the user that modified the item the last time.
- ◆ **Folder Links** – Shows the number of folder-links (number of projects/folders the item is placed in). The box below shows the paths to projects/folders where the item is linked.
- ◆ **Link Name** – Shows the name of the folder-link. By default, the folder-link name automatically equals the item name. The default name is not very descriptive, so to describe the nature of the folder-link, rename the link name by typing a new name in the box.

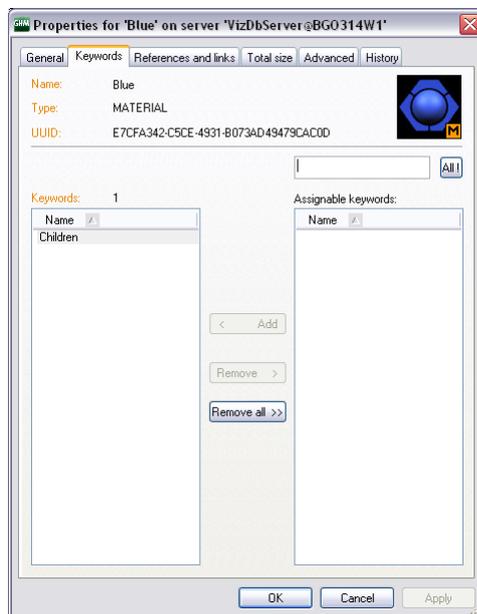
- ◆ **Access Rights** – Shows the access rights for user, group, and world. User refers to the owner of the item, group refers to all the members of the group the owner belongs to, and world refers to all database users.

Click either the Apply or Ok button to activate the changes. Pressing ENTER activates the changes and closes the Item Preferences window.

Two thumbnails of the item are shown in the upper right area of the window. The small thumbnail equals how the item is presented if the File panel is presented in icons view. The large thumbnail shows a snapshot of the item, taken at the time (frame) when the item was saved in the database.

7.6.10.2 Keywords

Clicking the Keywords tab opens the Keywords panel.



In this panel it is possible to associate one or more keywords to an item.

To apply keywords, type the first characters of the desired keyword in the box. All keywords that match the string will then be shown in the Assignable Keywords list. To show all keywords in the database, click the All button. Next, select one or more keywords from the Assignable Keywords list, and then click the Add button. Alternatively, right-click the keyword in the list, and then from the menu that appears, select Add. The keywords will then be added to the Keywords list.

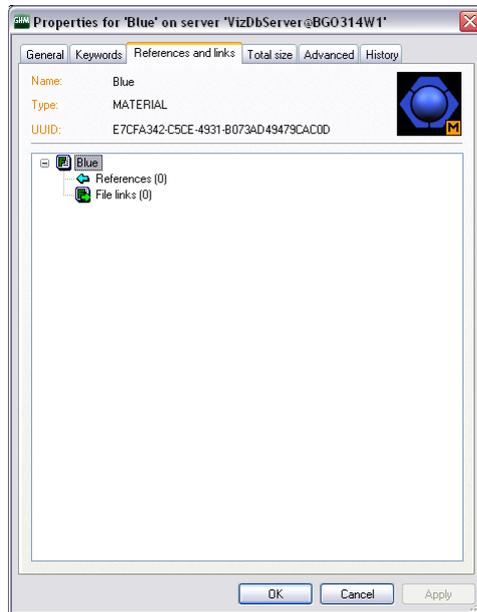
Tip: Wildcards such as * or ? can be used in the keywords search string.

To remove keywords, select one or more keywords from the Keywords list, and then click the Remove button. Alternatively, right-click the keyword in the list, and then from the menu that appears, select Remove. To remove all keywords at once, click the Remove All button or select Remove All from the shortcut menu.

Click either the Apply or Ok button to activate the changes. Pressing ENTER activates the changes and closes the Item Preferences window.

7.6.10.3 References and Links

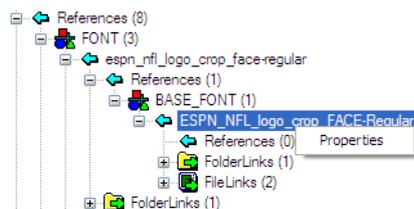
Clicking the References and Links tab opens the References and Links panel.



In this panel it is possible to view all folder-links, file-references, and file-links of the item. For more information about the various links and references, see [2.1.3 Links and References](#).

The entries are categorized in three subfolders below the root entry:

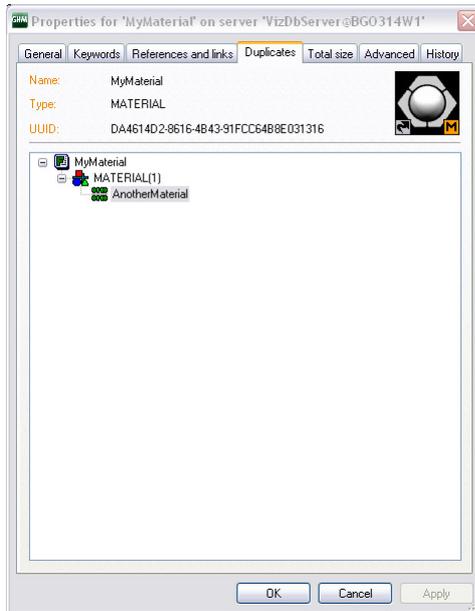
- ◆ **References** – Lists all other items that are being used by this item, grouped by item type.
- ◆ **Folder Links** – Lists all projects/folders the item is shown in.
- ◆ **File Links** – Lists all items the item is used by.



To open the Item Properties window of an item within the tree, right-click the desired item, and then from the menu that appears, select Properties.

7.6.10.4 Duplicates

If the item has duplicates in the database, a tab named Duplicates will be available. Clicking the Duplicates tab opens the Duplicates panel.

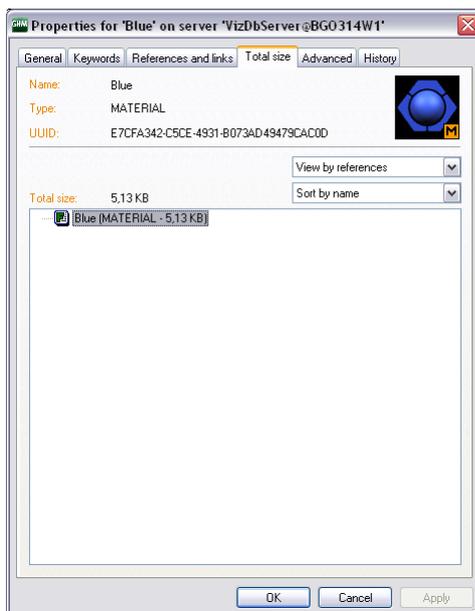


Duplicates are identified through the automatically calculated checksum. The checksum calculation ensures that identical items are identified, even though they carry different names.

The Duplicates panel lists all duplicates in the database, sorted by the names of the items. The content of this panel is similar to the Duplicates window. For more information, see [7.6.11 Locating Duplicates](#).

7.6.10.5 Total Size

Clicking the Total Size tab opens the Total Size panel.



In this panel it is possible to view all the selected items with their relevant size.

The tree can be viewed either by:

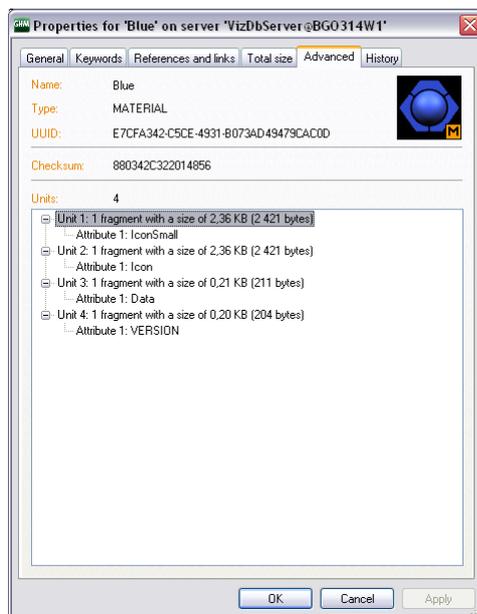
- ◆ **References** – Lists all items and referenced items. If the tree is viewed by references, it is possible to sort the items by:
 - **Name**
 - **Size**
 - **Type and Name**
 - **Type and Size**
- ◆ **Size** – Lists all the referenced items by their size.

Note: Items that are labelled with red color are referenced, but not found in the database.

Total Size describes the size of the selected item, plus the size of all referenced items.

7.6.10.6 Advanced

Clicking the Advanced tab opens the Advanced panel.

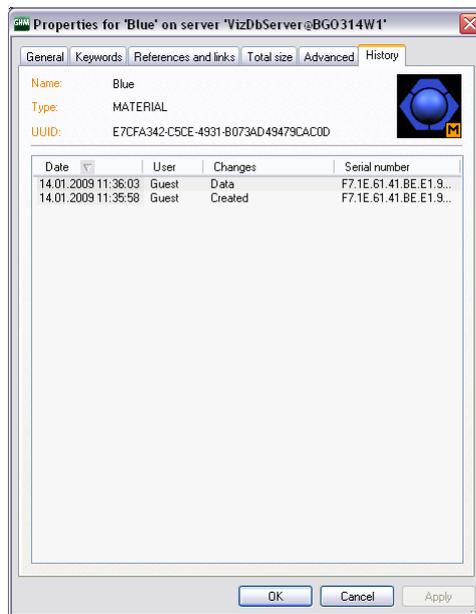


In this panel it is possible to view the units that build the item.

- ◆ **Checksum** – Shows the automatically calculated checksum, which is used to ensure that all items in the database are unique.
- ◆ **Units** – Each item in the database consists of various units. For example, one unit is the small item icon, another the large icon, and so on. Each unit is presented with attributes and size.

7.6.10.7 History

Clicking the History tab opens the History panel.



In this panel it is possible to view the history of the item.

- ◆ **Date** – Shows the date and time when the item was created or modified.
- ◆ **User** – Shows the name of the user that created or modified the item.
- ◆ **Changes** – Shows a description of the action that was performed to the item.
- ◆ **Serial Number** – Shows the system ID of the dongle that was attached to the machine that created or modified the item.

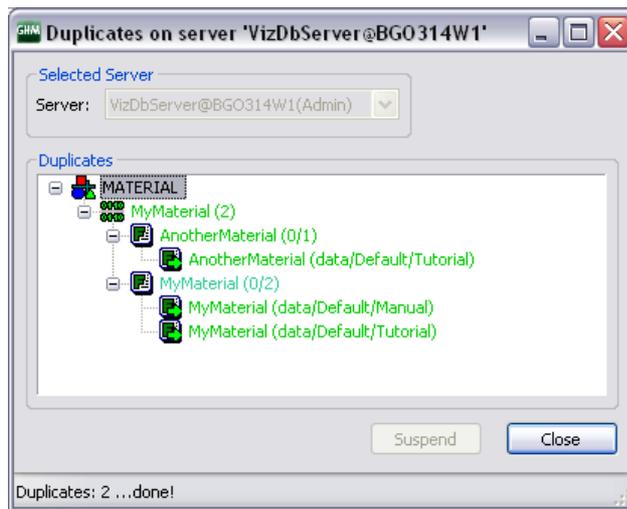
Tip: For information about columns, see [2.1.6 Columns](#).

7.6.11 Locating Duplicates

When items are copied from one project/folder to another, the copy will be a duplicate of the original item. As long as neither the original item nor the copy is modified, they will remain duplicates, since the checksum of both objects is the same.

Tip: The items can be renamed, and still remain duplicates.

To locate the duplicates in the database, select View from the Main menu, and then from the menu that appears, select Duplicates. Alternatively, press CTRL+N or CTRL+F5. The Duplicates window will then open.



The Duplicates window lists all the duplicates in the selected database, sorted by the names of the items. If duplicates carry different names, this will be shown.

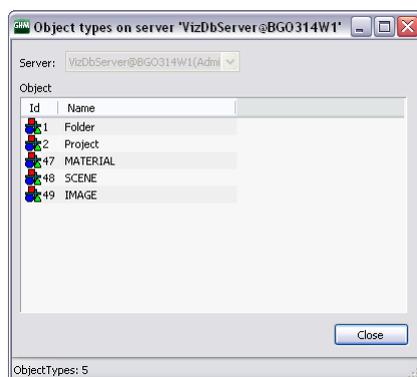
To get more information about a duplicate, right-click it. This will open a menu with the following options:

- ◆ **Open Containing Folder in Explorer** – Jumps to the project/folder in the Servers and Folders panel, where the selected item is placed.
- ◆ **Properties** – Opens the Item Properties window, which shows detailed information about the selected item. For more information, see [7.6.10 Item Properties](#).

Note: It is only possible to view the items in the Duplicates window, not delete them. Also, be careful when deleting duplicates. It is recommended to check with the owner of a duplicate before deleting it.

7.6.12 Monitoring Item Types

From this window it is possible to monitor the item types on the selected server.



To open the Object Types window, select View from the Main menu, and then from the menu that appears, select Object Types. Alternatively, press CTRL+B or CTRL+F6.

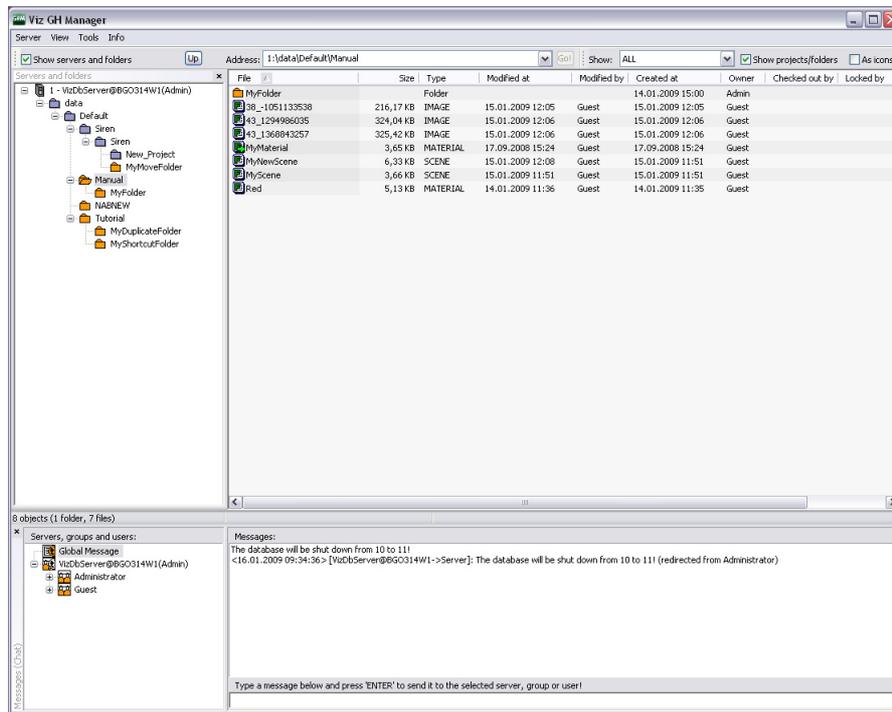
- ◆ **Server** – If logged in to more than one server, select which database to monitor from the Server list.
- ◆ **Object** – Shows all the server items. All item types are shown with corresponding ID (number of items on the server).
- ◆ **Object Types** – Shows the number of different item types stored in the database.

Tip: For information about columns, see [2.1.6 Columns](#).

7.7 Sending/Receiving Messages (Chat)

A chat feature is implemented in the database. This allows users to communicate with each other while being logged in to the database. The chat feature is also used to receive global messages from Viz Graphic Hub, such as information about a database shutdown. The messages that are sent or received are saved throughout the session.

Tip: The chat feature is available from both Viz Graphic Hub Manager and Viz Artist.



The Chat panel is located in the Explorer. To show the Chat panel, select View from the Main menu, and then from the menu that appears, select Messages (Chat). Alternatively, press F6 or CTRL+H. To hide the Chat panel, perform the same operation again.

Note: If receiving a message while the Chat panel is hidden, the panel will automatically open.

The Chat panel can be undocked from the Explorer. To do so, double-click the Messages (Chat) header at the left side of the Chat panel. The panel can then be dragged to the desired destination. To dock the panel to the Explorer again, double-click the header one more time.

7.7.1 Sending Messages

To send a message, first select the recipient from the list at the left side of the panel. The list shows all available servers, groups, and logged in users. Next, type a message text in the box, and then press ENTER. The message will then be sent to the defined Viz Graphic Hub Manager and/or Viz Artist user(s).

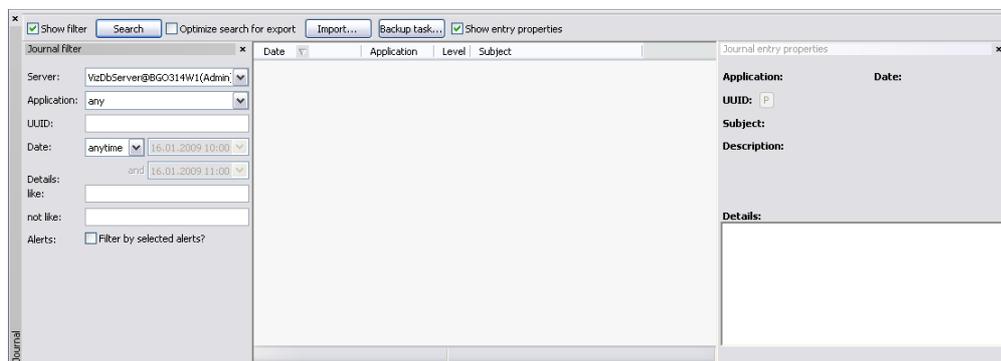
Tip: Messages sent to Global Message will be delivered to all users logged in to any server the sender is logged in to. Messages sent to a group will be delivered to all the currently logged in members of this group.

Chat messages that have been sent are displayed as text without comments. Received messages are displayed with text, in addition to information about date/time and username of the sender.

For global messages, the sender will be Server. For example, a global message will automatically be sent from the system if the server shuts down while users are logged in. If a user sends a global message, the username of the original sender will be added.

7.8 Administering Journal Entries

From this window it is possible to search for journal entries and view details of these entries. Journal entries are log files created according to various alert levels.



The Administer Journal Entries panel is located in the Explorer. To show this panel, select Server from the Main menu, and then from the menu that appears, select Administer Journal Entries. Alternatively, press SHIFT+CTRL+F6. To hide the panel, perform the same operation again.

The Administer Journal Entries panel can be undocked from the Explorer. To do so, double-click the Journal header at the left side of the Administer Journal

Entries panel. The panel can then be dragged to the desired destination. To dock the panel to the Explorer again, double-click the header one more time.

The following general options are available in the Administer Journal Entries panel:



- ◆ **Show Filter** – Shows/hides the Journal Filter frame.
- ◆ **Search** – Performs a search for journal entries based on the parameters defined in the Journal Filter frame.
- ◆ **Optimize Search For Export** – If enabled, backup files with a huge number of journal entries (more than 20.000) will be optimized for export, by not containing all available information about these entries.
- ◆ **Import** – Opens a dialog box, from where it is possible to select an XML backup file to import.
- ◆ **Backup Task** – Opens the Configure Journal Backup Task window. From this window it is possible to define when backup files should be created. Select the start date when the backup file should be created the first time, and then define the interval that defines how often the backup file should be created. To save the details, click the Ok button.
- ◆ **Show Entry Properties** – Shows/hides the Journal Entry Properties frame.

In the Journal Filter frame it is possible to define search parameters. To search for journal entries, define the parameters, and then click the Search button. The Search results will then appear in the list. Selecting a journal entry in the list will show the details of this entry in the Journal Entry Properties frame.



- ◆ **Server** – Defines the server that should be searched.
- ◆ **Application** – Defines the application that should be searched.
- ◆ **UUID** – Defines the UUID of the entry that should be searched.

Tip: It is possible to drag items from the Files panel onto the UUID box.

- ◆ **Date** – Defines the date(s) for the search. By default, the date is set to Anytime. All entries regardless of creation date will then be searched.

Selecting **From** will search for entries created after the defined date, **To** will search for entries created before the defined date, and **Between** will search for entries created between two defined dates.

- ◆ **Like** – Searches for journal entries that match the text string.
- ◆ **Not Like** – Searches for journal entries that do not match the text string.
- ◆ **Alerts** – To search for entries that correspond to alerts, first select the Alerts check box. From the list that appears, select one or more alerts, and then click the Search button.

The Journal Entry Properties frame shows details for the entry selected in the list.

- ◆ **Application** – Shows the application that the journal entry belongs to.
- ◆ **Date** – Shows the date when the journal entry was logged.
- ◆ **UUID** – Clicking the P button opens the properties for the item.
- ◆ **Subject** – Equals the subject of the journal entry.
- ◆ **Description** – Describes the journal entry. In an e-mail notification, the description makes the body of the e-mail.
- ◆ **Details** – Shows specific alert information, for example if files are corrupt.

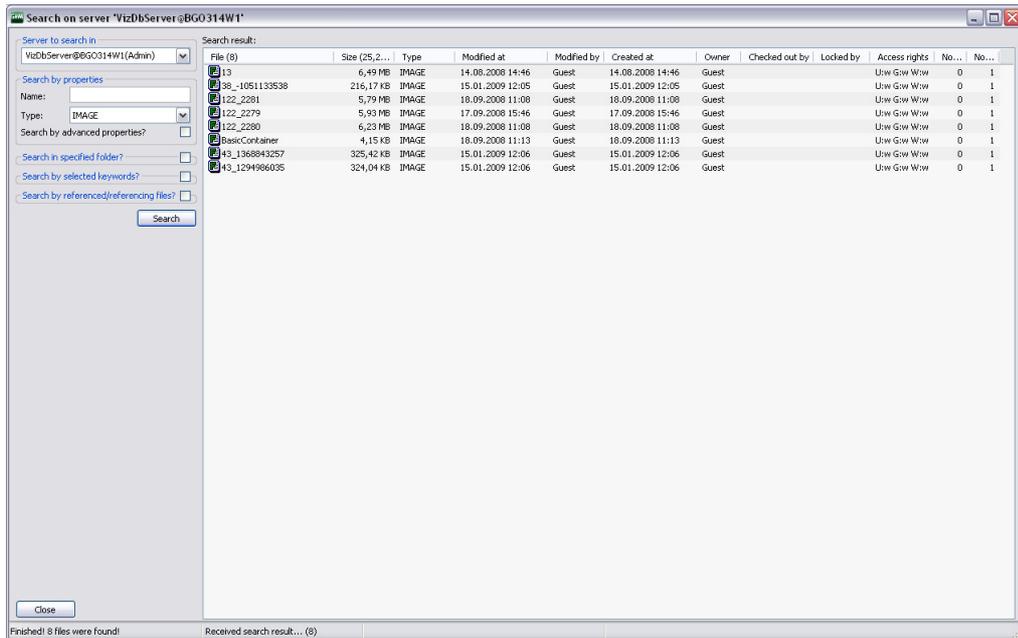
The list of journal entries shows the search results. The following columns are available:

- ◆ **Date** – Shows the date when the journal entry was created.
- ◆ **Application** – Shows the application that the journal entry belongs to.
- ◆ **Level** – Shows the alert level of the journal entry. A list of the available alert levels can be seen in the Alerts window.
- ◆ **Subject** – Equals the subject of the journal entry.

Tip: For information about columns, see [2.1.6 Columns](#).

7.9 Searching

From the Search window it is possible to search for server items.



To open the Search window, select Tools from the Main menu, and then from the menu that appears, select Search. Alternatively, press F3 or CTRL+S.

Note: If selecting more than one search option, a logical AND combination will be performed.

The following options are available:

- ◆ **Server to Search in** – Select the server that should be searched.
- ◆ **Name** – Searches for items with the defined item name.

Tip: Wildcards such as * or ? can be used in the search string.

- ◆ **Type** – Searches for items of the selected item type.



- ◆ **Search by Advanced Properties** – Selecting the Search by Advanced Properties check box shows the Advanced frame.

- **Size** – Searches for items that are either at least, at most, or between the defined size(s) in KB.
- **Created** – Searches for items created either after, before, or between the defined date(s).
- **Modified** – Searches for items modified either after, before, or between the defined date(s).
- **Use Group Instead of Users** – If selected, the next four options will apply to groups instead of users.

Note: Only users/groups registered in the database will be available from the lists.

- **Owned By** – Searches for items owned by user.
- **Modified By** – Searches for items that was last modified by the defined user.
- **Checked Out By** – Searches for items checked out by the defined user.
- **Search By Access Rights** – If selected, searches for items that have write permission either on user (UW), group (GW), or world (WW) level.
- ◆ **Search in Specified Folder** – If selected, opens the Folders frame, from where it is possible to search for items in the selected folder. For more information, see [7.9.3.1 Searching for Items in Projects/Folders](#).
 - **Search in Subfolder** – If selected, includes searching in subfolders of the selected folder.
- ◆ **Search by Selected Keywords** – If selected, opens the Search by Selected Keywords frame, from where it is possible to search for items that have the selected keywords applied. For more information, see [7.9.3.2 Searching for Items with Keywords](#).
- ◆ **Search by Referenced/Referencing Files** – Searches for items that reference or are referenced by other items. For more information, see [7.9.3.3 Searching for Referenced Items](#).

The list at the right side of the window shows the search results. The following columns describe the result items:

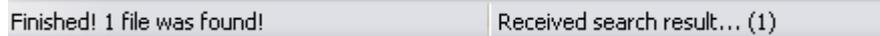
- ◆ **File** – Shows the name of the item. The column heading shows the total number of items in the list.
- ◆ **Size** – Shows the size of the item. The column heading shows the total size for all items in the list.
- ◆ **Type** – Shows the item type.
- ◆ **Modified At** – Shows the date and time when the item was modified the last time.
- ◆ **Modified By** – Shows the name of the user that modified the item the last time.
- ◆ **Created At** – Shows the date and time when the item was created.
- ◆ **Owner** – Shows the name of the user that owns the item.
- ◆ **Checked Out By** – Shows the name of the user that has checked out the item.
- ◆ **Locked By** – Shows the name of the user that currently works with the item.
- ◆ **Access Rights** – Shows the access rights for user, group, and world. User refers to the owner of the item, group refers to all the members of the group the owner belongs to, and world refers to all users.
- ◆ **No. of Keywords** – Shows the number of keywords that are attached to the item.

- ◆ **No. of Folder links** – Shows the number of folder-links (number of projects/folders the item is placed in).

Tip: For information about columns, see [2.1.6 Columns](#).

Right-clicking one of the items in the list, open a menu similar to the one in the Files panel. For more information, see [7.5 Files Panel](#).

7.9.1 Search Status Bar



At the bottom of the Search window is the status bar. While a search is performed in the database, a corresponding message will be displayed at the left side of the status bar. As soon as the search is finished, the number of matching items will be shown.

7.9.2 Performing a Basic Search

To perform a basic search, enter the name of the item, and then select the item type. Next, click the Search button. The search results will then appear in the list.

7.9.3 Performing Advanced Searches

It is possible to define additional parameters for the search.

Note: If selecting more than one search option, a logical AND combination will be performed.

7.9.3.1 Searching for Items in Projects/Folders

To search for items in a specific project/folder, first select the Search in Specified Folder check box. From the tree structure that appears, select the project/folder that should be searched. If required, add additional search criteria, and then click the Search button. The search results will then appear in the results list.

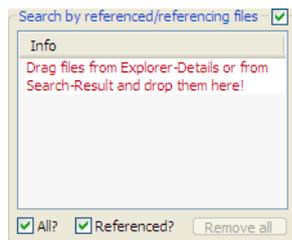
Tip: If the Search in Subfolders check box is selected, all the subprojects/subfolders of the selected project/folder will be searched too.

7.9.3.2 Searching for Items with Keywords

To search for items that have certain keywords applied, first select the Search by Selected Keywords check box. In the box that appears, type the first characters of the desired keyword. The list of available keywords that match the characters will then appear in the keywords list. Alternatively, type * to list all available keywords in the database. Next, select one or more keywords that match the search criteria. If required, add additional search criteria, and then click the Search button. The search results will then appear in the results list.

Tip: If the All check box is selected, only items that have all selected keywords applied (logical AND) will be displayed in the results list. If the check box is cleared, items that have one of the selected keywords assigned (logical OR) will be displayed in the results.

7.9.3.3 Searching for Referenced Items



To search for items that are either referenced or that reference other items, first select the Search by Referenced/Referencing Files check box. Select the desired items, either in the Files panel or, if a search has already been performed, from the search results list. Drag the items onto the drop area. Next, decide whether the items are referenced or reference the search result. If the Referenced check box is selected, the items that reference the selection will be shown in the results list. If the check box is cleared, the items that are referenced by the selection will be shown. Finally, add additional search criteria, and then click the Search button. The search results will then appear in the results list.

To remove items from the list, select the items that should be removed, and then right-click the selection. From the menu that appears, select Remove Selected. The items will then be removed from the list. To remove all items from the list, click the Remove All button.

To view the selected file in the Explorer, right-click the desired item, and then from the menu that appears, select Open Containing Folder in Explorer. The project/folder that contains the item will then be selected in the Servers and Folders panel.

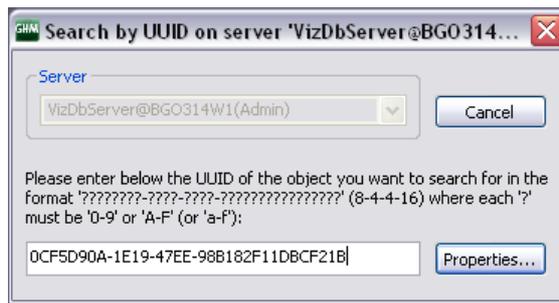
To open the Properties window for an item, right-click the desired item, and then from the menu that appears, select Properties.

7.9.4 Creating Links from Search Results

After performing a database search, it is possible to link the items that are listed in the search results to other projects/folders. To do this, select the desired items in the results list. Next, in the Explorer, navigate to the project/folder where the links should be placed, and then drag the items onto the Files panel. Alternatively, drag them directly to the project/folder.

7.9.5 Search by UUID

From the Search window it is possible to search for server items based on their automatically generated UUID. This feature is used to find specific files in the system.

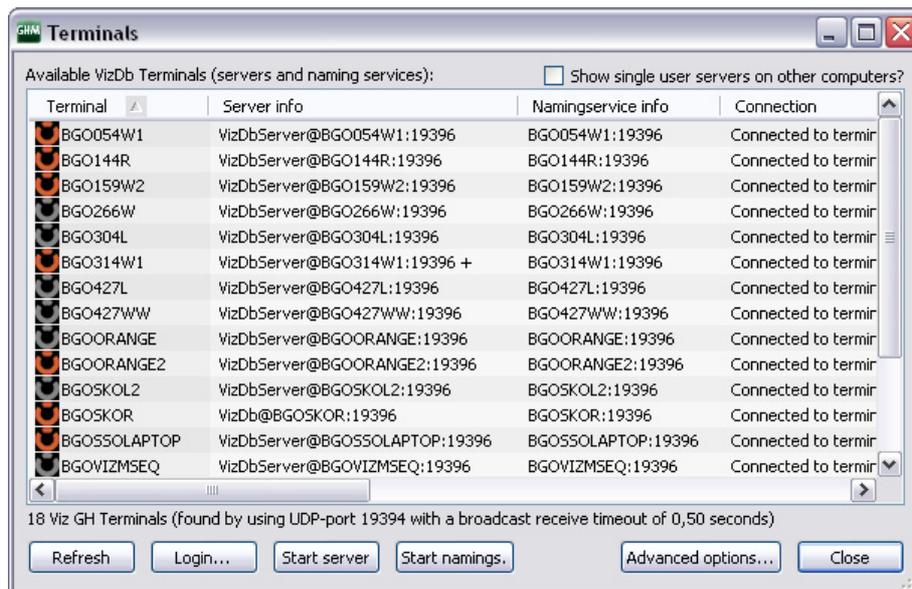


To open the Search by UUID window, select Tools from the Main menu, and then from the menu that appears, select Search by UUID. Alternatively, press F11.

To search for an item based on UUID, type the UUID in the box, and then click the Properties button. This will open the Item Properties window for the desired item.

7.10 Monitoring Terminals

The Terminals window provides an interface to view all online terminals within the network. A terminal is the physical machine where the Viz Graphic Hub Terminal application is running.



To open the Terminals window, select Server from the Main menu, and then from the menu that appears, select Terminals. Alternatively, press F9 or CTRL+T.

The following columns are available:

- ◆ **Terminal** – Shows the hostname of the physical machine where the namingservice and/or server are installed. An icon represents the status of the server and namingservice:
 - Both the namingservice and server are down.
 - The namingservice is running, but the server is down.
 - The namingservice is down, but the server is running.
 - Both the namingservice and server are running.



- ◆ **Server Info** – Shows the “<Viz GH Server>@<Viz Graphic Hub Namingservice>:<port the naming service is listening to>”. Additionally, + is added if being logged in to the server.
- ◆ **Namingservice Info** – Shows the “<Viz Graphic Hub Namingservice>:<port the naming service is listening to>”.
- ◆ **Connection** – Shows if Viz Graphic Hub Manager has a valid connection to the Viz Graphic Hub Terminal.
- ◆ **Server** – Shows the name of the server.
- ◆ **S. Host** – Shows the hostname of the physical machine where the server is installed.
- ◆ **S. Port** – Shows the port number the server communicates through.
- ◆ **S. Up** – Shows if the server is running. This is also indicated by the icon in the Terminal column.
- ◆ **S. In** – Shows if being logged in to this server.
- ◆ **Namingservice** – Shows the name of the namingservice.
- ◆ **Ns. Port** – Shows the port number the namingservice communicates through.
- ◆ **Ns. Up** – Shows if the namingservice is running. This is also indicated by the icon in the Terminal column.
- ◆ **T. TCP-Port** – Shows the TCP port number, which can be used to start the server remotely from Viz Graphic Hub Manager.
- ◆ **Terminal Host Network IP** – Shows the IP address of the terminal machine.

Tip: For information about columns, see [2.1.6 Columns](#).

The following additional options are available:

- ◆ **Show Single User Servers on other Computers** – If selected, also shows servers/namingservices in the network that are running in single-user mode (localhost).
- ◆ **Advanced Options** – Opens the Terminals Advanced Options window. Alternatively, press ALT+A.
 - **UDP-Port** – Defines the UDP port where Viz Graphic Hub Manager searches for terminals.

Note: The UDP port must be equal to the port the namingservice is listening to.

- **Timeout for Receive Answer by Viz Graphic Hub Terminals** – Defines for how long the Viz Graphic Hub Manager should listen for terminals before defining the result. The timeout value is set in milliseconds.
- ◆ **Refresh** – Updates the list. Alternatively, press ALT+R.
- ◆ **Login** – To log in to a database, select the desired database from the list, and then click the Login button. Alternatively, press ALT+L. This will open the Login window. For more information about logging in, see [7.1.1 Login](#).

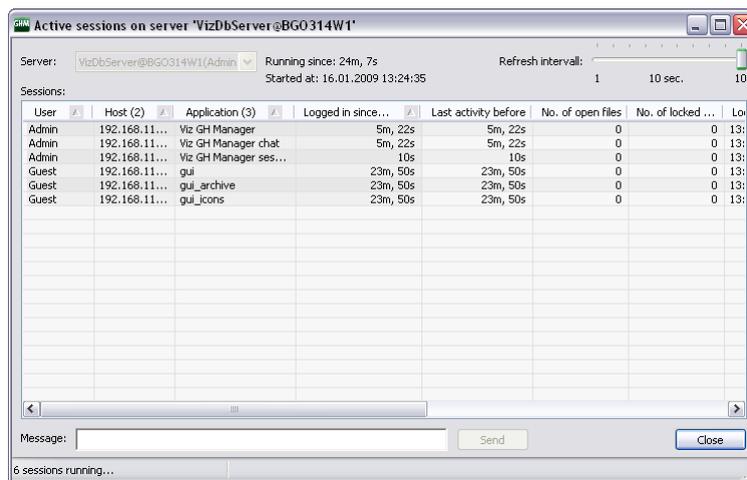
Note: It is not possible to log in to a Viz Graphic Hub installation in single-user mode (localhost) from other physical machines.

- ◆ **Start Server** – If the server on a listed terminal is not running, it is possible to start the server from this window. To do so, select the desired server from the list, and then click the Start Server button. Alternatively, press ALT+S.

- ◆ **Start Namingservice** – If the namingservice on a listed terminal is not running, it is possible to start the namingservice from this window. To do so, select the desired server from the list, and then click the Start Namingservice button. Alternatively, press ALT+N.

7.11 Monitoring Active Sessions

From the Active Sessions window it is possible to monitor all logged in users and active database sessions. In order to obtain a non-sequential workflow, each user activates multiple sessions.



To open the Active Sessions window, select View from the Main menu, and then from the menu that appears, select Active Sessions. Alternatively, press CTRL+E.

The following options are available:

- ◆ **Server** – If logged in to more than one server, select which database to monitor from the Server list.
- ◆ **Running Since** – Shows how long the selected server has been running, counting upwards in hours, minutes, and seconds.

Tip: The time relates to the system time on the server machine.

- ◆ **Started At** – Shows the time and date when the server was started.
- ◆ **Refresh Interval** – Defines the interval for when information should be refreshed. It can be set to a value between one and ten seconds.
- ◆ **Message** – To send a message to all clients that are logged in to the selected server, type a text in the Message box, and then click the Send button.

The Sessions list shows detailed information about the sessions that are active on the selected server. The following columns are available in the Sessions list:

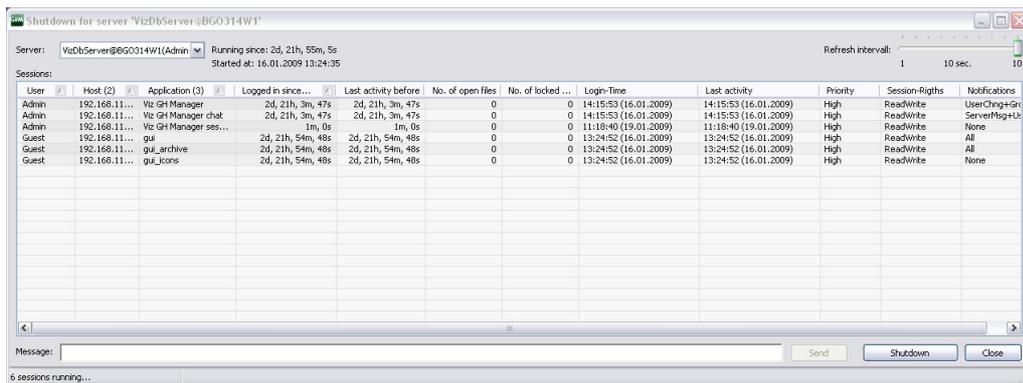
- ◆ **User** – Shows the name of the user that activated the session.
- ◆ **Host** – Shows the hostname of the machine that the session was started from.
- ◆ **Application** – Describes the application and operation the session belongs to.
- ◆ **Logged in Since** – Shows how long the user has been logged in to the database, counting upwards in hours, minutes, and seconds.

- ◆ **Last Activity Before** – Shows the last time an operation was performed in the session.
- ◆ **No. of Open Files** – Shows the number of files that are open in the system.
- ◆ **No. of Locked Files** – Shows the number of items that are session locked.
- ◆ **Login Time** – Shows the time and date when the user logged in to the database.
- ◆ **Last Activity** – Shows the time and date of the last time an operation was performed in the session.
- ◆ **Priority** – The priority of the sessions ensures desired load balancing.
- ◆ **Session Rights** – Shows the access (read/write) rights for the session.
- ◆ **Notifications** – Description used by the clients, for example to inform that items have been created.

Tip: For information about columns, see [2.1.6 Columns](#).

7.11.1 Shutting Down Server

To extend the list of sessions with the possibility to shutdown a server, select Server from the Main menu, and then from the menu that appears, select Shutdown. Alternatively, press F10 or CTRL+W.



User	Host (2)	Application (3)	Logged in since...	Last activity before	No. of open files	No. of locked ...	Login-Time	Last activity	Priority	Session-Rights	Notifications
Admin	192.168.11...	Viz GH Manager	2d, 21h, 3m, 47s	2d, 21h, 3m, 47s	0	0	14:15:53 (16.01.2009)	14:15:53 (16.01.2009)	High	ReadWrite	UserChng+Gr
Admin	192.168.11...	Viz GH Manager chat	2d, 21h, 3m, 47s	2d, 21h, 3m, 47s	0	0	14:15:53 (16.01.2009)	14:15:53 (16.01.2009)	High	ReadWrite	ServerMsg+Lk
Admin	192.168.11...	Viz GH Manager ses...	1m, 0s	1m, 0s	0	0	11:18:40 (19.01.2009)	11:18:40 (19.01.2009)	High	ReadWrite	None
Guest	192.168.11...	gui	2d, 21h, 54m, 48s	2d, 21h, 54m, 48s	0	0	13:24:52 (16.01.2009)	13:24:52 (16.01.2009)	High	ReadWrite	All
Guest	192.168.11...	gui_archive	2d, 21h, 54m, 48s	2d, 21h, 54m, 48s	0	0	13:24:52 (16.01.2009)	13:24:52 (16.01.2009)	High	ReadWrite	All
Guest	192.168.11...	gui_icons	2d, 21h, 54m, 48s	2d, 21h, 54m, 48s	0	0	13:24:52 (16.01.2009)	13:24:52 (16.01.2009)	High	ReadWrite	None

Single-user databases can safely be shut down from Viz Graphic Hub Terminal as all Viz Graphic Hub related operations are carried through on the computer that is being shut down.

Multi-user databases should be shut down from Viz Graphic Hub Manager. Emergency shutdown can be performed from the Viz Graphic Hub Terminal, but it is not recommended to do this, as it provides no information about users that are currently working in the system. Shutting down from Viz Graphic Hub Terminal implies an immediate shutdown which can result in corrupt server items. Shutting down a multi-user database from Viz Graphic Hub Manager implies that the system waits for all current activities to end before actually shutting down the system.

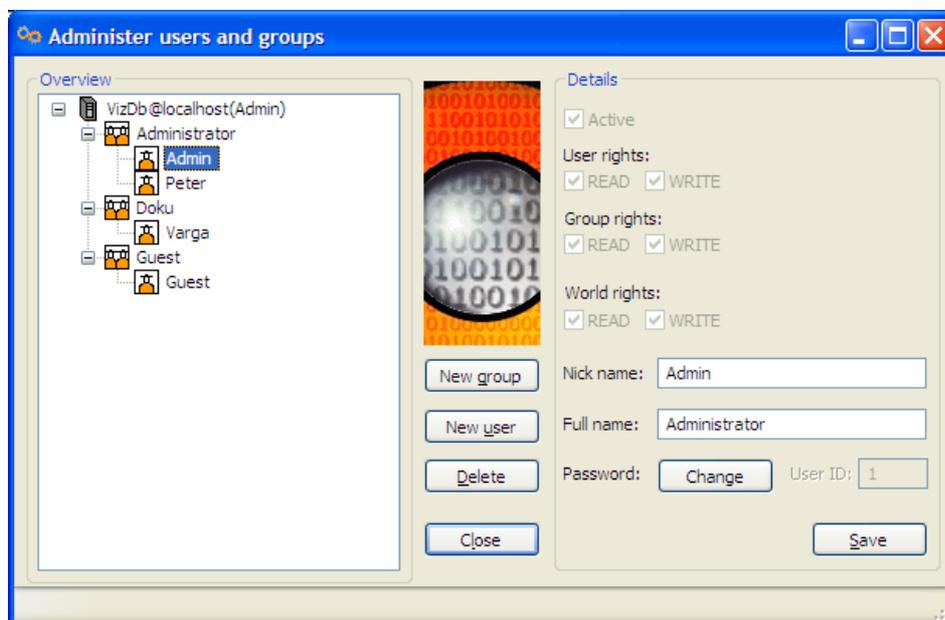
To shutdown a server, select a server from the Server list, and then click the Shutdown button. From the window that appears, confirm the shutdown operation. The server will then be shut down.

Tip: Before shutting down the server, it is recommended to inform all clients that are logged in to the selected server. To do so, type a text in the Message box, and then click the Send button.

7.12 Managing Users and Groups

From the Administer Users and Groups window it is possible to manage all the users and groups in the database.

Every user that work with the database, either directly or from a client application, must have its own user profile. Also, every user must belong to a group. The user and group management helps to monitor who create and own items in the database, and also who has rights to modify various items.



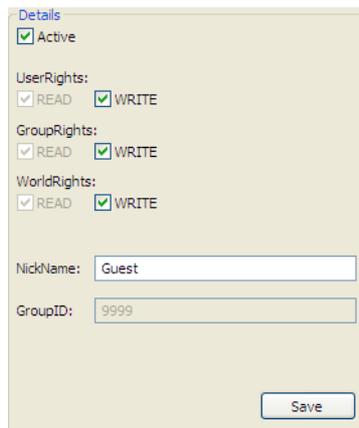
To open the Administer Users and Groups window, select Tools from the Main menu, and then from the menu that appears, select Administer Users and Groups. Alternatively, press CTRL+U or CTRL+F9.

Note: Every Viz Graphic Hub Manager user can view the users and groups, but only an administrator can create new users/groups or modify existing ones.

The Overview frame shows a list of all servers that are logged in to, and also the available groups and users on these servers.

7.12.1 Groups

If selecting a group in the Overview frame, the corresponding properties will be displayed in the Details frame.



Details

Active

UserRights:
 READ WRITE

GroupRights:
 READ WRITE

WorldRights:
 READ WRITE

NickName:

GroupID:

Save

- ◆ **Active** – If disabled, the users within this group cannot log in and work with the items in the database.
- ◆ **Rights** – Defines the default access rights for all users of this group.
- ◆ **Nick Name** – Defines the name of the group.
- ◆ **GroupID** – Shows the automatically generated ID of the group.

If properties have been changed, click the Save button to save the changes. Alternatively, press ALT+S.

7.12.1.1 Creating New Group

To create a new group, first click the New Group button. Alternatively, press ALT+G. Set the rights for the new group, and then type a descriptive name in the Nick Name box. Finally, click the Save button.

7.12.1.2 Renaming Group

To rename a group, first select a group from the Overview frame. In the Details frame, type a new descriptive name in the Nick Name box. Finally, click the Save button.

7.12.1.3 Deleting Group

To delete a group, select a group from the Overview frame, and then click the Delete button. Alternatively, press ALT+D.

Note: Groups cannot be deleted if containing any users.

7.12.2 Users

If selecting a user in the Overview frame, the corresponding properties will be displayed in the Details frame.



- ◆ **Active** – If disabled, the user cannot log in or work with the items in the database.
- ◆ **Rights** – Defines the access rights for this user.
- ◆ **Group** – Defines the group the user belongs to.
- ◆ **Viz User Settings** – By default, various Viz Artist user settings are saved together with the user profile. For example, personal preferences such as hot folders and bookmarks follow the user regardless of which computer that is being logged in to.
- ◆ **Nick Name** – Defines the name of the user. This name is used when logging in to the database. It is also used for example to define the owner of items.
- ◆ **Full Name** – Defines the real name of the user. This name is only used in this window (Administer Users and Groups), to find out who this user is in real life.
- ◆ **Password** – Clicking the Change button opens a dialog box where the password for the selected user can be modified. For more information, see [7.12.2.3 Changing Password](#).

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Note: Changing the password of a user can only be done by an administrator.

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- ◆ **User ID** – Shows the automatically generated ID of the user.

If properties have been changed, click the Save button to save the changes. Alternatively, press ALT+S.

7.12.2.1 Creating New User

Before creating a new user, select the group the user should be a member of in the Overview frame. To create a new user, first click the New User button. Alternatively, press ALT+U. Set the rights for the new user, and then type descriptive names in the Nick Name and Full Name boxes. Finally, set the password, and then click the Save button.

.....

Note: Each user can only be a member of one group. Also, it is possible to create a new user profile without a password, although it is not recommended to do so.

.....

7.12.2.2 Renaming User

To rename a user, first select the user from the Overview frame. In the Details frame, type a new name in the Nick Name box. Finally, click the Save button.

7.12.2.3 Changing Password

To change the password of a user profile, first select the desired user in the Overview frame, and then click the Change button in the Details frame. This will open the Change Password dialog box.



- ◆ **Current** – Type the current password.
- ◆ **New Password** – Type the new password.
- ◆ **Confirm** – Type the new password one more time.

Finally, click the Ok button.

Note: Changing the password of a user profile can only be done by an administrator.

7.12.2.4 Deleting User

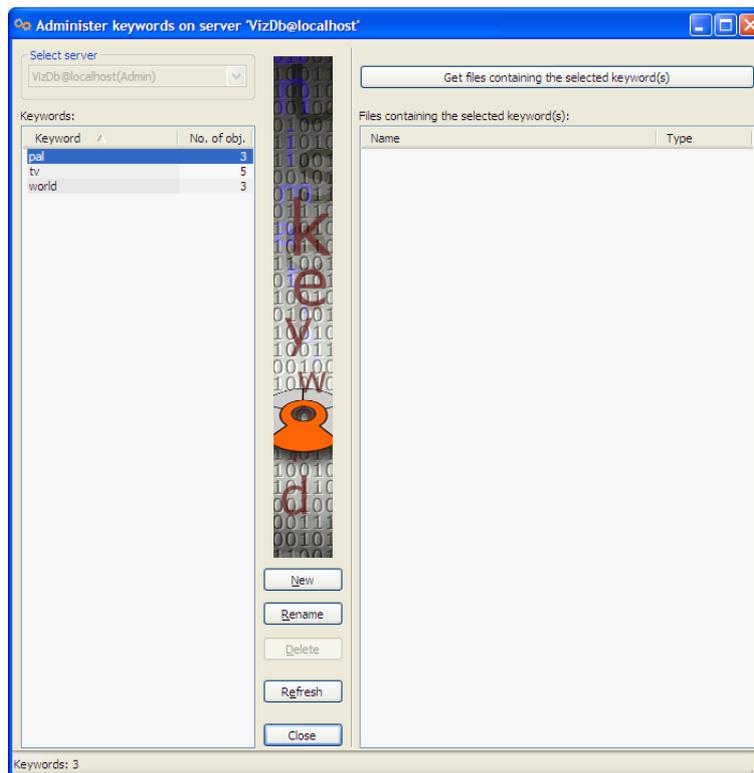
To delete a user, select a user in the Overview frame, and then click the Delete button. Alternatively, press ALT+D.

Note: Users cannot be deleted if owning any items.

7.13 Managing Keywords

From the Administer Keywords window it is possible to manage all the keywords in the database.

Keywords are descriptive metadata that can be attached to server items. Together with descriptive item names, keywords make it easy to recover items in the database.



To open the Administer Keywords window, select Tools from the Main menu, and then from the menu that appears, select Administer Keywords. Alternatively, press CTRL+K or CTRL+F10.

In the list labelled Select Server, select which database the keywords should apply to. When a database has been selected, all the keywords in this database will be listed in the Keywords frame. Also, the number of items each keyword is assigned to will be listed. To update this list, click the Refresh button. Alternatively, press F5, or right-click the Keywords list, and then from the menu that appears, select Refresh.

To show a list of the items the selected keywords are assigned to, select the desired keywords from the list, and then click the Get Files Containing the Selected Keywords button. Alternatively, right-click one of the keywords in the list, and then from the menu that appears, select Get Assigned Files. A list of the items the selected keywords are assigned to will then appear in the Files Containing the Selected Keywords list. Also, the type of each item will be listed.

To see more information about one of the items that are listed, double-click the desired item. Alternatively, right-click the item, and then from the menu that appears, select Properties. This will open the properties window for this item. For more information, see [7.6.10 Item Properties](#).

In the status bar at the bottom of the window, the total number of all keywords in the database will be shown.

7.13.1 Creating New Keyword

To create a new keyword, first click the New button. Alternatively, press CTRL+N, or right-click the Keywords list, and then from the menu that appears, select New.

This will add a new keyword to the list with the default name “New_Keyword”. Next, type a descriptive keyword name, and then press ENTER. A new keyword will then be created.

7.13.2 Renaming Keyword

To rename a keyword, first select the desired keyword from the list, and then click the Rename button. Alternatively, press F2 or CTRL+R, or right-click the item, and then from the menu that appears, select Rename. Next, type a new keyword name, and then press ENTER. The keyword will then be renamed.

7.13.3 Deleting Keyword

To delete one or more keywords, select the desired keywords, and then click the Delete button. Alternatively, press DEL or ALT+D, or right-click the items in the list, and then from the menu that appears, select Delete.

Note: Keywords cannot be deleted if applied to any items. In case multiple keywords have been selected for deletion, only the keywords that are not assigned to any items will be deleted.

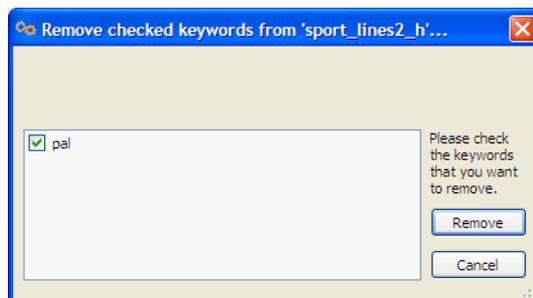
7.13.4 Adding Keywords to Items

To add one or more keywords to an item, drag keywords from the Keywords list onto an item in the Files panel. The Action Log for adding keywords will then be activated, and from the window that opens, click the Add button. The keywords will then be added to the item. For more information about the Action Log, see [7.18 Action Log](#).

Tip: Keywords can also be added to items directly in the Files panel, see [7.6.5 Keywords](#).

7.13.5 Removing Keywords from Items

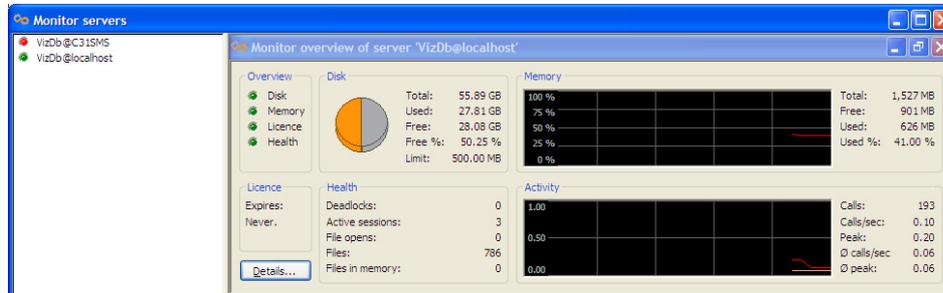
To remove one or more keywords from an item, first select the desired item from the list, and then from the menu that appears, select Remove Assignment. This will open Remove Checked Keywords window that lists all keywords that are assigned to this item.



By default, the check boxes for all keywords are selected. Clear the check boxes for keywords that should be kept, and leave the ones that should be removed selected. Finally, click the Remove button.

7.14 Monitoring Servers

From the Monitor Servers window it is possible to monitor all the servers that are logged in to.



To open the Monitor Servers window, select Tools from the Main menu, and then from the menu that appears, select Monitor Servers. Alternatively, press F4 or CTRL+M.

The left part of the Monitor Servers window lists all available servers (servers that are logged in to). This list is sorted by status. At the top, servers where serious warnings have occurred (marked with ) are shown, followed by servers where regular warnings have occurred (marked with ). At the bottom, servers that are working within the given parameters (marked with ) are shown.

The right part of the window shows details about one or more selected servers. If all the available servers are working within the desired parameters, this overview is hidden. If one or more servers are in warning state, the overview for these servers will open automatically.

To view the details of a server, double-click it. Alternatively, right-click the server, and then from the menu that appears, select Open Overview. Selecting Open All Overviews, will show details of all available servers.

To close an overview, click the Close button in the header of the overview. Alternatively, right-click the desired server in the list, and then from the menu that appears, select Close Overview. Selecting Close All Overviews, will hide the details of all servers.

7.14.1 Server Overview

In the server overview, all vital data of the physical server is shown, as well as some Viz Graphic Hub specific parameters.

If one or more of the parameters are not working within the given limits,  will be shown in the corresponding header ([Licence !\[\]\(a66ec448fc49b2650132748679fb862e_img.jpg\)](#)).

7.14.1.1 Overview

The Overview frame shows a quick overview of all the parameters.



All the parameters that work within normal limits are marked with , the ones that have reached warning levels are marked with , and if serious warnings have occurred, the parameters are indicated with .

7.14.1.2 License

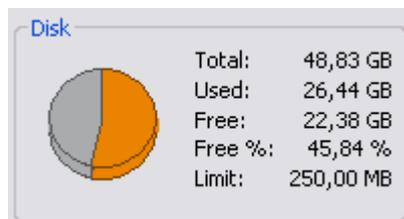
The License frame shows the status of the Viz Graphic Hub license.



The status can for example reflect license limitations or remaining number of days until the license expires.

7.14.1.3 Disk

The Disk frame shows the status of the harddisks of the physical machine.



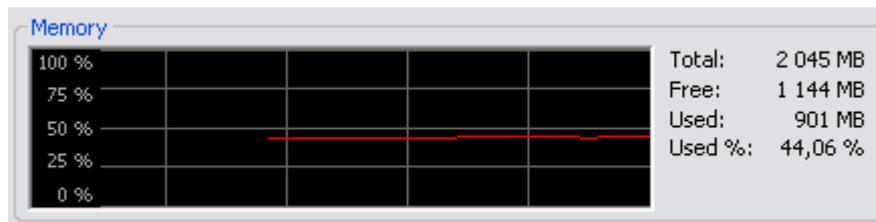
The status shows total, used, and free disk space, and also the warning limit. If the free disk space reaches this limit, a warning message will appear. The warning limit is defined in the Preferences window. For more information, see [7.15 Defining Preferences](#).

The pie chart shows an illustration of the disk space status. The orange slice represents free disk space, while the gray represents used space.

Tip: By placing the mouse pointer above one of the slices in the chart, the corresponding disk space percentage will be shown.

7.14.1.4 Memory

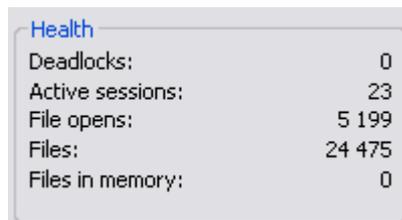
The Memory frame shows an overview of the physical memory of the server both in numeric values and in a historic graph.



The overview shows total, free, and used disk space.

7.14.1.5 Health

The Health frame shows various database status parameters.



- ◆ **Deadlocks** – Shows the number of deadlocks in the system.
- ◆ **Active Sessions** – Shows the number of current sessions.
- ◆ **Files Open** – Shows the number of files that are currently open.
- ◆ **Files** – Shows the total number of files stored in the database.
- ◆ **Files in Memory** – There should be no files in memory. If this setting is not zero, a serious error has occurred. Details can be obtained if searching for journal entries with alert level 910.

7.14.1.6 Activity

The Activity frame shows an overview of the database activity both in numeric values and in a historic graph.

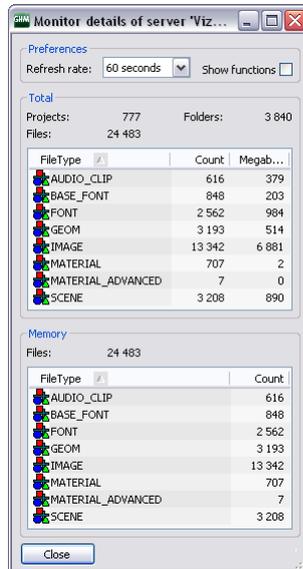


- ◆ **Calls** – Shows the total number of calls.
- ◆ **Calls/sec** – Shows the average number of calls per second.
- ◆ **Peak** – Shows the highest amount of calls during one second.
- ◆ **Ø calls/sec** – Shows the average number of calls during one second for the total run time of the server.
- ◆ **Ø peak** – Shows the highest amount of calls during one second for the total run time of the server.

7.14.1.7 Server Details

Clicking the Details button in the server overview opens the Monitor Details of Server window.

Note: Only users with administrator rights can access this window.



This window shows information about the projects/folders and items stored in the database and loaded into the memory.

From the Refresh Rate drop-down list it is possible to set the interval of when the information should be updated.

The Total frame shows the following information:

- ◆ **Projects** – Shows the total number of projects in the database.
- ◆ **Folders** – Shows the total number of folders in the database.
- ◆ **Files** – Shows the total number of items in the database.

The Total list shows the items in the database, sorted by item type. For each type, the number of items in the database and the total size will be displayed.

The Memory frame shows the total number of items in the database. The Memory list shows the items in the database, sorted by item type. For each type, the number of items in the database will be displayed.

Tip: For information about columns, see [2.1.6 Columns](#).

Selecting the Show Functions check box will display additional information used for debugging purposes.

7.15 Defining Preferences

From the Preferences window it is possible to define various system preferences.



To open the Preferences window, select Tools from the Main menu, and then from the menu that appears, select Edit Preferences. Alternatively, press CTRL+P or CTRL+F8.

Selecting a preference category from the list opens respective panels:

- ◆ **Startup** – From this panel it is possible to define the position and size of various GUI components based on the settings in this session. It is also possible to from now on automatically open/show windows/panels at system startup.
- ◆ **Deploy Direct Copy** – From this panel it is possible to define default behavior when deploying entries from one server to another.
- ◆ **Import** – From this panel it is possible to define the data directory for log files and temporary files used during import. It is also possible to disable the auto-import when resuming from a cancelled/crashed import.
- ◆ **Warnings** – From this panel it is possible to define various disk and memory warnings, related to free disk space/memory. Also, it is possible to define warnings when the license expiration date approaches.

To activate the changes, click either the Apply or Ok button. To reset the settings to the original ones, click the Set Defaults button.

7.16 Importing Data and Archives

In order to use items from other data directories, the items must be imported into the database.

The import feature makes it possible to import either data directories or archives created with Viz Artist 2.x.

.....
Tip: If importing single items from a data directory or an archive, referenced files will also be imported.

7.16.1 Opening the Import Window

To open the Import window, select Server from the Main menu, and then from the menu that appears, select Import. The Import submenu holds the following options:

- ◆ **Viz 2.x Data** – Opens the Import window, which makes it possible to import a Viz 2.x data folder to the selected database. Alternatively, press CTRL+D or CTRL+F1.

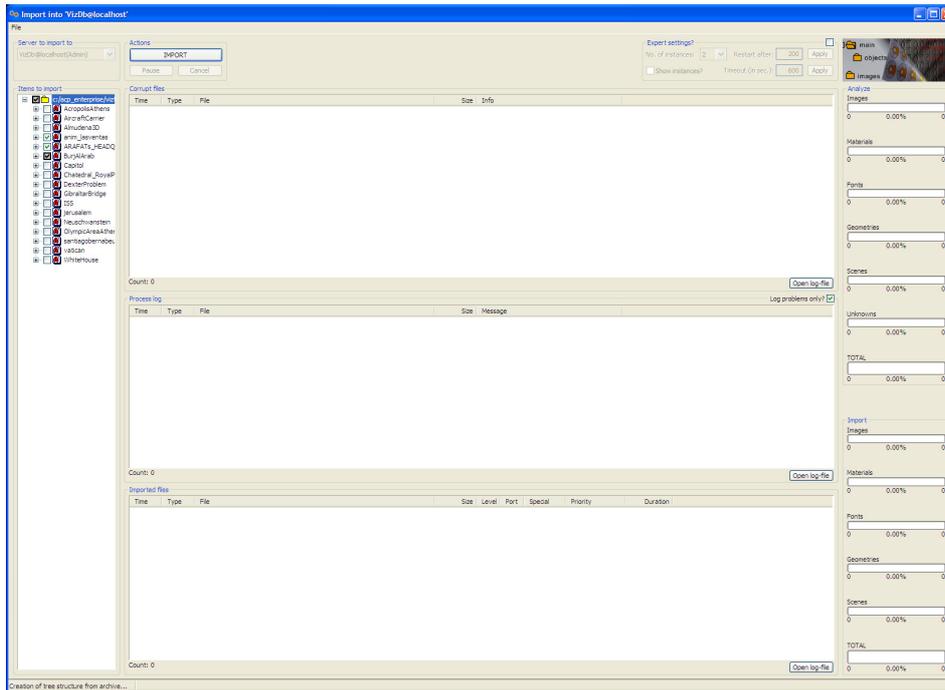
Note: Only folders with Viz 2.x data structure can be selected for import.

- ◆ **Viz 2.x Archive(s)** – Opens the Import window, which makes it possible to import one or more Viz 2.x archives from the selected directory. Alternatively, press CTRL+F or CTRL+F2.
- ◆ **Manually Selected Viz 2.x Archive(s)** – Opens the Import window, which makes it possible to directly import one or more Viz 2.x archives to the selected database. Alternatively, press CTRL+Z or CTRL+F3.
- ◆ **Resume from Cancelled or Crashed Import** – Opens the Import window, which makes it possible to select an auto-generated backup file and resume from a failed import. Alternatively, press CTRL+R or CTRL+F4. For more information, see [7.16.4 Resuming a Cancelled/Crashed Import](#).

Selecting Edit Preferences from the Import submenu opens the Preferences window. Alternatively, press CTRL+N or CTRL+F8. From this window it is possible to define various preferences for the import operation. For more information, see [7.15 Defining Preferences](#).

Next, after making a selection, a file dialog box will open, where it is possible to select either the data directory, archive, or backup file of the cancelled/corrupt import. This will open the Import window with the selection loaded.

If cancelling the file dialog, the Import window will open without a selection loaded.



If being logged in to more than one server, it is possible to select the server the structure should be imported to from the drop-down list in the upper left corner of the window.

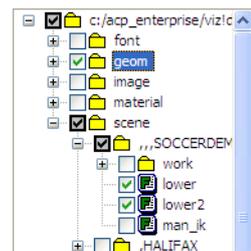
Tip: By selecting the Expert Settings check box, it is possible to define various advanced import parameters.

7.16.2 Importing Data Directories

If the system should import a data directory, a tree of the directory will be displayed in the Items to Import list.

The branches in the tree can be expanded/collapsed. Select the items in the tree that should be imported, either by clicking the branch or selecting the corresponding check box.

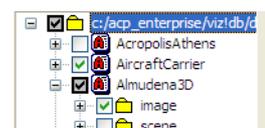
If selecting a branch in the tree, all the subbranches and items will be selected too. If a branch with all subbranches and items are selected for import, the check box will look like . If not all the subbranches or items in a branch are selected, the check box will look like .



7.16.3 Importing Archives

If the system should import one or more archives, all the archives stored in the selected directory will be displayed in the Items to Import list.

The branches in the tree can be expanded/collapsed. Select the archives in the tree that should be imported, either by clicking the branch or selecting the corresponding check box.



If selecting a branch in the tree, all the subbranches and items will be selected too. If a branch with all subbranches and items are selected for import, the check box will look like . If not all the subbranches or items in a branch are selected, the check box will look like .

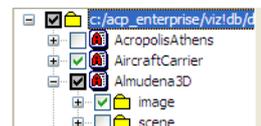
7.16.4 Resuming a Cancelled/Crashed Import

If an error occurs and the import procedure crashes, or the import is cancelled, it is possible to resume from where the import ended.

When an import operation is not carried through correctly, a backup file will automatically be created. This backup file is used to resume the import procedure.

Note: As the log file for an import is created on the harddisk of the physical machine, the import can only be resumed on the machine it has been cancelled on.

When resuming from a previous import operation, the missing items and archives will be displayed in the Items to Import list.



Tip: If resuming from a crashed import, it could be wise to check the selection of items in order to prevent the crash from happening again. Also, it is possible to automatically start the import when resuming, by enabling this option in the Preferences window.

7.16.5 Importing Procedure

When all the items/archives that should be imported have been selected in the list, click the Import button to start the import procedure.

Tip: If resuming a previously cancelled or crashed import, the button will be labelled Resume Import.



This will open the Specify Import Folder dialog box. The data will be imported into the defined folder. If external control applications should find the imported data, keep the default "Viz_2x" folder. Alternatively, click Modify, and then define a new folder path.

Note: The external control applications must be defined accordingly.

Click the Ok button to perform the import.

7.16.5.1 Progress

During the import procedure, the progress will be displayed at the right side of the Import window.

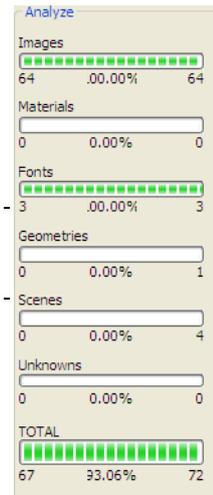
Analyze

Before the actual import starts, the items that are selected for import will be analyzed. This is done to ensure the integrity of the imported data. For example, all items referenced by a scene must be imported, even though not all of them are selected.

Tip: When importing an archive, the items in the archive will be extracted before being imported.

During the analyze operation, the progress is shown in the corresponding progress bars. The following analyze progress bars are available:

- ◆ Images
- ◆ Materials
- ◆ Fonts
- ◆ Geometries
- ◆ Scenes
- ◆ Unknowns
- ◆ Total

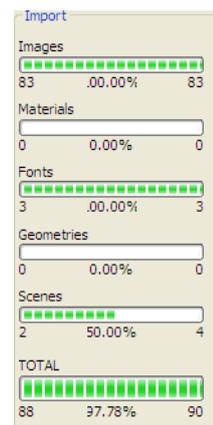


Import

When the analyzing operation is finished, the actual import will start.

During the import operation, the progress is shown in the corresponding progress bars. The following import progress bars are available:

- ◆ Images
- ◆ Materials
- ◆ Fonts
- ◆ Geometries
- ◆ Scenes
- ◆ Total



7.16.5.2 Pausing/Resuming

As the import may take a long time, it is possible to pause the operation. To do so, click the Pause button in the Actions frame.

As long as the Import window is not closed, it is possible to resume the import operation by clicking the Continue button in the Actions frame. If the Import window has been closed, the only way to continue the import is to open the backup file and resuming the operation. For more information about resuming a paused import, see [7.16.4 Resuming a Cancelled/Crashed Import](#).

7.16.5.3 Cancelling

To cancel a running import, click the Cancel button in the Actions frame. A cancelled import can be resumed by opening the backup file. For more information about resuming a cancelled import, see [7.16.4 Resuming a Cancelled/Crashed Import](#).

7.16.6 Logs

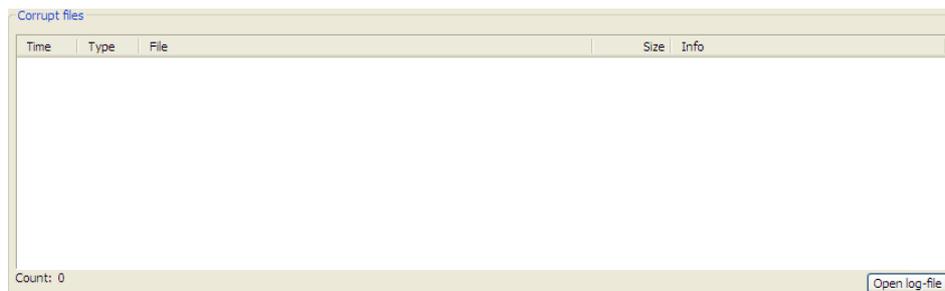
During the import procedure, log files will automatically be created.

There are three types of log files; corrupt files, process log, and imported files. Some of this log information is available in the Import window. To open the full log files, click one of the Open Log File buttons. This will invoke the editor for XLS files and open the corresponding log file.

Tip: For information about columns, see [2.1.6 Columns](#).

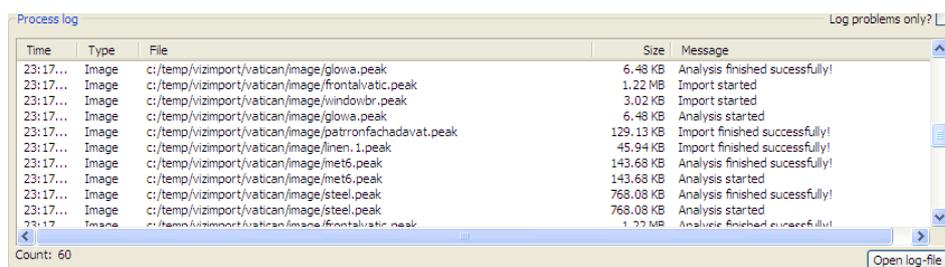
7.16.6.1 Corrupt Files

In the Corrupt Files frame, warnings and import errors are displayed. For example, if an image is referenced by a scene, but not found, this will be shown here. At the bottom of this frame, the total number of errors will be shown.



7.16.6.2 Process Log

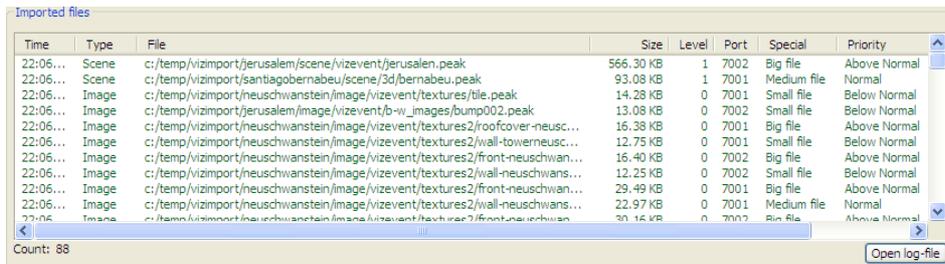
In the Process Log frame, the state of the current import is shown. At the bottom of this frame, the number of displayed messages is shown.



If selecting the Log Problems Only check box, only problems will be listed, and not successful operations.

7.16.6.3 Imported files

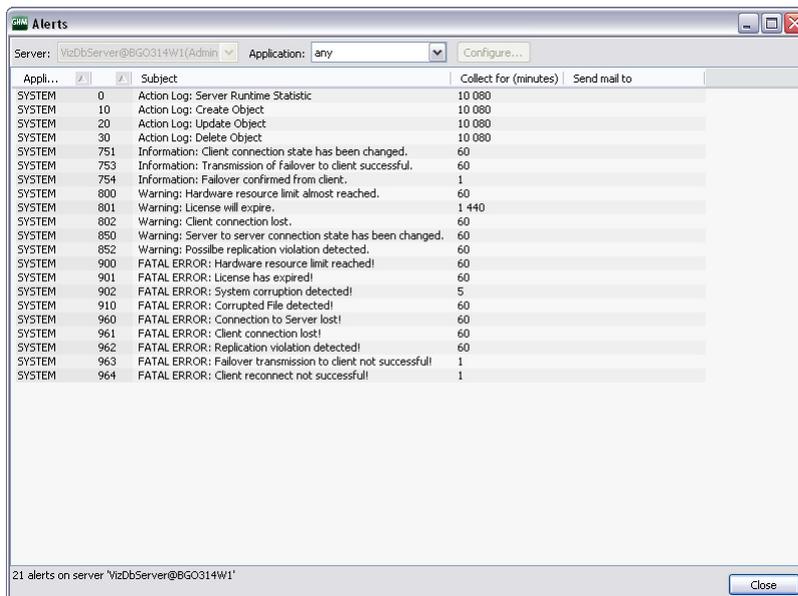
In the Imported Files frame, an entry will be created for every successfully imported item. At the bottom of this frame, the total number of imported files is shown.



7.17 Configuring Alerts

From the Alerts window it is possible to configure system alerts. For example, e-mails can be sent to the defined recipients when the license is about to expire or when the hardware resource limit has been reached.

Note: The e-mail functionality can only be altered if it has been enabled in the Viz Graphic Hub Terminal's Options window. For more information, see [6.3 Options Window](#).



To open the Alerts window, select Server from the Main menu, and then from the menu that appears, select Configure Alerts. Alternatively, press SHIFT+CTRL+F7.

In the list labelled Server, select which database the alerts should apply to. From the Application list, select an application.

Various predefined alerts are listed in the Alerts window. The following columns describe the alerts:

- ◆ **Application** – Shows whether the alert is applied to the whole system, or to one of the client applications.
- ◆ **Level** – Shows the alert level. 0–100 refers to action log events, 700–799 refers to information alerts, 800–899 refers to warnings, and 900–999 refers to fatal errors in the system.

The following features can be modified in the alerts configuration window:

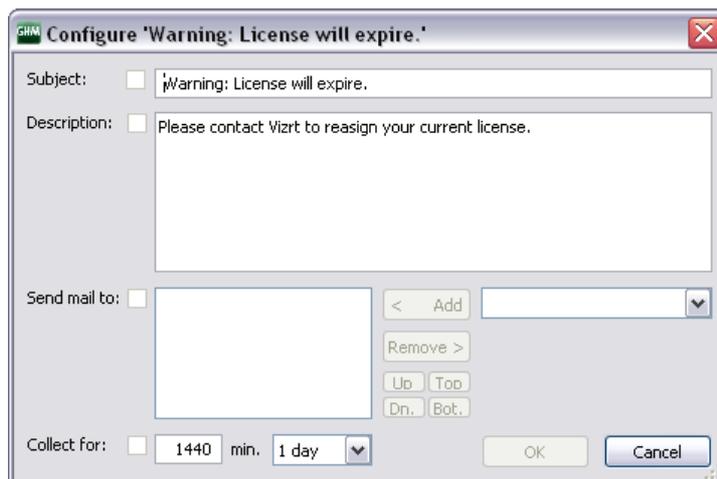
- ◆ **Subject** – Describes the subject of the alert. This description will be shown as the subject of the e-mails that are sent.

Tip: Make the subject text correspond to the e-mail filter. Then the e-mails can be easily recognized and categorized.

- ◆ **Description** – Gives a detailed description of the alert. This description will be shown as the body of the e-mail.
- ◆ **Collect for (Minutes)** – Shows the interval in minutes of how often this alert should be checked and reported. For example, fatal errors should be reported immediately, while information alerts can be checked once an hour, day, or week.
- ◆ **Send Mail To** – Shows the mail addresses where e-mails should be sent when the alert occurs.

Tip: For information about columns, see [2.1.6 Columns](#).

To configure a system alert, first select an alert from the list, and then click the Configure button. This will open the Configuration window.



It is possible to rephrase both the subject and description text.

To add an e-mail recipient, type an e-mail address in the drop-down list, and then click the Add button. The recipient will then be added to the list. To remove a recipient, select it from the list, and then click the Remove button. Alternatively, press DELETE, or right-click a recipient in the list, and then from the menu that appears, select Remove Selected. To remove all recipients, select Remove All from

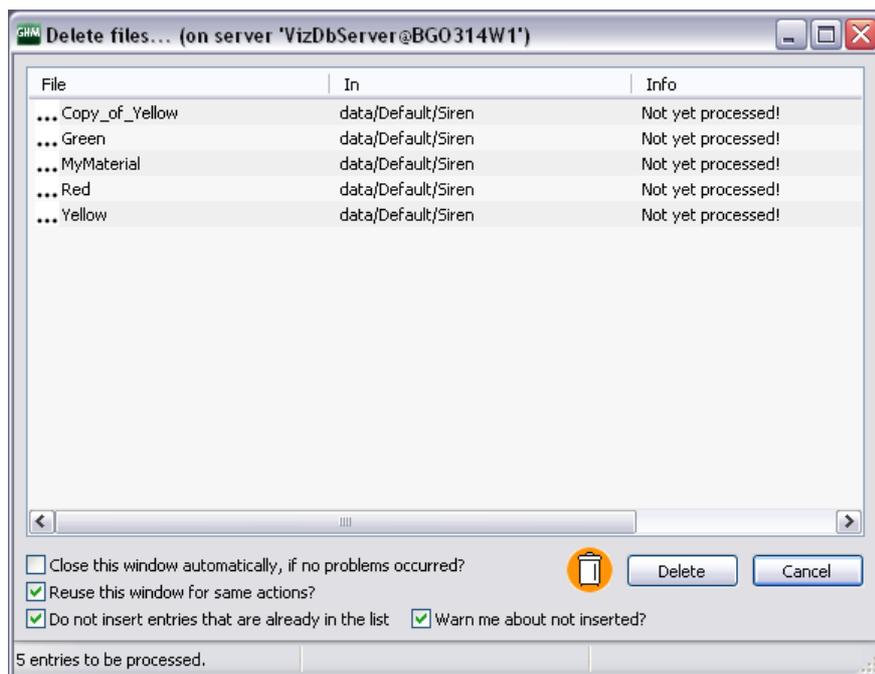
the menu. To define the order of the recipients, select one from the list, and then click either the Up, Top, Down, or Bottom buttons. Alternatively, select these options from the shortcut menu, or press CTRL+1 for top, CTRL+2 for up, CTRL+3 for down, and CTRL+4 for bottom.

To modify the interval of how often this alert should be checked and reported, type the number of minutes in the Collect For check box, or alternatively select a predefined interval from the drop-down list.

Tip: The e-mail addresses and collect interval can be applied to multiple alerts at once. Other alert settings can only be applied to one entry at a time.

7.18 Action Log

The Action Log is automatically activated when performing certain operations in Viz Graphic Hub Manager. Examples of such operations are deleting items and projects/folders, or changing user rights.



The Action Log will invoke to provide feedback on the operations that will be performed. The action to be performed will be displayed in the window title, and an icon symbolizing the action will be displayed below the file list.



For example, a trash can icon is used if items or projects/folders should be deleted.

7.18.1 Options

Certain options can be set in the Action Log:



- ◆ **Close this Window Automatically, if no Problem Occurred** – If enabled, the Action Log will be closed if the desired operation finishes successfully.
- ◆ **Reuse this Window for same Actions** – By dragging items or projects/folder onto the Action Log, the action that has invoked the Action Log will be performed on these elements too.
- ◆ **Do not Insert Entries that are Already in the List** – Prevents adding duplicate entries.

Note: This option is only available if Reuse this Window for Same Actions is enabled.

- ◆ **Warn me about not Inserted** – If enabled, when trying to add duplicate entries, a dialog box will show a notification that the duplicates will not be added.

Note: This option is only available if both Reuse this Window for same Actions and Do not Insert Entries that are Already in the List are enabled.

7.18.2 Adding Elements

As already mentioned, the Action Log is automatically activated when performing certain operations in Viz Graphic Hub Manager. To add additional items that the same action should be performed on, drag elements from the Explorer or the search results onto the list of elements in the Action Log. One or more elements can be dragged at once.

7.18.3 Performing the Operation

When the desired elements have been added to the Action Log, click the button corresponding to the operation that should be performed.

File	In	Info
✓ Copy_of_Yellow	data/Default/Siren	File deleted successfully

When the operation has been performed, the Action Log will provide feedback. If the operation has been successful, ✓ is shown to the left of the element name. If the operation has failed, ✗ will indicate this. Status information in text form will also be shown in the Info column.

7.19 Deploying Files from one Server to Another

The Viz Graphic Hub deploy solution makes it possible to copy folders/projects/items with all necessary data (referenced folders/projects/items) from one server to another. For example, if deploying a scene, all items that are referenced by this scene (images, materials, and so on) will also be deployed.

There are two deploy modes:

- ◆ **Multi Server Deploy** – Deploys one or more folders/projects/items in exactly the same folder structure to two or more selected servers.
- ◆ **Server to Server Deploy** – Deploys one or more folders/projects/items to one other server. The original structure can be rebuilt, the folders/projects/items

can be copied to the target folder, or the structure can be rebuilt under the target folder. For more information, see [7.19.1.2 Server to Server Deploy](#).

7.19.1 Step by Step

The following steps describe how to copy files from one server to another.

7.19.1.1 Multi Server Deploy

1. In Viz Graphic Hub Manager, log in to two or more servers.
2. Right-click a folder/project/item in the Servers and Folders panel or Files panel, and then from the menu that appears, select Deploy. Alternatively, press CTRL+D.

Tip: It is also possible to drag folders/projects/items from one server to another.

The Deploy Direct Copy window should then open, and the analysis process begin. It is not necessary to complete the analysis process, but it is highly recommended, since this helps to detect possible errors while transmitting files, creating folders, and so on. For example, if an item that should be deployed is session-locked, the analysis process will detect this and provide error information.

Tip: It is possible to open the properties of the items in the list. To do so, right click the desired item, and then from the menu that appears, select Properties.

3. If the analysis process takes more time than desired, click the Auto Continue button.

This means that the deploy process can be continued, and then when the analysis is finished, the settings are automatically applied.

4. In the list, select the servers where the folders/projects/items should be deployed.

Tip: The servers can be sorted by clicking the Top, Up, Down, or Bottom buttons. This will increase/decrease the priority level of a specific server.

5. Enable/disable the following behavior options:
 - Overwrite existing objects (does not apply to referenced items)
 - Overwrite existing references
 - Keep original owner
6. Select one of the processing options, either:
 - Deploy all files to the first target server, then the next server, and so on
 - Deploy one file to all target servers, then the next file, and so on



7. Click the Continue button.
8. The Action Log for deleting files will then be activated, and in the window that opens, click the Do It button.

The folders/projects/items will then be deployed. For more information about the Action Log, see [7.18 Action Log](#).

When the deploy process is finished, check the log for possible errors, and if necessary, retry to deploy unsuccessful files.

7.19.1.2 Server to Server Deploy

1. In Viz Graphic Hub Manager, log in to two servers.
2. Right-click a folder/project/item in the Servers and Folders panel or Files panel, and then from the menu that appears, select Deploy. Alternatively, press CTRL+D.

Tip: It is also possible to drag folders/projects/items from one server to another.

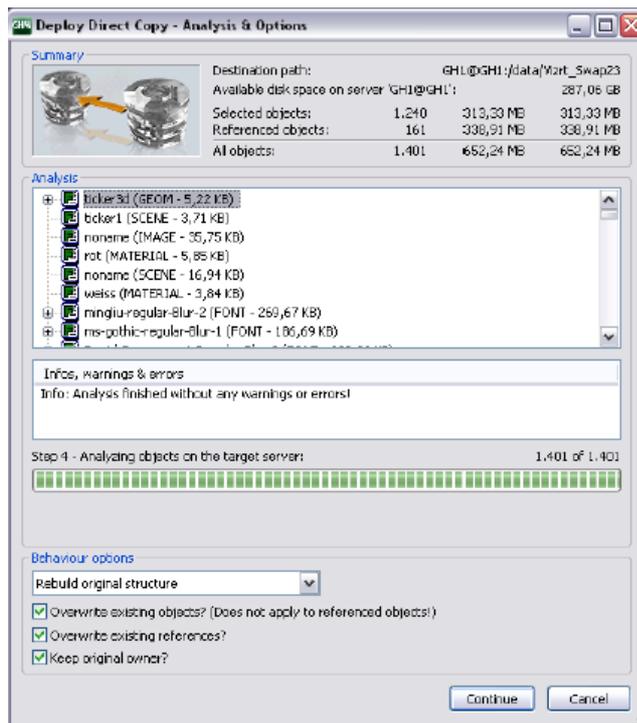
The Deploy Direct Copy window should then open, and the analysis process begin. It is not necessary to complete the analysis process, but it is highly recommended, since this helps to detect possible errors while transmitting files, creating folders, and so on.

3. If the analysis process takes more time than desired, click the Auto Continue button.

This means that the deploy process can be continued, and then when the analysis is finished, the settings are automatically applied.

4. Select one of the behavior options:

- **Rebuild Original Structure** – Copies an exact replicate of all selected folders/projects/items and its references from source to destination server.
- **Copy to Target Folder Only** – Copies all selected folders/projects/items and its references from the source server to the destination folder on the destination server.
- **Rebuild Structure Under Target Folder** – Copies an exact replicate of all selected folders/projects/items and its references from the source server to the destination folder on the destination server.



5. Enable/disable other behavior options:
 - Overwrite existing objects (does not apply to referenced items)
 - Overwrite existing references
 - Keep original owner
6. Click the Continue button.
7. The Action Log for deploying files will then be activated, and in the window that opens, click the Do It button.

The folders/projects/items will then be deployed. For more information about the Action Log, see [7.18 Action Log](#).

When the deploy process is finished, check the log for possible errors, and if necessary, retry to deploy unsuccessful files.

8 Keyboard Shortcuts

There are various shortcuts that can be used within Viz Graphic Hub.

8.1 Viz Graphic Hub Terminal

The following keyboard shortcuts can be used while working in Viz Graphic Hub Terminal.

Table 1: Viz Graphic Hub Terminal keyboard shortcuts

Function	Key + Mouse Combination
Minimize to notification area	ALT+F4
Open the Options window	ALT+O
Refresh server modes	ALT+R

8.2 Viz Graphic Hub Manager

The following keyboard shortcuts can be used while working in Viz Graphic Hub Manager.

Table 2: Keyboard shortcuts in Explorer (also available in Main menu)

Function	Key + Mouse Combination
Open Login window	CTRL+G or F7
Open Logout window	CTRL+O or F8
Refresh Explorer	F5
View duplicates	CTRL+N or CTRL+F5
View item types	CTRL+B or CTRL+F6
Search	CTRL+S or F3
Open Terminals window	CTRL+T or F9
View active sessions	CTRL+E or CTRL+F7
View active sessions with shutdown option	CTRL+W or F10
Administer users and groups	CTRL+U or CTRL+F9
Administer keywords	CTRL+K or CTRL+F10
View Chat panel	CTRL+H or F6
Monitor servers	CTRL+M or F4

Table 2: Keyboard shortcuts in Explorer (also available in Main menu)

Function	Key + Mouse Combination
Import Viz 2.x data directory	CTRL+D or CTRL+F1
Import Viz 2.x archive(s)	CTRL+F or CTRL+F2
Import manually selected Viz 2.x archive(s)	CTRL+Z or CTRL+F3
Resume from cancelled/crashed import	CTRL+R or CTRL+F4
View server differences in cluster environment	SHIFT+CTRL+F5
View Administer Journal Entries panel	SHIFT+CTRL+F6
Open Alerts window	SHIFT+CTRL+F7
Exit Viz Graphic Hub Manager	CTRL+Q
Search by UUID	CTRL+F11
Edit preferences	CTRL+P or CTRL+F8
View license info	CTRL+L

Table 3: Keyboard shortcuts in Explorer

Function	Key + Mouse Combination
Cancel	ESC
Rename	CTRL+R or F2
Delete	DELETE
Link (create shortcut)	CTRL+Y
Move (cut)	CTRL+X
Duplicate (copy)	CTRL+C
Paste	CTRL+V
Deploy to another server	CTRL+D

Table 4: Keyboard shortcuts in Terminals window

Function	Key + Mouse Combination
Refresh list	ALT+R
Log in to selected server	ALT+L
Start selected Viz Graphic Hub Server	ALT+S

Table 4: Keyboard shortcuts in Terminals window

Function	Key + Mouse Combination
Start selected Viz Graphic Hub Namingservice	ALT+N
Show advanced properties	ALT+A
Close Terminals window	ALT+C

Table 5: Keyboard shortcuts in Administer Users and Groups window

Function	Key + Mouse Combination
Create new group	ALT+G
Create new user	ALT+U
Delete selected users/groups	ALT+D
Save	ALT+S

Table 6: Keyboard shortcuts in Administer Keywords window

Function	Key + Mouse Combination
Add keyword to database	CTRL+N
Rename selected keywords	CTRL+R or F2
Delete selected keywords	CTRL+D or DELETE
Refresh	F5

9 Troubleshooting

The Viz Graphic Hub solution can for a number of reasons not respond according to the plan. If the system is not working properly, have a look at the following problem areas.

9.1 Common Issues

- ◆ **Problem** – When searching for servers, the system cannot detect any servers.
- ◆ **Solution** –
 - Disable all network blocking applications, like firewalls and antivirus suits.
 - Ask the system administrator to open necessary ports on the company's firewall.
 - For more information, see [9.2 Network Issues](#).
- ◆ **Problem** – When automatically configuring the replication server in a cluster environment, the configuration is not performed.
- ◆ **Solution** –
 - Disable all network blocking applications, like firewalls and antivirus suits.
 - Ask the system administrator to open necessary ports on the company's firewall.
 - For more information, see [9.2 Network Issues](#).
- ◆ **Problem** – Viz Graphic Hub has been configured to automatically start on boot, but this does not happen.
- ◆ **Solution** –
 - Disable all network blocking applications, like firewalls and antivirus suits.
 - Ask the system administrator to open necessary ports on the company's firewall.
 - For more information, see [9.2 Network Issues](#).

9.2 Network Issues

Some network settings can prevent the Viz Graphic Hub applications from finding other running Viz Graphic Hub Terminals in the network.

To locate a machine that a Viz Graphic Hub Terminal is running on, try pinging that machine. If the host is not reachable across the network, the Viz Graphic Hub Terminal will not be reachable either.

It is necessary to run Viz Graphic Hub Terminal in a local network where the settings shown below are identical on every workstation running the terminal application.

- ◆ Domain Settings
 - DNS Suffix
- ◆ TCP/IP Subnet

Also, check the UDP and TCP port settings in Viz Graphic Hub Terminal's Options window, and the firewall settings (both local and company) for necessary open ports.

9.2.1 Cluster Configuration Issues

The following issues only address cluster configurations with main and replication server setup.

- ◆ **Problem** – In Viz Graphic Hub Terminal, the message “You are already connected to a cluster” still appears, even though the other server in the cluster is not running anymore.
- ◆ **Solution** – Viz Graphic Hub Terminal has not received an automatic update from the other terminal. To refresh the connection settings, select Show Modes from the Main menu. Alternatively, press ALT+R. If this does not work, restart Viz Graphic Hub Terminal on both servers.

9.2.1.1 Dongle Issues

- ◆ **Problem** – I have configured Viz Graphic Hub in replication mode in the install wizard, but the multi-user server modes are not available from the Viz Graphic Hub Terminal GUI.
- ◆ **Solution** – Make sure that a special Viz Graphic Hub dongle is applied to the machine. With a regular Viz dongle, only the Localhost and 5/4 Free server modes are available.
- ◆ **Problem** – I want to start Viz Artist on a Viz Graphic Hub machine to test that the database is working properly, but I cannot seem to open Viz Artist and the system shows a hardlock dongle error, even though a dongle is applied to the machine.
- ◆ **Solution** – Make sure that a regular Viz dongle is applied to the machine. A Viz Graphic Hub dongle is not licensed to provide access to Viz Artist.

10 FAQ

This section of the document describes frequently asked questions.

- ◆ **Question** – Can a localhost database be accessed from another machine?
- ◆ **Answer** – From Viz Artist, no. A single-user database is only available on the machine it runs on. However, from Viz Graphic Hub Manager, it is possible to monitor and start/shut down single-user databases in the Terminals window if the Show Single User Servers on other Computers check box is selected.

- ◆ **Question** – Does all Viz Graphic Hub Namingservices in the network contain information about all servers? Why is there a need for more than one namingservice in the network?
- ◆ **Answer** – A Viz Graphic Hub Namingservice only contain information about the servers that has been applied to it. Before a Viz Graphic Hub Server is started, a Viz Graphic Hub Namingservice must be applied to it. Either a local namingservice that is started together with the server can be applied, or another available namingservice in the network. A server cannot be started without connecting to a running namingservice.

- ◆ **Question** – Why is the content of the selected project/folder not listed in the Viz Graphic Hub Manager's File panel?
- ◆ **Answer** – First, make sure that the selected project/folder contains any items. Next, make sure that "All" or the correct item type is selected from the Show drop-down list in the Toolbar.

11 Summing Up

We have now reached the end of this *Viz Graphic Hub user's guide*.

The first sections of this document gave an introduction to Viz Graphic Hub. Section 3 described the fundamentals of the Viz Graphic Hub Server and Viz Graphic Hub Namingservice. Sections 4 and 5 gave step-by-step instructions about how to install and set up regular and cluster Viz Graphic Hub configurations. The Viz Graphic Hub Terminal application was described in section 6, while section 7 described the Viz Graphic Hub Manager. Section 8 listed the available keyboard shortcuts, while sections 9 and 10 presented troubleshooting information and answers to frequently asked questions.

In the future we recommend that you continue to use this document as a reference work. We hope we have provided you with enough information so that you feel comfortable with performing additional tasks on your own.