Configuration Manual

Version 2.2 - October 2012
Deep Archive Controller

IP2Archive

Archive Digitization & Exploitation

EVS

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Improvement Requests

Your comments will help us improve the quality of the user documentation. Do not hesitate to send improvement requests, or report any error or inaccuracy on this user manual by e-mail to doc@evs.tv.

Regional Contacts

The address and phone number of the EVS headquarters are usually mentioned in the Help > About menu in the user interface.

You will find the full list of addresses and phone numbers of local offices either at the end of this user manual (for manuals on hardware products) or at the following page on the EVS website: http://www.evs.tv/contacts.

User Manuals on EVS Website

The latest version of the user manual, if any, and other user manuals on EVS products can be found on the EVS download center, on the following webpage: http://www.evs.tv/downloadcenter.

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1. Introduction

1.1. About the Application

IP2Archive Deep Archive Controller is an automated application or robot that picks up the archive, restore and purge requests originating from Deep Archive Manager. It will assign these requests to an available hierarchical storage management system and request to initiate the archive, restore and purge process. It will check the progress and status of the archive, restore and purge processes and also synchronize the status of the hi-res video files in the IPDirector database with the status in the IP2Archive database. Once a hi-res video file has been archived, and the operator has requested in the Deep Archive Manager to remove it from the nearline storage, the Deep Archive Controller will remove the corresponding entry from the IPDirector database and delete the hi-res video file from the nearline storage.

2. Starting the Application

2.1. Start-up Procedure

2.1.1. After Installation

Double-click the IP2Archive Deep Archive Controller icon on the desktop of the application server to start the application. You can also start the application by double-clicking the executable file (.exe) in the installation folder.

The splash screen appears.

The application logs into the database. Then, the Settings window appears allowing you to configure the application.

See section "Settings Window" on page 7.

2.1.2. After Configuration

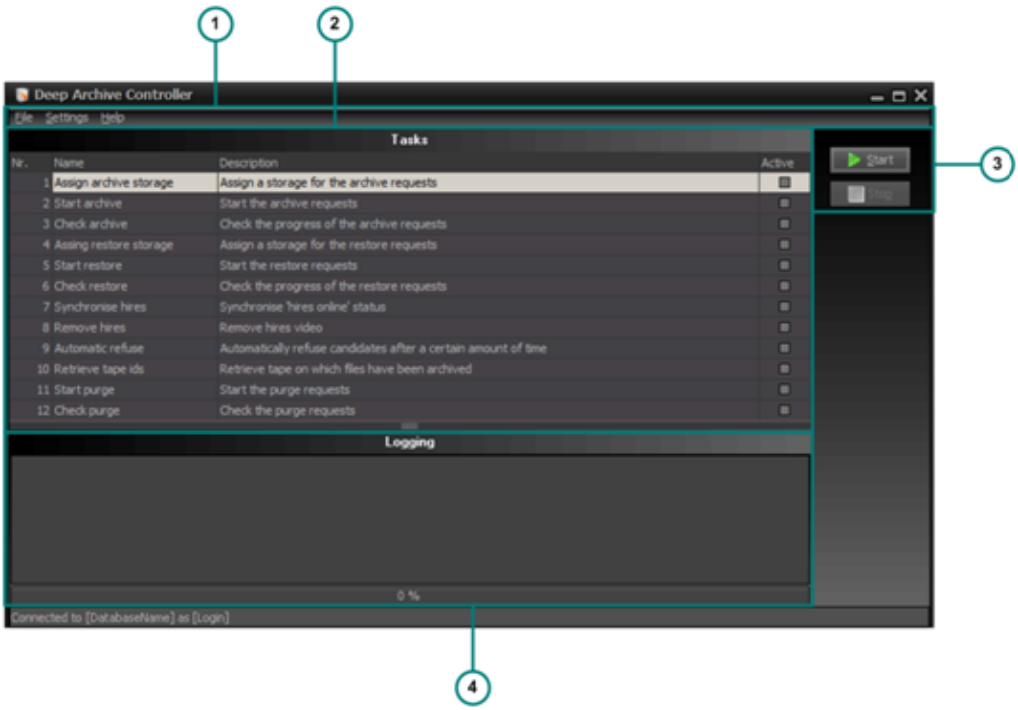
Double-click the IP2Archive Deep Archive Controller icon on the desktop of the application server to start the application. You can also start the application by double-clicking the executable file (.exe) in the installation folder.

The splash screen appears. The application logs into the database.

Then, the main window opens. After a time interval defined in the settings, the application automatically starts performing its various tasks.

2.2. Main Window Overview

The major areas of the main window are highlighted in the screenshot below.



(1) Menu Bar

The menu bar contains three menus: **File**, **Settings** and **Help**.

The **File** menu contains only one command: **Exit**. It is used to exit the application. Click the **File** menu or use the keyboard shortcut keys **ALT** + **F** or **F10** + **F** to open it. Click **Exit** or use the keyboard shortcut key **X** to exit the application.

The **Settings** menu doesn't contain any commands. It immediately gives access to the application settings. Click the **Settings** menu or use the keyboard shortcut keys **ALT** + **S** or **F10** + **S** to access the settings.

The **Help** menu contains only one command: **About**. With this command the application splash screen can be opened. The splash screen displays the application software version, the name of the database the application is logged on to and the login name used. Click the **Help** menu or use the keyboard shortcut keys **ALT** + **H** or **F10** + **H** to open it. Click **About** or use the keyboard shortcut key **A** to open the splash screen.

These menus only become available after you have clicked the **Stop** button.

(2) Tasks Pane

The Tasks pane displays the number, name and description of the tasks performed by the application. Only the tasks that were activated in the System settings will be performed at start-up. If you want to manually run certain tasks for test purposes, you have to stop the

application, select the corresponding check box in the **Active** column, and then click the **Start** button. This button only becomes available after you have clicked the **Stop** button.

See section "Tasks Tab" on page 16.

(3) Start/Stop Buttons

These buttons are used to manually start and stop the application.

(4) Log Pane

The Log pane lists application events and can be useful when you are trying to verify that automations are working correctly. The date and time of each event is displayed.

2.3. Overview Tasks

The table below gives a brief description of the tasks performed by Deep Archive Controller.

Number	Task	Description
1	Assign Archive Storage	**Interfacing With DIVA/XenData** Checks the IP2Archive database for an available deep archive system. It assigns the available system to the archive request.
2	Start Archive	**Interfacing With DIVA** Requests IP2Archive Tape Storage Controller to start the archive process. **Interfacing With XenData** Requests File Transfer Daemon to copy one or more hi-res video files and their metadata XMLs from the nearline storage to the XenData server.
3	Check Archive	**Interfacing With DIVA** Checks the progress and status of the archive process in the IP2Archive database. **Interfacing With XenData** Checks the progress of the transfer of the hi-res video files and their metadata XMLs from the nearline storage to the XenData server.
4	Assign Restore Storage	**Interfacing With DIVA/XenData** Checks the IP2Archive database for an available deep archive system. It assigns the available system to the restore request.
5	Start Restore	**Interfacing With DIVA** Requests IP2Archive Tape Storage Controller to start the restore process. **Interfacing With XenData** Commands File Transfer Daemon to request XenData to restore one or more files. It then copies the restored files to the nearline storage.
6	Check Restore	**Interfacing With DIVA** Checks the progress and status of the restore process in the IP2Archive database. **Interfacing With XenData** Checks the progress of the transfer of the hi-res video files and their metadata XMLs from the XenData server to the nearline storage.
7	Synchronize Hires	**Interfacing With DIVA/XenData** Synchronizes the status of the hi-res source files in the IPDirector database with the status in the IP2Archive database.

Number	Task	Description
8	Remove Hires	**Interfacing With DIVA/XenData** Checks in the IPDirector database if the lo-res video file is available on the nearline storage. If the lo-res video file is available, then IP2Archive Deep Archive Controller will command IPDirector through the IPDirector API to remove the hi-res video file from the nearline storage. It also commands IPDirector to remove the hi-res video file entry from the IPDirector database.
10	Retrieve Tape IDs	**Interfacing With DIVA** Not applicable. **Interfacing With XenData** Requests Tape Storage Controller to retrieve the LTO tape IDs via the XenData or ADA API.
11	Start Purge	**Interfacing With DIVA** Requests IP2Archive Tape Storage Controller to start the purge process. **Interfacing With XenData** Commands File Transfer Daemon to request XenData to purge one or more files.
12	Check Purge	**Interfacing with DIVA/XenData** Checks the progress and status of the purge process in the IP2Archive database.

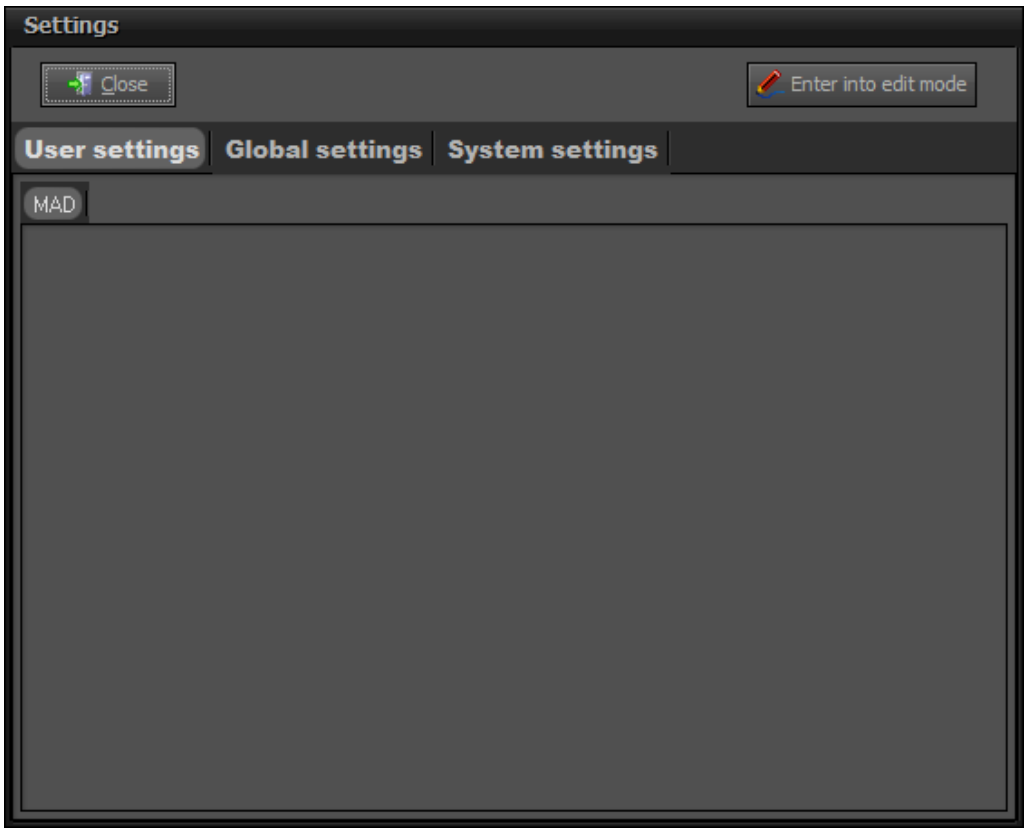
Note
For performance reasons, two or more instances of the Deep Archive Controller can be installed. Each instance can be configured to perform only a specific set of the tasks mentioned above. For example, there could be an instance that only performs the archive and purge tasks, and an instance that only performs the restore tasks.

3. Configuring the Application

3.1. Settings Window

3.1.1. Opening the Settings Window

The Settings window allows you to configure your application. The first time the application is launched after it has been installed, the Settings window opens automatically.



The Settings window can also be accessed through the **Settings** menu. To make this menu available, click the **Stop** button. The application will stop performing its tasks.

3.1.2. Overview Setup Categories

The settings can be divided into three setup categories. In the Settings window, a tab is provided for each setup category. The table below briefly describes each setup category:

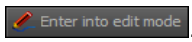
Setup Category	Description
User Settings	These settings can be configured by each individual user.
Global Settings	These settings can only be configured by the system administrator and by an eventual superuser.
System Settings	These settings configure the general functioning of the application. They can only be configured by the system administrator.

Currently, only the User Settings and System Settings tab contain settings. The Global Settings tab is still empty. It does not contain any settings.

3.1.3. Edit Mode

To be able to edit the Global and System settings, you first have to enter a password.

To put the Settings window into Edit Mode, proceed as follows:

1. Click the **Enter Into Edit Mode** button 

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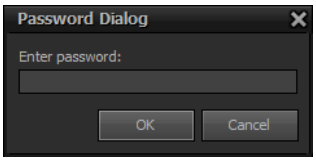
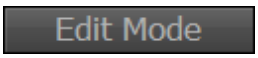
   A dialog box appears.



2. Enter the administrator password and then click **OK**.

   The Settings window enters into Edit Mode.



3.2. User Settings

3.2.1. Accessing the User Settings

The User settings can be accessed by clicking the User Settings tab in the Settings window.

3.2.2. Overview User Settings Subcategories

The User settings are divided into the following subcategories:

- MAD

For each subcategory a tab is provided.

3.3. System Settings

3.3.1. Accessing the System Settings

The System settings can be accessed by clicking the System Settings tab in the Settings window.

3.3.2. Overview System Settings Subcategories

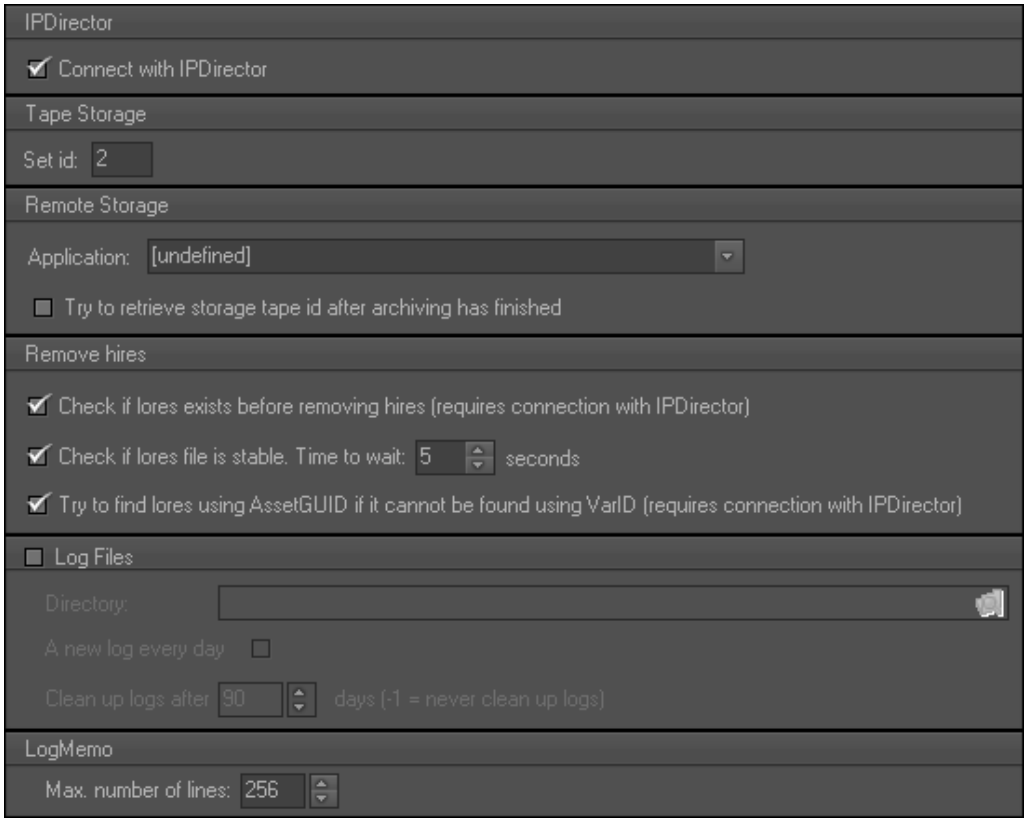
The System settings are divided into the following subcategories:

- Directories
- MAD Options
- Oracle Connection
- E-Mail Options
- Timers
- Tasks
- Global Password
- Error Handling
- IPDirector

For each subcategory a tab is provided. The Directories tab is empty. It doesn't contain any settings.

3.3.3. MAD Options Tab

The MAD Options tab contains divers settings.



Connect with IPDirector

Deep Archive Controller forms part of IP2Archive and communicates with IPDirector via the IPDirector API. It can also be used independently, i.e. in archive solutions without IPDirector. Then, communication with IPDirector is not necessary.

Clear the **Connect With IPDirector** check box if Deep Archive Controller doesn't have to communicate with IPDirector. The IPDirector tab will become unavailable.

Select the **Connect With IPDirector** check box if Deep Archive Controller has to communicate with IPDirector.

Defining Set ID

In the Tape Storage group box you have to enter the default tape set ID as defined in the DIVArchive. Each LTO tape belongs to a particular set. Each set has a particular ID. This setting only applies if IP2Archive interfaces with DIVA.

Remote Storage

IP2Archive can interface with various archive systems. In case it interfaces with XenData, the archiving of a file happens by copying this file from the nearline storage to the XenData storage. The copying is performed by the File Transfer Daemon application. In the **Application** field you have to select the name of the File Transfer Daemon that Deep Archive Controller has to control.

If IP2Archive interfaces with an archive system other than DIVA, Deep Archive Controller has to try to retrieve the ID of the LTO tape from the archive system once the archiving of particular files on this tape has been completed. It will request Tape Storage Controller to retrieve this ID through the Hierachical Storage Management system API. Select the corresponding check box.

Removing Hires

In the Remove Hires group box two checks can be enabled or disabled. The first check will verify if the low-resolution video file of a particular clip exists on the nearline storage before removing the corresponding high-resolution video file from the nearline storage. If the low-resolution video file does not exist, an error message will appear in the Log pane of Deep Archive Controller and also in the Archived tab of the Deep Archive Manager. If this check is not enabled, Deep Archive Controller will not verify the existence of a low-resolution video file.

The second check will verify if the low-resolution video file on the nearline storage is actually stable. A time interval can be set (in seconds) after which Deep Archive Controller has to consider a low-resolution video file to be stable. As long as the low-resolution file is not stable, the high-resolution video file cannot be removed.

If the VarID of the low-resolution video file differs from the VarID of the high-resolution video file, Deep Archive Controller won't be able to find the low-resolution video file, and thus will not allow the high-resolution video file to be archived. If the option **To Find Lores Using AssetGUID If It Cannot Be Found Using VarID** is selected, Deep Archive Controller will check if it can find the low-resolution video file by means of the AssetGUID of the clip the high-resolution video file it belongs to. If it can find the low-resolution video file, it will change its VarID into the VarID of the high-resolution video file.

Configuring Log File Management

To be able to configure the log file management, you have to select the **Log Files** check box.

In the **Directory** field you can enter the path of the log storage directory or you can browse for it by clicking  . If you leave this field empty, the application will automatically create a default directory: C:\EVSLogs\MAD\[Application name].

If the **A New Log Every Day** check box is selected, a new log is started every day.

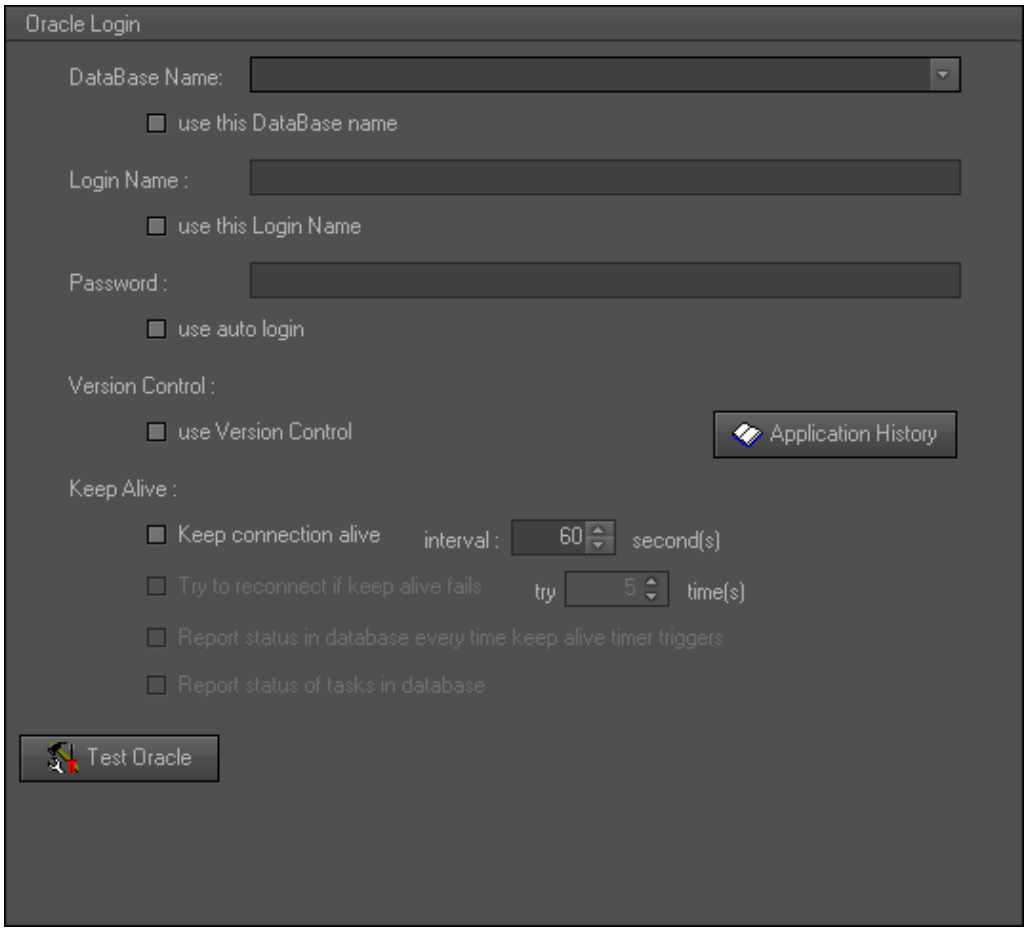
You can also specify a time interval (in days) after which the logs should be removed from the log storage directory. If you enter '-1', the logs are never removed from the storage directory.

Configuring LogMemo Size

In the LogMemo group box you can specify the maximum number of lines retained by the Log pane.

3.3.4. Oracle Connection Tab

The Oracle Connection tab allows you to configure the connection with the Oracle database.



Entering the Database Name

In this field you have to enter the name of the database the application has to connect to.

If the **Use This Database Name** check box is selected, the name of the database will automatically appear in the Oracle login dialog box at start-up.

Entering the Login Name

In this field you have to enter a login name. If the **Use This Login Name** check box is selected, the login name will automatically appear in the Oracle login dialog box at start-up.

Entering a Password

In this field you have to enter a password. If the **Use Auto Login** check box is selected, the application automatically logs into the selected database at start-up. The Oracle login

dialog box does not appear.

Activating Version Control

If the **Use Version Control** check box is selected, the software version of the application is checked each time it logs into the database. This check box should always be selected!!

If the software version is outdated, the following warning message appears in the splash screen highlighted in red: 'Obsolete – A newer version exists. May not be used anymore.'

Click the **OK** button to close the splash screen and update your software version.

By clicking the **Application History** button, you can open a chronological list of all software versions of the application. To get more details about each version (creation date, name of programmer, status, additional remarks), you have to click **+** next to the version number.

Activating Keep Alive

If the option **Keep Connection Alive** is selected, a message is sent to the database at regular time intervals to avoid idle connections from being closed by the firewall. These intervals can be set by you.

If the option **Try to Reconnect if Keep Alive Fails** is selected, the application will try a number of times to reconnect with the database.

If the option **Report Status in Database Everytime Keep Alive Timer Triggers** is selected, the status of the connection is reported in the database each time the Keep Alive Timer sends a trigger to send a Keep Connection Alive message.

If the option **Report Status of Tasks** is selected, the status of the tasks (ok or not ok) is reported to the database.

Testing the Oracle Connection

The **Test Oracle** button allows you to check the validity of the database name, login and username you entered.

If these data are valid, then the following message appears next to the **Test Oracle** button: 'OK'.

If the login name or password is invalid, then a message box appears with the following message: 'ORA-01017: invalid username/password; logon denied'.

If the database name is invalid, then a message box appears with the following message: 'ORA-12154:TNS: could not resolve the connect identifier specified'.

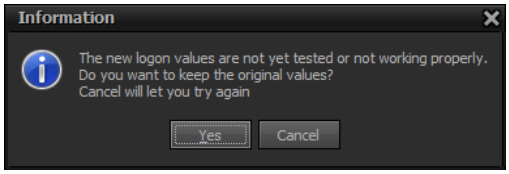
If you omit the password, then a message box appears with the following message: 'ORA-01005: null password given; logon denied'.

If you don't enter a database name, login and username, then a message box appears with the following message: 'ORA-12560: TNS: protocol adapter error'.

If the **Use Version Control** check box is selected, you can also check the software version of the application by clicking the **Test Oracle** button. If the software version is up-to-date, then the following message appears: 'Actual – The Actual Version'. If the software

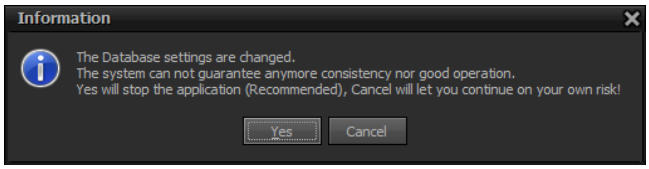
version is outdated, then the following message appears: 'Unknown Version Application! Please contact the EDP department.'

If you close the Settings window without testing the validity of the database name, login and username you just entered, then a message box appears.



If you click **Yes**, then the Settings window is closed and the original values are restored. If you click **Cancel**, then the Settings window doesn't close and you can test the values by clicking the **Test Oracle** button.

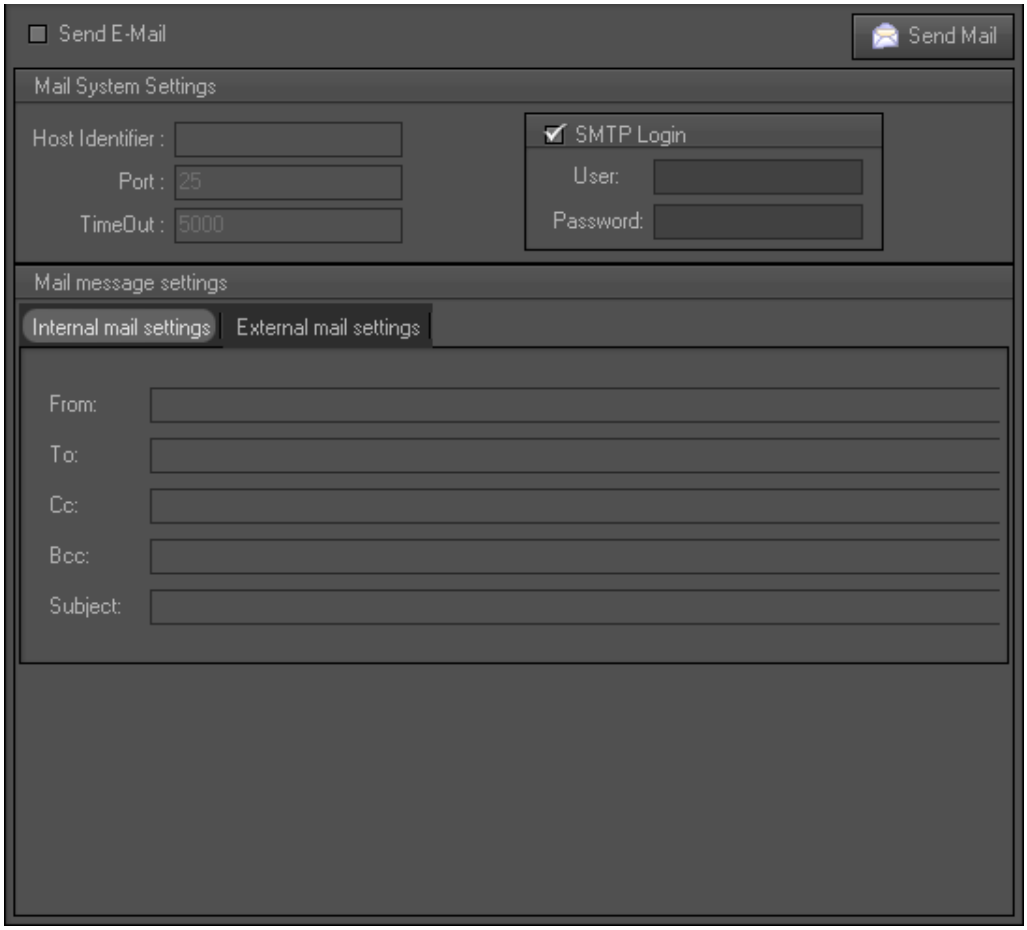
If you change the current database settings, test the connection and then close the Settings window, a message box will appear.



If you click **Yes**, the application is stopped and closed. A manual restart will be required. Click **Cancel** to continue.

3.3.5. E-Mail Options Tab

The E-Mail Options tab allows you to configure an e-mail account enabling the application to e-mail error notifications to the EVS developers.



To be able to configure the e-mail account, you have to select the **Send E-Mail** check box. The fields in the Mail System Settings and Mail Message Settings group box become available.

Configuring an E-Mail Account

In the Mail System Settings group box you have to enter the IP address and port number of the SMTP server and specify a timeout. In the SMTP Login group box you can enter a username and password.

Configuring a Default E-Mail Message

The Mail Message Settings group box contains two tabs: Internal Mail Settings and External Mail Settings.

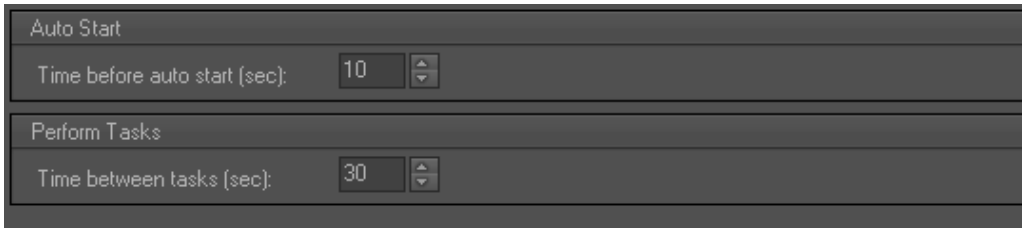
The Internal Mail Settings tab is used to configure a default e-mail message that will be sent to the EVS developers when an error occurs.

The External Mail Settings tab is used to configure a default e-mail message that will be sent to the customer to notify him about an error. In each tab you have to enter the sender's email address, the email address of the various recipients and a subject.

To test the settings and manually send an e-mail message, click the **Send Mail** button.

3.3.6. Timers Tab

The Timers tab allows you to set time intervals for some automated tasks.



Configuring Auto-Start

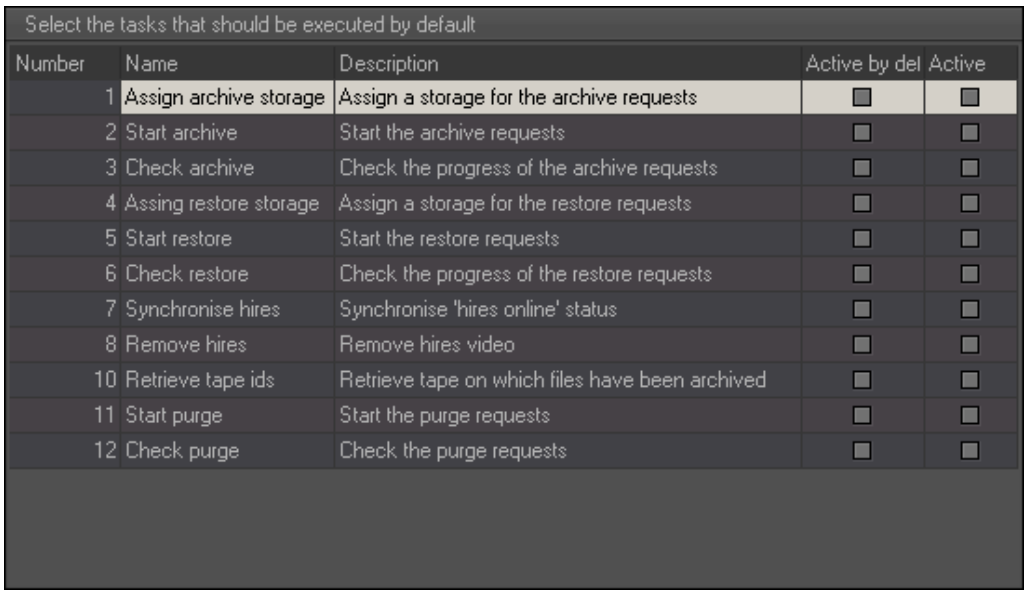
In the Auto Start group box you can specify the time interval after which the application automatically starts performing its tasks.

Setting Time Interval Between Tasks

In the Perform Tasks group box you can specify the length of the time interval (in seconds) between two subsequent tasks.

3.3.7. Tasks Tab

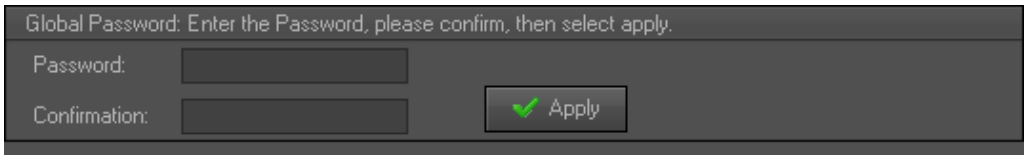
The Tasks tab gives an overview of the active tasks.



In the **Active by Default** column you can activate the tasks that must be performed by default at start-up. The **Active** column displays the tasks that are currently selected in the main window. By default, all tasks are selected in both columns.

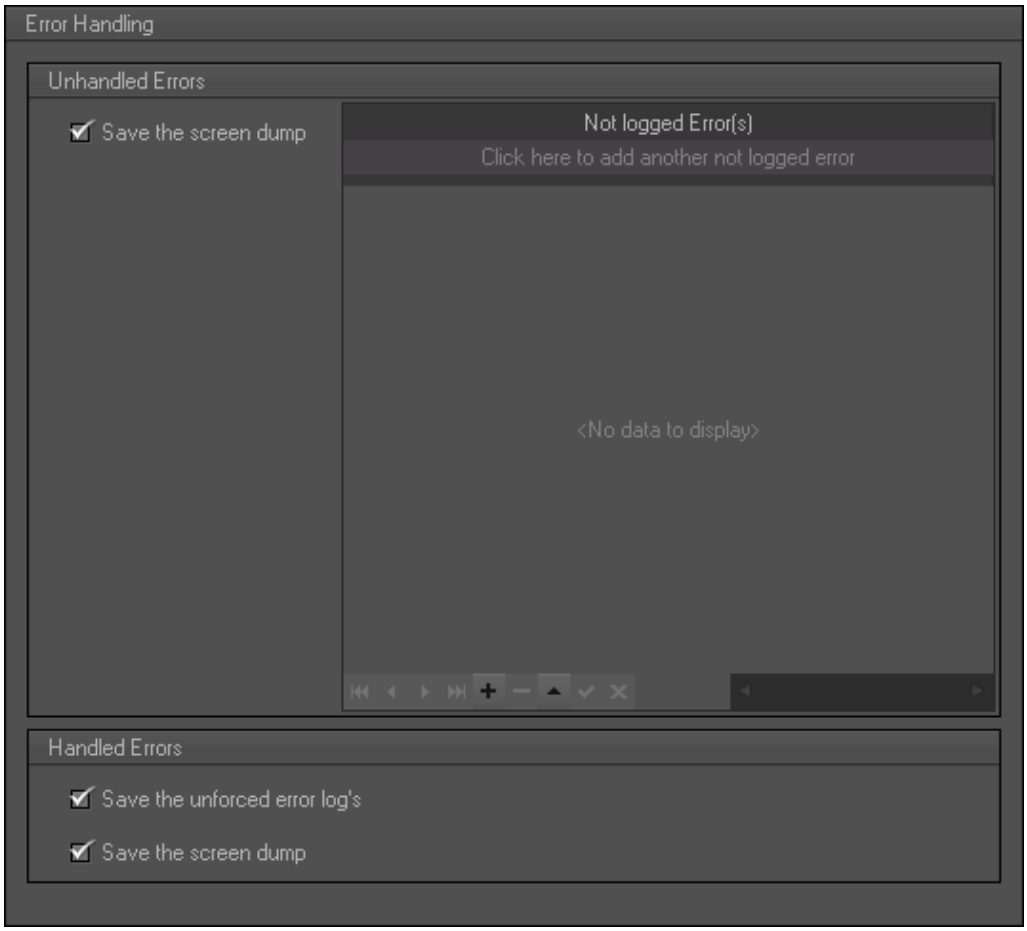
3.3.8. Global Password Tab

The Global Password tab allows you to set a password that the superuser(s) has/have to enter to be able to edit the Global settings of the application, if any. To apply the password, you have to click the **Apply** button.



3.3.9. Error Handling Tab

The Error Handling tab is used to configure the error handling by the application. This tab will only be used by the EVS administrator.



Handling Unhandled Errors

If the **Save the Screen Dump** check box is selected, a screenshot is taken of an unhandled error message and stored in the database and in a folder on the computer

where the application is installed. In the Not Logged Error(s) pane, errors can be typed for which no log was created. By default, this check box is selected.

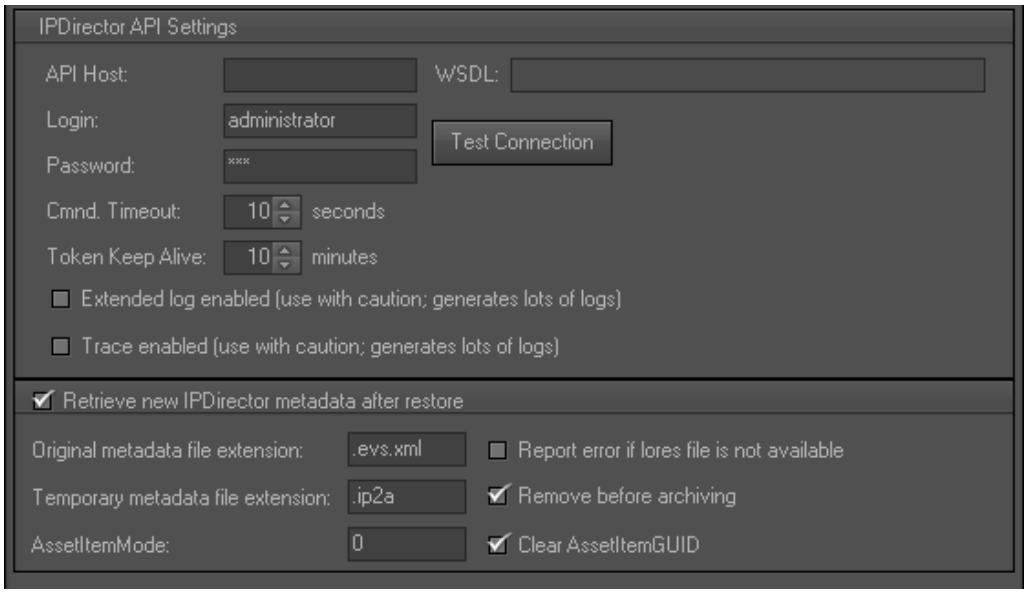
Handling Handled Errors

If the **Save the Unforced Error Log's** check box is selected, the log of the error is saved in the database and in a folder on the computer where the application is installed. By default, this check box is selected.

If the **Save the Screendump** check box is selected, a screenshot is taken of the error message and stored in the database and saved in the same folder as where the error log is kept. By default, this check box is selected.

3.3.10. IPDirector Tab

Deep Archive Controller communicates with IPDirector through the IPDirector API. The IPDirector tab allows you to configure this communication.



Configuring Connection With IPDirector API

In the IPDirector API Settings group box you have to enter the data Deep Archive Controller needs to be able to communicate with the IPDirector API:

- IP address or hostname of the server that hosts the IPDirector API.
- Login, i.e. ‘administrator’ and password, i.e. ‘evs’, necessary to log into the IPDirector API.

The path to the IPDirector API .wsdl file is automatically calculated on the basis of the IP address of the server that hosts the IPDirector API.

You can set a default command timeout interval.

You can also set a default time interval after which the token of a session is reset.

A **Test** button is provided allowing you to test the login and username. If all data is correct, the message ‘Connected’ will appear. Otherwise, the message ‘Not Connected’ will appear.

To enable extended logging of the SOAP client, select the corresponding setting.

To enable tracing of the communication between the SOAP client and server, select the corresponding setting.

Retrieving New IPDirector Metadata After Restore

The Retrieve New IPDirector Metadata After Restore group box contains settings related to the hi-res and lo-res metadata XML files. Select the corresponding check box to activate them.

Deep Archive Controller makes a copy of the hi-res metadata XML before archiving and renames it (.ip2a). The copy gets archived, and then Deep Archive Controller removes both the original hi-res metadata XML and the copy from the nearline storage. When the hi-res video file and hi-res metadata XML get restored, Deep Archive Controller will create a copy of the lo-res metadata XML file. It will copy the <General Info> part of the restored hi-res metadata XML and paste it in the copy of the lo-res metadata XML. Since the restored hi-res metadata XML doesn't contain the most recent metadata (logs, keywords, bin, archive metadata) the copy of the lo-res XML will be used to create an updated hi-res metadata XML. Deep Archive Controller will also change the value <AssetItemMode> in the copy of the lo-res metadata XML.

When part of a hi-res video file gets restored, Deep Archive Controller will create a copy of the lo-res metadata XML of the source clip, change the video format of this copy and add the TC In and TC Out of the subclip and the VarID of the subclip.

In the **Original Metadata File Extension** field, enter the file extension of the original hi-res metadata XML. In the **Temporary Metadata File Extension** field, enter the file extension of the copy of the hi-res metadata XML.

The hi-res and lo-res metadata XML have the tag <AssetItemMode>. The metadata value held by this tag indicates if the metadata XML file refers to a lo-res (= 1) or hi-res video file (= 0). When replacing specific metadata parts of the copy of the lo-res metadata XML with the corresponding metadata parts of the hi-res metadata XML, the value in this tag will get the value of the hi-res metadata XML, i.e. 0. **In the AssetItemMode** field, enter the value that Deep Archive Controller should restore in the tag <AssetItemMode> after it has replaced the metadata parts.

If the option **Report Error If Lores File Is Not Available** is selected, Deep Archive Controller will give an error if a user tries to restore a clip of which the lo-res video file is not available on the nearline storage. If this option is not selected, no error will be given, but the restored hi-res metadata XML, which doesn't contain the most recent metadata, will be used to create the lo-res metadata XML.

Select the check box **Clear AssetItem GUID**. In the hi-res metadata XML Deep Archive Controller will clear the asset item guid value that was copied from the lo-res metadata XML. This should be automatically generated by IPDirector.

Select the **Remove Before Archiving** check box if the copy of the hi-res metadata XML has to be removed from the nearline storage.

Note
This tab becomes unavailable if the setting Connect with IPDirector is cleared in the MAD Options tab.

Instant Tapeless Technology

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