

Continuous Archive

User Supplement



Contents

- Introduction 3
- Unpacking..... 3
- BX2 Continuous Archive Operation 3
- To Access the Removable Caddies 4
- Archive Procedure 4
- Calculating When to Change the Mirror Discs..... 5
- Removing The Primary Disk..... 5
- How to Interpret the LED Status..... 6
- Playback Process 6
- Installing the Playback Software..... 6
- Installing the Playback Device..... 7
- Playback Mode Controls..... 8
- Mousekey Sub functions 10
- Download Images..... 15
- View Menu Additional Functions..... 15

Whilst every attempt is made to ensure these manuals are accurate and current, Dedicated Micros reserve the right to alter or modify the specification of the machine described herein without prejudice.

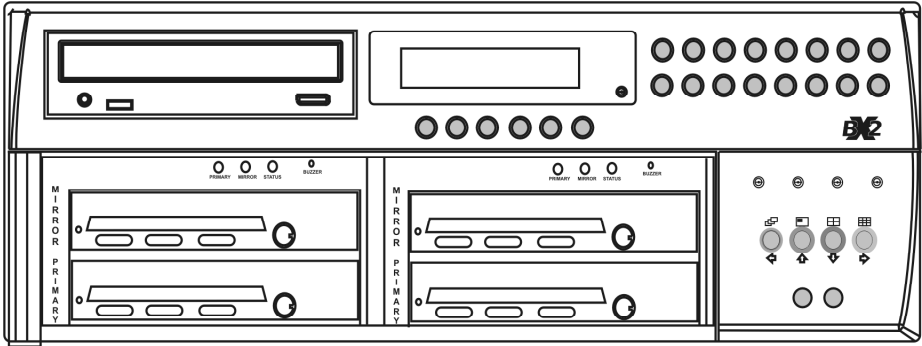
Introduction

How to Use the BX2 Continuous Archive

The following will describe how the BX2 Continuous Archive unit operates, installation and removing the drives and the LED functions that will describe the process of the 'mirror' functionality supported on the BX2.

The standard installation and configuration of the BX2 Continuous Archive unit is as described in the BX2 Manual MI-I-BX2D/E1-0.

There are four removable drives in the BX2 Continuous Archive unit which can be accessed from the front panel. The drives are separated into two Primary and two Mirror drives.

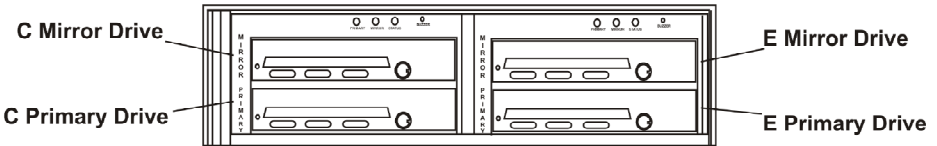


Unpacking

The BX2 Continuous Archive unit will be supplied with the necessary Primary and Mirror drives separately to the unit.

These drives are labelled as C Primary and Mirror and E Primary and Mirror. Leave these labels in place to ensure the drives are always placed back into the correct locations.

Looking from the front of the BX2 Continuous Archive unit the C Primary and Mirror drives are to left of the unit, the other drives are the E Primary and Mirror drive. (See diagram below).



Warning: *The drives must be fitted in the correct bays, if they are placed in the wrong bay then the system will overwrite the discs and the unit will not boot up.*

BX2 Continuous Archive Operation

Under normal operation the BX2 Continuous Archive will function as described below:

The BX2 Continuous Archive will write to both the Primary and Mirror drives, the read operation (review) is from the Primary drive. Mirror drives can be exchanged safely. The Primary drives should not be swapped.

If for any reason the BX2 Continuous Archive is unable to write to the Primary drive, the unit will assume that the drive is faulty and will switch the write process to the Mirror drive. The primary drive can then be changed.

If a new Mirror drive is introduced (e.g. original drive is removed for archiving) then the mirroring process will be activated, this 'mirrors' the video images stored on the Primary drive to the new Mirror drive.

Note: All video files held on the Primary drive will be mirrored onto the new Mirror drive; this includes the files already on the drive that has been removed. This offers redundancy for these files.

To Access the Removable Caddies

The front panel of the BX2 has a latched door that will allow you to gain access to the removable caddies.

Release the door by gently pressing in until you here the release 'click', lower the door. You will see the removable drives; each one is locked in place and can be released using the keys provided.

The drives are separated into two sections with a Primary drive and Mirror drive in each section.

Archive Procedure

When the Primary discs are full or the recorded video needs to be archived, the normal procedure would be to remove both the Mirror discs. The record rate and the image size of the recorded files would dictate how often this would be required. The table below relates time period, file size and pictures per second.

		600GB
168 Hrs	14KB	69pps
7 Days	18KB	53pps
	25KB	38pps
336 Hrs	14KB	34pps
14 Days	18KB	26pps
	25KB	19pps
744 Hrs	14KB	15pps
31 Days	18KB	12pps
	25KB	8pps
62 Days	14KB	7pps
(8 weeks)	18KB	6pps
	25KB	4pps

Example:

To be able to record for 8 weeks, the default settings of **18KB** file size, with **6pps** would be necessary.

These figures would change when MultiMode recording is used. Different conditions would result in a variety of file sizes and recording rates. Therefore these figures should be used as a rough guide.

To archive the Mirror drive;

1. Set the Mirror device key to Off
2. Remove the Mirror drive and store in a suitable Archive location
3. Replace with a **blank** Mirror disc
4. Turn the Mirror device key. The BX2 unit will start mirroring the existing data on the Primary disc to the mirror device as soon as the device is locked in place.

Note: Within 24 hours the unit will be fully synchronised.

The BX2 Continuous Archive unit will continue to record during this process and no images will be lost, you will be able to identify the mirroring process from the LEDs on the chassis for the removable caddies (refer to LED section below).

Calculating When to Change the Mirror Discs

There is an alternative to changing the Mirror discs at set intervals. Using the Standard Record menu could allow the Administrator to view information on the BX2 and calculate if the disc is almost full.

1. For the initial disc change, use the recommended disc change guide.
2. Make a note of the time and date the discs were replaced.
3. Allow the Mirror process to commence. After a period of time (this is dependant on the number of system alarms), review the information on the Standard Record menu.

Standard Recording Schedule

Units PPS	Record rate	Event rate	Event Active	Event Mode	Event Mode
Day	006	006	Both	Disabled, Alarms, Activity, Both	Unchanged, Exclusive, Interleave
Night	006	006	Both	Disabled, Alarms, Activity, Both	Unchanged, Exclusive, Interleave
Weekend	00z6	006	Both	Disabled, Alarms, Activity, Both	Unchanged, Exclusive, Interleave
Image Size	18KB		05-45KB	Medium	Edit
Record Cameras	Edit				
Maximum Record Time	--Days --Hours				
Maximum Storage (Protected%)	0000GB(00%)				
Earliest unprotected recording	20/May/2006 23:55				

4. Together with the time and date when the Mirror discs were replaced, review the information in the 'Earliest unprotected recording' section. This identifies the date of the first recorded file on the discs. Also view the Record Duration information. This will detail an estimate of the number of days and hours remaining before the recorded images on the hard disc will be overwritten.

Please note that there are a number of system features that can be used to trigger an alarm; importantly these include; Disk Low (an alarm trigger can be established to inform the User when the HDD is nearing capacity. The alarm will trigger when the disk usage reaches 90%). Disk Full. Disk Fault, Fault Archive (if the automatic archive process to either the internal CD/DVD writer or to an FTP server fails, the unit can be configured to use a failure notification as a zone trigger) and Slow Archive (will identify when the continuous archive process is slow and use an alarm trigger to help ensure that recorded images are not overwritten before being archived).

These features can be activated via Alarm Zone Configuration - Zone Settings - Zone Alarm Input - System menu.

Removing The Primary Disk

The normal archiving procedure involves exchanging Mirror drive.

In the event of a Primary drive failure, this replacement procedure must be strictly adhered to:

Note: *The discs used in both the Primary and Mirror drives MUST be the same size.*

1. Ensure the BX2 is in full mirrored state (This can be verified by a green LED on the removable caddy chassis - refer to *How to Interpret the LED Status*).
2. Unlock the Primary disc and remove the drive. The BX2 Continuous Archive will switch over and treat the Mirror disk as the 'Primary' drive.
3. Replace the Primary drive with a new, blank drive.
4. Insert the Primary drive and turn the key to lock.
5. Press the Buzzer button once
6. The mirroring process will automatically occur. All data from the Mirror drive will be copied to the Primary drive. Once this is complete, normal mirroring is resumed.

How to Interpret the LED Status

The installation, operation and configuration of the BX2 Continuous Archive is the same as detailed in the main manual, however the following details the information on the LED status information for the removable caddies.

There are three LEDs on the disc drive chassis, each of these LEDs has a state which can identify the status of the device and can be used for troubleshooting.

Note: *If any LED status occurs other than what is detailed below contact Dedicated Micros Technical Support.*

Primary LED

The left most LED is labelled PRIMARY and represents the disc in the 'Primary' (bottom) position. The centre LED is labelled MIRROR and represents the disc in the 'Mirror' (lower) position.

Primary (P) and Mirror (M) LED's monitor status of the channels:

Solid Green	Drive installed on the current channel
Flashing Orange	Scanning the channel for drives
Solid Red	Drive not installed
Flashing Red	The Drive is marked as bad
Orange	Channel activity (read/write)

Status (S) LED shows the status of the EzRAID drive channel:

Solid Green	Drives are in Mirror mode, data is identical.
Flashing Green	Drives may not be identical
Solid Red	Drives are not in Mirror mode
Flashing Red	Copy/Compare is in progress
Orange	Copy/Compare in progress (under Windows)

The Buzzer provides the following indications:

- Short beep during power on (system boot up) indicates successful EzRAID self test.
- Second beep indicates the EzRAID is running in single mode.
- Continuous or intermittent beep indicates a drive failure.
- Depressing either select switch will silence the alarm.

Playback Process

The Mirror drive of the BX2 Continuous Archive unit can be removed from the unit and placed in a playback device (available from Dedicated Micros) for off line review of the recorded images.

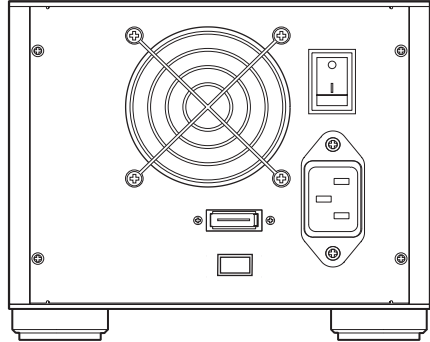
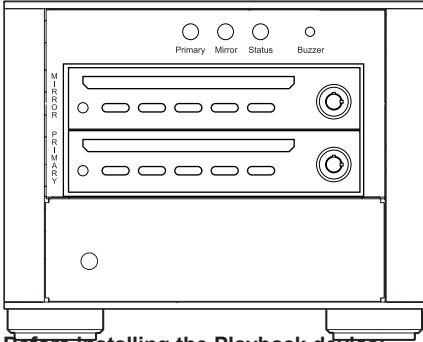
Minimum Operating System Requirements
Windows 2000, Windows ME, Windows XP

Installing the Playback Software

The unit uses NetVu ObserVer to replay video. It is on the CD supplied with the product, and available as a free download from Dedicated micros Website. It should be installed on the PC that will be used to review the video.

1. Insert the CD into the disc drive of the PC
2. Run the Setup.exe file to install the playback software
3. Follow the on screen prompts to install the software
4. Enable the option to launch the software when Finish is selected

Installing the Playback Device



Before installing the Playback device:

- **Both** Mirror drives should be removed from the BX2 Continuous Archive unit and be made available for review – video will be distributed across both drives, to ensure you review all the recordings you require both drives
- Full USB2 PC – the playback device requires full USB2 connectivity, using a USB1 connection could result in failures.
- The PC is powered up and fully operational.

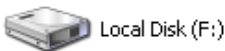
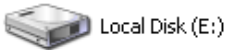
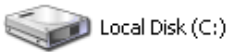
To view the contents of the mirror drive;

1. Place both Mirror drives in the Primary and Mirror slots on the playback device.
2. Connect to USB2.0 Input Device 1 on the unit and the USB2 port of the PC with the USB cable provided.
3. Connect main supply to the playback station.
4. Switch the unit on.
5. The PC will identify the new hardware and will see the playback station as a new drives.

Note: *It is important that there are a minimum of two drive letters (between A – Z) available so the PC can automatically allocate the two Mirror drives a drive letter.*

6. Using Windows explorer check that your PC has identified the two new drives

Hard Disk Drives



7. Launch the Playback software previously installed.

Note: *The playback station should be powered off before restarting your PC.*

Viewing Stored Images

NetVu ObserVer is utilised to allow recorded images to be interrogated.

Select File -> Open Video. Follow the on-screen menu sequence to locate and gain access to the stored video..

Note: *If a removable hard drive is to be reviewed, this must be connected prior to selecting this option.*

When the stored video has been imported, the images will automatically be displayed. All cameras with associated video will be active in the site tree and can be individually selected for replay. Alternatively a multiscreen can be selected to review all cameras simultaneously.

Note: *If a multiscreen display is selected, choosing a camera for display will automatically display the consecutive cameras in the multiscreen.*

Playback Mode Controls

In playback mode it is possible to use the VCR keys to control the images being reviewed.

There are a number of options available when playing back a video image;



Play - playback the video from the camera selected or highlighted an alarm file.



Pause - stop the video on a particular image.

When JPEG video is paused, the fast forward and rewind buttons operate as frame advance and rewind.

When paused in MPEG viewing, the fast forward and rewind buttons step between I-Frames.



Fast rewind - move quickly back through the recorded video



Fast forward - move quickly through the playback video.



Record - create a local copy of the image sequence currently on screen. Click on the button to open the submenu.

Note: *This control is not available when the Remote Events List is displayed*



Directory - used to define where the recorded file will be saved

Filename - used to name the recorded file

Filename using local time - used to automatically name the file using the time on the local PC

Filename using UTC time - used to automatically name the file using the time zone specified as local on the unit

Therefore if the unit is in a different time zone to the PC, the operator can select which time data to use.



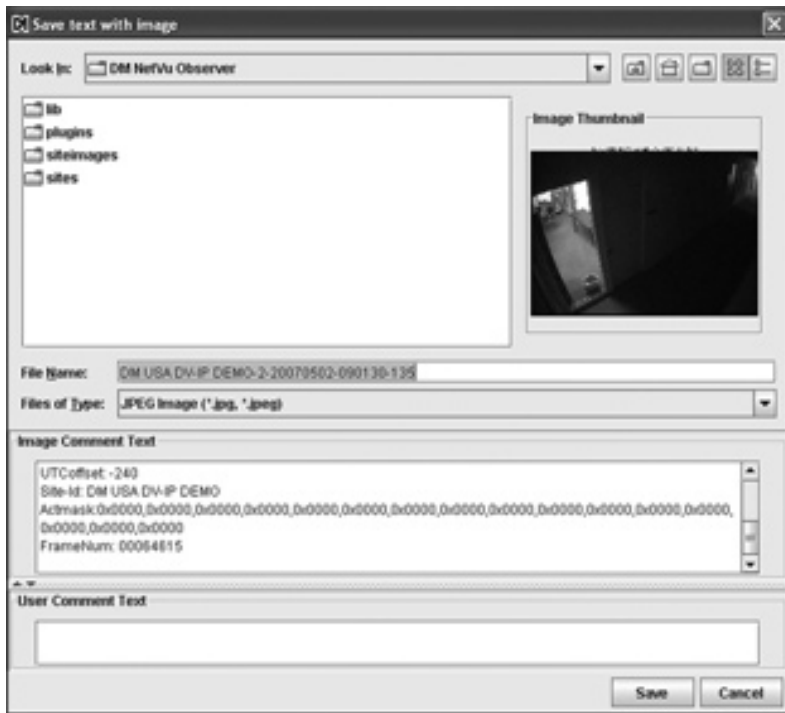
It is possible to increase the speed of the video in playback mode. When fast forward or rewind have been selected, the speed of the video can be increased by up to 128 times the normal speed by selecting one of the options from the drop down list. The N mode will transmit at the fastest possible rate without dropping or skipping pictures, the speed of this mode will vary dependant on record rate and network transmission speed.

Mousekey Sub functions

Right clicking on a playing camera, or on a live camera view in the viewer will open the zoom menu, allowing the user to alter the zoom level to 100%, 200%, 400% or 800%.

Right clicking on a paused image will enable additional functionality.

- Save This will allow a jpg in a user specified location. The dialog box also allows comments and a text file of the same name to be saved with the image.



- Save as Reference This allows a camera reference image to be saved for future comparison. This can then be used for visual comparison to check camera positioning, or when visibility is poor (fog, night) to identify features. The camera reference image is recalled by right clicking on the camera in the site tree and selecting 'View Reference Image'.
- Print This sends the paused image to the printer.

Note: Saved / Printed images will have the time and date embedded in the title bar

Go To Time and Date

It is possible to review a specific video recording by selecting the time and date. Select the down arrow next to the date window to display a calendar where the time and date can be selected.



Enter the information and press OK. Any available video from the specified time and date will play.

Event List

The image server logs every event (as configured in the web configuration pages) to an event database. NetVu ObserVer can be used as the interface to access this database and allow the Operator to review the event list and any video recordings associated with the event.



When the Event List button is clicked, the event list for the image server will be displayed. An additional tab will also be added in the display window to allow the Operator to switch between the event list and live viewing.

Date & Time Of Alarm	Camera	Alarm Text	Video
21-Jul-2006 09:15:14	T - Camera 1	VMD June 11	Yes
21-Jul-2006 09:16:01	T - Camera 1	VMD June 10	Yes
21-Jul-2006 09:26:27	T - Camera 1	VMD June 10	Yes
21-Jul-2006 09:28:59	T - Camera 1	VMD June 11	Yes
21-Jul-2006 09:31:26	T - Camera 1	VMD June 11	Yes
21-Jul-2006 09:37:51	T - Camera 1	VMD June 9	Yes
21-Jul-2006 09:37:59	T - Camera 1	VMD June 11	Yes
21-Jul-2006 09:51:44	T - Camera 1	VMD June 15	Yes
21-Jul-2006 09:54:50	T - Camera 1	VMD June 10	Yes
21-Jul-2006 09:55:45	T - Camera 1	VMD June 11	Yes
21-Jul-2006 10:00:56	T - Camera 1	VMD June 11	Yes
21-Jul-2006 10:00:00	T - Camera 1	VMD June 9	Yes
21-Jul-2006 10:26:27	T - Camera 1	VMD June 11	Yes
21-Jul-2006 10:28:56	T - Camera 1	VMD June 10	Yes
21-Jul-2006 10:31:36	T - Camera 1	VMD June 9	Yes
21-Jul-2006 10:33:36	T - Camera 1	VMD June 11	Yes
21-Jul-2006 10:34:13	T - Camera 1	VMD June 9	Yes
21-Jul-2006 10:36:05	T - Camera 1	VMD June 12	Yes
21-Jul-2006 10:36:31	T - Camera 1	VMD June 9	Yes
21-Jul-2006 10:37:13	T - Camera 1	VMD June 12	Yes
21-Jul-2006 10:37:25	T - Camera 1	VMD June 11	Yes
21-Jul-2006 10:38:37	T - Camera 1	VMD June 9	Yes
21-Jul-2006 10:41:30	T - Camera 1	VMD June 11	Yes
21-Jul-2006 10:43:09	T - Camera 1	VMD June 11	Yes
21-Jul-2006 10:51:09	T - Camera 1	VMD June 11	Yes
21-Jul-2006 10:52:20	T - Camera 1	VMD June 9	Yes
21-Jul-2006 10:53:05	T - Camera 1	VMD June 11	Yes
21-Jul-2006 10:57:12	T - Camera 1	VMD June 9	Yes
21-Jul-2006 11:05:27	T - Camera 1	VMD June 10	Yes
21-Jul-2006 11:06:31	T - Camera 1	VMD June 11	Yes

Refresh Page + Page - Clear Filters Alarm 508

Note: The event list button is a latched button, when selected the event database for the server will be displayed, selecting again will switch the application back to view mode and remove the Event tab.

Selecting Refresh will refresh the event list.



Previous Event



Next Event

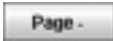


If an event has associated video recordings, highlighting and double clicking that event will automatically display the recorded images. Alarm text will be displayed in the title header of the image.

When the images are being reviewed the Live tab will be renamed as Replay so the Operator can tell the mode of operation. Click on the Events tab to return to the list of events.

The number of events shown on a single page is configured in the Tools -> Options menu of NetVu ObserVer.

Previous Page



Next Page



Using the previous and next buttons allows you to step through the pages of events.

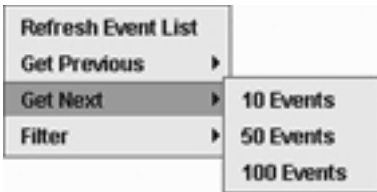
Highlighting an event and selecting right mouse button will also allow the Operator to:

Refresh the Event List.

Get Previous 10, 50 or 100 Events.

Get Next 10, 50 or 100 Events.

Filter events by date, camera or alarm type.



Filter Events

It is possible to filter the event list by; text (if enabled), date, camera and alarm type using the Filter button in the right hand window.

Filter Text by typing the phrase or word required in the search box at the top. This will search for occurrences of the text in the text stream alongside the recorded video.

Filter by item & date using the drop down boxes to select a start and end parameter for the search. This will search for all events within the specified time period

Filter by Camera by selecting the relevant camera. Right click to quickly select all. This will search the event list for events associated with the selected camera.

Filter by Alarm type by selecting GPS, VMD, Zone, System or All.

Press Apply at the bottom to begin the Filter.



It is possible to clear any filters from the event list by using the 'Clear Filters' button or the 'Clear all filters' option when the right mouse button is right clicked on the Event List.

When filter by date is selected it is possible to identify the start and end date including the start time.

Activity

The unit provides the option to search the stored images for activity within defined areas, even if Activity detection was not enabled on the unit. Select the activity button on the Event screen to open the Activity filter.



A reference image is shown with a search grid superimposed. The default buttons below the image allow a quick selection of a quadrant of the image, the button on the upper left allows selection of an block by dragging with the mouse, and the button on the bottom right allows selection of individual search squares.

The Activity States options allows the user to specify whether the search is for ACT on, ACT off or ACT both.

- ACT on Will search for when Activity starts
- ACT off Will search for when Activity ends
- ACT both Will search for when Activity starts and ends

The Activity Parameters are used to define which camera will be searched and the Camera Dwell Time. The Camera Dwell time is the amount of time the camera is static during a patrol.

Download Images



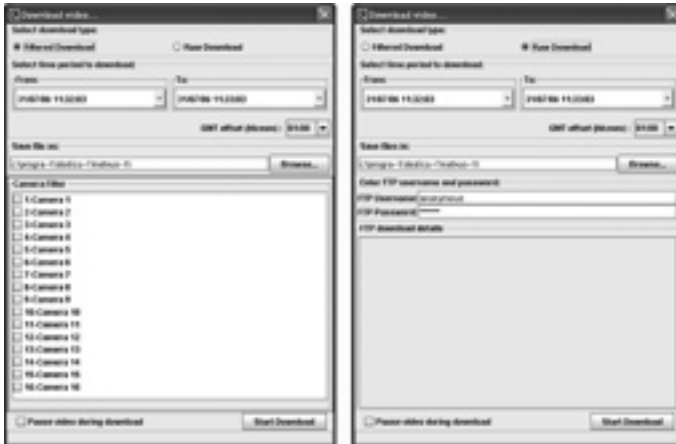
It is possible to download all associated recorded images from the hard drive of the image server to the local PC (or a networked PC) from a specified time and date. These files can then be played back using NetVu ObserVer software, refer to Additional Features, Replay Server section for details on how this feature operates.

Note: *Although this option can be selected when controlling non NetVu Connected DVRs (Eco, DS2 and BX2) this functionality is not supported and images can not be downloaded from these units.*

There are two types of downloads;

Filtered

Raw



Clicking the download key will open the Download screen. You will need to identify the download method (filtered or raw), time and date ('to' and 'from'), the file name and location and if filtered was selected, which cameras that are to be downloaded (raw will download all cameras).

Select Download to download the images, this process may take a some time depending on the size of the video segment selected and the network connection to the unit.

Note: *Selecting 'Raw' may require entry of the Username and Password if these have not been added in the configuration section of the image server for creating an FTP connections from the PC to the image server, default are dm and ftp.*

View Menu Additional Functions

Embedded Data

Within NetVu ObserVer it is possible to display the embedded data for the cameras being viewed, this information gives details on camera name, camera number, activity detectors, time and date.

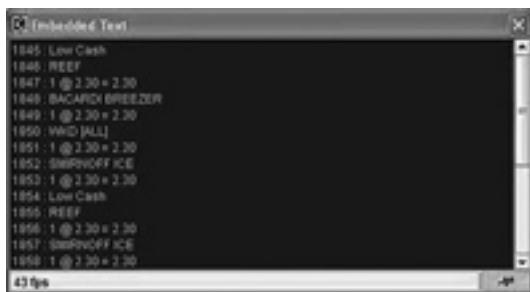
This information can be useful when evaluating the system or when contacting Dedicated Micros Technical Support.



Note: The number of pictures per second for the selected camera is also displayed in the bottom left of the embedded data panel. The content shown in this panel will depend on the preferences set in 'Tools -> Options -> Behaviour -> 'Show Download Statistics With Embedded Data'.

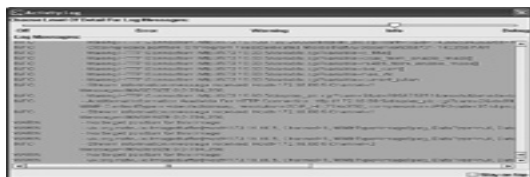
Embedded Text

NetVu Observer offers the option to monitor the text stream passing from a server used in a POS or ATM application. This Window will display any text being sent by the selected server.



Activity log

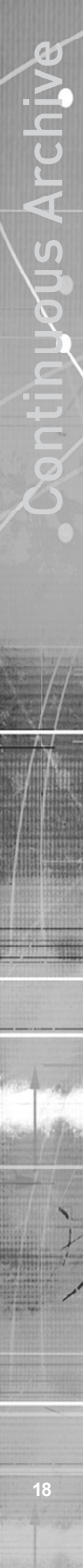
This window contains information commands sent to the video server as the viewer controls the device.



Note: It is possible to configure the activity log to show different levels of messages. If problems are encountered whilst using the program, Technical Support may ask for debug mode to be selected for all messages to be visible.

Index

Activity	14
Activity log	16
Archive Procedure	4
Before installing the Playback device:	7
BX2 Continuous Archive Operation	3
Calculating When to Change the Mirror Discs.....	5
Download Images.....	15
Embedded Data.....	15
Embedded Text.....	16
Event List.....	11
Filter Events.....	12
Go To Time and Date.....	10
How to Interpret the LED Status.....	6
Installing the Playback Device.....	7
Installing the Playback Software.....	6
Introduction.....	3
Mousekey Sub functions	10
Playback Mode Controls.....	8
Playback Process	6
Primary (P) and Mirror (M) LED's monitor status of the channels:	6
Primary LED	6
Removing The Primary Disk.....	5
Status (S) LED shows the status of the EzRAID drive channel:.....	6
The Buzzer provides the following indications:.....	6
To Access the Removable Caddies	4
To view the contents of the mirror drive;.....	7
Unpacking.....	3
View Menu Additional Functions.....	15





Dedicated Micros Ltd.
1200 Daresbury Park, Daresbury,
Cheshire, WA4 4HS, UK
Tel: +44 (0) 845 600 9500
Fax: +44 (0) 845 600 9504

Dedicated Micros Europe
Neckarstraße 15,
41836 Hückelhoven, Germany
Tel: +49 2433 5258-0
Fax: +49 2433 5258-10

Dedicated Micros France
9-13 rue du Moulinet
75013 Paris, France
Tel : +33 (0) 1 45 81 99 99
Fax : +33 (0) 1 45 81 99 89

Dedicated Micros Slovenia
Delavska cesta 26,
4208 Sencure, Slovenia
Tel: +386 4279 1890
Fax: +386 4279 1891

Dedicated Micros Benelux
Joseph Chantraineplantsoen 1,
3070 Kortenberg, Belgium
Tel: +32 2751 3480
Fax: +32 2751 3481

Dedicated Micros USA.
14434 Albemarle Point Place, Suite 100,
Chantilly, Virginia 20151 USA
Freephone: 800 864 7539
Tel: +1 703 904 7738
Fax: +1 703 904 7743

Dedicated Micros USA.
23456 Hawthorne Blvd.
Suite 100, Torrance,
CA 90505, USA
Tel: +1 310 791-8666
Fax: +1 310 791-9877

Dedicated Micros, Australia PTY.
5/3 Packard Avenue, Castle Hill,
NSW 2154, Australia
Tel: +612 9634 4211
Fax: +612 9634 4811

Dedicated Micros, Asia PTY
16 New Industrial Road,
#03-03 Hudson Techno Centre,
Singapore 536204
Tel: +65 62858982
Fax: +65 62858646

Dedicated Micros Middle East
Building 12, Suite 302, P.O. Box 500291, Dubai Internet
City, Dubai, United Arab Emirates
Tel: +971 (4) 390 1015
Fax: +971 (4) 390 8655

Dedicated Micros (Malta) Ltd.
BLB017, Bulebel Industrial Estate,
Zejtun, ZTN08, Malta
Tel: +356 21483 673
Fax: +356 21449 170

