ARTEL VIDEO SYSTEMS

DL Monitor

User Guide

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DL Monitor Overview

DL Monitor is a factory-installed option that allows an Artel DigiLink device to operate within any standard SNMP network management system. A DigiLink device with DL Monitor installed is capable of transmitting SNMP traps—alerting network operators to possible problems with the operation of the device or the optical network. With DL Monitor, network operators can also monitor device operating parameters such as optical receiver input power, type of laser installed, or whether or not a video signal is present. DL Monitor can be ordered with any of the following Artel DigiLink singlechannel or multichannel encoder/decoder products:

- DigiLink 1200 (DL1200)
- DigiLink 1220 (DL1220)
- DilgiLink 2701 (DL2701)
- DigiLink 8000 (DL8000)
- DigiLink 9000* (DL9000)
- DigiLink 8000 PS (remote power supply)

* DL Monitor is a standard feature on all DigiLink 9000 products.

DL Monitor Option Package

The DL Monitor option includes the following:

- EMSIC II PCB

  This daughter board provides the Digilink device with an interface between the device's main logic PCB and the managed network. The EMSIC II PCB is a factory installed option.

- DL Monitor CD

  The CD contains the following:

  – *DL Monitor Device Configuration Tool* software installation program

  – Artel's Enterprise MIBs

  – *DL Monitor User Guide* in PDF format

  - The following DigiLink product manuals in PDF:
    - *DigiLink 1200/1220 Installation and Operation Guide*
    - *DigiLink 2701 Installation and Operation Guide*
    - *DigiLink 8000 Installation and Operation Guide*
    - *DigiLink 9000 Installation and Operation Guide*
  - Adobe Acrobat Reader software (for reading PDF-formatted documents)
- *DL Monitor Specification Sheet*

EMSIC II PCB

When installed in a Digilink device, the EMSIC II PCB provides you with the following operator-accessible components (refer to Figure 1 on page 3):

IP Reset Switch

This switch, located behind the small opening in the chassis, is used to reset the network element's IP address back to the following default value:

Device IP Address 192.168.100.5

EMS Port

This RJ45 connector port provides a 10BaseT connection to the managed network.

Status LEDs

These LEDs indicate the following:

TX This LED flickers whenever information is being sent from the network element to the managed network. The LED stays illuminated when there isn't any network activity.

RX This LED flickers whenever the network element is receiving information from the managed network. The LED stays illuminated when there isn't any network activity.

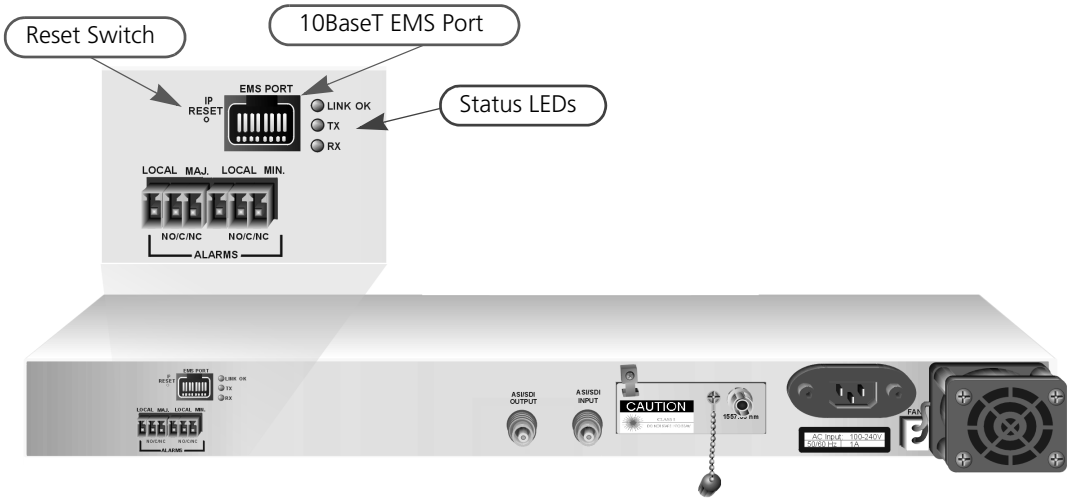

Figure 1. DL Monitor Operator-accessible Components

Note: Figure 1 contains a rear panel view of the DL2701, however, the DL Monitor components shown here are the same for all DigiLink models.

IP Reset Switch

To reset a device's IP address back to the factory default value of 192.168.100.5:

1. Power down the DigiLink device if it isn't already.
2. Using a small tool that can access the switch through the hole in the chassis, press in and hold the switch while you power up the DigiLink device.

   This step resets the IP address to the default value and places the device in Flash Load mode.
3. Power down the DigiLink device.
4. Power up the Digilink device. The device will boot up using its DigiLink Flash image.
5. Set the IP address to the desired value using the *DL Monitor Device Configuration Tool* (see 'Configuring a DigiLink Device' on page 8).

DL Monitor Device Configuration Tool

The DL Monitor option also includes a Windows-based GUI called the *DL Monitor Device Configuration Tool*. This GUI is used to configure a DigiLink device's management port for connection to the managed network. Via a 10BaseT connection, you can quickly configure the device's IP address, Network Mask, and other device profile information required by your managed network.

Installing Device Configuration Tool

Before a DigiLink device can be connected to your managed network, it must first be configured with the appropriate communications parameters required by your managed network, such as an appropriate IP address, network mask, etc. This is accomplished using the *DL Monitor Device Configuration Tool* and connecting directly to the device using a cross-over cable. The following procedures outline the steps to be taken to install the *DL Monitor Device Configuration Tool* software on a workstation.

Workstation system requirements

Processor	Pentium II or better
Operating Software	Windows NT, 2000, XP
RAM	128M

Software Installation

1. Insert the DL Monitor CD into your CD-ROM drive.

Autoload enabled	The install wizard will automatically launch.
Autoload not enabled	Browse to the CR-ROM drive and double-click on **menu.exe** to launch the install wizard.

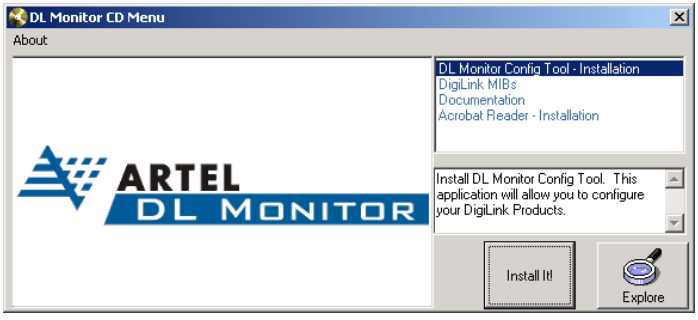

Figure 2. Install Wizard Options Screen

2. Select **DL Monitor Config Tool - Installation** from the list of available options and click on the **Install It!** button to open the Welcome screen.

3. Verify that any open applications are closed then click on **OK**. The Install Directory screen opens.

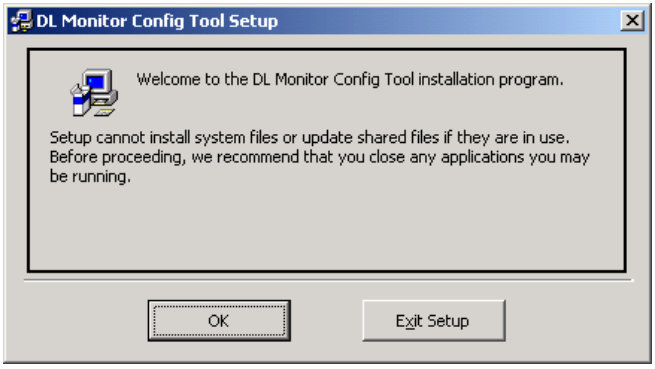

Figure 3. Welcome Screen

4. Determine the directory in which to install the software in then click on the PC icon button to open the Program Group screen.

c:\Program Files\DL Monitor Config Tool\	This is the default directory created during the install process.
Change Directory	Select this button to browse to a directory other than the default directory.

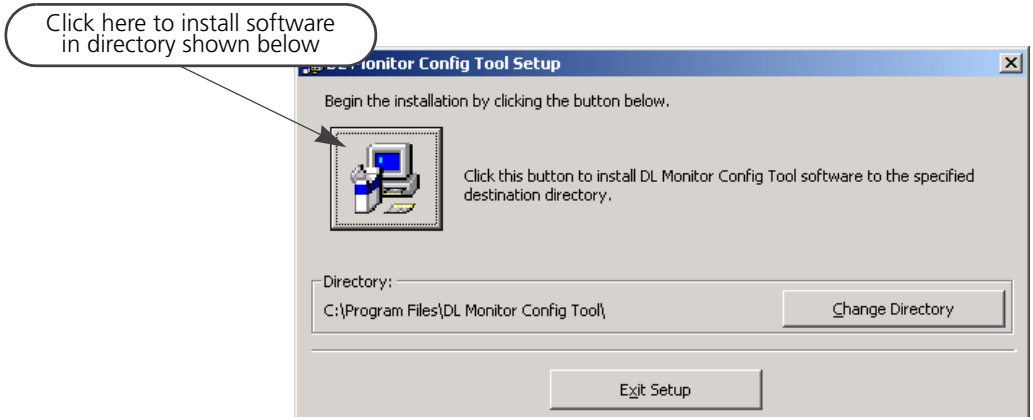

Figure 4. Install Directory Screen

5. Select the desired program group. Click **Continue** to begin installation of the software.

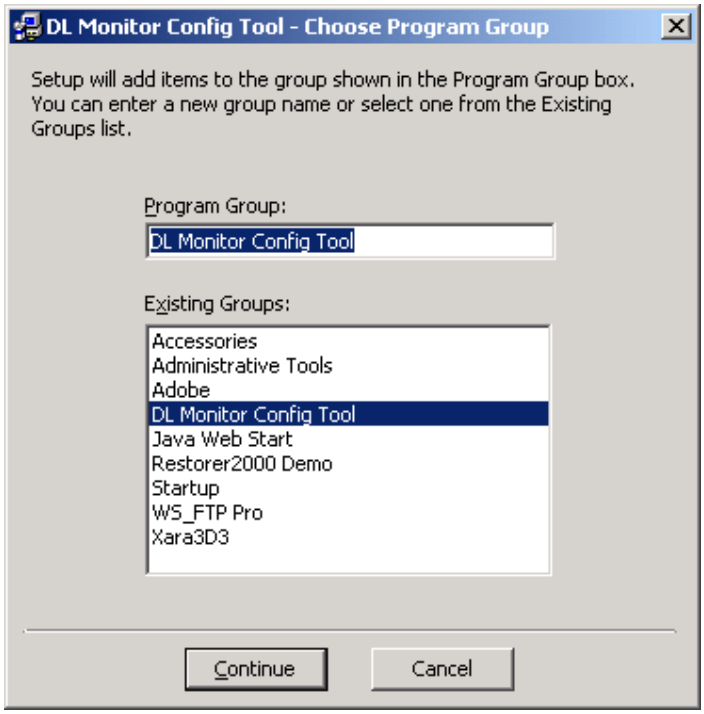

Figure 5. Program Group Screen

6. A progress bar will display while the software is being installed. When the process is complete, the final screen indicating a successful install will open. Click **OK** to close the screen.

Figure 6. Installation Successful Screen

Configuring a DigiLink Device

Follow the procedure outlined below to configure your DigiLink device's communication parameters for operation within your managed network.

1. Connect a power cord to the rack-mounted DigiLink device (refer to the appropriate DigiLink device *Installation and Operation Guide* for detailed device installation information).
2. Turn the DigiLink power switch on.
3. Configure the IP address of your workstation with *DL Monitor Device Configuration Tool* installed to **192.168.100.2**.
4. Connect a cross-over cable from the management port (EMS Port) of the DigiLink device to the workstation.
5. From the workstation, select *Start>Programs>DL Monitor Config Tool>DL Monitor Config Tool* to launch the *DL Monitor Device Configuration Tool*. The DL Monitor Configuration Tool/Device IP Address screen displays as shown in Figure 7 on page 9.
6. Enter the DigiLink IP address —or select the **Use Default IP** check box option to automatically load the factory default value of 192.168.100.5—then select **Get Device Info**. The Device Configuration displays in the lower portion of the GUI screen, listing the current device configuration settings.
7. Modify the Device Configuration parameters as needed (contact your IT department for parameter settings if needed), then select **Apply**. The DigiLink device is now ready to be connected to your managed network.
8. Disconnect the cross-over cable connecting the DigiLink device to the workstation.
9. Connect the DigiLink device to your managed network by connecting a straight through cable from the network to the management port of the DigiLink.
10. Through your normal network, ping the device to verify the configuration is complete.

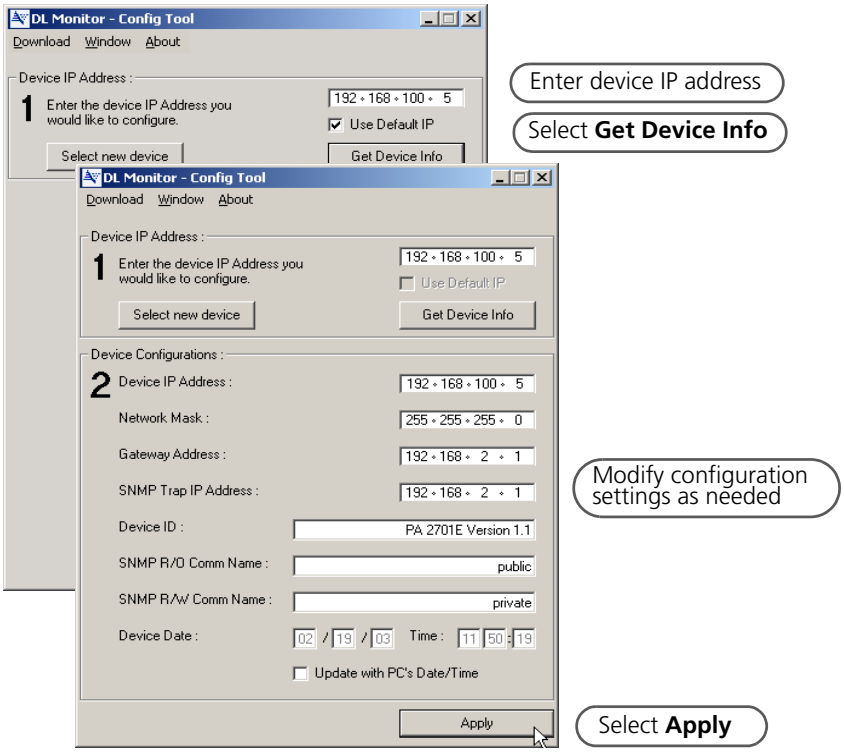

Figure 7. Configuring a DigiLink Device

Device IP Address	IP address to be used by the device when installed in the managed network *format*: xxx.xxx.xxx.xxx *default value*: 192.168.100.5
Network Mask	Network mask used by the managed network *format*: xxx.xxx.xxx.xxx *default value*: 255.255.255.0
Gateway Address	Gateway address used by the managed network *format*: xxx.xxx.xxx.xxx *default value*: 192.168.100.1

SNMP Trap IP Address	Destination for traps issued by the DigiLink device format: xxx.xxx.xxx.xxx *default value*: 192.168.100.1
Device ID	Unique device identifier for DigiLink device *format*: alphanumeric; spaces; (#); (.); (*) - 1 character min./27 characters max. *default*: No Device ID
SNMP R/W Comm Name	Community name for read/write privilege level *format*: alphanumeric - 1 character min./27 characters max. *default value*: public
SNMP R/O Community	Community name for read-only privilege level *format*: alphanumeric - 1 character min./27 characters max. *default value*: private
Device Date	Date and time obtained from DigiLink device when the **Get Device Info** button was selected (this is a static display of the values at the time they were obtained). To set the device's date/time values to that of the workstation, select the **Set Device's Date/Time using PC's** option before selecting **Apply**.

Repeat the device configuration procedure for each additional DigiLink device being added to the managed network. Simply attached the new device to the workstation using the cross over cable, and select **Select new device**. Any configuration information currently displayed will clear, allowing you start over with a blank display.

Configuration Tool Menu Options

The *DL Monitor Device Configuration Tool* allows you to upgrade the DL Monitor software image that resides on the EMSIC II PCB (see 'EMSIC II PCB' on page 2). Using the menu options at the top of the screen, you can download an image file to a single device or to multiple devices. The menu options also allow you to synchronize the date and time of one or more devices with the date and time of the PC that DL Monitor Configuration Tool resides on.

Figure 8. Device Configuration Tool Menu Options

Software image downloads are non-service affecting, which means that a download can be performed without interrupting the video transportation operation of the DigiLink device. When performing a download, the configuration tool will only allow you to download image files that match the device type (e.g., a DL2701E device will only accept a DL2701E.hex image file).

Downloading software upgrade to a device

Selecting this option allows you to download a software image file to a single device. Refer to Figure 9 during the following procedure.

To download an image file to a single device:

1. Enter the device IP address and select **Get Device Info**. The device configuration information displays in the lower part of the screen.
2. Select *Download>DLMonitor Software . . .* from the menu bar. The *Open* screen displays.
3. Select the image file to download (use the browse function if needed to locate the image file) then select **Open**. The *Configuration Setup* verification screen displays.

4. Select **Yes** from the *Configuration Setup* verification screen to initiate the image file download process. A progress bar displays, followed by the *Download Complete* screen.

5. Select **Close** to complete the process. The device will begin operating using the new software image.

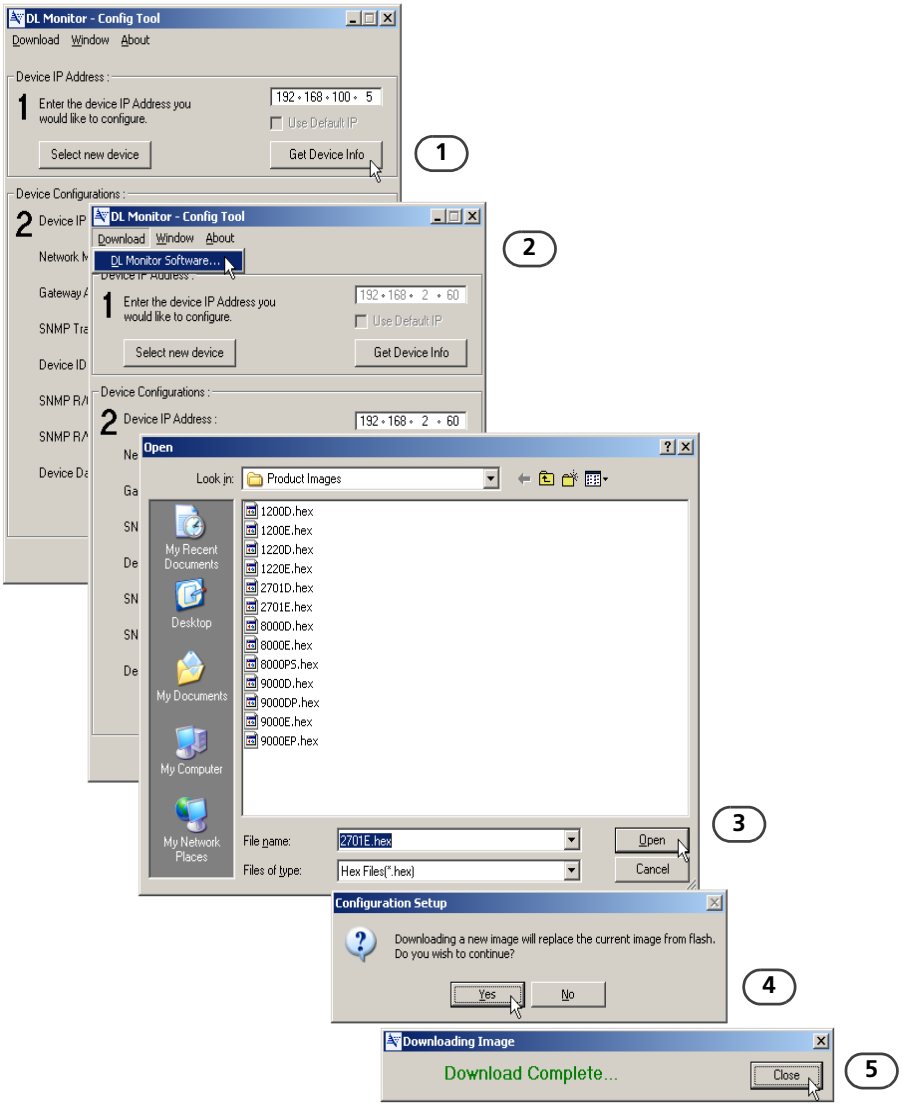

Figure 9. Software download to selected device

Downloading software upgrade to multiple devices

Selecting this option allows you to download software image files to multiple DigiLink network devices in one operation. Refer to Figure 10 during the following procedure.

To download software image files to multiple devices:

1. Select *Window>Batch Utility . . .* from the menu bar. The *Batch Utility* screen displays.
2. Select **Download Source Image to DigiLink(s)**.
3. Enter the range of network IP addresses that contains the DigiLink products you want to download an image file.

   Note: To download an image file to a single device, enter the device's IP address in either the *From:* or *To:* boxes.
4. Select the directory containing the software image files to download (use the browse function if needed to locate the directory). As a DigiLink device is discovered on the network, the configuration tool will match the model of the device with its corresponding software image file. If a match is not found, an alert screen will appear to notify you, then the download process will continue.
5. Select **Start**. The *Configuration Setup* screen displays, asking you to verify that you want the software image download operation to continue.
6. Select **Yes** from the *Configuration Setup* screen to initiate the image file download process.
   - A progress bar displays with download status descriptions.
   - A final status description of "Operations finished!" indicates that all download operations have been performed and the devices are now operating using the new software images.
   - A screen displays asking if you would like to view the log file.
7. Select **Yes** to open the log file (see 'Batch Utility history log file' on page 17) or **No** to just close the screen.

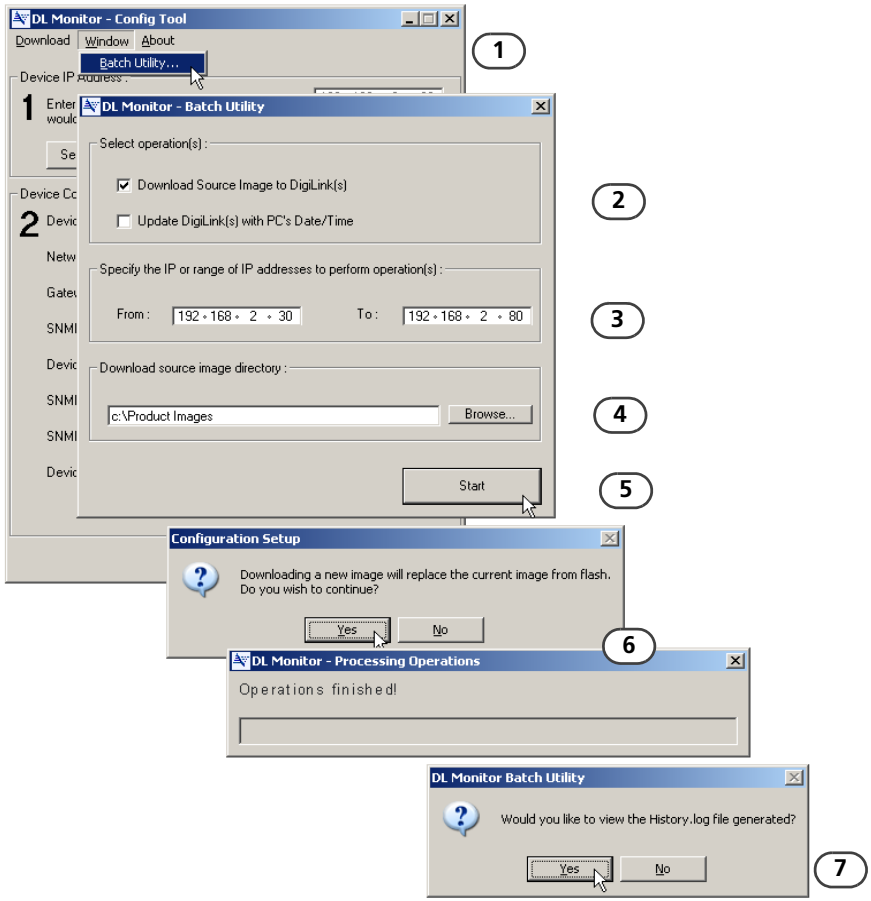

Figure 10. Software download to multiple devices

Updating a device's date and time

Selecting this option allows you to synchronize the date and time of one or more DigiLink devices with the date and time of the PC that DL Monitor Configuration Tool resides on. Refer to Figure 11 during the following procedure.

To update the date and time of one or more devices:

1. Select *Window>Batch Utility . . .* from the menu bar. The *Batch Utility* screen displays.
2. Select **Update DigiLink(s) with PC's Date/Time**.
3. Enter the range of network IP addresses that contains the DigiLink products you want to update.

   Note: To update the date and time of a single device, enter the device's IP address in either the *From:* or *To:* boxes.
4. Select **Start** initiate the date and time update process. A progress bar displays for each matching device type found. Once the process is complete, a screen displays asking if you would like to view the log file.
5. Select **Yes** to open the log file (see 'Batch Utility history log file' on page 17) or **No** to just close the screen.

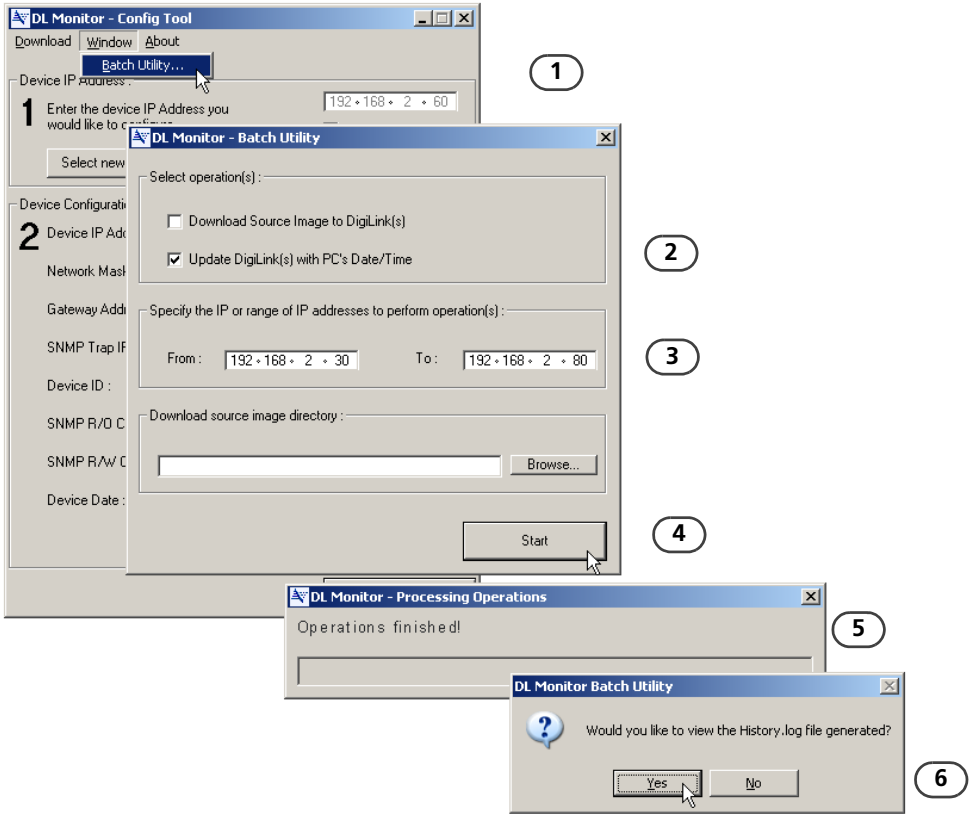

Figure 11. Update date and time of one or more devices

Batch Utility history log file

The status of each operation performed when in *Window>Batch Utility. . .* is automatically displayed on the screen and recorded in a log file. The status screen indicates if a request was successfully executed or not. The log file provides you with a detailed, historical list of timestamped operations and whether they were executed successfully or not. A new log file is generated each day the Batch Utility is used.

Figure 12 provides sample screen shots of the history log file that is displayed if you select **Yes** to view the file after a batch process has been executed.

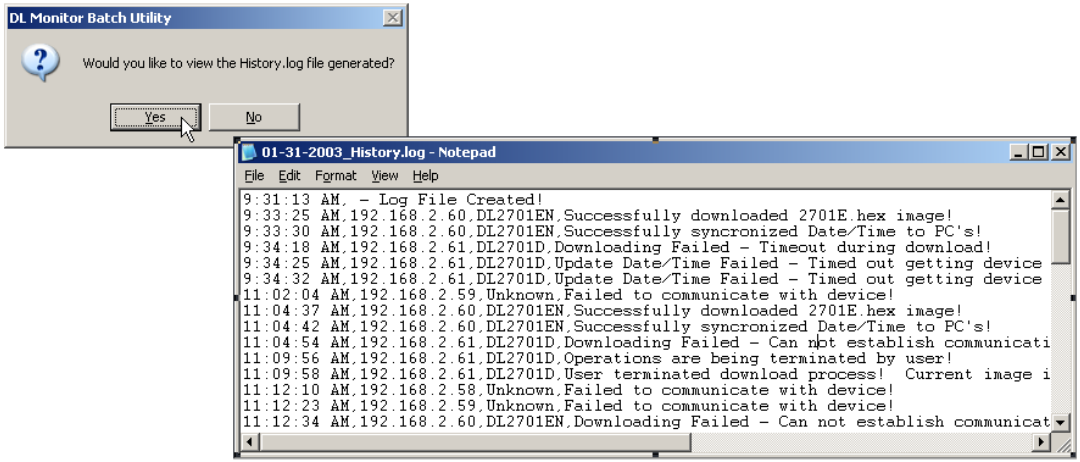

Figure 12. Batch Utility history log file

The log file(s) can also be viewed by opening the file (mm-dd-yyyy_History.log) directly from the *DL Monitor Config Tool* program directory.

DigiLink MIBs

Artel's Enterprise MIBs, which are found in the DigiLink MIBs folder on the DL Monitor CD, can be integrated into any standard SNMP network management system.

MIB File Loading Order

When loading any of the Artel MIB files, be sure to load the files in the order outlined in the following tables.

Table 1: DigiLink Singlechannel Device Loading Order

Sequence	File
1*	ARTELVideoSystems-GLOBAL-REG
2*	ARTELVideoSystems-TC-MIB
3*	ARTELVideoSystems-Device-MIB
4*	ARTELVideoSystems-DigiLink-Common-MIB
5	ARTELVideoSystems-DigiLink-SingleChannel-MIB
6	ARTELVideoSystemsDigiLink-SingleChannel-Decoder-MIB
7	ARTELVideoSystemsDigiLink-SingleChannel-Encoder-MIB

* File does not require reloading if already installed.

Table 2: DigiLink Mutlichannel Loading Device Order

Sequence	File
1*	ARTELVideoSystems-GLOBAL-REG
2*	ARTELVideoSystems-TC-MIB
3*	ARTELVideoSystems-Device-MIB
4*	ARTELVideoSystems-DigiLink-Common-MIB
5	ARTELVideoSystems-DigiLink-MultiChannel-MIB
6	ARTELVideoSystemsDigiLink-MultiChannel-Decoder-MIB

Table 2: DigiLink Mutlichannel Loading Device Order

Sequence	File
7	ARTELVideoSystemsDigiLink-MultiChannel-Encoder-MIB
8	ARTELVideoSystemsDigiLink-PowerSupply-MIB

* File does not require reloading if already installed.

SNMP Supported Alarms

The following tables list the various SNMP-supported alarm conditions for the various Artel DigiLink products.

Table 3: DL1200/DL1220 SNMP Supported Alarms

Alarm Name	Type	MIB Element	Description	Encoder	Decoder
AP EDH*	Minor	avDLSCDecoderApEdhErrorStatus	Active picture error detected here.		X
Carrier Lost	Major	avDLSCDecoderCarrierLostStatus	Decoder cannot find compatible incoming signal.		X
DWDM Laser Degrade	Minor	avDLSCEncoderDwdmLaserDegradeStatus	Bias current to DWDM laser is elevated.	X	
DWDM Laser Fail	Major	avDLSCEncoderDwdmLaserFailStatus	DWDM laser not operating within specifications.	X	
FF EDH Errors*	Minor	avDLSCDecoderFfEdhErrorStatus	Full field error detected here.		X
Framing Lost	Major	avDLSCDecoderFramingLostStatus	Decoder cannot detect Artel-270 framing information in input signal.		X
Laser Disabled	Major	avDLSCEncoderLaserDisabledStatus	AUDIBLE ALARM switch is in LASER OFF position.	X	
Lock Lost	Major	avDLSCEncoderLockLostStatus	Encoder cannot find compatible incoming signal.	X	

Table 3: DL1200/DL1220 SNMP Supported Alarms

Alarm Name	Type	MIB Element	Description	Encoder	Decoder
Low Light	Major	avDLSCDecoderOptical-LowlightStatus	Input optical signal too weak to be decoded properly.		X
Onboard Laser Degrade	Minor	avDLSCEncoderOn-BoardLaserDegradeSta-tus	Bias current to onboard laser is ele-vated.	X	
Onboard Laser Fail	Major	avDLSCEncoderOn-boardLaserFailStatus	Onboard laser not operating within specifications.	X	
Optical Over-load	Minor	avDLSCDecoderOpti-calOvldStatus	Input optical signal too high (decoder may not be able to receive signal properly).		X
Power Fail	Major	avDLPowerFailStatus	Power supply not operating within specifications.	X	X
SingleCH Device Temp High	Minor	avDLHighTempStatus	Device operating temperature has exceeded specified threshold.	X	X
Video Overload	Minor	avDLSCEncoder-VideoOverloadStatus	Analog video input signal level too high to be encoded properly.	X	

* DL1220 models only

Table 4: DL2701 SNMP Supported Alarms

Alarm Name	Type	MIB Element	Description	Encoder	Decoder
Carrier Lost	Major	avDLSCDecoderCarrier-LostStatus	Decoder cannot find compatible incoming signal.		X
DWDM Laser Degrade	Minor	avDLSCEncoderDwdm-LaserDegradeStatus	Bias current to DWDM laser is ele-vated.	X	

Table 4: DL2701 SNMP Supported Alarms

Alarm Name	Type	MIB Element	Description	Encoder	Decoder
DWDM Laser Fail	Major	avDLSCEncoderDwdmLaserFailStatus	DWDM laser not operating within specifications.	X	
Laser Disabled	Major	avDLSCEncoderLaserDisabledStatus	AUDIBLE ALARM switch is in LASER OFF position.	X	
Lock Lost	Major	avDLSCEncoderLockLostStatus	Encoder cannot find compatible incoming signal.	X	
Low Light	Major	avDLSCDecoderOpticalLowlightStatus	Input optical signal too weak to be decoded properly.		X
Optical Overload	Minor	avDLSCDecoderOpticalOvldStatus	Input optical signal too high (decoder may not be able to receive signal properly).		X
Power Fail	Major	avDLPowerFailStatus	Power supply not operating within specifications.	X	X
SingleCH Device Temp High	Minor	avDLHighTempStatus	Device operating temperature has exceeded specified threshold.	X	X

Table 5: DL8000/DL9000/Remote Power Supply SNMP Supported Alarms

Alarm Name	Type	MIB Element	Description	Encoder	Decoder	Remote PS
Audio Overload (Channels 1-8, a-d)	Minor	avDLMCEncoderChannelAudioOverloadStatusTable	Baseband audio input signal(s) in excess of 22 dBm.	X		
Aux Power Fail	Major	avDLMCAuxPowerFailStatus	Remote (auxiliary) power supply is not operating within specifications.	X	X	

Table 5: DL8000/DL9000/Remote Power Supply SNMP Supported Alarms

Alarm Name	Type	MIB Element	Description	Encoder	Decoder	Remote PS
DWDM Laser Degrade	Minor	avDLMCOpticalLaser-DegradeStatus	Bias current to laser in associated optical transmitter module is elevated.	X	X*	
DWDM Laser Fail	Major	avDLMCOpticalLaser-FailStatus	Laser in associated optical transmitter module not operating within specifications.	X	X*	
Fan Failed	Major	avDLMCFanFailStatus	Primary cooling fan on rear panel has failed.	X	X	
Invalid Optical Module	Major	avDLMCDecoderInvalidOpticalModuleStatus	Optical transmitter module installed in associated module slot—only receiver or transceiver module is valid.		X	
Laser Disabled	Major	avDLMCOpticalLaser-DisabledStatus	Switch for associated optical transmitter module is in OFF position (switch located on front panel).	X	X*	
Lock Lost	Major	avDLMCDecoderOpticalLockLostStatus	Decoder cannot detect framing on input signal.		X	
Low Light	Major	avDLMCDecoderOpticalLowLightStatus	Input optical signal too weak to be decoded properly.		X	
No Optics Installed	Major	avDLMCNoLaserInstalledStatus	No optical modules installed.	X	X	
Optical Module Power Fail	Major	avDLMCOpticalPower-FailStatus	Power supply for associated optical transmitter not performing to specifications.	X	X	
Optical Module Temp High	Major	avDLMCOpticalHighTempStatus	Optical module temperature exceeds recommended limit.	X	X	

Table 5: DL8000/DL9000/Remote Power Supply SNMP Supported Alarms

Alarm Name	Type	MIB Element	Description	Encoder	Decoder	Remote PS
Optical Overload	Minor	avDLMCDecoderOpticalOverloadStatus	Optical input signal power level too high (decoder may not be able to receive signal properly).		X	
Power Fail	Major	avDLPowerFailStatus	Onboard power supply not operating within specifications.	X	X	X
Power Supply 1-4 Fail	Major	avDLPowerSupplyStatusTable	One or more sections of remote power supply unit are not operating within specifications.			X
Temp High	Major	avDLHighTempStatus	Restricted air flow to unit or the ambient temperature exceeds recommended maximum limit. The primary cooling fan will increase its speed to cool the unit.	X	X	X
Video Overload	Minor	avDLMCEncoderChannelVideoOverloadStatus	Analog input signal level(s) too high to be encoded properly.	X		

* Only available when transceiver optical module is installed.

SNMP Supported Monitored Data

The following table lists the various SNMP supported monitored data of the various Artel DigiLink products.

Artel Common MIB Elements (all products)

The following MIB elements are common to all Artel products and are located in the following section of the MIB tree:

artel.common.device

Table 6: Artel Common MIB Elements

Data Type	Modifiable	MIB Element
Device Hardware Version	No	deviceHwVer
Device Model Number	No	deviceModelNum
Device Serial Number	No	deviceSerialNum
Device Time/Date	Yes	deviceTime
EMSIC II Firmware Version	No	deviceFwVer
Management Port Default Gateway	Yes	deviceGwAddress
Management Port IP Address	Yes	deviceIpAddress
Management Port IP Netmask	Yes	deviceIPNetmask
Total Powered-on Time	No	deviceUpTime

Note: MIB elements listed as modifiable can only be modified using the *DL Monitor Device Configuration Tool*.

Artel DigiLink Common MIB Elements

The following MIB elements are common to all Artel DigiLink products (singlechannel and multichannel) and are located in the following section of the MIB tree:

artel.products.avDigiLink.avDLCommon.avDLCommonInfo

Table 7: Artel DigiLink Common MIB Elements

Data Type	Modifiable	MIB Element
EMSIC Board Serial Number	No	avDLDeviceEmsicSerialNum
EMSIC Manufacturing Date	No	avDLDeviceEmsicMfgDate
Device Manufacturing Date	No	avDLDeviceMfgDate
Management Port MAC Address	No	avDLDeviceMACAddr
Power Type	No	avDLDevicePowerType
SNMP Read-only Community Name	Yes	avDLDeviceROCommName
SNMP Read/Write Community Name	Yes	avDLDeviceRwCommName
SNMP Trap Destination IP	Yes	avDLDeviceSNMPIP
Video Type (PAL/NTSC)	No	avDLDeviceVideoType

Note: MIB elements listed as modifiable can only be modified using the *DL Monitor Device Configuration Tool*.

Artel DigiLink Singlechannel MIB Elements

The following MIB elements are common to all Artel DigiLink singlechannel products (DL1200, DL1220, DL2701) and are located in the following section of the MIB tree:

Common path:

artel.Products.avDigiLinkProducts.avDigiLinkProductsMIB.avDigiLinkSingle Channel.avDigiLinkSingleChannelMIB.avDigiLinkSingleChannelObjects.avDigiLinkSingleChannelCommonInfo

Encoder-specific path:

avDigiLinkSingleChannelEncoder.avDigiLinkSingleChannelEncoderMIB. avDLSingleChannelEncoderObjects.avDLSingleChannelEncoderInfo

Decoder-specific path:

avDigiLinkSingleChannelDecoder.avDigiLinkSingleChannelDecoderMIB. avDLSingleChannelDecoderObjects.avDLSingleChannelDecoderInfo

Table 8: Artel DigiLink Singlechannel MIB Elements

Data Type	Modifiable	MIB Element	Encoder	Decoder
AP EDA Errors*	No	avDLSCDecoderApEdaError		X
Data Rate Setting**	No	avDLSCEncoderDataRate2695	X	
DWDM Inserted	No	avDLSCEncoderDwdmInserted	X	
DWDM Laser Channel	No	avDLSCEncoderDwdmLaserChannel	X	
EDH/EDA Error Count*	No	avDLSCDecoderEdaEdhErrorCount		X
FF EDA Errors*	No	avDLSCDecoderEfEdaError		X
Main Sync**	No	avDLSCMainSync	X	X
Onboard Laser Channel**	No	avDLSCEncoderOnBoardLaserChannel	X	
Onboard Laser Present**	No	avDLSCEncoderOnBoardLaserPresent	X	
Optical Receiver Input Power	No	avDLSCDecoderOpticalPower		X
Test On/Auto On/Main On**	No	avDLSCAnaVideoSelectMode	X	X

Table 8: Artel DigiLink Singlechannel MIB Elements

Data Type	Modifiable	MIB Element	Encoder	Decoder
Test Pattern Background Color**	No	avDLSCTestPatternTextTable	X	X
TP Text Line 1-5**	No	avDLSCTestPatternTestTable	X	X
TX Video Mode (SDI/Analog)	No	avDLSCEncoderTxSourceMode	X	
Electrical Carrier Detected	No	avDLSCEncoderElecCarrierDetected	X	
TX Source Select Switch**	No	avDLSCEncoderTxSourceSelectMode	X	
TX Default Switch**	No	avDLSCEncoderTxDefault	X	
Input Select Switch**	No	avDLSCDecoderInputSelectSwitch		X
Soft Select Mode**	No	avDLSCDecoderSoftSelectMode		X

* DL1220 models only.

** DL1200/DL1220 models only.

Artel DigiLink Multichannel MIB Elements

The following MIB elements are common to all Artel DigiLink multichannel products (DL8000 and DL9000) and are located in the following section of the MIB tree:

Common path:

artel.Products.avDigiLinkProducts.avDigiLinkProductsMIB.avDigiLinkMultiChannelObjects.avDigiLinkMultiChannelCommonInfo

Encoder-specific path:

avDigiLinkMultiChannelEncoder.avDigiLinkMultiChannelEncoderMIB.avDLMultiChannelEncoderObjects.avDLMultiChannelEncoderInfo

Decoder-specific path:

avDigiLinkMultiChannelDecoder.avDigiLinkMultiChannelDecoderMIB.avDLMultiChannelDecoderObjects.avDLMultiChannelDecoderInfo

Table 9: Artel DigiLink Multichannel MIB Elements

Data Type	Modifiable	MIB Element	Encoder	Decoder
Aux Power Present	No	avDLMCAuxPowerPresent	X	X
DWDM Laser	No	avDLMCOpticalModuleType	X	X
DWDM Laser Channel	No	avDLMCOpticalChannel	X	X
Optical Module Selected	No	avDLMCDecoderOpticalModuleSelect		X
Optical Receiver Input Power	No	avDLMCDecoderOpticalSelectRxPower		X
Video Mode* (IF/Baseband)	No	avDLMCChannelIFMode	X	X
Video Signal Present	No	avDLMCChannelSignalDetect	X	X
Wavelock Enable	No	avDLMCDecoderWavelockEnabled		X
Optical Receiver In Use	No	avDLMCDecoderOpticalRxModuleInUse		X

* DL9000 returns IF/Baseband; DL8000 returns Disabled/Baseband. (Decoder mode is determined by encoder mode for both DL9000 and DL8000.)