

NewsBrowse DESKTOP BROWSING SYSTEM Installation and Configuration Guide **SOFTWARE VERSION 3.1** 071-8424-01 **APRIL 2006** the most watched worldwide

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Revision Status

Rev Date	Description
January 31, 2003	Release to part number 071-8217-00
July 21, 2003	Release for software version 1.5 to part number 071-8217-01
May 25, 2004	Release for software version 2.0. Part number 071-8307-00.
December 16, 2004	Release for software version 2.7. Added information about Advanced Encoder, FlashNet archive, and DIVArchive. Part number 071-8307-01.
August 2, 2005	Release for software version 3.0. New content for NewsShare NAS. Part number 071-8424-00.
April 27, 2006	Release for software version 3.1. Part number 071-8424-01.

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Preface

This NewsBrowse Installation and Configuration Guide is part of a full set of support documentation for the NewsBrowse system, described as follows:

- NewsBrowse Installation and Configuration Guide Provides explanations and procedures for installing and configuring the NewsBrowse system at a customer site. Includes recovery planning and troubleshooting sections. This document is available in printed form as part of the product bundle when you receive your new system. It is also available in electronic form (PDF file) on the NewsBrowse Application CD-ROM.
- NewsBrowse Online Help Provides instructions for using the NewsBrowse application. This document is available from the NewsBrowse application Help menu
- NewsBrowse Release Notes Contains the latest information about the NewsBrowse hardware and the software release shipped on your system. The information in this document includes upgrade instructions, feature changes from the previous releases, helpful system administrative information, and any known problems. You receive this document in electronic form (PDF file) on the NewsBrowse Application CD-ROM.

Grass Valley Product Support

To get technical assistance, check on the status of problems, or report new problems, contact Grass Valley Product Support via e-mail, the Web, or by phone or fax.

Web Technical Support

To access support information on the Web, visit the product support Web page on the Grass Valley Web site. You can download software or find solutions to problems by searching our Frequently Asked Questions (FAQ) database.

World Wide Web: http://www.thomsongrassvalley.com/support/ Technical Support E-mail Address: gvgtechsupport@thomson.net.

Phone Support

Use the following information to contact product support by phone during business hours. Afterhours phone support is available for warranty and contract customers.

United States	(800) 547-8949 (Toll Free)	France	+33 (1) 34 20 77 77
Latin America	(800) 547-8949 (Toll Free)	Germany	+49 6155 870 606
Eastern Europe	+49 6155 870 606	Greece	+33 (1) 34 20 77 77
Southern Europe	+33 (1) 34 20 77 77	Hong Kong	+852 2531 3058
Middle East	+33 (1) 34 20 77 77	Italy	+39 06 8720351
Australia	+61 1300 721 495	Netherlands	+31 35 6238421
Belgium	+32 2 3349031	Poland	+49 6155 870 606
Brazil	+55 11 5509 3440	Russia	+49 6155 870 606
Canada	(800) 547-8949 (Toll Free)	Singapore	+656379 1390
China	+86 106615 9450	Spain	+ 34 91 512 03 50
Denmark	+45 45968800	Sweden	+46 87680705
Dubai	+ 971 4 299 64 40	Switzerland	+41 (1) 487 80 02
Finland	+35 9 68284600	UK	+44 870 903 2022

Authorized Support Representative

A local authorized support representative may be available in your country. To locate the support representative for your country, visit the product support Web page on the Grass Valley Web site.

Profile Users Group

You can connect with other Profile XP Media Platform users to ask questions or share advice, tips, and hints. Send e-mail to profile-users@thomson.net to join the community and benefit from the experience of others.

System Overview

NewsBrowse is a media management and editing system. NewsBrowse supports the complete newsroom workflow — from ingest to editing to distribution to archive.

This chapter includes the following topics:

- "Functional description" on page 9
- "System diagram K2 storage" on page 11
- "System diagram Profile XP or Open SAN storage" on page 13
- "Legacy systems" on page 13

Functional description

NewsBrowse allows the user to browse a low-resolution proxy copy of video material from the desktop. NewsBrowse provides a rich metadata search engine that allows you to search for clips using various criteria. You can also use the NewsBrowse application to edit stories using the low-resolution proxy, which is accessible from the journalist's desktop. NewsBrowse creates various low-resolution proxy formats for high-resolution material. Proxy formats include MPEG-1, video thumbnails, and storyboards. From the NewsBrowse application you can also archive and restore high-resolution material. Archived assets are still visible from the NewsBrowse application.

The NewsBrowse system is compatible with both the K2 storage architecture and Profile XP (Open SAN) storage architecture. For K2 systems, NewsBrowse provides a NewsShare view of the assets in the system. For Profile XP or Open SAN systems, there is a Profile view of the assets.

In the K2 storage environment, ingest is controlled by a non-NewsBrowse application, such as Ingest Station, and can incorporate the K2 system as the video server. The NewsBrowse SmartBin encoder transfers an incoming feed into two formats: a proxy low-resolution (MPEG-1) format stored on the NewsBrowse proxy NAS, and a high-resolution format stored the K2 storage system. NewsBrowse also monitors the K2 storage to create proxy for new high-resolution material. In this way NewsEdit master clips, subclips and sequences are represented in the NewsBrowse system for editing and manipulation. The NewsBrowse EDL export feature creates a News sequence directly in NewsEdit target bin.

In the Profile XP/Open SAN environment, ingest can be controlled by the NewsBrowse application, using a Profile XP as the video server. NewsBrowse processes an incoming feed and simultaneously encodes it into two formats: a proxy low-resolution (MPEG-1) format stored locally on the NewsBrowse proxy NAS, and a high-resolution format stored on the Profile XP or Open SAN. NewsBrowse also monitors the Profile XP or Open SAN to create proxy for new high-resolution material. In this way the high-resolution material is represented in the NewsBrowse system for editing and manipulation, but there is no direct view of NewsEdit clips. Once you complete a sequence with the NewsBrowse editor, NewsBrowse can use

Chapter 1 System Overview

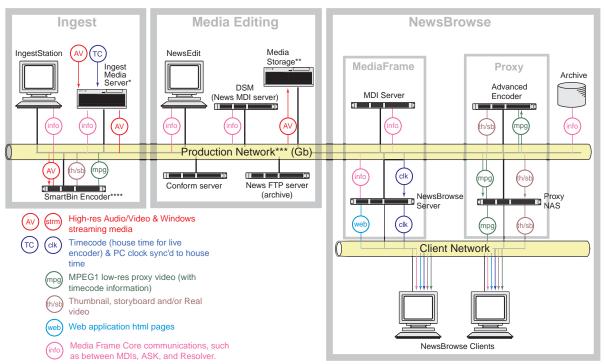
that sequence to pull the corresponding high-resolution video from the Profile XP and assemble an on-air quality sequence. NewsEdit can also use the sequence in a similar way.

For descriptions of the machines used as platforms for the NewsBrowse system, refer to Chapter 2, *Installing NewsBrowse* on page 15.

For descriptions of software components, refer to Appendix A, *Component Interaction Diagrams* on page 131.

System diagram - K2 storage

This diagram illustrates an example version 3.1 architecture for a system that uses IngestStation for ingest and that accesses high-resolution media on K2 or NewsShare NAS storage.



^{*}The Ingest Media Server can be a K2 system or an M-Series system.

This diagram illustrates the recommended architecture for version 3.1. Refer to Appendix B, *Legacy systems* on page 147 for previous versions.

The system illustrated here demonstrates the full range of hardware platform types. Smaller systems might not include all types of hardware platforms. Consult the system design for your specific system to determine the hardware platforms you must install.

Design considerations - NewsBrowse with NewsEdit

Take the following into considerations when establishing the workflow for your use of NewsBrowse on K2 storage or NewsShare NAS:

Minimize proxy creation for short-lived material — The editing process generates multiple pieces of transitional media, but there is no need to create proxy representations of this transitional media. To do so creates an unnecessary load on the system and affects performance.

 $^{^{\}star\star}$ The Media Storage can be a K2 system or a NewsShare NAS appliance.

^{***} On large systems the Production Network can be separated into two networks: one for media and one for control.

^{****} The SmartBin Encoder also bridges between the Media Editing and NewsBrowse Proxy systems.

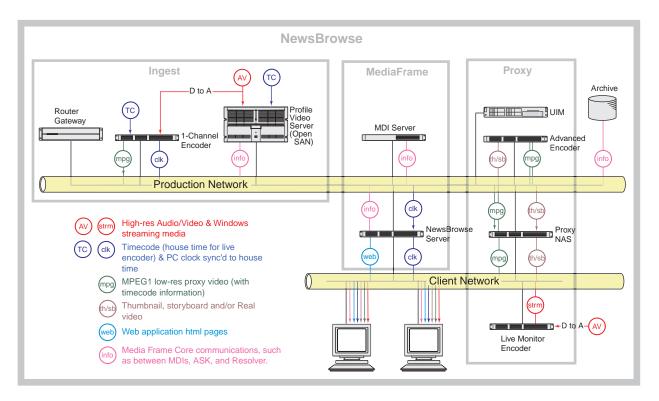
Chapter 1 System Overview

To avoid this, create at least three designated locations in which material resides to match your workflow, as follows:

- Inbox This is the location in which newly acquired material arrives. Use a SmartBin—or configure NewsBrowse rules—to automatically create proxy for this material, so you can use NewsBrowse to evaluate and select material for further editing.
- Workspace This is the location in which you store material undergoing the
 editing process. Do not configure any NewsBrowse rules to create proxy for this
 material. This saves encoding resources.
- Outbox This is the location in which you place material that has been edited and is usable in its current state. You might have one outbox for on-air material and one outbox for review material. Configure NewsBrowse rules to create proxy for this material, so you can use NewsBrowse to select and use this material.

System diagram - Profile XP or Open SAN storage

This diagram illustrates the recommended version 3.1 architecture for a system that uses NewsBrowse for Profile XP ingest and that access high-resolution material on a Profile XP or Open SAN.



This diagram illustrates the recommended architecture for version 3.1. Refer to Appendix B, *Legacy systems* on page 147 for previous versions.

The system illustrated here demonstrates the full range of hardware platform types. Smaller systems might not include all types of hardware platforms. Consult the system design for your specific system to determine the hardware platforms you must install.

Legacy systems

This manual documents NewsBrowse systems on K2 storage that are built new for version 3.1 or higher. While existing Profile XP/Open SAN systems can be upgraded to version 3.1 software, their hardware platforms, network architecture, and other elements might not match the systems documented in this manual.

You can find information about systems built before version 3.1 in Appendix B, *Legacy systems* on page 147. If you need the entire overview and task flow for working on a legacy system, you should refer to the version of this manual that corresponds to the software version around which your system was originally built. Refer to "Revision Status" on page 2 of this manual for information about previous manual versions.

Chapter 1 System Overview

Installing NewsBrowse

This chapter provides instructions for installing the hardware platforms and software components that support the NewsBrowse system. Use the instructions that are appropriate for your NewsBrowse system.

The instructions in this chapter are as follows:

- "Rack-mount hardware components" on page 16
- "About cabling hardware components" on page 16
- "Cable hardware: MediaFrame support" on page 17
- "Cable hardware: Proxy support" on page 22
- "About NewsBrowse software" on page 27
- "Other software installation considerations" on page 33

When you are done installing the hardware and software, continue with Chapter 3, *Configuring the NewsBrowse System* and Chapter 4, *Recovery Planning* to complete the installation of your NewsBrowse system.

Rack-mount hardware components

Follow the instructions you received with the rack-mount hardware to install each component of the NewsBrowse system. One rack-unit spacing is recommended between components for ventilation.

About cabling hardware components

Refer to the system design for your particular NewsBrowse system and the appropriate system diagram in Chapter 1, *System Overview* to identify the hardware components and cabling for your NewsBrowse system. Then turn to the appropriate cabling instructions and connect cables as required.

Be aware of the following as you cable your system:

- When connecting the network, use 100Tx cabling and switches (or Gigabit uplink
 in the case of the NAS). Zoning is not required on the switch if five or less clients
 are active. If more than five clients are using the system, it is strongly
 recommended that you use an isolated switch or a shared, zoned switch to isolate
 the client-side LAN. Network traffic from the NewsBrowse internal LAN is
 minimized.
- You may want to postpone cabling to external networks until after configuring respective IP addresses.
- Single-channel encoders and live monitor encoders require analog video and audio feeds. Digital to Analog conversion of signals may be required.
- Single-channel encoders require timecode feeds.

Cable hardware: MediaFrame support

The following sections provide instructions for hardware pieces that support MediaFrame components. Use the instructions that apply to your system design.

- "NewsBrowse server instructions: Dell platform" on page 17
- "NewsBrowse server instructions: HAFT platform" on page 19
- "MDI Server instructions" on page 21

NewsBrowse server instructions: Dell platform

The central component of the NewsBrowse system is the NewsBrowse server. Depending on the design of your system, it can host the following software components:

- The web-application for user interaction
- The Ingest Scheduler which drives the encoders
- The Rules Wizard for background processing
- The database and Managed Device Interface services for holding and relating assets in the system.

The server connects to all encoders and the Network Attached storage via the network. Refer to the system diagrams in Chapter 1, *System Overview*. The client network is available for access to the web application.

For the NewsBrowse server you have the option of the Dell platform, as explained in this section, or the HAFT platform, as explained in "NewsBrowse server instructions: HAFT platform" on page 19.

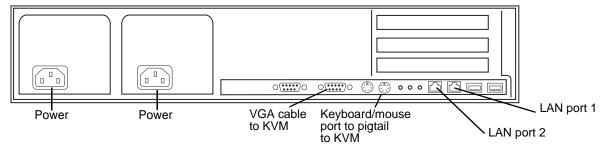
Platform Specifications are as follows:

- P4, 3GHz, 2 CPU
- 1 GB RAM- CD-ROM Drive
- Minimum 18GB Program Drive
- Windows 2000 Server (SP3)
- .NET Framework 1.1

- Internet Explorer 6 (SP1)
- Flash Player 6 (6.0.65.0 update)
- Microsoft SQL Server (SP3)
- Gb LAN (x2)
- Windows Direct X 9.0c

Cable as illustrated.

Dell platform (2850)



Cable as illustrated and as follows:

• For systems with one unified Production Network, connect port 1 to the Production

Chapter 2 Installing NewsBrowse

Network.

- For systems with a Production Network consisting of a media network and a control network, connect port one to the control network.
- For three tier networks, connect port 1 to the Private Network.
- Connect port 2 to the Client Network.

NewsBrowse server instructions: HAFT platform

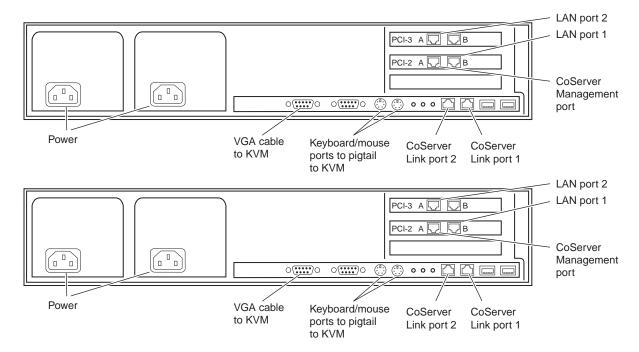
For the NewsBrowse server you have the option of the High Availability, Fault Tolerant (HAFT) platform, also known as the Marathon platform. This platform is made up of two interconnected Dell 2850 servers.

Platform Specifications are as follows:

- P4, 3GHz, 2 CPU
- 1 GB RAM- CD-ROM Drive
- Minimum 18GB Program Drive
- Windows 2000 Server (SP3)
- .NET Framework 1.1

- Internet Explorer 6 (SP1)
- Flash Player 6 (6.0.65.0 update)
- Microsoft SQL Server (SP3)
- Gb LAN (x4)

NOTE: It is no longer recommended to install Windows Media Player on the HAFT platform because of compatibility problems, so you can not run the NewsBrowse application locally on the HAFT platform.



Cable as illustrated and as follows:

- For systems with one unified Production Network, connect port 1 and the CoServer Management port to the Production Network.
- For systems with a Production Network consisting of a media network and a control network, connect port one and the CoServer Management port to the control network.
- For three tier networks, connect port 1 and the CoServer Management port to the Private Network.
- Connect port 2 to the Client Network.

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- Interconnect CoServer Link ports with cross-over cables.
- Connect power cables to a power supply.

Power supply units are hot-swappable.

To power up the HAFT platform, use the normal procedures for the Dell server and log in to the Windows operating system as normal. The virtual server runs in a full screen window. To get to the Dell server desktop, press **Ctrl + Shift + F12**.

To power down the HAFT platform, right-click the system tray icon and select **Manage Endurance Configuration | Shutdown**. This does an orderly shutdown of the virtual server and the Dell server.

Also refer to "Configure HAFT platform" on page 43 for network configuration procedures.

MDI Server instructions

The MDI server is host for the Managed Device Interface (MDI) services, through which the NewsBrowse system gets its visibility of the assets on the various machines in the system.

The MDI server is an optional component. On systems without a MDI server, the MDI services can run on the NewsBrowse server or other NewsBrowse machine.

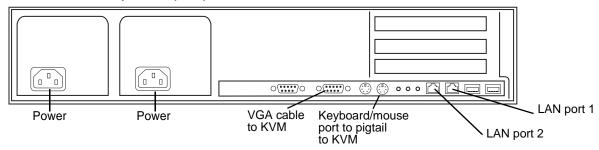
Platform Specifications are as follows:

- P4, 3GHz, 2 CPU
- 1 GB RAM- CD-ROM Drive
- Minimum 18GB Program Drive
- Windows 2000 Server (SP3)
- .NET Framework 1.1

- Internet Explorer 6 (SP1)
- Flash Player 6 (6.0.65.0 update)
- Microsoft SQL Server (SP3)
- Gb LAN (x2)

Cable as illustrated.

Dell platform (2850)



Cable as illustrated and as follows:

- For systems with one unified Production Network, connect port 1 to the Production Network.
- For systems with a Production Network consisting of a media network and a control network, connect port one to the control network.
- For three tier networks, connect port 1 to the Private Network.
- Connect port 2 to the Client Network.

Cable hardware: Proxy support

The following sections provide instructions for hardware pieces that support the processing and storage of proxy media. Use the instructions that apply to your system design.

- "Advanced Encoder instructions" on page 23
- "SmartBin Encoder instructions" on page 24
- "NAS instructions Fastora" on page 25
- "NAS instructions Serial ATA network platform" on page 26
- "Live monitor encoder instructions" on page 27

Advanced Encoder instructions

The following components are hosted by the Advanced encoder:

- Thomson Proxy Transfer service.
- News FTP service.

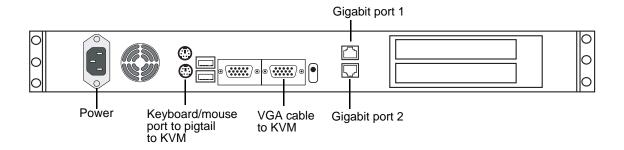
The Advanced Encoder does the following:

- Creates MPEG-1 proxy versions of high-resolution video assets that already exist or are actively being recorded on a video server
- Processes MPEG-1 proxy content and extracts thumbnail images to be used for proxy identification
- Extracts dynamic scene detection images for storyboard creation

The Advanced Encoder processes entirely in the digital domain.

Platform Specifications:

- 2.8 GHz Pentium
- 512 MB RAM
- · CD-ROM Drive
- Minimum 40GB Program Drive
- Minimum 250GB Drive (not used)
- Windows 2000 Professional Service Pack 4
- .NET Framework 1.1
- Internet Explorer 6 (SP1)



Cable as illustrated and as follows:

- For systems with one unified Production Network, connect Gigabit port 1 to the Production network. Gigabit port 2 is unused.
- For systems with a Production Network consisting of a media network and a control network, connect Gigabit port 1 to the media network and Gigabit port 2 to the control network.

SmartBin Encoder instructions

The following components are hosted by the SmartBin encoder:

- Thomson SmartBin Proxy Transfer service. Refer to "About NewsBrowse software" on page 27.
- SmartBins Service and News FTP service. Refer to "Other software installation considerations" on page 33.

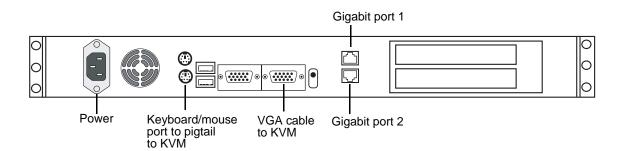
The SmartBin Encoder does the following:

- Creates MPEG-1 proxy versions of high-resolution material
- Processes high-resolution material and extracts thumbnail images to be used for proxy identification
- Extracts dynamic scene detection images for storyboard creation

The SmartBin Encoder processes entirely in the digital domain.

Platform Specifications:

- 2.8 GHz Pentium
- 512 MB RAM
- · CD-ROM Drive
- Minimum 40GB Program Drive
- Minimum 250GB Media Cache Drive
- Windows 2003 Server
- .NET Framework 1.1
- Internet Explorer 6 (SP1)



Cable as illustrated and as follows:

- For systems with one unified Production network, connect Gigabit port 1 to the Production network. Gigabit port 2 is unused.
- For systems with a Production network consisting of a media network and a control network, connect Gigabit port 1 to the media network and Gigabit port 2 to the control network.

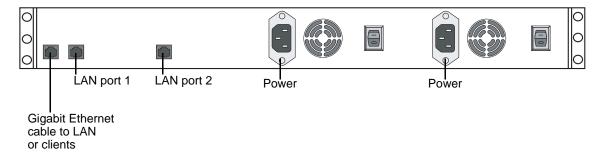
NAS instructions - Fastora

The NewsBrowse Network Attached Storage (NAS) unit provides storage for MPEG-1 proxy video, storyboards, and thumbnails. It may also be configured to store Edit Decision Lists (EDL) that are saved to the NewsBrowse system. Encoders are configured to write to specific locations on the NAS via 100Tx connections over the network. Client access is provided via Gigabit Ethernet uplink to the Client Network.

Platform Specifications are as follows:

- Microsoft Windows Server 2003
- Redundant Power Supplies
- 1000BaseT LAN
- 100Tx LAN (x2)
- RAID protected drives

For instructions on the Linux version of the Fastora NAS, refer to "Prepare NAS - Linux Fastora" on page 162. If necessary, you can mix Linux versions and Windows versions of the NAS on a single NewsBrowse system.



Cable as illustrated and as follows:

- For systems with one unified Production network, connect LAN port 1 to the Production network.
- For systems with a Production network consisting of a media network and a control network, connect LAN port 1 to the media network and LAN port 2 to the control network.
- Connect Gigabit port 1 to the Client network.
- Connect both power cables from the back of the NAS to a power supply.

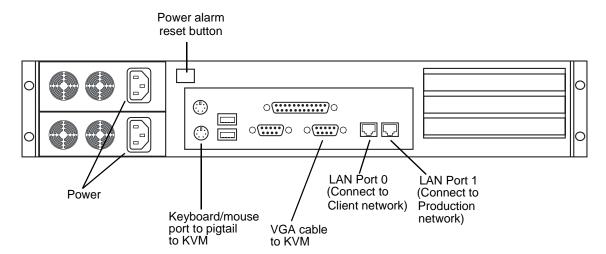
Power supply units are hot-swappable. Once power is applied using switches on the rear panel, use the power switch on the front panel to power down. Failure to use the front switch will cause the disk array to rebuild on the next power up.

NAS instructions - Serial ATA network platform

For the NewsBrowse Network Attached Storage (NAS) unit you have the option of the Serial ATA network (a.k.a. Ciprico 1700 or DiMedia) platform.

Platform Specifications are as follows:

- Redundant Power Supplies.
- 100BT LAN (x2)
- RAID protected drives



Make cable connections as illustrated.

Power supply units are hot-swappable. If the power supply fails or when power is cycled, an alarm will sound. To disable the alarm, press the power alarm reset button to the In position.

Power up the appliance by pressing the small, round On/Standby switch on the front left of the machine. Once the electrical cables are connected, the system has electrical power. Turning the On/Standby switch to standby does not remove power. To remove power, hold down the On/Standby switch for at least five seconds or disconnect the electrical cables.

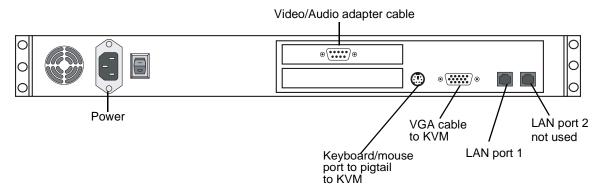
Live monitor encoder instructions

The NewsBrowse live monitor encoder converts an audio/video input into network streaming media. The NewsBrowse web application is configured to create pages that point to this streaming media feed. This device accepts audio/video feeds and connects directly to the Client Network. The steaming video is a real-time conversion of the feed being received by a single-channel encoder.

A live monitor encoder is an optional component; it may be absent if there is no need for real-time monitoring, or multiple live monitor encoders may be present to stream different video feeds.

Platform Specifications:

- Pentium 3 1Ghz or better (1 or 2 CPU)
- 256 MB RAM
- · CD-ROM Drive
- Minimum 20GB Program Drive
- Windows 2000 Workstation (SP3)
- 100Tx LAN (x2)
- Osprey 220 Streaming Media Encoder.



Cable as illustrated and as follows:

- Connect LAN port 1 to the Client network.
- Connect Analog Audio and Video harness to the source that corresponds to the desired feed for web-based monitoring.

About NewsBrowse software

In a new NewsBrowse system, the hardware platforms come from the factory with software pre-installed, so you should not need to install NewsBrowse software.

If you need to install software for an upgrade, refer to the instructions listed below for general information about NewsBrowse software. For version-specific instructions, check *NewsBrowse Release Notes*. Also refer to "Other software installation considerations" on page 33.

Chapter 2 Installing NewsBrowse

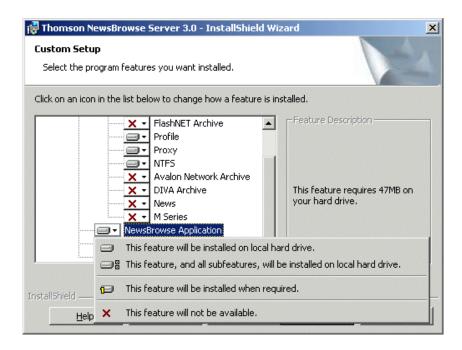
Remember to backup up the database before upgrading software, as explained in Chapter 4, *Recovery Planning*.

The following installation programs are on the NewsBrowse Application CD:

- ...\SingleChannelEncoder\Setup.exe Use this setup file to install NewsBrowse software on a single-channel encoder.
- ...\AdvancedEncoder\Setup.exe Use this setup file to install NewsBrowse software on an Advanced encoder.
- ...\SmartBinEncoder\Setup.exe Use this setup file to install NewsBrowse software on a SmartBin encoder.
- ...\Server\Setup.exe Use this setup file to install NewsBrowse software on the NewsBrowse server as well as other NewsBrowse machines. The following table indicates the machines on which the software components are typically installed. You might install components differently, depending on the design of your particular NewsBrowse system.

Install Components	NB Server	MDI server	Router Gateway	DSM
Core Services	✓			
Managed Devices:				
FlashNet Archive		✓		
Profile		✓		
Proxy		✓		
NTFS	✓			
Avalon Network Archive		✓		
DIVArchive		✓		
News				✓
M-Series		✓		
K2		✓		
NewsBrowse Application	✓			
Ingest	✓			
Router Gateway			✓	

To install the software components listed in the preceding table, run the NewsBrowse server install program and when you arrive at the Custom Setup screen, do the following:



If a component that you want to install displays a red X, click the component and select This feature will be installed on local hard drive.

If a component that you do not want to install does not display a red X, click the component and select **This feature will not be available**.

To upgrade NewsBrowse software from a previous version, refer to *NewsBrowse Release Notes* for version-specific instructions.

NOTE: When upgrading NewsBrowse software, read messages and respond carefully. Do not accept the default "Yes" when prompted to delete databases.

Install software for K2 support

If your system includes a K2 Storage System, on Advanced Encoders and SmartBin encoders you need to install the following software, in this order:

- StorNext File System
- Grass Valley Generic iSCSI Client Installation

Configuration is also required for K2 support, as instructed in the following sections:

- "Prepare SmartBins" on page 45
- "Prepare Advanced encoders" on page 45
- "Add encoders to the K2 Storage System" on page 45.

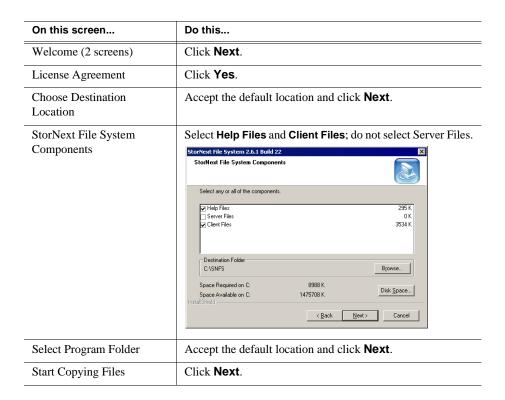
Install the StorNext File System

The StorNext File System software is located on the NewsroomSuite CD-ROM. Refer to release notes to verify the version.

NOTE: Use the standard SNFS installer, not the "simple" installer which is designed for K2 systems only.

To install the StorNext software:

- 1. Navigate to the directory that contains the software.
- 2. Double-click on the setup.exe file.
- 3. Install the software following these instructions:



On this screen	Do this
Choose Options to Complete the Installation	Leave the checkbox blank and click Next .
File System Name Service Locations	Enter the name or IP address of the K2 Media Server and click Next .
Confirm File System Name Services Host List	Click Next.
Establish StorNext File System Drive Mapping and Credentials?	Click No ; this will be configured automatically when you run the K2 Configuration application later.
StorNext File System Setup	Click Finish.

^{4.} Reboot the computer when prompted.

Installing the Generic iSCSI Client Software

The Generic iSCSI Client software is located on the NewsroomSuite CD-ROM. Refer to release notes to verify the version.

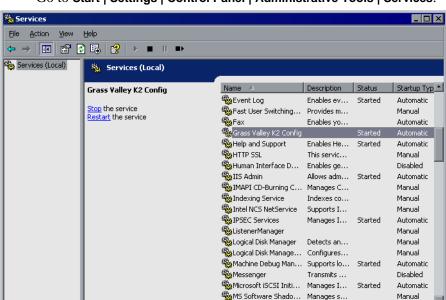
To install the software:

- 1. Navigate to the directory that contains the software.
- 2. Double-click on the setup.exe file.

The Microsoft iSCSI Initiator software also installs. When the Microsoft iSCSI Initiator software install completes, the Generic iSCSI Client software install continues.

- 3. Once the Generic iSCSI install software is installed restart the machine.
- 4. When the machine comes back up make sure that the service **Grass Valley K2 Config** is running, as follows:

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Extended Standard

• Go to Start | Settings | Control Panel | Administrative Tools | Services.

Other software installation considerations

- For NewsBrowse on a News/K2 system, make sure that NewsFTP is installed on the Advanced Encoder.
- To support archive functionality on a News/K2 system, you must install a unique NewsFTP on a platform somewhere in the system.

Chapter 2 Installing NewsBrowse

Configuring the NewsBrowse System

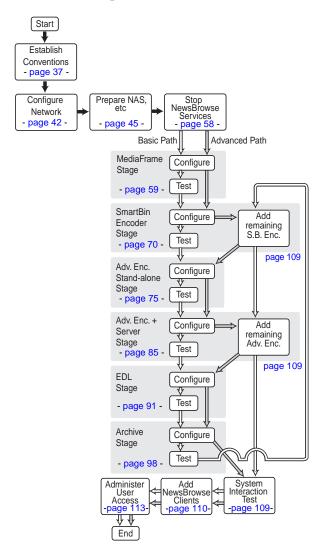
You can use the topics in this chapter in the following ways:

- Initial configuration After your NewsBrowse system components are rack mounted, cabled, and the physical installation process is complete, continue with the configuration instructions in this chapter to create a working system. You can follow the **Basic** path or the **Advanced** path through the core configuration stages, as explained "Configuration overview K2 storage" on page 36.
- Customizing After the system is functioning, you can go back to the
 configuration pages and modify the settings documented in this manual as
 Advanced ✓ to customize the system to fit any special workflow requirements.

The topics in this chapter include the following:

- "Configuration overview K2 storage" on page 36
- "Establish conventions" on page 37
- "Configure network K2 Storage" on page 42
- "Prepare for core configuration stages" on page 45
- "Stop services" on page 58
- "MediaFrame stage" on page 59
- "SmartBin encoder stage" on page 70
- "Advanced encoder stand-alone stage" on page 75
- "Advanced encoder + Server stage" on page 85
- "EDL Export, Save, Conform stage" on page 91
- "Archive stage" on page 98
- "Deploy remaining machines for full system" on page 109
- "Test system level interactions" on page 109
- "Add NewsBrowse Clients" on page 110
- "Administering NewsBrowse user access" on page 113
- "Adding custom fields" on page 116
- "Testing NewsBrowse client operations" on page 118

Configuration overview - K2 storage



This flowchart illustrates the major tasks required for configuring a NewsBrowse system that access K2 storage.

Before beginning this task flow make sure that the NewsEdit system is fully functioning on the K2 storage. You should have at least one SmartBin Encoder as part of the NewsEdit/K2 system. In this role, the SmartBin Encoder is not yet being used as a NewsBrowse machine. Rather, it is just used to host the SmartBins service.

Core configuration tasks are broken down into stages. You can work through the configuration stages in different ways, as follows:

If you are new to the NewsBrowse system, follow the **Basic** path. At each configuration page, configure only those settings documented in this manual as **Basic** ✓. This path allows you to learn the system and resolve configuration problems in stages, with a minimal number of configuration variables and machines added to the system at each stage. Then, after you have gained the understanding to make each stage of the system work properly, configure the remainder of the system and add all machines.

If you are experienced with the NewsBrowse system and you want the fastest possible configuration, follow the **Advanced** path and configure the entire system in one pass, adding all machines at each stage. At each configuration page, you can configure settings documented as **Advanced** \checkmark as well as those documented as **Basic** \checkmark .

You can also choose a combination of Basic and Advanced paths to suit your level of understanding and the design of the particular NewsBrowse system you are configuring.

Refer to the topics in the remainder of this chapter for detailed instructions on each task.

Establish conventions

The following conventions are recommended to make your NewsBrowse system easier to work on and understand. Refer to these sections as necessary as you configure your system.

Machine naming convention

Choose a root name (based on the site, etc.) and use the following convention for naming machines.

Machine type	Name			
MediaFrame machines				
NewsBrowse server	root-nb-svr			
Managed Device Interface (MDI) Server	root-nb-mdi			
Proxy machines				
Advanced Encoder	root-nb-adv-1n			
SmartBin Encoder	root-nb-sbe-1n			
Network Attached Storage (NAS) ^a	root-nb-nas-1n			
Ingest machines				
K2 system	k2-1n			
Stand-alone Profile Media Server	pvs-1n			
Open SAN Profile Media Server	mpvs-1n			
M-Series iVDR	ivdr-1n			
Legacy machines				
Live monitor encoder	root-nb-live-1n			
Single-channel encoder	root-nb-enc-1n			
Router Gateway	root-nb-rtr			

a. Some NAS devices have restricted characters for naming. For example, the Fastora NAS can't have underscores, while the Ciprico NAS can't have dashes.

If you use a UIM in your system, make sure you follow the UIM naming convention.

MDI and Encoder logical names convention

As you configure your NewsBrowse system you must create and enter logical names for the various software components (services) that provide NewsBrowse functionality. These logical names provide a mapping of the functionality of the standard NewsBrowse services to the specific machines in your particular system. For this reason you should take care to create logical names that are easy to identify and interpret as they appear in the various configuration pages.

It is especially important that you distinguish between the logical name of a software component and the hostname of the machine to which the software component relates. In the conventions suggested in this manual, machine names are lower case and logical names are upper case to make this distinction.

Chapter 3 Configuring the NewsBrowse System

The software components that require logical names are as follows:

- MDIs The NewsBrowse system uses a Managed Device Interface (MDI) to
 manage a device that is not a platform for NewsBrowse software. Typically these
 are the machines on which media resides, such as Media Servers, NAS devices, and
 archive devices. Each type of device has its own MDI. The MDI software
 component is usually hosted on the NewsBrowse server or an MDI server, rather
 than being hosted on the same machine that it manages.
- Encoder services The NewsBrowse system uses services to manage the media processing that takes place on the NewsBrowse encoder machines. Typically these are a type of "transfer" service, such as the Thomson SmartBin Proxy Transfer service. This type of software component is hosted on the machine that it manages.

Also refer to "Ports and services mapping" on page 40.

The following table demonstrates how logical names for software components are mapped to the machines of your NewsBrowse system and provides a suggested naming convention.

Machine type	Service that manages the machine	MDI/Encoder logical name(s)	Comments	
Advanced Encoder	Thomson Proxy Transfer	ADV1, ADV2, ADV3	One logical name is required for each Advanced encoder.	
Avalon Archive	Thomson Avalon Archive MDI	ARCHIVE1	Most NewsBrowse systems have but one archive MDI—of the appropriate type for the	
DIVA Archive	Thomson DIVA MDI		archive product—that manages their entire archive system.	
FlashNet Archive	Thomson FlashNet MDI	-		
Image Support Server	Thomson Proxy Transfer	ISS1, ISS2, ISS3	One logical name is required for each Imag Support Server.	
K2	Thomson K2 MDI	K2-STORAGE1	When this MDI accesses a K2 Storage System, it manages one of the connected K Media Clients. The MDI should be named for the K2 Storage System.	
		K2-1, K2-2, K2-3,	When this MDI manages a stand-alone K2 Media Client, there is one MDI for each K2 Media Client. One logical name is required for each stand-alone K2 Media Client system that integrates with the NewsBrowse system.	
M-Series	Thomson MSeries MDI	M-SERIES1, M-SERIES2, M-SERIES3,	One logical name is required for each M-Series iVDR that integrates with the NewsBrowse system.	
News	Thomson News MDI	NEWS1	There is but on News MDI in the system. It manages the News Media storage system.	
NTFS	Thomson NTFS MDI	NTFS1	There is but one NTFS MDI in the system. It manages NTFS storage on one or more machines—typically the server and the NAS machines.	

Machine type	Service that manages the machine	MDI/Encoder logical name(s)	Comments
Profile	Thomson Profile MDI	SANI	When this MDI manages an Open SAN system, it manages one designated Profile on an Open SAN. One logical name per Open SAN system is required.
		PROFILE1, PROFILE2, PROFILE3,	When this MDI manages a stand-alone Profile XP system, there is one MDI for each Profile XP. One logical name is required for each stand-alone Profile XP system that integrates with the NewsBrowse system.
Proxy	Thomson Proxy MDI	PROXY1	There is but one Proxy MDI in the system. It manages the storage locations on all the NAS machines.
Sequential Encoder	Thomson Proxy Transfer	SEQ1, SEQ2, SEQ3	One logical name is required for each Sequential Encoder.
SmartBin Encoder	Thomson SmartBin Proxy Transfer	SBE1, SBE2, SBE3	One logical name is required for each SmartBin Encoder.
Single Channel Encoder	Thomson Ingest Control	INGEST-CH1, INGEST-CH2, INGEST-CH3	One logical name is required for each Single Channel Encoder.

NOTE: If you are exporting NewsBrowse EDLs to NewsEdit, the NewsEdit workstation must be able to resolve the Profile MDI name (present in the EDL) to the IP address of the Profile XP system to which the MDI connects. The recommended solution is to map the MDI name to the Profile IP address in the NewsEdit workstation's host table. Another option is to name the Profile MDI name the same as the Profile host name, but this is only an option for systems in their initial configuration, before any customer assets have been added.

Ports and services mapping

NewsBrowse software components run as Windows services, which communicate over designated ports. As you configure the NewsBrowse system, you must correctly designate port numbers. Topics later in this manual provide specific instructions for entering port numbers on each configuration page. Do not create your own convention for port usage. Designate ports as specified in the following table:

Services	Port	Comments
MediaFrame Services		
Thomson Ask	9010	_
Thomson Asset Manager	9022 and 9023	_
Thomson Avalon Archive MDI	9120	_
Thomson DIVA MDI	9122	_
Thomson FlashNet MDI	9124	_
Thomson Metadata	9014	Not visible on a configuration page
Thomson MSeries MDI	9140	The service manages a number of host processes, one for each M-Series iVDR that is being managed. These host processes require ports 9140 - 9149. Stopping/starting the service stops/starts all of the host processes.
Thomson K2 MDI	9160	The service manages a number of host processes, one for each K2 system that is being managed. These host processes require ports 9160 - 9169. Stopping/starting the service stops/starts all of the host processes.
Thomson News MDI	9150	_
Thomson NTFS MDI	9115	-
Thomson Profile MDI	9130	The service manages a number of host processes, one for each Profile that is being managed. These host processes require ports 9130-9139. Stopping/starting the service stops/starts all of the host processes. The version 1.5 default port number for these processes was 8022, no range
Thomson Proxy MDI	9110	_
Thomson Resolver	9016	Not visible on a configuration page
Proxy Services		
Thomson Proxy Transfer	9230	Starting range for first control. Version 1.5 default port number was 8070.
Thomson RulesWizard	9018 and 9019	Not visible on a configuration page
Thomson SmartBin Proxy Transfer	9230	-
Profile XP Ingest Services		
Thomson Ingest Control (single-channel encoder)	9330	Version 1.5 default port number was 8045.
Thomson Ingest Scheduler	8055	Starting range for first remote control. Not visible on a configuration page.
Thomson Router Gateway	8065	_

Establish conventions

These services are distributed on different machines in the system. They would not normally run on any one machine, as explained in "Accessing services" on page 55.

The NewsBrowse system also depends upon Microsoft Internet Information Services (IIS) and SQL services. SmartBin encoders also need vbrCacheService and vbrSmartBinsService

Configure network - K2 Storage

Unless otherwise indicated, all information in this chapter refers to the two tier network architecture which supports the NewsBrowse system on K2 storage. Also refer to the system diagrams in Chapter 1, *System Overview*.

Also refer to NAS Security Instruction Guide and SAN Security Instruction Guide.

Set up IP addresses and name resolution

The following instructions apply for systems that do not use the classic workgroup/host table networking.

NewsBrowse systems may use Microsoft DNS for name resolution. The domain controller should provide this service. If the NewsBrowse system does not have a domain controller, another machine may be configured to provide this service. Properly configuring all client network interfaces is extremely important to make DNS name resolution work correctly.

The following applies to the control network on systems expanded to contain two networks—control and media:

• The control network should be set to use dynamic host configuration protocol (DHCP) to assign network IP addresses. All interfaces on this network should be configured to register connections with DNS automatically.

The following applies to the media network on control/media network systems and to the Production network overall on systems with a single, unified Production network:

• Network interfaces should be configured with static IP addresses. These interfaces must also be configured not to automatically register their connections with DNS; each interface on the media network should be manually added as a host entry with "_he0" appended to the host name. These entries ensure that high-priority network traffic is routed over this network.

NOTE: If you are exporting NewsBrowse EDLs to NewsEdit, the NewsEdit workstation must be able to resolve the Profile MDI name (present in the EDL) to the IP address of the Profile XP system to which the MDI connects. The recommended solution is to map the MDI name to the Profile IP address in the NewsEdit workstation's host table.

When configuring networks for NewsBrowse, you should consider K2 Storage System networking as well. For example, the K2 Storage System "media" network is actually the iSCSI network. This is not the same as the NewsBrowse "media" network. Also, if host tables and fixed IP addresses are required on parts of the K2 Storage System, make sure DHCP/DNS is configured to allow the fixed IP addresses.

Refer to "Host table files" on page 162 for an example of a host table.

Configure network settings on Production network machines

Use the instructions in this section to configure Production network machines, which are all those of the following types:

Advanced Encoder

· Smartbin Encoder

From the factory, the machines are set with static IP and as members of "WORKGROUP". Change the IP addresses, using standard Windows procedures.

Configure HAFT platform

To configure the HAFT platform for the NewsBrowse networks, do the following:

- 1. On either CoServer 1 or CoServer 2, configure the virtual server's network settings as follows:
 - a. Configure PCI-2 A for the Production network. This is the CoServer Management port.
 - b. Configure PCI-2 B for the Production network.
 - c. Configure PCI-1 A for the Client network.
- 2. Copy these configurations onto the virtual server.

Do not modify the IP addresses of the CoServer Link ports. They are used only for communication between the servers. Refer to "NewsBrowse server instructions: HAFT platform" on page 19.

Configure network settings on Client network machines

Use the instructions in this section to configure Client network machines, which include the following types:

- NewsBrowse server
- Managed Device Interface (MDI) Server

NAS machines are also on the Client network. You configure NAS machines in "Prepare NAS - Windows Fastora" on page 50.

DHCP/DNS will provide IP addresses and name resolution for the NewsBrowse devices attached on the client Domain. Refer to "Set up IP addresses and name resolution" on page 42.

You will need the following information from the customer's IT department:

- Verify that the subnet mask for the NewsBrowse machines should be 255.255.255.0.
- Extra IP addresses for future growth
- The IP address for the DNS server and alternate
- The name of the Domain connected on the client side (i.e. *mycorp*.com)
- The IP address for the WINS server if applicable

In addition, the customer IT department must add these computers to their Domain.

Proceed with Client network machines as follows. Use standard Windows procedures:

1. Name computer and add computer to Domain

Chapter 3 Configuring the NewsBrowse System

- 2. Set IP address for each port, DNS servers
- 3. Set DNS settings

Firewall considerations

Some sites require that there be a firewall between the Production Network and the Client Network. The firewall should allow incoming HTTP (TCP ports 80 and 280) connections for client and configuration connections to the NewsBrowse Server inside the private network. Additionally, ports should allow incoming packets so requests to the Proxy NAS can be properly processed. The port that needs to be open is port 445 for TCP and UDP for Windows and SAMBA shares

Prepare for core configuration stages

Do the following tasks in preparation for the configuration of core system functionality.

Prepare DSM

By convention, the News MDI runs on the DSM. If this is true in your system, you must map the V: drive on the DSM. If the News MDI is not on the DSM, you must map the V: drive on whatever machine is hosting the News MDI.

Prepare SmartBins

If your NewsBrowse system has SmartBin encoders, refer to *SmartBins Instruction Guide* and do the following:

- For K2 systems, make sure SNFS and iSCSI software is correctly installed. Refer to "Install software for K2 support" on page 30.
- Configure the SmartBins service on the News NAS system
- Verify that the mapped drive is V:, unless there are multiple volumes, in which case the mapped drives are V:, W:, X:, Y:.
- Verify configuration to transfer one stream only.
- · Create SmartBins in NewsEdit

Prepare Advanced encoders

- For K2 systems, make sure SNFS and iSCSI software is correctly installed. Refer to "Install software for K2 support" on page 30.
- On your Advanced encoders, in the NewsFTP configuration, make sure that the drive is mapped to the K2 or NewsShare storage. Verify that the mapped drive is V:, unless there are multiple volumes, in which case the mapped drives are V:, W:, X:, Y:.

Add encoders to the K2 Storage System

If your system includes a K2 Storage System, you must add Advanced encoders and SmartBin encoders to the K2 Storage System, as instructed in this section.

Before you add the encoders to the K2 Storage System, refer to the K2 Storage System Instruction Manual and other procedures in this manual as necessary to verify the following:

- Make sure you've installed the software required for K2 support on the Advanced encoders and SmartBin encoders. Refer to "Install software for K2 support" on page 30.
- Set up the Control Point PC.

NOTE: The Control Point PC cannot be a K2 Media Client, K2 Media Server, Advanced encoder, or SmartBin encoder, nor can it be part of a computer that is running any Profile XP software.

Chapter 3 Configuring the NewsBrowse System

- Run the K2 Configuration application to set up the K2 Server and the GigE switch.
- Connect the Advanced encoders and SmartBin encoders to the K2 Server via the GigE switch. This is the storage connection.

Configuring encoders with the K2 System Configuration application

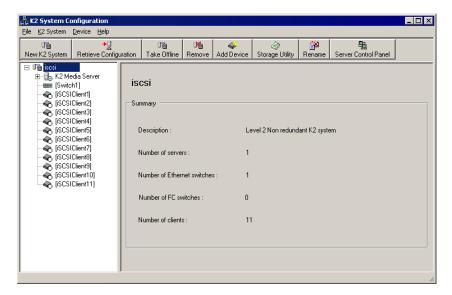
You use the K2 System Configuration application wizard to configure each of the Advanced encoders or SmartBin encoders on the iSCSI network, as follows:

- 1. On the Control Point PC, open the K2 Configuration application.
- 2. At the login dialog box, log in with the correct administrator account. By default this is as follows:

• User name: administrator

• Password: adminK2

The K2 System Configuration application appears, displaying a hierarchy of machines with the K2 Media Server at the top, followed by the GigE switch, and then each of the K2 Clients:

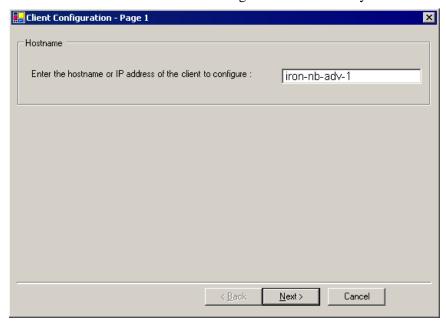


3. To add an Advanced encoder or SmartBin encoder to the list, do the following:



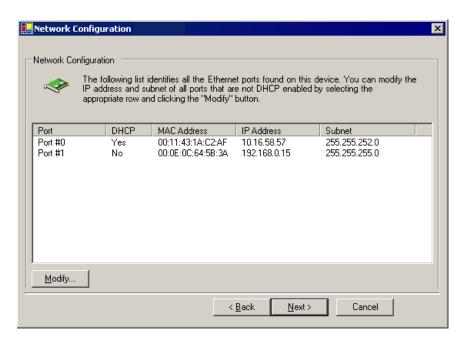
a. Select the media server and click Add Device.

- b. In the Add Device window, click **iSCSI Client** and click **OK**. A new iSCSI client device gets added to the hierarchy.
- 4. Select the iSCSI Client to be configured in the hierarchy view and click **Configure**.

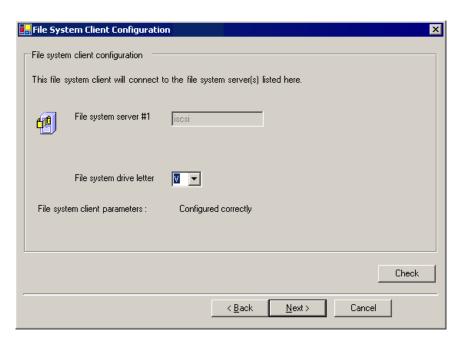


5. At the Client Configuration - Page 1 screen, enter the machine name of the Advanced encoder or SmartBin encoder you are configuring (such as iron-nb-adv-1) and click **Next**.

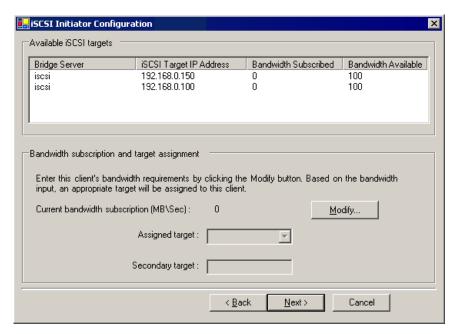
Chapter 3 Configuring the NewsBrowse System



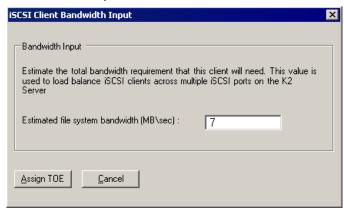
6. At the Network Configuration screen, click **Modify** to change the IP address and subnet of any network adapters for this machine, and then click **Next**.



7. At the File System Client Configuration screen, enter the drive letter you wish to configure as the iSCSI drive on the encoder machine; click **Next**. This letter should be the same for all machines that are iSCSI clients in this K2 Storage System.



- 8. At the iSCSI Initiator Configuration screen, enter client bandwidth:
 - a. Click Modify.



- b. Enter the total bandwidth requirement for this encoder machine. (For instructions see the next section, "Calculating encoder bandwidth" on page 50).
- c. Click Assign TOE.
- 9. Click Next.
- 10. At the Completing the Configuration Wizard screen, click **Finish**.

The wizard closes and the encoder reboots.

11. Repeat this procedure for each Advanced encoder or SmartBin encoder that is an iSCSI client on the K2 Storage System.

Calculating encoder bandwidth

One feature of the K2 iSCSI network is its ability to load balance each iSCSI client's connection to the K2 storage system. In order to do this, calculate the amount of bandwidth each client machine will use, using this formula:

(Video Bit Rate in Mbps x Number of Streams) / 8 (to convert to MB)

1. Determine the highest bit rate you use on the Advanced encoder or SmartBin encoder.

The bit rates for the DV formats are: DV25 = 28.8 Mbps; DV50 = 57.6 Mbps; and DV100 = 115.2 Mbps for the NTSC and PAL video formats.

MPEG bit rates are variable; enter the bit rate set in NewsEdit.

- 2. Multiply the highest bit rate by the number of streams that are licensed on this machine. Only one stream should be configured on a Advanced encoder or SmartBin encoder (NewsFTP and SmartBin Service if there is one), so for encoders you always multiply the highest bit rate by 1, which of course does not change the value.
- 3. Divide that number by 8 to convert Mbps to MB.
- 4. Round the MB number to the nearest integer.
- 5. Enter this number in the iSCSI Client Bandwidth Input screen in the K2 Configuration application wizard.
- 6. At the conclusion of the configuration process, the K2 Configuration application restarts the encoder.

Prepare NAS - Windows Fastora

For the Linux version, refer to "Prepare NAS - Linux Fastora" on page 162.

NOTE: Procure IP addresses from the local network administrator prior to configuring the NAS unit.

When you configure the Windows Fastora NAS for the NewsBrowse networks, you can make network settings in the following ways:

- Use the remote Windows desktop, as explained in step 4 of the following procedure, and then use standard Windows procedures to make all settings. If you do this, read the subsequent steps in the procedure to identify the required settings.
- Use the Fastora configuration pages (Web based), as documented in the following procedure, and make settings as instructed.

NOTE: If you plan to change the name of the NAS unit and you intend to use the underscore character, such as in root_nb_nas_n, you must do so using standard Windows procedures via the remote desktop. The Fastora configuration page does not allow the underscore character.

To configure the Windows Fastora NAS for the NewsBrowse networks, do the following:

1. From any Production network machine, enable the network to recognize the NAS by adding an IP address within the subnet range of 192.168.50.0.

2. For the first NAS machine (*nb-nas-1*), open the NAS configuration software in Internet Explorer by entering the following in the browser address bar:

https://192.168.50.31:8098

NOTE: Notice the s in the https: address. Also, make sure your browser allows cookies and JavaScript (or JIT).

Subsequent NAS machines (*nb-nas-2*, *nb-nas-3*) have IP addresses incremented accordingly (192.168.50.32, 192.168.50.33).

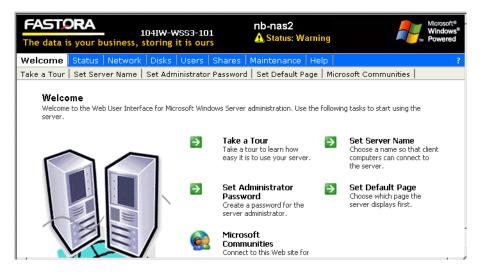
If you received your NAS unit directly from Fastora, the default Fastora IP address is 192.168.1.11.

3. Log on as follows:

Username: administrator

Password: triton

The Fastora Welcome page opens.

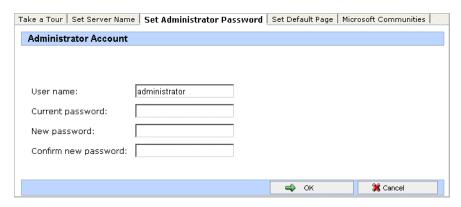


- 4. Do one of the following:
 - To use the remote Windows desktop rather than the Fastora configuration pages, click Maintenance | Remote Desktop. This feature prompts you to again log on to the NAS unit, and then allows you to access the Windows desktop. Make settings with standard Windows procedures.
 - To use the Fastora configuration pages, continue with this procedure.
- 5. Click **Set Server Name** and, if necessary, change the name, DNS suffix, and Domain/Workgroup setting. Work with IT at the customer site to add the NAS to a Domain.

If you make a change, click **OK**.

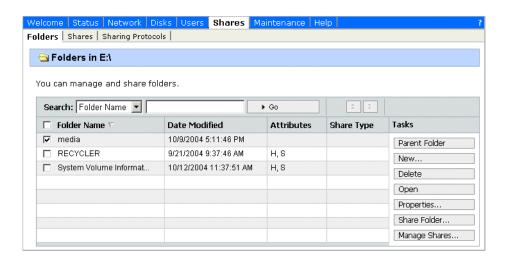
NOTE: After making changes on a configuration page, you must click OK or else your changes are lost.

6. Click Set Administrator Password.



Set a password according to the customer site requirements. Click **OK** to save settings.

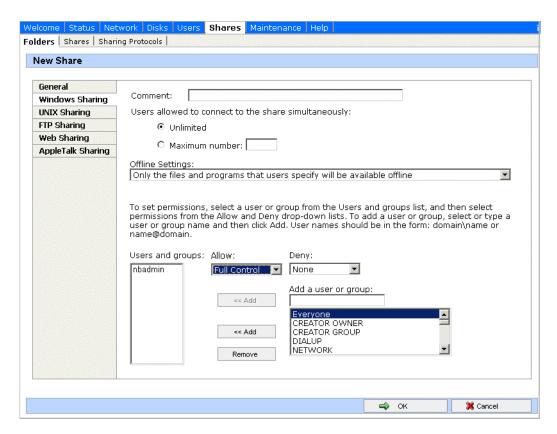
- 7. Click **Network | Interfaces**. If required by the customer site network, change IP, DNS, and WINS settings. A recommended configuration is to use the Gigabit port for the Client network, use LAN Port 1 for the Production network and leave LAN Port 2 at the default static IP for system maintenance access. For systems with a Production network consisting of a media network and a control network, use LAN port 1 for the media network and LAN port 2 to for the control network.
- 8. Click **Administration Web Site**. If required by the customer site security policies, change the IP addresses and/or ports for encrypted and non-encrypted access used to access the administration Web site. If you make a change, click **OK** and then reconnect via the new port and/or IP address.
- 9. Click **Shares** | **Folders**. Share the media directory as follows:
 - a. Select New Volume (E:)
 - b. Click Manage Folders.
 - c. Select media.



- d. Click Share Folder.
- e. Enter the following:

Share name: media

f. Click Windows Sharing. After a pause, the Windows Sharing tab opens.



g. User privileges for the media folder should be as follows:

Everyone — Read only access nbadmin — Full Control

- h. Click OK.
- 10. Close the NAS configuration pages.

Verify NAS access

Verify Proxy NAS access from production network machines, which are machines of the following types:

- NewsBrowse server
- Single-channel encoder
- · Advanced encoder
- SmartBin encoder

To verify access, from each production network machine do the following:

1. Open Windows Explorer and navigate to the media directory on the NAS. You can do this with the following path:

```
\\root-nb-nas-1\Media
```

2. Verify basic read/write capabilities by creating, modifying, and deleting a simple text file.

To verify access from client network machines, choose a machine on the Client network that can represent a NewsBrowse client PC and that is convenient for testing. From this machine do the following:

1. Open Windows Explorer and navigate to the media directory on the NAS. You can do this with the following path:

```
\\root-nb-nas-1\Media
```

2. Verify that NewsBrowse client PCs will have read only rights.

About the nbadmin account

The nbadmin account should be set up by default on NewsBrowse machines that you receive from the factory. This account is critical for most NewsBrowse proxy access, as explained in this section.

A local nbadmin account is required on the following machines:

- Proxy NAS machines
- Single-channel encoder
- · Advanced encoder
- SmartBin encoder
- MDI server
- NewsBrowse server
- The News DSM
- · M-Series iVDR
- Profile XPS
- K2 systems

All NewsBrowse NAS machines require that an *nbadmin* account with a password of ***** has permission to the folder on the NAS that the encoders write to, and that the web service running on the NewsBrowse server reads from.

The basic principle is that any service that requires write access to the Proxy NAS must run as the nbadmin account. This is a local machine account (NOT a domain account). This includes all encoders, the NewsBrowse server (which creates EDL files on the Proxy NAS), the News MDI (which writes/deletes a temporary EDL file off of the Proxy NAS), the Proxy MDI (which deletes files off of the Proxy NAS) and the Profile MDI (which deletes temporary EDLs off of the Proxy NAS).

On the K2 systems, the M-Series iVDR, and the single-channel encoder, DCOM is used, meaning the DCOM security is invoked. On these devices administrator privilege is required in order to use the DCOM interfaces. This privilege comes from the nbadmin account, which is another way the nbadmin comes into play on these devices.

From a Windows networking perspective, when a user account is defined on a local computer rather than a Domain Controller, the account is a "local" account, whose complete name is <computer name>\<username>, rather than <username>\cusername>. For example, with an encoder named *Encoder1*, a NewsBrowse server named *Server1*, and a NAS named *NAS1*, there are three separate local accounts: *Encoder1\nbadmin*, *Server1\nbadmin*, and *NAS1\nbadmin*.

The Windows network automatically maps a local account from one computer onto the local account of another computer—as long as both the account name and the password are identical. To enable this mapping to occur, the Windows Domain Controller "synchronizes" the local accounts on computers *at the time they join the Domain*. Therefore, if the *nbadmin* account is added to the NAS machine *after* the Windows NAS has joined the Windows Domain, this synchronization does not occur. This should not be a problem on factory-prepared NewsBrowse machines, as they come with the *nbadmin* account pre-configured. However, if the proper sequence is not followed and the problem does occur, the workaround is to remove the NAS from the Windows Domain and then re-add it immediately thereafter.

Accessing services

Software components are distributed among the machines that make up the system. These software components run as Windows services. A machine has the services that correspond to the software components it hosts.

When you change the configuration for a particular software component through the configuration pages, you must restart that software component's service to put the changes into effect. Click **Start | Settings | Control Panel | Administrative Tools | Services** to access the services. All service names start with "Thomson...", so they group together in the services list.



Refer to "Ports and services mapping" on page 40 for a list of services.

Accessing system configuration pages

Use Internet Explorer to browse to port 280 of a machine to access its configuration pages. You must have administrator permissions on the machine. For example, to log on to the configuration pages on the NewsBrowse server with administrator permissions, use the following:

Username: root-nb-svr\nbadmin

Password: *****

The settings you find on a particular computer's configuration pages depend on the software installed on the computer. For example, if the Proxy MDI component is hosted on a single-channel encoder, you find the Proxy Managed Device configuration settings at port 280 of that single-channel encoder. However, if the Proxy MDI component is hosted on a dedicated MDI server, you find the Proxy Managed Device configuration settings at port 280 of the MDI server machine.

You can access a computer's configuration pages as follows:

• From the local computer, use the following URL:

```
http://localhost:280
```

• For configuration pages on the NewsBrowse server, you can also open the NewsBrowse launch page and then click the **Configuration** link. To open the NewsBrowse launch page, use the following URL:

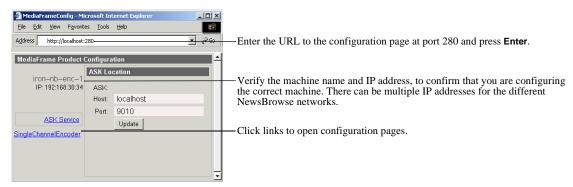
```
http://localhost/nbui
```

The NewsBrowse launch page resides on the NewsBrowse server only.

• From a network-connected computer, substitute *localhost* in the URL with the computer's network name. For example, to access the configuration pages or the NewsBrowse launch page on a NewsBrowse server named *iron-nb-svr*, use the following URLs:

```
http://iron-nb-svr:280
http://iron-nb-svr/nbui
```

You must have network access to open configuration pages. You can access all NewsBrowse devices from the NewsBrowse server. However, devices on the Client Network, such as a NewsBrowse client PC, do not have access to all NewsBrowse devices. From a NewsBrowse client PC you cannot access devices that are on the Production network only, such as single-channel encoders.



To access configuration pages, do the following:

Some pages use Active X controls that require special browser settings, such as the following:

• In Internet Explorer, click **Tools | Internet Options**. The Internet Options dialog box opens. Click **Security | Local intranet | Custom Level**. The Security Settings dialog box opens. Under "Initialize and Script ActiveX Controls not marked as safe", click **Enable**.

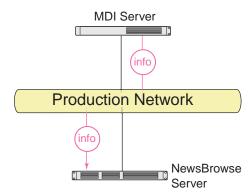
Stop services

Before beginning your initial core configuration stages, you must make sure all Thomson services are stopped. This prevents the creation of corrupt database records and other errors that result from a partially configured system.

Go to each machine and make sure all "Thomson..." services are stopped and set to manual, as described in "Accessing services" on page 55. Then, when you configure each stage, you start the appropriate services to put the settings into effect. This brings the system on-line in an orderly fashion that allows you to verify system interactions and identify configuration problems.

NOTE: It is especially important that the Rules Wizard is not running during configuration stage tests that create media files. When a test media file is created, the Rules Wizard can trigger the creation of various types of proxy media. This causes problems because the partially configured system is unable to handle the proxy correctly.

MediaFrame stage



MediaFrame components make up the core platform on which NewsBrowse runs. The primary MediaFrame components that you need to configure are as follows:

- ASK The ASK software component runs on the NewsBrowse server. It is the central registry for all the software components of the NewsBrowse system. As software components carry out tasks in a functioning system they regularly refer to the ASK component to establish communication and exchange commands and data. The configuration pages also refer to the ASK component to populate fields and lists and to validate the values you enter as you configure the system.
- MDIs Devices have Managed Device Interfaces (MDIs) which represents the device's assets in a way that is understandable by the other components of the NewsBrowse system. This allows the NewsBrowse server to coordinate the activity of the NewsBrowse system.

In this configuration stage you add a MDI server and then set up logical names for software components that manage devices. This brings the machines of your NewsBrowse system on-line as managed devices.

To do the basic configuration and testing of the MediaFrame software component, do the following, as appropriate for the devices in your system:

- "Configure Media Frame ASK: Register components" on page 60
- "Prepare MDI server" on page 62
- "Configure ASK Location: MDI server" on page 63
- "Configure Proxy MDI" on page 64
- "Configure K2 MDIs" on page 65
- "Configure Profile MDIs" on page 66
- "Configure News MDIs" on page 67
- "Configure M-Series MDIs" on page 68
- "Test: MediaFrame stage" on page 69

Port: 9230

PROXY1 (Proxy, iron-nb-mdi:9110) SAN1 (Profile, iron-nb-mdi:9130) PROFILE1 (Profile, iron-nb-mdi:9131) PROFILE2 (Profile, iron-nb-mdi:9132)

Existing MDIs/Encoders

Add MDI/Encoder

Delete MDI/Encoder | Validate MDIs/Encoders

Do not modify \ Advanced http://localhost:280 → MediaFrameCore → ASK Open this configuration page locally on the NewsBrowse server machine. Domain: DEFAULTDOMAIN All Domain names in the NewsBrowse system must be identical. Port 9010 is required. See "Ports and services mapping" on page 40. Port: 9010 Saves changes. Changes are lost if you leave the configuration page without Update 7 updating. For the following settings, use the table below. Add each MDI and/or Encoder Add MDI/Encoder required by your system MDI/Encoder Name: ADV1 MDI/Encoder Type: Advanced Encoder Host Name or IP: iron-adv-1

Configure Media Frame ASK: Register components

Deletes the currently selected MDI or Encoder.

Always click **Update...** buttons after making changes

To put changes into effect, start or restart the ASK service on the NewsBrowse

Checks MDIs. Refer to "Test: MediaFrame stage" on page 69

For the conventions mentioned in the following table, refer to "MDI and Encoder logical names convention" on page 37

Click to add an MDI/Encoder.

-Lists currently added MDIs and Encoders.

When you add an MDI or Encoder logical name for this type of machine/device	Select "MDI/ Encoder Type"	Enter "MDI/ Encoder Name"	Enter "Host Name or IP"	Enter "Port"…	Comments	
A K2 Storage System (SAN) ^a	K2	As per convention.		Hostname of the machine hosting the K2 MDIs. Typically the MDI Server.	9160 - 9169	These are process ports, as explained in "Ports and services mapping" on page 40. Assign
K2 Media Client - Internal storage (stand-alone)	K2				numbers in an intentional sequence, so they are easy to match in "Configure K2 MDIs" on page 65.	
Open SAN Profile ^b	Profile	As per convention.	convention.	Hostname of the machine hosting the Profile MDIs. Typically the	9130 - 9139	These are process ports, as explained in "Ports and services mapping" on page 40. Assign numbers in an intentional sequence, so they are easy to match in "Configure Profile MDIs" on page 66.
Stand-alone Profile	Profile			MDI server		
M-Series	MSeries		Hostname of the machine hosting the M-Series MDIs. Typically the MDI server	9140 - 9149	These are process ports, as explained in "Ports and services mapping" on page 40. Assign numbers in an intentional sequence, so they are easy to match in "Configure M-Series MDIs" on page 68.	

When you add an MDI or Encoder logical name for this type of machine/device	Select "MDI/ Encoder Type"	Enter "MDI/ Encoder Name"	Enter "Host Name or IP"	Enter "Port"	Comments
NewsEdit	News	As per convention.	Hostname of the machine hosting the News MDIs. This must be the DSM.	Leave field blank. Correct port number is automaticall y entered on "Add MDI". Refer to "Ports and services mapping" on page 40 to verify.	
NTFS storage on Windows machines	NTFS	NTFS1, as per convention.	NewsBrowse server hostname, as the server is the required NTFS MDI host.		
Single-channel encoder	Single Channel Encoder	As per convention.	Single-channel encoder hostname		
Advanced encoder	Advanced Encoder		Advanced encoder hostname	to verny.	
Proxy	Proxy	PROXY1, as per convention.	Hostname of the machine hosting the Proxy MDI. Typically the MDI server.		
Archive device	Archive	ARCHIVE1, as per convention.	Hostname of the machine hosting the archive MDI		
SmartBin Encoder	SmartBin Encoder	As per convention.	SmartBin encoder hostname		

a. For a K2 Storage System, the MDI manages one of its connected K2 Media Clients. As per convention, name the MDI for the K2 Storage System.

NOTE: The NewsBrowse server must host the NTFS MDI.

The ASK settings page registers the logical names for the MDIs and Encoders required by your NewsBrowse system with the ASK software component, which runs on the NewsBrowse server.

Note the following distinction when entering "Hostname or IP":

- For MDIs (K2, Profile, M-Series, News, Proxy, NTFS, Archive) enter the hostname of the machine hosting the MDI software component, rather than the hostname of the machine being managed by the MDI.
- For Encoders (Advanced Encoder, SmartBin Encoder, Single-channel Encoder) you enter the hostname of the encoder itself.

b. Enter only one Profile per Open SAN. As per convention, name the MDI for the Open SAN, rather than for the Profile.

Prepare MDI server

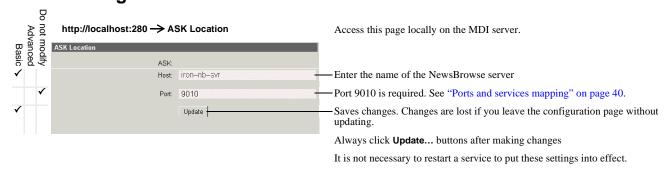
A machine that hosts a MDI service takes the role of a MDI server. Refer to the following to identify the machines in your NewsBrowse system that take the role of MDI server, and make sure that the appropriate MDI services are installed. Refer to "About NewsBrowse software" on page 27.

Dedicated MDI server — For medium to large NewsBrowse systems, most MDI services are on a stand-alone MDI server machine, to ensure system performance. If your system has a dedicated MDI server, it comes from the factory with MDI services installed, so you do not need to do any further installation. The MDI server requires only network communication in preparation for its use in the NewsBrowse system.

NewsBrowse server as MDI server — For small NewsBrowse systems, the MDI services can reside on the NewsBrowse server. The NewsBrowse server comes from the factory with MDI service installed, to support these smaller systems, so you do not need to do any further installation. The NewsBrowse server also has the NTFS MDI service installed, as it is required to run on the server, regardless of the size of the system.

DSM server as MDI server — For all systems, the News MDI must be hosted on the DSM. You must install the News MDI on the DSM.

Configure ASK Location: MDI server



This page tells the MDI server where to look for the ASK service, which runs on the NewsBrowse server. The function of the ASK is to store the location of the software components in the system, so the components can find one another.

Configure Proxy MDI

Do not modify Advanced http://localhost:280 → Managed Devices → Proxy MDI Access this page locally on the MDI server. All Domain names in the NewsBrowse system must be identical. Domain: DEFAULTDOMAIN Must be set to PROXY1, as per convention. MDI Name: PROXY1 Port 9110 is required. See "Ports and services mapping" on page 40. Port: 9110 Saves changes. Changes are lost if you leave the configuration page without Update updating. Add Monitored Storage Location For each Proxy NAS machine, enter the UNC path to the "Media" folder. This Monitored Storage Location: \\iron-nb-nas-2\Media is the location to which the NewsBrowse system writes the proxy media.² Click to add as a location. Add Monitored Location Existing Monitored Storage Locations Lists the currently added locations. You can add multiple locations. You should \iror.-nb-nas-1\Media \\iron-nb-nas-1\Media\Enc1 \\iron-nb-nas-1\Media\Enc2 have one or more locations listed for each NAS machine. \\iron-nb-nas-1\Media\Scavenge \\iron-nb-nas-2\Media

a. You can define multiple locations on a single NAS machine, but for each location you must enter and add the complete path.

Remove Monitored Location

This page configures the Managed Device Interface (MDI) for the NAS machines that store the low-res proxy. The NewsBrowse system depends on the Proxy MDI to make proxy visible across the system.

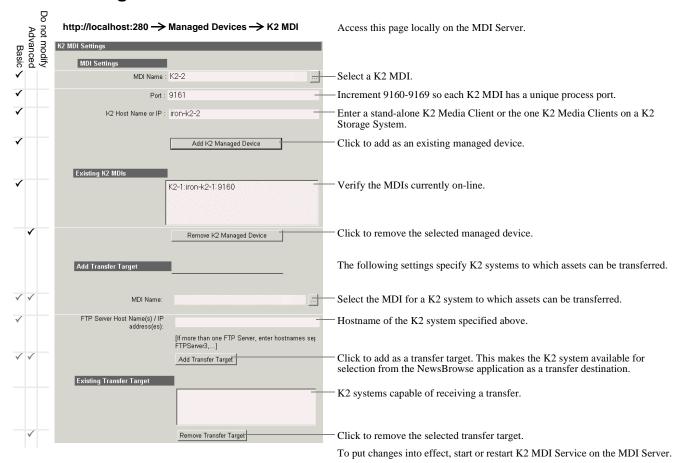
Removes the currently selected location.

Always click **Update**... buttons after making changes

To put changes into effect, start or restart the Proxy MDI Service on the MDI

For the Proxy MDI, there is but one managed device, with the logical name PROXY1. This managed device can have multiple locations. The Media directory on each NAS machine is entered as a location. Other directories can be entered as locations as well. In this way the Proxy MDI knows where to look for the low-res proxy.

Configure K2 MDIs



This page configures the Managed Device Interface (MDI) for a stand-alone K2 Media Client or the one K2 Media Client on a K2 Storage System (SAN). MediaFrame depends on the K2 MDI to make K2 assets visible across the system.

As you configure the K2 MDI make sure that you associate the K2 MDI and K2 host names correctly.

Multiple K2 MDIs run on a single machine (the MDI Server), but they each need their own process port number. For this purpose, enter incrementing numbers 9160 - 9169 in the "Port" field. The MDIs and their port numbers must match settings as in "Configure Media Frame ASK: Register components" on page 60. To make the configurations easier to read for troubleshooting purposes, add MDIs sequentially so there is a correlation between the port number and any number in the MDI name.

For K2 systems, add transfer targets as follows:

- For a K2 Storage System (SAN), the hostname of a K2 Media Server that has the role of FTP server.
- For a stand-alone K2 Media Client, the hostname of the K2 Media Client
- Hostname of a NewsFTP server. This is required for the Transfer 1.0 application to support K2/News transfers.

Configure Profile MDIs D Advanced Basic http://localhost:280 → Managed Devices → Profile MDI Access this page locally on the MDI server. Port: 9130 Port 9100 is required. See "Ports and services mapping" on page 40. All Domain names in the NewsBrowse system must be identical. Domain: DEFAULTDOMAIN Saves changes. Changes are lost if you leave the configuration page without Update updating. Add Profile MDI MDI Name: PROFILE2 Select a Profile MDI. Profile Host Name or IP: PVS-2 Enter the hostname of the Profile for the MDI selected above. For Open SAN systems, enter here the names of the other Profile XP systems Secondary Profile Host Name/IP(s): on the Open SAN that are managed by this MDI. Separate hostnames with commas. Asset System Dwell Time (mins): 2 The time that the Profile MDI waits before it informs the NewsBrowse system that a clip has finished recording. Leave at 2. Port: 9132 Automatically increments so each Profile MDI has a unique process port. Add Profile Managed Device Click to add as an existing managed device. For stand-alone Profile Media Servers, add a MDI for each one. For Open SAN Profile Media Servers, add only one MDI per Open SAN. Existing Profile MDIs Verify the MDIs currently on-line. 1 - PROFILE1 pvs-1 2 9131 Click to remove the selected managed device. Remove Profile Managed Device The following settings specify Profiles to which assets can be transferred via Fibre Channel from other Profiles. This is used by Conform-To-Air EDL and other Fibre Channel transfers. Refer to "Configure Profile MDI: Conform to air settings" on page 92. The transfer operation requires the fibre channel -Select the MDI for a Profile to which assets can be transferred. Profile MDI Name: PROFILE2 Profile Host Name: DVS-2 Hostname of the Profile specified above. Click to add as a transfer target. This makes the Profile available for selection Add Transfer Target from the NewsBrowse application as a transfer destination. Existing Transfer Targets Profiles capable of receiving a Fibre Channel transfer. Remove Transfer Target Click to remove the selected transfer target. Always click **Update...** buttons after making changes To put changes into effect, start or restart Profile MDI Service on the MDI

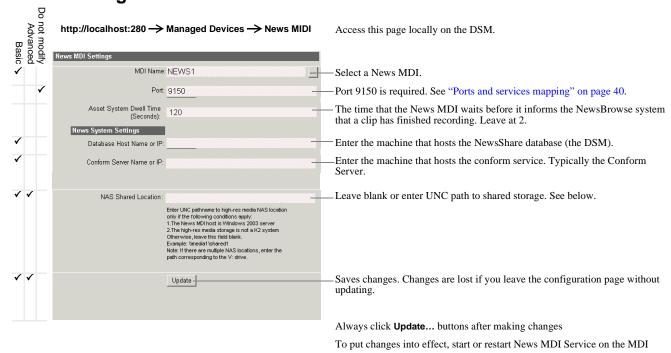
This page configures the Managed Device Interfaces (MDI) for the Profile Media Servers. As you add Profile MDIs make sure that you associate Profile MDIs and Profile host names correctly.

server.

Multiple Profile MDIs run on a single machine (the MDI server), but they each need their own process port number. For this purpose the "Port" field automatically increments. To use the automatically incremented port numbers, make sure you add Profile MDIs in the correct sequence. You can also manually enter port numbers. The MDIs and their port numbers must match settings as in "Configure Media Frame ASK: Register components" on page 60.

For configuring the basic MediaFrame stage, do not yet configure transfer targets.

Configure News MDIs



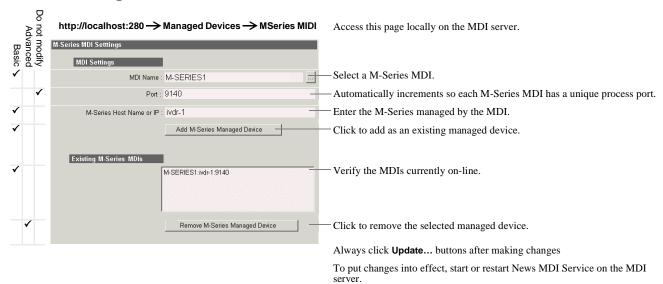
This page configures the Managed Device Interface (MDI) for the NewsShare system. MediaFrame depends on the News MDI to make News assets visible across the system.

The V: drive must be mapped on the machine that hosts the News MDI. By convention, the DSM hosts the News MDI.

The NAS Shared Location can be left blank for most systems. An example of a system for which the path must be entered is a NewsShare NAS system whose DSM (the News MDI host) has been upgraded to Windows 2003 Server. The path is required because of enhanced security in the Windows 2003 Server operating system.

As you configure the News MDI make sure that you associate the News MDI and News host names correctly.

Configure M-Series MDIs



This page configures the Managed Device Interface (MDI) for the M-Series iVDR. MediaFrame depends on the M-Series MDI to make M-Series assets visible across the system.

As you configure the M-Series MDI make sure that you associate the M-Series MDI and M-Series host names correctly.

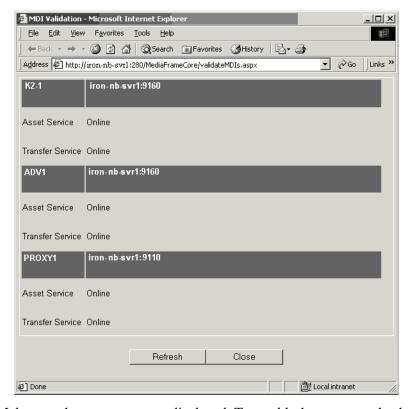
Multiple M-Series MDIs run on a single machine (the MDI server), but they each need their own process port number. For this purpose the "Port" field automatically increments. To use the automatically incremented port numbers, make sure you add M-Series MDIs in the correct sequence. You can also manually enter port numbers. The MDIs and their port numbers must match settings as in "Configure Media Frame ASK: Register components" on page 60.

Test: MediaFrame stage

The following test exercises system functionality exclusive to the MediaFrame core platform. A successful test verifies that the basic configurations are correct.

Run the test as follows:

On the Ask Settings configuration page, click **Validate MDIs**. The MediaFrame core system checks MDI mappings and devices for inconsistencies. This can take several minutes. A report is displayed.



Make sure there are no errors displayed. To troubleshoot errors, check the following:

- · Make sure services are running
- Make sure you have configured the correct host name for the MDI service.
- Ping machines to verify network communication.

Checklist: MediaFrame stage

Use the following check list to verify that the basic configuration and testing of the MediaFrame stage is complete.

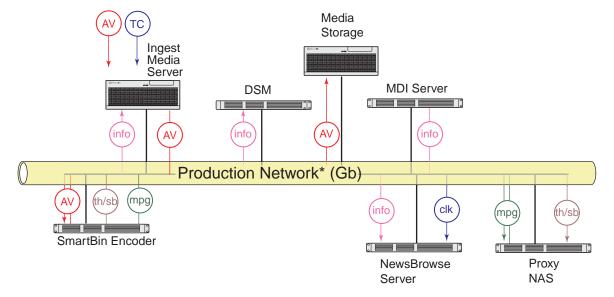
- ☐ All logical MDI names and Encoder service names are registered with ASK.
- ☐ All machines taking the role of MDI server have the appropriate MDI services installed and running.

SmartBin encoder stage

Before starting this configuration stage you should have a working NewsEdit/K2 system that uses at least one SmartBin Encoder. In this role, the SmartBin Encoder is not yet being used as a NewsBrowse machine. Rather, it is just used to host the SmartBins service. Refer to *SmartBins Instruction Guide*.

For this configuration stage you configure the SmartBin encoder to work together with the ingest video server, the Media storage and the Proxy NAS. MDI services are also required, as configured in the MediaFrame stage.

The portion of the NewsBrowse system configured and tested in this stage is illustrated by the following diagram.

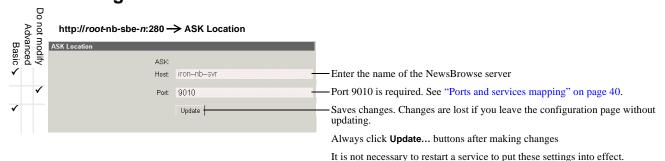


Refer to "System diagram - K2 storage" on page 11 for a view of the entire NewsBrowse system.

To do the basic configuration and testing of the SmartBin, do the following:

- 1. "Configure ASK Location: SmartBin encoder" on page 71
- 2. "Configure Media Frame Core ASK: SmartBin encoder" on page 71
- 3. "Configure SmartBin Encoder Control" on page 71
- 4. "Configure Proxy Asset (NAS): SmartBin encoder" on page 72
- 5. "Configure MPEG encoder: SmartBin encoder" on page 72
- 6. "Configure Real Media Encoder: SmartBin encoder" on page 73
- 7. "Test: SmartBin encoder" on page 73

Configure ASK Location: SmartBin encoder

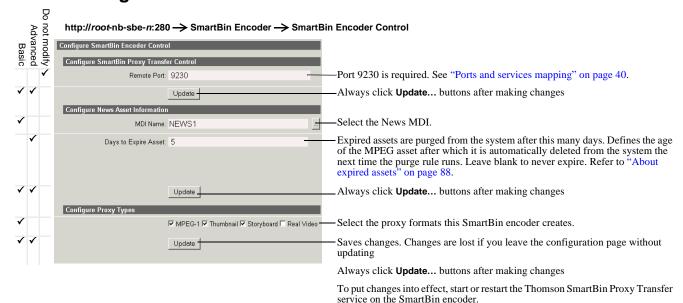


This page tells the SmartBin encoder where to look for the ASK service, which runs on the NewsBrowse server. The function of the ASK is to store the location of NewsBrowse components.

Configure Media Frame Core ASK: SmartBin encoder

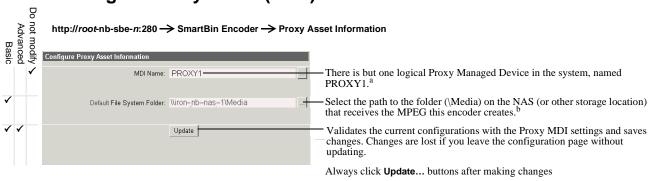
Make sure the SmartBin encoder is registered with the ASK software component with a logical name, as explained in "Configure Media Frame ASK: Register components" on page 60.

Configure SmartBin Encoder Control



This page configures the SmartBin encoder.

Configure Proxy Asset (NAS): SmartBin encoder



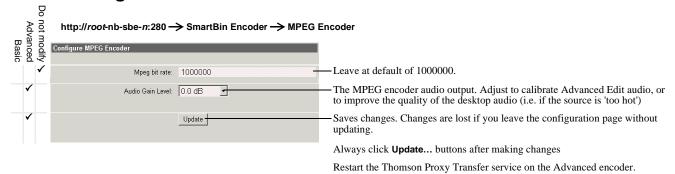
To put changes into effect, start or restart the SmartBin Proxy Transfer

on the Proxy MDI configuration page.

This page specifies the default location (on a NAS machine) in which the SmartBin encoder places the MPEG, thumbnail, and storyboard proxy it creates.

When this page opens and when you click a ... button, fields and lists are populated with valid information as currently defined on the Proxy MDI settings page.

Configure MPEG encoder: SmartBin encoder

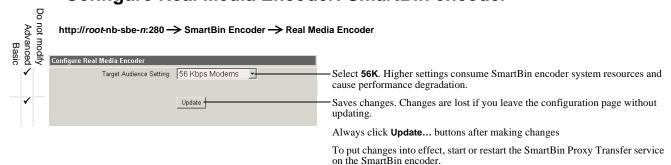


This page configures the parameters the encoder uses when it creates the MPEG proxy.

a. PROXY1 can have multiple folders (on multiple machines) defined as locations for proxy files. These locations are defined

b. This location is used when in Rules, Proxy Storage Location is blank (*).

Configure Real Media Encoder: SmartBin encoder



This page sets the resolution for the Real Media proxy created by the SmartBin encoder.

Test: SmartBin encoder

On the NewsBrowse launch page, the "Smart Bin Encoder Status" page displays the status of all Smart Bin Encoders in the system. This page displays the list of all jobs attempted by the Smart Bin Encoders. For each job, the following are provided:

- encoder name,
- the source and destination file names,
- the time the job was run,
- job status (with error information if the job was unsuccessful), and
- job completion percentage (if job is currently running)

Check the Smart Bin Encoder Status page as you run the following test.

The following test exercises system functionality exclusive creating MPEG, storyboard, and thumbnail proxy from a high-res source clip. A successful test verifies that the basic configurations are correct.

ASK configuration, as in "MediaFrame stage" on page 59, is required for this test.

Test description: Trigger proxy creation by placing high-res material in the location monitored by the SmartBin Encoder.

Run the test as follows:

- 1. Make sure that the NewsBrowse system is not in use.
- 2. Start the Thomson Resolver service and the Thomson Metadata service on the NewsBrowse server.
- 3. Start the Thomson SmartBin Proxy Transfer service on the SmartBin encoder.
- 4. Click Start | Programs | Thomson | Event Viewer to open Event Viewer.
- 5. Use Ingest Station to record to a SmartBin.
- 6. Watch Event Viewer and verify that the MPEG, storyboard, and thumbnail proxy are created and copied to the NewsBrowse proxy NAS. Also verify that the high-res media goes to the K2 high-res media storage.

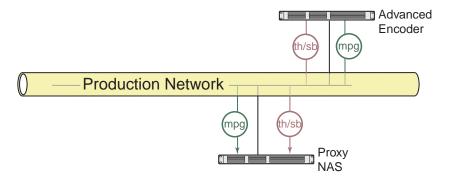
Checklist: SmartBin stage

Use the following check list to verify that the basic configuration and testing of the SmartBin encoder is complete.
☐ When high-res material appears in the location monitored by the SmartBin encoder, MPEG, thumbnail, and/or storyboard proxy are created.
☐ SmartBins Service writes to K2 system.
☐ SmartBin encoder writes to NewsBrowse NAS

Advanced encoder stand-alone stage

For this configuration stage you configure and test one Advanced encoder and one NAS to work together. The Advanced encoder functions as both an Image Support Server to create thumbnail, and storyboard assets, and as a Sequential (scavenge) encoder to create MPEG proxy assets.

The portion of the NewsBrowse system configured and tested in this stage is illustrated by the following diagram.

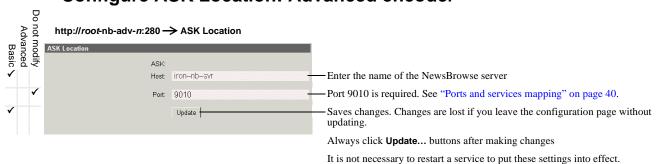


Refer to "System diagram - K2 storage" on page 11 for a view of the entire NewsBrowse system.

To do the basic configuration and testing of a Advanced encoder stand-alone, do the following:

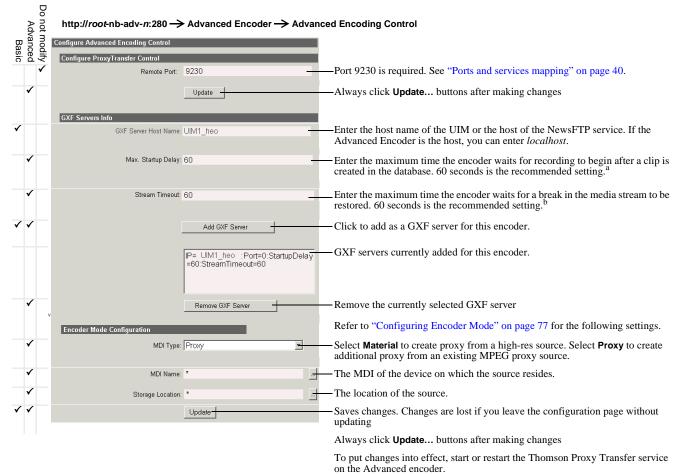
- 1. "Configure ASK Location: Advanced encoder" on page 76
- 2. "Configure Advanced Encoding Control" on page 77
- 3. "Configure Proxy Asset (NAS): Advanced encoder" on page 79
- 4. "Configure MPEG encoder: Advanced encoder" on page 79
- 5. "Configure Real Media Encoder: Advanced encoder" on page 80
- 6. "Test: Advanced encoder stand-alone stage high-res source" on page 80
- 7. "Test: Advanced encoder stand-alone stage MPEG proxy source" on page 82

Configure ASK Location: Advanced encoder



This page tells the Advanced encoder where to look for the ASK service, which runs on the NewsBrowse server. The function of the ASK is to store the location of NewsBrowse components.

Configure Advanced Encoding Control



a. When you create a new clip name in the media database on the K2 system, the encoder is notified and waits for the media file to appear. Set this value to be the maximum time allowed in your workflow between the creation of a clip name and the commencement of recording the clip.

This page configures the connections between the Advanced encoder and the server from which it gets its media stream.

Configuring Encoder Mode

These settings allow you to set up the Advanced Encoder to generate proxy for high-priority ingest or edited material. This dedicated Advanced Encoder then only runs scavenge operations when new material appears in a specific location. That way you can be assured that your high-priority ingest or edited material is immediately processed, even if there are multiple other lower priority scavenge jobs that need to be done at the same time. Your other un-dedicated Advanced Encoders can do the low priority jobs without interfering with the availability of the dedicated Advanced Encoders.

For version 3.1, it is recommended that you dedicate at least one Advanced

b. If the high-res stream for which the encoder is creating proxy material is interrupted, the encoder waits this long for the stream to continue.

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Encoder to scavenge newly edited material that you place in an "Outbox" folder. Refer to "Design considerations - NewsBrowse with NewsEdit" on page 11.

To dedicate the Advanced Encoder to a folder, do the following:

- For MDI Type, select Material.
- For MDI Name, select a valid MDI Name (other than "*"). To scavenge material in an "Outbox" folder on a K2 Storage System, select the News MDI.
- For Storage Location, select a valid Storage Location (other than "*"). To scavenge material in an "Outbox" folder on a K2 Storage System, select the specific folder.

If the NewsBrowse system uses both Single Channel Encoders and Advanced Encoders, you must configure so as to guarantee the generation of Storyboard/ Thumbnails for the proxy generated by the Single Channel Encoder. In this case do the following:

- For MDI Type, select **Proxy**.
- For MDI Name, enter "*" or select a valid Proxy MDI name.
- For Storage Location, enter "*" or select a valid location name.

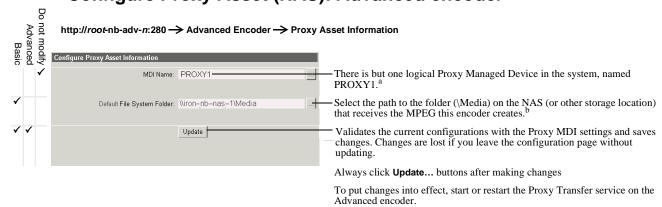
You can dedicate the Advanced encoder to a particular Proxy NAS location. This assumes that for a single Proxy MDI (PROXY1) there are multiple NAS locations.

- To configure the Advanced encoder to process proxy media on all locations, enter "*".
- To configure the Advanced encoder to process proxy media on one location, select that location as the Proxy Storage Location.

Configuration rules:

- If the MDI name is "*", the Storage Location must be "*".
- If the configuration file is manually updated (not recommended) to disable both Material Source and Proxy Source, the following occurs:
 - Proxy Transfer Service will log an error message "Error: Both Scavenge Mode and ISS Mode are disabled. This Encoder will not be able to do any encoding" in the log.
 - On the Advanced Encoding Control configuration page, red text "Error: Both Scavenge Mode and ISS Mode are disabled. This Encoder will not be able to do any encoding" is displayed.

Configure Proxy Asset (NAS): Advanced encoder

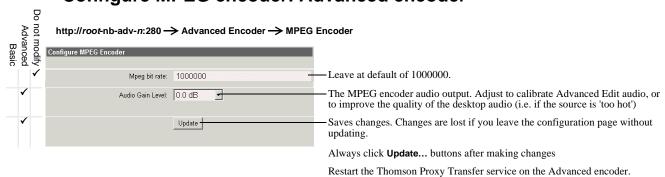


a. PROXY1 can have multiple folders (on multiple machines) defined as locations for assets. These locations are defined on the Proxy MDI configuration page.

This page specifies the default location (on a NAS machine) in which the Advanced encoder places the MPEG proxy, thumbnail, and storyboard assets it creates.

When this page opens and when you click a ... button, fields and lists are populated with valid information as currently defined on the Proxy MDI settings page.

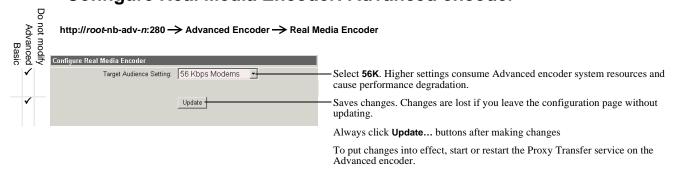
Configure MPEG encoder: Advanced encoder



This page configures the parameters the encoder uses when it creates the MPEG proxy assets.

 $^{^{\}rm b.}$ This location is used when in Rules, Proxy Storage Location is blank (*).

Configure Real Media Encoder: Advanced encoder



This page sets the resolution for the Real Media assets created by the Advanced encoder.

Test: Advanced encoder stand-alone stage - high-res source

The following test exercises Advanced encoder functionality for creating proxy using News high-res material as the source. A successful test verifies that the basic configurations are correct.

Test description: New proxy types (MPEG, thumbnail, storyboard) are created from high-res material and are transferred to a different location.

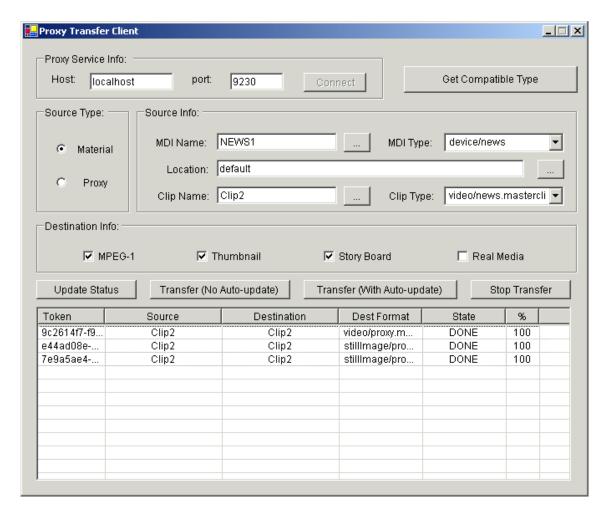
ASK configuration, as in "MediaFrame stage" on page 59, is required for this test.

NOTE: Run this test only in the stand-alone stage, with machines that have not yet been added as managed devices (as in the + Server stage). Once the server is connected, this test can result in corrupt database records.

Run the test as follows:

- 1. Make sure that the NewsBrowse system is not in use.
- 2. Make sure the Rules Wizard Service, Thomson Resolver service, and the Thomson Metadata service are off on the NewsBrowse server.

3. On the Advanced encoder, click **Start | Programs | Thomson | NewsBrowse | Diagnostic Tools | Proxy Transfer Client**. The Proxy Transfer Client application opens.



4. Configure as follows to check the connection:

Host: localhost

• Port: 9230

- 5. Click **Connect**. Verify that the "... Update..." and "... Transfer..." buttons become enabled, which means the connection is successful.
- 6. Configure as follows to define the source clip on the News hi-res storage:
 - Source Type: Select Material.
 - MDI Name: Select the logical name of the News MDI.
 - MDI Type: This should automatically fill in as device/news
 - Location: Select the bin on the News hi-res storage that holds the test material.
 - Clip Name: Select the test clip.

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- Clip Type: This should automatically fill in as video/news.masterclip
- 7. Select the following to transfer/transcode proxy:
 - MPEG-1
 - Thumbnail
 - · Story Board
- 8. Click **Transfer (With Auto update)**. Watch the report in the State column to verify that the proxy creation is successful. The proxy files are written to the location configured on the Proxy Asset configuration page as "Default File System Folder".
- 9. Using Windows Explorer, verify the MPEG, storyboard, and thumbnail proxy is created. Open and play the MPEG clip. Validate video and audio.

Test: Advanced encoder stand-alone stage - MPEG proxy source

The following test exercises system functionality exclusive to configurations for creating thumbnail and storyboard proxy from MPEG proxy. A successful test verifies that the basic configurations are correct.

Test description: Thumbnail and storyboard proxy are created from MPEG proxy.

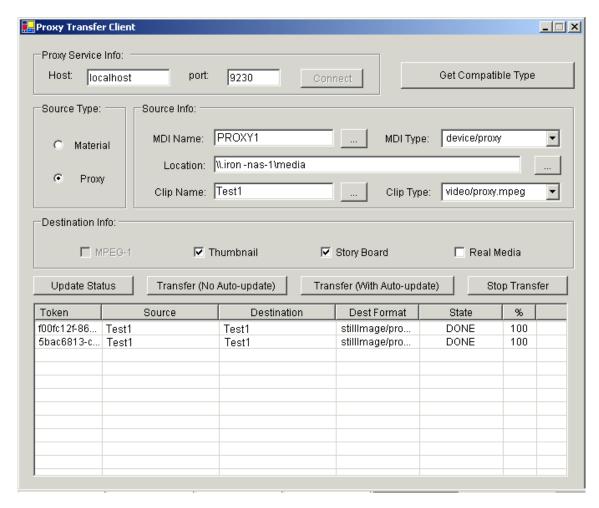
ASK configuration, as in "MediaFrame stage" on page 59, is required for this test.

NOTE: Run this test only in the stand-alone stage, with machines that have not yet been added as managed devices (as in the + Server stage). Once the server is connected, this test can result in corrupt database records.

Run the test as follows:

- 1. Make sure that the NewsBrowse system is not in use.
- 2. Make sure the Rules Wizard Service, Thomson Resolver service, and the Thomson Metadata service are off on the NewsBrowse server.

3. On the Advanced encoder, click **Start | Programs | Thomson | NewsBrowse | Diagnostic Tools | Proxy Transfer Client**. The Proxy Transfer Client application opens.



- 4. Configure as follows to check the connection:
 - · Host: localhost
 - Port: 9230
- 5. Click **Connect**. Verify that the "... Update..." and "... Transfer..." buttons become enabled, which means the connection is successful.
- 6. Configure as follows to define the MPEG source on the NAS:
 - Source Type: Select **Proxy**.
 - MDI Name: Select the logical name of the Proxy MDI.
 - MDI Type: Select device/proxy.
 - Location: Select the directory on the NAS that holds the test proxy MPEG.
 - Clip Name: Select the test clip.

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- Clip Type: Select video/proxy.mpeg
- 7. Select the following to transfer/transcode proxy:
 - Thumbnail
 - · Story Board
- 8. Click **Transfer (With Auto update)**. Track progress in the State column until it reports DONE. The proxy files are written to the location configured on the Proxy Asset configuration page as "Default File System Folder"
- 9. Using Windows Explorer, verify that the thumbnail and storyboard test files were written to the proper directory.

Checklist: Advanced encoder stand-alone stage

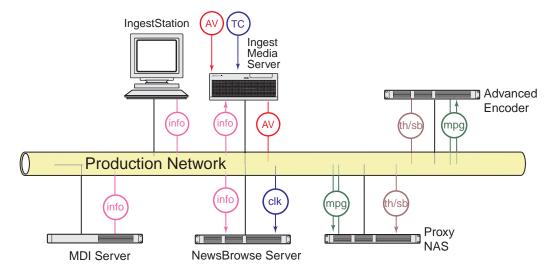
 \square Storyboard files are created.

Use the following check list to verify that the basic configuration and testing of the stand-alone Advanced encoder is complete.
☐ Advanced encoder is connected to NAS
☐ Encoder writes to NAS
☐ MPEG created
☐ MPEG playback with audio
☐ Thumbnails files are created.

Advanced encoder + Server stage

For this configuration stage you configure the NewsBrowse server to work together with the Advanced encoder and NAS from the Advanced encoder stand-alone stage. MDI services are also required, as configured in the MediaFrame stage.

The portion of the NewsBrowse system configured and tested in this stage is illustrated by the following diagram.



Refer to "System diagram - K2 storage" on page 11 for a view of the entire NewsBrowse system.

To do the basic configuration and testing of the encoder plus server, do the following:

- 1. "Configure Media Frame Core ASK: Advanced encoder" on page 85
- 2. "Configure Rules Automation: Advanced encoder" on page 86
- 3. "Test: Advanced encoder + Server stage high-res source" on page 88
- 4. "Test: Advanced encoder + Server stage MPEG proxy source" on page 89

Configure Media Frame Core ASK: Advanced encoder

Make sure the Advanced encoder's Proxy Transfer service is registered with the ASK software component with a logical name, as explained in "Configure Media Frame ASK: Register components" on page 60.

Configure Rules Automation: Advanced encoder Do not modify http://root-nb-svr:280 → Media Frame Core → Rules Automation The following settings define the creation of proxy assets. Proxy Creation Rule Source: Material Select Material if this rule creates proxy from a high-res source. Select MPEG-1 if this rule creates additional proxy from an existing MPEG proxy source. Refer to "About configuring rules" on page 87. MDI Name: NEWS1 Select the MDI for the machine monitored by the Advanced encoder. MDI Storage Location: HoldForReview Enter the location on the machine that the NewsBrowse system monitors for new material. Note: You must use forward slashes for this path. ✓ Include Subfolders Select to also monitor for material in folders nested in "MDI Storage Location". Proxy Types: ▼ MPEG-1 ▼ Thumbnail Select the proxy types to be created by this rule. (MPEG-1 option appears only if Source = Material above.) Proxy MDI Name: PROXY1 Must be PROXY1. (This option appears only if Source = Material above.) Enter the location. Enter * so the system can use any NAS and keep proxy Proxy Storage Location: \\iron-nas-1\media assets together. (This option appears only if Source = Material above.) Transfer Priority: Normal Set all rules to Normal to ensure all are processed in the order received. Higher or lower priority settings can cause a delay for the lower priority rules. Select one or both. Refer to "About configuring rules" on page 87. (These options appear only if Source = Material above.) ▼ Recreate Proxy if Content is Modified Expire Asset in 1 Expired assets are purged from the system after this many days. Leave blank to never expire. Refer to "About expired assets" on page 88. (This option appears only if Source = Material above.) Add Rule adds the above settings as a new Proxy Creation rule. Add Rule Update Rule The **Update Rule** button only appears if an existing rule is selected in the Existing Rules box below, in which case the button puts into effect any changes you have made to the existing rule. Existing Rules Displays all currently added rules. When a rule is selected, the options above are automatically loaded with the settings for the selected rule. You can then Create Proxy from material, MDI: NEWS1 Conformed Create Proxy from material. MDI: NEWS1 HoldForReview Create Proxy from material. MDI: NEWS1 RestoreFromArc modify the rule and update it, or modify the rule and add it as a new rule. Remove Rule Removes the currently selected rule Rule Retry Policy Max Number Of Retries: 3 Specifies how many times the system retries a failed rule. Keep this setting at 3 or below for most rules to prevent degradation of system performance. Retry Priority: Increase When a failed rule is retried, its priority can be changed in relation to other rules currently being processed. Set to Increase to promote timely processing. Save Retry setting changes Update Retry Policy -

a. When the Rule specifies "*" as the Proxy Storage Location the Default File System Folder is used, as configured in "Configure Proxy Asset (NAS): Advanced encoder" on page 79

This page defines the rules for an Advanced Encoder creating proxy.

To scavenge newly-edited material in an "Outbox" folder on a K2 Storage System, for MDI Name, select the News MDI and location as in "Configure Advanced Encoding Control" on page 77.

Always click **Update...** buttons after making changes

You must start or restart the Thomson Rules Wizard service on the NewsBrowse server to put changes into effect, but if you are doing the initial configuration of the Advanced encoder + Server stage, don't start the service until instructed to do so in the Advanced encoder + Server stage test.

The following sections explain rules.

About configuring rules

The Rules Automation Settings page dynamically offers the appropriate options based on the currently selected source, as follows:

Rules when the source is high-res material

These rules create MPEG, thumbnails, storyboards, and Real Media proxy from high-res material. This is also known as a "scavenge" operation and is similar to Sequential encoder functionality. Depending on the desired behavior of the system you may have to create multiple rules for the MPEG creation. There are two types of rules, as follows:

- **Create while Recording** This rule causes MPEG to be created while the system is still encoding the high-res material.
- Recreate Proxy if Content is Modified This rule will cause the system to delete the proxy associated with high-res material if the material has its content modified. It will then recreate the MPEG proxy for the material. Note: This rule is normally not configured for Open SAN systems. It should be configured for K2 storage systems.

The following takes place by default with both these types of rules:

• When the Rules Wizard starts up, it traverses a high-res device MDI to see if there is any material that does not have MPEG proxy associated with it, according to the currently configured rules. The Rules Wizard will only check the system once after startup to see if it needs to create any of this proxy.

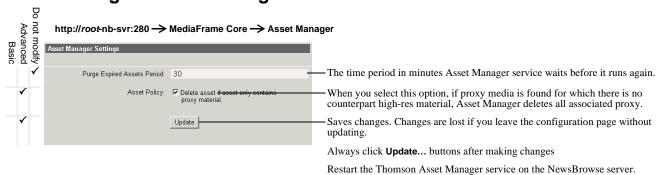
Rules when the source is MPEG proxy

These rules create thumbnails, storyboards, and Real Media video from MPEG proxy. This is similar to Image Support Server (ISS) functionality. Most systems only create thumbnail and storyboard material.

Tips for configuring rules

- Configure one rule per folder or "location". Multiple overlapping rules that access the same folder can produce looping behaviors and other unexpected results.
- If using SmartBin Encoders or Single-channel Encoders for ingest, don't use Advanced Encoder rules for ingest.

Configure Asset Manager



When the Asset Manager service runs it looks for expired assets and orphaned assets that should be purged from the system. It also maintains the assets currently in the Resolver and if necessary initiates the creation of proxy to keep assets in synch. This page configures the frequency and rules by which the Asset Manager carries out its

About expired assets

processes.

When NewsBrowse assets are created, they can be assigned a "MetadataExpire" date. This is the value that you enter on the Rules Automation Setting configuration page or on the SmartBin Encoder Control configuration page. The "MetadataExpire" date is set to the current date plus the number of "Days to Expire Asset". If you do not set a "Days to Expire Asset" value, the asset will never be purged automatically.

The NewsBrowse Asset Manager executes a periodic purge task that runs at the frequency (in minutes) that you configure on the Asset Manager Settings configuration page, starting from the last time the Asset Manager service is started. This task takes the current time of day date/time stamp and compares it to the "MetadataExpire" date, and if the date portion of the current timestamp is <= the "MetadataExpire" date, the Asset Manager will attempt to delete the asset. Thus, the actual purge period can occur up to a day earlier than expected.

Recommendation:

Set the "Days to Expire Asset" to one more than required to ensure that assets are not deleted sooner than required.

For example, if you want assets to reside in the system approximately (but not less than) one day, the "Days to Expire Asset" value should be set to 2. This will result in actual asset lifetimes between 24 and 72 hours in the system. If you require the maximum period to be closer to 48 hours than 72, decreasing the Purge Period from 1440 (24 hours) to a smaller value should be effective.

Test: Advanced encoder + Server stage - high-res source

The following test exercises system functionality exclusive to the rules for creating MPEG proxy, storyboard, and thumbnail assets from high-res material. A successful test verifies that the basic configurations for the rules are correct.

Test description: Trigger rules by creating/modifying a high-res clip on the K2 storage while the Rules Wizard service is off, then on.

Run the test as follows:

- 1. Make sure that the NewsBrowse system is not in use.
- 2. Make sure the Thomson Rules Wizard service is off on the NewsBrowse server.
- 3. Start the Thomson Resolver service and the Thomson Metadata service on the NewsBrowse server.
- 4. Click Start | Programs | Thomson | Event Viewer to open Event Viewer.
- 5. On a K2 system, copy a clip into a bin monitored by the Advanced encoder.
- 6. On the NewsBrowse server, start the Thomson Rules Wizard. Watch Event Viewer and verify that the MPEG, storyboard, and thumbnail proxy are created for the clip.
- 7. On the K2 system, copy another clip into the bin. Watch Event Viewer and verify that the MPEG, storyboard, and thumbnail proxy are created for the clip.
- 8. In you have a "...if content is modified" rule configured for high-res clips, on the K2 system, modify a clip (rename) in the bin. Watch Event Viewer and verify that the MPEG, storyboard, and thumbnail proxy are created for the modified clip.
- 9. If you have a "Create while recording" rule configured for high-res clips, on the K2 system, record a clip into a bin monitored by the Advanced Encoder. Watch Event Viewer and verify that the MPEG, storyboard, and thumbnail proxy are created (in real-time) as the clip is recorded.

Test: Advanced encoder + Server stage - MPEG proxy source

The following test exercises system functionality exclusive to the rules for creating storyboard and thumbnail proxy from MPEG proxy. A successful test verifies that the basic configurations are correct. This test assumes that you are using single-channel encoders for creating the MPEG proxy at ingest.

Test description: Trigger rules by creating a clip on a Profile system while the Rules Wizard service is off, then on.

Run the test as follows:

1. Make sure that the NewsBrowse system is not in use.

NOTE: Inform operators that they must not use the channels under test.

- 2. Stop the Thomson Rules Wizard service on the NewsBrowse server.
- 3. Start the Thomson Resolver service and the Thomson Metadata service on the NewsBrowse server.
- 4. From the NewsBrowse server, open the NewsBrowse application.
- 5. Ingest a short test clip. On the related tab, verify that only the MPEG proxy is created.
- 6. Start the Thomson Rules Wizard service on the NewsBrowse server. In the NewsBrowse application on the related tab, verify that the thumbnail and storyboard proxy are created for the MPEG proxy, as per your currently configured rules. This could take a few minutes, depending on clip length.

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- 7. Ingest a short test clip. On the related tab, verify that the MPEG proxy is created and the other proxy are created as well. This could take a few minutes, depending on clip length.
- 8. Stop the Thomson Rules Wizard service, Thomson Resolver service, and the Thomson Metadata service on the NewsBrowse server.

Checklist: Advanced encoder + Server stage

Use the following check list to verify that the basic configuration and testing of the single-channel encoder plus NewsBrowse server is complete.
☐ When the Rules Wizard starts up, rules work as configured for the creation of MPEG, thumbnail, and storyboard proxy.
☐ When a clip is ingested, rules work as configured for the creation of MPEG, thumbnail, and storyboard proxy.
☐ When a high-res clip is copied into a monitored bin, rules work as configured for creation of MPEG, thumbnail, and storyboard proxy.
☐ When a high-res clip is modified, rules work as configured for creation of MPEG, thumbnail, and storyboard proxy.

EDL Export, Save, Conform stage

For this configuration stage you configure the settings for the following Edit Decision List (EDL) features. These features are available in the NewsBrowse application when EDLs are created:

- Export Exports an EDL to a pre-defined location.
- Save Saves the EDL as a NewsBrowse system asset for future use.
- Conform Creates a high-res asset that matches the EDL on a K2 system. This functionality is available for M-Series iVDRs and Profile XP systems as well.
- Conform to Air Creates a high-res asset that matches the EDL on one K2 system, then transfers the asset to another K2 system. This functionality is available for M-Series iVDRs and Profile XP systems as well.

Conform server requirements are as follows:

- V:\ should be mapped to the share1 on the high-res storage system.
- Host table should have an entry for the K2 system connection, as in the following example:

```
192.168.18.8 iron-k2-1 iron-k2-1_he0
```

• If conforming to a M-Series the host table should have an entry for the M-Series High Speed Ethernet connection, as in the following example:

```
192.168.20.8 iron-ivdr-1 iron-ivdr-1_he0
```

• If conforming to a Profile the host table should have an entry to the High Speed Ethernet connection on the UIM, as in the following example:

```
192.168.18.61 iron-xp-uim-1 iron-xp-1-uim_he0
```

To do the basic configuration and testing of the EDL stage, do the following:

- 1. "Configure Profile MDI: Conform to air settings" on page 92
- 2. "Configure NTFS MDI" on page 93
- 3. "Configure Media Frame Core ASK: NTFS" on page 93
- 4. "Configure Conform Services" on page 94
- 5. "Configure Export Services" on page 95
- 6. "Configure Save EDL settings" on page 96
- 7. "Test: EDL stage" on page 97

Configure Profile MDI: Conform to air settings D Advanced Basic http://localhost:280 → Profile MDI Access this page locally on the MDI server. Profile MDI Settings Port: 9130 Port 9100 is required. See "Ports and services mapping" on page 40. All Domain names in the NewsBrowse system must be identical. Domain: DEFAULTDOMAIN Saves changes. Changes are lost if you leave the configuration page without Update updating. Add Profile MDI - Select a Profile MDI. MDI Name: PROFILE2 Profile Host Name or IP: PVS-2 Enter the hostname of the Profile for the MDI selected above.^a Enter the hostname of the backup Profile.^b Secondary Profile Host Name/IP(s): Asset System Dwell Time (mins): 2 The time that the Profile MDI waits before it informs the NewsBrowse system that a clip has finished recording. Leave at 2. Port: 9132 Automatically increments so each Profile MDI has a unique process port. Click to add as an existing managed device. For stand-alone Profile Media Add Profile Managed Device Servers, add a MDI for each one. For Open SAN Profile Media Servers, add only one MDI per Open SAN. Existing Profile MDIs Verify the MDIs currently on-line. A listing for a single Profile MDI includes 0 - SAN1 mpvs-1 2 9130 1 - PROFILE1 pvs-1 2 9131 the values from all four "Add Profile MDI" fields above. Click to remove the selected managed device. Remove Profile Managed Device The following settings specify Profiles to which material can be transferred via Fibre Channel from other Profiles. This is used by Conform-To-Air EDL and other Fibre Channel transfers. The transfer operation requires the fibre channel Profile MDI Name: PROFILE2 Select the MDI for a Profile to which material can be transferred. Profile Host Name: PVS-2 Hostname of the Profile specified above. Click to add as a transfer target. This makes the Profile available for selection Add Transfer Target from the NewsBrowse application as a transfer destination. Profiles capable of receiving a Fibre Channel transfer. Click to remove the selected transfer target. Always click **Update...** buttons after making changes To put changes into effect, start or restart Profile MDI Service on the MDI server.

This page configures the Managed Device Interface (MDI) for the Profile Media Servers that record and store the high-res media. The NewsBrowse system depends on the Profile MDI to make high-res media assets visible across the system.

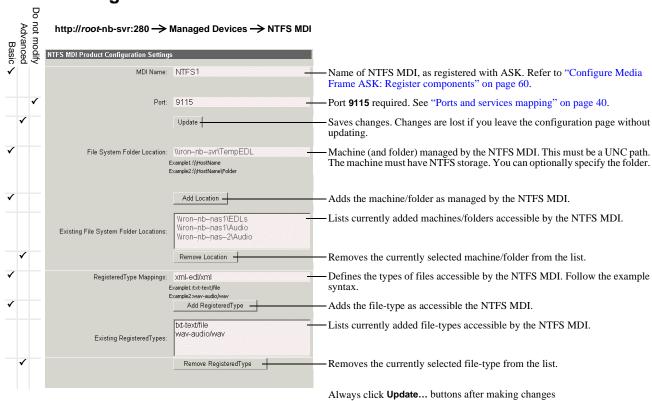
For the EDL stage, configure the settings related to the EDL Conform to air feature. Specify one of more on-air Profiles as the targets to which conformed high-res clips can be transferred for playout.

For other settings, refer to "Configure Profile MDIs" on page 66.

^{a.}Make sure the Profile name is entered just as it is in the host table.

b. Make sure the Profile name is entered just as it is in the host table.

Configure NTFS MDI



This page specifies the machines, directories, and file types that the NTFS MDI can access. The NewsBrowse application makes these available as selections for saving and managing assets, including EDLs.

- Enter a location for saving EDLs. Typically this would be on a NAS machine, such as \normalfont -nas- $n\EDLs$.
- Enter a location for temporarily saving EDLs as they are being conformed. Typically this would be on the NewsBrowse server, such as \rdown root-nb-svr \TempEDL .

NOTE: Configure different locations for EDL operations. Do not use the same locations for saving, temporary saving, conforming, and exporting EDLs.

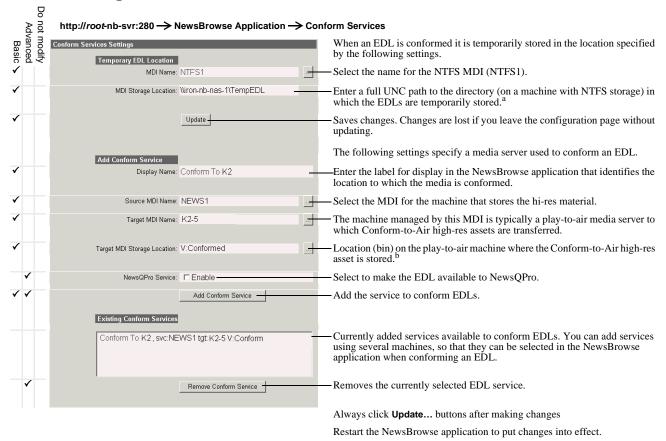
- Enter a location for saving audio files. Typically this would be on a NAS machine, such as \root -nas- $n\$ Audio.
- Enter *xml-edl/xml* and *wav-audio/wav* as a file-types.

Configure Media Frame Core ASK: NTFS

Make sure the NTFS MDI is registered with the ASK software component with a logical name, as explained in "Configure Media Frame ASK: Register components" on page 60.

Restart the Thomson NTFS MDI Service on the NewsBrowse server.

Configure Conform Services



a. This directory must be shared so it can be accessed by the NewsBrowse server.

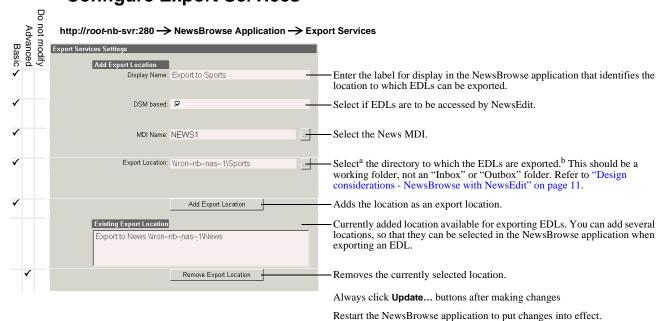
This page tells the NewsBrowse application where to store EDLs that are to be conformed and specifies location to which EDLs are conformed. You can add multiple machines, each of which is then available for selection from the NewsBrowse application.

NOTE: Configure different locations for EDL operations. Do not use the same locations for saving, temporary saving, conforming, and exporting EDLs.

For a Conform-To-Air service, the resultant high-res asset is transferred to an On-Air media server (usually a stand-alone system) for playout. You must define the NewsBrowse application display name, the media servers, and the locations to make this type of Conform-to-Air service available in the NewsBrowse application.

b. This list is automatically populated by reading the volume and bin names from the media servers indicated by "Target MDI Name" above

Configure Export Services



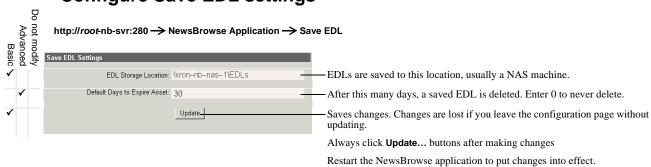
a. If the Export Location button does not open a Browse dialog box, enable the Internet Explorer setting "Initialize and Script ActiveX Controls...". Refer to "Accessing system configuration pages" on page 56 for procedures.

This page tells the NewsBrowse application the locations available for exporting EDLs. You can add multiple locations, each of which is then available for selection from the NewsBrowse application. Name locations and add them according to workflow needs.

NOTE: Configure different locations for EDL operations. Do not use the same locations for saving, temporary saving, conforming, and exporting EDLs.

b. This directory must be shared so it can be accessed by the NewsBrowse server.

Configure Save EDL settings



This page tells the NewsBrowse application where to save EDLs and how long to keep them in the system.

NOTE: Configure different locations for EDL operations. Do not use the same locations for saving, temporary saving, conforming, and exporting EDLs.

Test: EDL stage

The following test exercises system functionality exclusive to the EDL configurations. A successful test verifies that the basic configurations are correct.

Test description: Using the NewsBrowse application, create an EDL, then export, save, and conform it.

Run the test as follows:

- 1. Make sure that the NewsBrowse system is not in use.
- 2. Load a clip in the NewsBrowse application.
- 3. Mark in/out region of the clip and press the Insert to Timeline button to add to the timeline. Do this a couple of times with this and other assets.
- 4. Select Save from the timeline control. Enter and take note of the name used for saving. The save should be successful.
- 5. Refresh the results list by clicking the Go button with no criteria selected. The EDL asset name should appear in the results list.
- 6. Select the Export button from the timeline control. Select a destination and choose export.
- 7. Select Conform from the timeline control. Enter and take note of the name used for conforming. Select a target (not a Conform to Air target) and choose Conform.
- 8. Select Conform again from the timeline control. Enter and take note of the name used for conforming. Select a Conform to Air target and choose Conform.
- 9. To verify export, go to the NewsEdit system and check for the exported sequence in the expected location.

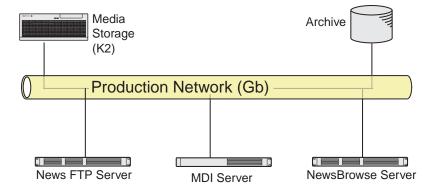
Checklist: EDL stage

Use the following check list to verify that the basic configuration and testing of the EDL functionality is complete.
☐ EDL is created and saved.
☐ Saved EDL available as asset from NewsBrowse application
☐ EDL exports to specified location

Archive stage

For this configuration stage you configure your archive MDI, high-res storage, and the NewsBrowse server to work together. This assumes that the archive devices are already installed and connected.

The portion of the NewsBrowse system configured and tested in this stage is illustrated by the following diagram.



To support archive functionality on a NewsBrowse on the News/K2 system, you must install a unique NewsFTP on a platform somewhere in the system.

To configure and test the Archive stage, do the following:

- 1. "Add archive MDI" on page 99
- 2. "Verify archive preparations" on page 100
- 3. "Configure ASK Location: Archive MDI host" on page 103
- 4. "Configure Media Frame Core ASK: Archive" on page 103
- 5. "Configure Avalon Archive MDI" on page 104
- 6. "Configure FlashNet MDI" on page 105
- 7. "Configure DIVA MDI" on page 106
- 8. "Configure Archive Services." on page 107
- 9. "Test: Archive stage" on page 107

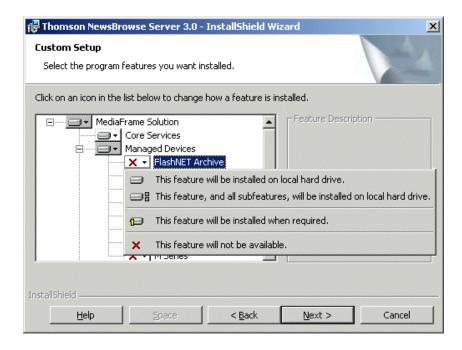
Add archive MDI

The archive MDI software component runs as a service. The archive MDIs that are available for the different types of archive devices are as follows:

- Avalon Archive MDI runs as the Thomson Avalon Archive MDI service
- FlashNet MDI runs as the Thomson FlashNet MDI service
- DIVA MDI runs as the Thomson DIVA MDI service

The archive MDI software component must be installed on a network connected computer. Similar to the other MDIs in the NewsBrowse system, the archive MDI can be installed on a MDI server or on the NewsBrowse server, depending on the size and design of your NewsBrowse system.

You can install the archive MDI software component from the NewsBrowse server installation program. Select the component for your archive from the Custom setup page.



Verify archive preparations

Be aware of the following when setting up for integration with an archive system:

- Devices support a limited number of concurrent transfers, as follows:
 - A single Profile XP (either stand-alone or on a Open SAN system), provides a maximum of four streams for concurrent transfers (via Fibre Channel).
 - An internal storage (stand-alone) K2 Media Client provides a maximum of four streams for concurrent transfers.

Keep this limit in mind when configuring the archive device for concurrent transfers. If the archive is configured such that it can request more than the number of supported streams simultaneously from any single system, the additional transfers will error out.

For the type of archive device you use, check the following to verify proper operation with the NewsBrowse system.

Avalon archive preparations

Check the following on the machine which runs Avalon IDM Software (Archive):

- 1. Login to the machine and go to /avalon/aam/utils
- 2. Run stataam and verify all services running properly.
- 3. Make sure host tables are set correctly. Verify for the machine name/IP which IDM will talk to.
- 4. If archiving from a Profile XP or Open SAN system, make sure the Fiber channel interfaces are configured so that Avalon IDM can talk to the Profiles.

Consider the following when preparing to integrate Avalon archive with NewsBrowse:

• Avalon archive has no fixed limit for concurrent transfers.

FlashNet preparations

Check the following on the machine which runs the FlashNet software:

- 1. Login to the machine.
- 2. If archiving from a Profile XP or Open SAN system, verify that you can telnet to the Profile XP Ethernet IP address on port 8192 (telnet keystone2_le0 8192).
- 3. Verify that you can FTP from the FlashNet server to the high-res storage machine:
 - If archiving from a Profile XP or Open SAN, verify that you can FTP from the FlashNet server to the Profile on the Fibre Channel address and login as user *movie*.
 - If archiving from K2 storage or NewsShare NAS, verify that you can FTP from the FlashNet server to the K2 storage or NewsShare NAS on Gigabit Ethernet and login as user *vmfmovie*.
- 4. Make sure the "FlashNet Socket Listener" and "FlashNet Automation" services are up and running.

5. Use the FlashNet "Jukebox" application to test that a drive can be successfully accessed from FlashNet. Refer to "User Guide for FlashNet running on Windows NT and Windows 2000 platforms".

Consider the following when preparing to integrate FlashNet with NewsBrowse:

- The FlashNet MDI does not take any user specified name for a full restore. The clips are restored using the original clip name (from archive). The FlashNet MDI does, however, allow a user specified name for a partial restore.
- If archiving from a Profile XP or Open SAN system, take the concurrent transfer limit into consideration. FlashNet's setting for concurrent transfers applies globally to all source/destination pairs. There is no setting on a server-by-server basis. To make the setting for "maximum number of concurrent transfers", you use a file named *C:\.dtool_env* where you can specify "API_MAX_BACKUPS" and "API_MAX_RESTORES". The following is an example for an eight drive system:

```
API_MAX_BACKUPS 2
API MAX RESTORES 4
```

This example specifies that two concurrent jobs could be used for automation ingest into the archive, four concurrent jobs could be allowed for automation restore of archives, leaving two drives spare for emergency use or another function.

- The FlashNet MDI uses a file cache to support asset functionality. As the FlashNet device does not have any support for file system updates, the FlashNet MDI assumes that the MDI is the only gateway to the entire FlashNet file system. Any changes made outside the scope of the MDI will not be reflected in MDI immediately.
- · Renaming of an asset is not supported in FlashNet.
- The FlashNet server installation must have the GENERATE UNIQUE NAME entry set to FALSE. Use *Configurator.exe* for FlashNet server configuration.
- A restore operation always defaults to highest "Time Critical" priority and archive operation defaults to "normal" priority.

DIVA preparations

Check the following on the machine which runs DIVA software:

- 1. Login to the machine.
- 2. Verify that you can FTP from the DIVA server to the machine with the high-res online material:
 - If archiving from a Profile XP or Open SAN, verify that you can FTP from the DIVA server to the Profile on the Ethernet IP address and login as user *movie*.
 - If archiving from K2 storage or NewsShare NAS, verify that you can FTP from the DIVA server to the K2 storage or NewsShare NAS on Gigabit Ethernet and login as user *vmfmovie*.

Consider the following when preparing to integrate DIVA with NewsBrowse:

• The DIVA MDI does not take any user specified name for a full restore. The clips are restored using the original name (from archive). The DIVA MDI does, however, allow a user specified name for a partial restore.

- DIVA has no fixed limit for concurrent transfers.
- If archiving from a Profile XP or Open SAN system, take the concurrent transfer limit into consideration. DIVA's setting for concurrent transfers applies to specific source/destination pairs. With the configuration utility/tool you can specify the concurrency limit on a server-by-server basis.
- The DIVA MDI makes an the assumption that the MDI is the only gateway to the entire DIVA file system. Any changes made outside the scope of the MDI will not be reflected in MDI immediately.
- Renaming of an asset is not supported in DIVA.
- A restore operation always defaults to highest "Time Critical" priority and an archive operation defaults to "normal" priority.
- The source name specified in the DIVA configuration utility must be the same as the host table name of the machine with high-res online material.
- If the DIVA server is rebooted, the Thomson DIVA MDI service must be restarted. Refer to "Accessing services" on page 55.

Network connectivity - all archive types

To test network connectivity, ping all machines from all machines.

If archiving to/from K2 Storage or NewsShare NAS, ping these machines on the GigaBit network:

- NewsBrowse server
- Archive MDI host
- · News MDI host
- The machine hosting the News FTP service
- · Archive machine
- The K2 storage or NewsShare NAS system

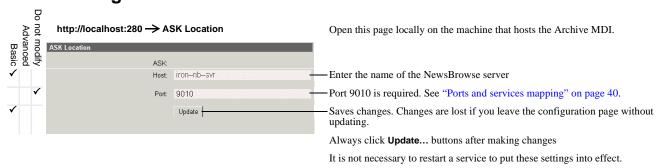
If archiving to/from Profile XP/Open SAN systems, ping these machines on the GigaBit network:

- NewsBrowse server
- Archive MDI host
- Profile MDI host (MDI server)
- Archive machine
- All Profile XP or Open SAN systems from/to which media is archived/restored

If archiving to/from Profile XP/Open SAN systems, also use Fibre Channel IP addresses and ping these machines:

- · Archive server
- All Profile systems from/to which media is archived/restored

Configure ASK Location: Archive MDI host

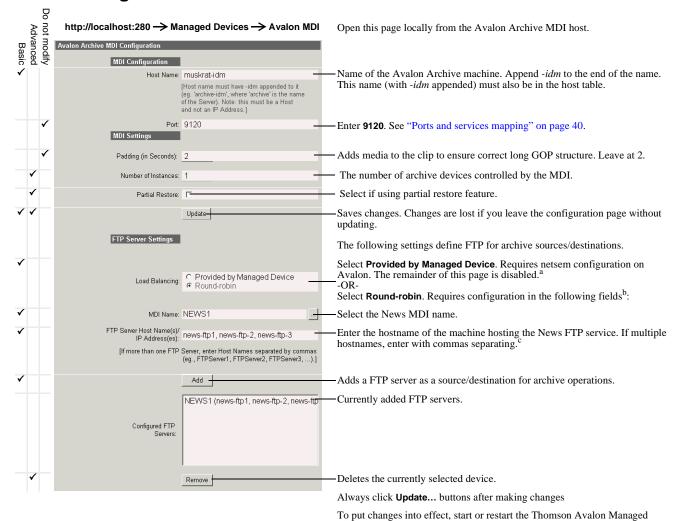


This page tells the Archive MDI host where to look for the ASK service, which runs on the NewsBrowse server. If the Archive MDI host is a MDI server or other NewsBrowse machine this configuration has likely already been done.

Configure Media Frame Core ASK: Archive

Make sure the Archive MDI is registered with the ASK software component, as explained in "Configure Media Frame ASK: Register components" on page 60.

Configure Avalon Archive MDI



a. With Avalon configuration, you define FTP Servers and load balance when you configure netsem, so it is not necessary to enter any information on this page.

Open this page locally on the machine that hosts the Avalon Archive MDI software component. In this example settings are shown for archiving to/from a NewsShare NAS. This page tells the Avalon Archive MDI where to look for FTP transfer of high-res material.

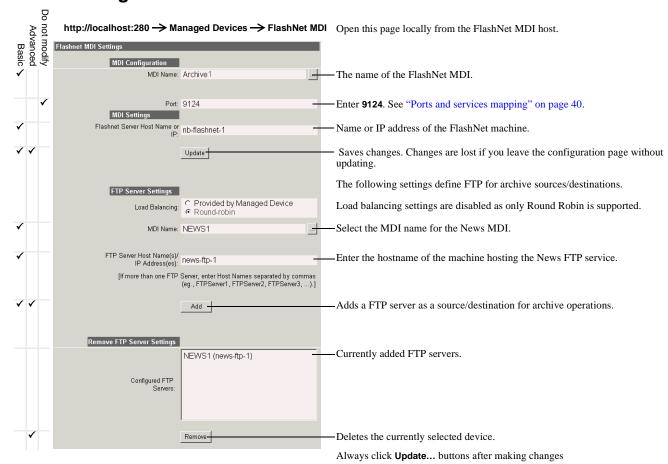
Device service.

Typically load balancing is configured using Round Robin on this page. If load balancing is provided by the managed device, when configuring netsem, make sure the netsem FTP server logical name matches the same FTP server MDI name.

b. If you do not use Avalon configuration, you must define FTP servers and load balance on this page.

c. This defines the load balancing. The order of servers entered here is the order in which the MDI seeks an open channel for an archive job.

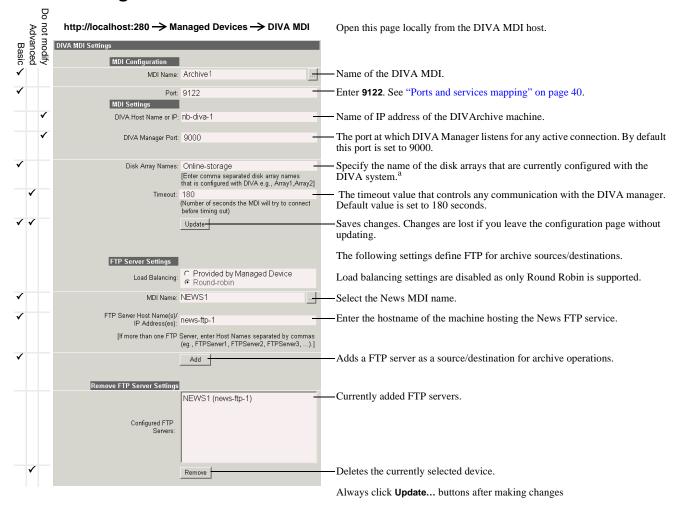
Configure FlashNet MDI



Open this page locally on the machine that hosts the FlashNet MDI software component.

This page tells the FlashNet MDI where to look for FTP transfer of high-res material. In this example settings are shown for archiving to/from a NewsShare NAS. For K2 storage or NewsShare NAS systems, archive transfers are handled by a single FTP server.

Configure DIVA MDI

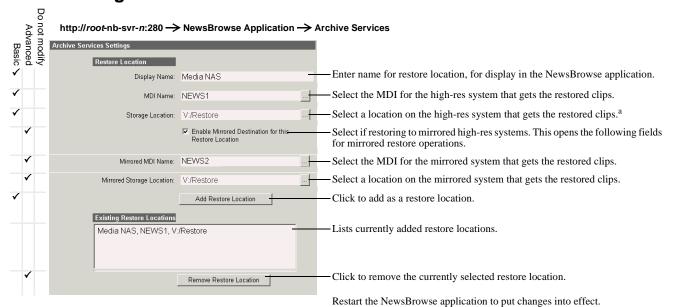


a. An array designates a collection of disks designated by their name as they are declared in the DIVArchive configuration.

Open this page locally on the machine that hosts the DIVA MDI software component.

This page tells the DIVA MDI where to look for FTP transfer of high-res media assets. In this example settings are shown for archiving to/from a NewsShare NAS. For K2 storage or NewsShare NAS systems, archive transfers are handled by a single FTP server.

Configure Archive Services.



a. Profile location lists are automatically populated by reading bins and volumes, as in Media Manager, from the Profile whose MDI is selected from the field above.

This page tells the Archive MDI where to place high-res assets as they are restored from the archive device.

When you select "Enable Mirrored Destination...", you can then enter the MDI and location for the mirrored high-res system. This allows you to define the pair of mirrored systems as a single restore location. When this single location is selected in the NewsBrowse application, clips are restored or deleted on both high-res systems simultaneously.

Test: Archive stage

The following test exercises archive functionality. A successful test verifies that the archive configurations are correct.

Test description: Using the NewsBrowse application, archive and restore high-res media.

Run the test as follows:

- 1. Make sure that the NewsBrowse system is not in use.
- 2. From the NewsBrowse server, open the NewsBrowse application.
- 3. From the **Find** tab, load an asset. After a short pause, the asset appears in the application interface.
- 4. On the **related** tab, verify that **online media** is listed as a Related Asset Component.
- 5. On the **mgmt** tab, verify the presence of the following links:
 - Modify Group Membership
 - Archive Selected Asset

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The following links might also be present if the asset has already been archived:

- Restore Selected Asset
- · Delete from Archive

Archive and Restore links are not present if the NewsBrowse user currently logged on is not assigned Archive and Restore roles. See "Configure NewsBrowse Users" on page 114.

- 6. On the **mgmt** tab, click **Archive Selected Asset**. The Archive Selected Asset settings are displayed on the tab.
- 7. Select an **Archive Group**. This list comes from the archive device. This is the location to which the high-res clip is archived.
- 8. Select delete online media following archive.
- 9. Click **Submit**, then **Yes** to confirm and **Close**.
- 10.On the NewsBrowse launch page, click **Archive Status** to track the progress of the transfer. Once the transfer is complete the status reports as DONE and 100%.
- 11.On the NewsBrowse application **Find** tab, click **Go**. The asset list reloads. Verify that an amber dot is listed with the asset. Select the asset to reload it, then click the **related** tab and verify that **offline media** is now listed.
- 12.On the **mgmt** tab, click **Restore Selected Asset**. The Restore Selected Asset settings are displayed on the tab.
- 13. Select from the **Restore to Location** list. This is the location to which the archived clip is transferred.
- 14.Click **Submit**, then **Yes** to confirm and **Close**.
- 15.On the NewsBrowse launch page, click **Archive Status** to track the progress of the transfer. Once the transfer is complete the status reports as DONE and 100%.
- 16.On the NewsBrowse application **Find** tab, click **Go**. The asset list reloads. Verify that the amber dot is no longer listed with the asset. Select the asset to reload it, then click the **related** tab and verify that both **online media** and **offline media** are now listed.

Checklist: Archive stage

Use the following check list to verify that the configuration and testing of the archive stage is complete.
☐ High-res material transfers (archives) to archive device.
☐ High-res material transfers (restores) from archive device to restore location.

Deploy remaining machines for full system

For the basic configuration path, after you have worked through all the configuration stages and verified functionality at each stage, you deploy your remaining NewsBrowse machines.

Do the following tasks to deploy your remaining NewsBrowse machines, as appropriate for the machines included in your particular NewsBrowse system. For instructions, refer to the applicable configuration stages early in this chapter.

- Deploy remaining Advanced encoders. Refer to "Advanced encoder stand-alone stage" on page 75 and "Advanced encoder + Server stage" on page 85.
- Deploy remaining SmartBin encoders. Refer to "SmartBin encoder stage" on page 70.

Test system level interactions

Run the following tests to verify that all machines are available and will function correctly, especially during times of heavy system activity.

Multiple scavenge test

This test verifies that scavenge operations can simultaneously control all Advanced encoders to optimize performance during times of heavy proxy asset creation.

To test multiple scavenge operations, do the following:

- 1. On the machine from which high-res media is scavenged, prepare a quantity of test clips, such that you have one more test clip than the number of Advanced encoders in your system. For example, if you have four Advanced encoders, prepare five test clips. You must prepare the test clips without triggering the NewsBrowse system to create any proxy assets. You can do this by recording media with a channel that is not associated with the NewsBrowse system for ingest, or by copying existing clips to a different bin or folder. In any case, the bin or folder in which these test clips are initially placed must not be a bin that is currently monitored by the NewsBrowse system for scavenge operations. Make the test clips at least a minute long.
- 2. On the NewsBrowse server, open Thomson Event Viewer.
- 3. Prepare a bin or folder (preferably one that is currently empty) for monitoring by the NewsBrowse system for scavenge operations. On the Advanced encoders, define rules to create MPEG proxy for high-res material that appears in the scavenge folder.
- 4. On the machine from which high-res media is scavenged, simultaneously copy all the test clips into the prepared bin.
- 5. In Event Viewer, verify that scavenge activities occur for each channel, and that all advanced encoders are encoding MPEG simultaneously.
- 6. With the NewsBrowse application, validate MPEG assets.

Purge test

1. Select an asset from the results list to load details. Take note of the components

associated with this asset. This can be done by looking at the Related tab in the details page. By using the mouse to hover over the entries in the related tab you can derive where the asset components exist in the system.

- 2. From the general tab on the details page edit the expiration date and select a date in the past.
- 3. The purge process polls at configured intervals. To expedite testing go to the Windows services panel and restart the Asset Manager process. This will cause the cycle to be reset and assets meeting expiration criteria will be processed immediately.
- 4. Refresh the search results list by pressing the go button with no criteria specified.
- 5. Verify that asset components noted earlier no longer exist in the system. You will have to look at the NAS for the specific paths to proxy asset components. The asset on the high-res storage should also be removed.

Add NewsBrowse Clients

Do the following tasks to enable PCs to act as a NewsBrowse clients and run the NewsBrowse application.

- "Connect server and NAS to customer LAN" on page 110
- "Set up client PCs" on page 111
- "Configure NewsBrowse Licenses" on page 111
- "Testing NewsBrowse client operations" on page 118

Connect server and NAS to customer LAN

The NewsBrowse server and NAS machines must have network access to the external LAN of the NewsBrowse client PCs. Work with the IT personnel at the customer site to configure Domain, DNS suffix, or any other settings required by the site's LAN.

Also, make sure that permissions are correct for access to the NewsBrowse server website, which serves the NewsBrowse application. The website uses Integrated Windows Authentication.

Continue with the next procedure "Set up client PCs".

Set up client PCs

The requirements for a NewsBrowse client PC are as follows:

- Network access to the NewsBrowse server
- Network access to NewsBrowse NAS machines. Refer to "Prepare NAS -Windows Fastora" on page 50 for test procedures.
- DirectX 9.0c or higher. Enable "Download signed ActiveX controls" in Internet Explorer.
- NetTime is required if NewsBrowse controls ingest on Profile XP/Open SAN.

It is no longer necessary to install Live Feed Filter or Flash Player. They are now bundled together with the NewsBrowse Clip Player. Live Feed Filter and Flash Player automatically download when the application first runs.

To set up a PC to satisfy these requirements, do the following:

- 1. From a client PC, open Internet Explorer 6 and click **Tools | Internet Options**. The Internet Options dialog box opens.
- 2. Click **Security | Local intranet | Custom Level**. The Security Settings dialog box opens.
- 3. Under "Download signed ActiveX controls", click **Enable**.
- 4. Browse to the following URL to open the NewsBrowse launch page: http://root-nb-srv/nbui.
- 5. From the NewsBrowse Launch page, click **Client Setup**. Follow the Client Setup on-screen instruction for Browser, DirectX, and (if necessary) for NetTime. Also refer to "Prepare NetTime" on page 157. For K2 storage or NewsShare NAS systems, NetTime is not required on NewsBrowse client machines.

After installation be sure to clear the browser cache on client machines to insure updated components are downloaded. To clear the browser cache in Internet Explorer go to Tools | Internet Options, from the General tab select the Delete Files button, check Delete all offline content, and click OK.

Continue with the next procedure "Configure NewsBrowse Licenses".

Configure NewsBrowse Licenses

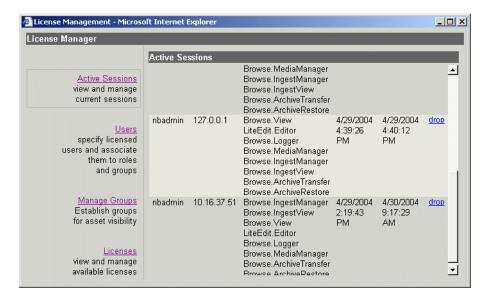
You must configure the NewsBrowse server as per your NewsBrowse license to allow user access to NewsBrowse application features.

To configure for NewsBrowse licenses, do the following:

- 1. From the NewsBrowse Launch page, click **License & User Management**. This requires that you log in as NewsBrowse administrator.
 - Login: root-nb-srv\nbadmin
 - Password: ****

The License Manager page opens.

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2. Click **Licenses**. The Licenses page is displayed.



3. Click **Set Session Count** next to the applicable license. The Set Session Count for ... page is displayed.



- 4. Enter the appropriate number of licenses purchased (be sure to include any previously purchased license counts). You must provide the proper password to change this value. Click **Update** to save changes.
- 5. On the NewsBrowse server, restart ISS services. Click **Start | Run** and run issrestart.

Users must be set up to allow access to the NewsBrowse application from a NewsBrowse client PC. To do this, you must continue with the next section "Administering NewsBrowse user access".

Administering NewsBrowse user access

The NewsBrowse administrator sets up NewsBrowse users and can restrict their access to NewsBrowse application features and assets, as explained in the following procedures:

- "Configure NewsBrowse Groups" on page 113
- "Configure NewsBrowse Users" on page 114
- "Managing NewsBrowse User sessions" on page 116

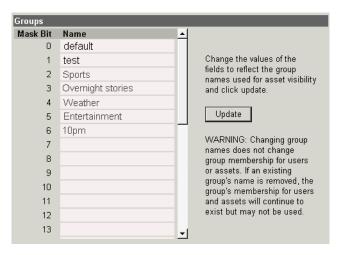
Configure NewsBrowse Groups

The purpose of NewsBrowse groups is to manage a user's access to assets. The NewsBrowse administrator can create groups and assign the groups individually to users. Using the NewsBrowse application, groups can also be assigned to individual assets. In this way each user's access is restricted to the assets in their assigned groups.

Configuring NewsBrowse groups is optional. If you do not configure NewsBrowse groups, users and assets are all assigned to the default group, so all users have access to all assets.

To configure NewsBrowse groups, do the following:

1. From the License Manager page, click **Manage Groups**. The Groups page is displayed.



- 2. Enter names to define groups according to the workflow with which the system is used.
- 3. Click **Update** to save changes.

Continue with the next procedure "Configure NewsBrowse Users".

Configure NewsBrowse Users

You must add NewsBrowse users before using the NewsBrowse application from any NewsBrowse client PC. The NewsBrowse application only allows access by users that have been added, as explained in the following procedure.

1. From the License Manager page, click **Users**. The Users page is displayed.



2. To add new NewsBrowse User, click **Add a User**. To modify an existing NewsBrowse user, click the **Edit/Remove** link for the user. The Update User page is displayed.



- 3. Enter the following:
 - Username This must match the account with which the NewsBrowse client accesses the NewsBrowse application.
 - Roles Select the NewsBrowse application functionality to which the user will
 have access. The Roles listed are dependent upon current licensing. The
 following table defines the Roles:

Role	Description
Browse.View	Lets you browse for video clips and view them.

Administering NewsBrowse user access

Role	Description
Browse.MediaManger	Also lets you change the metadata including clip expiration; you can schedule and execute purge.
Browse.Logger	Also lets you modify custom fields and keywords.
Browse.IngestManager	Lets you schedule recording events.
Browse.IngestView	Lets you view the Ingest schedule in list view and in graphic view.
Archive.SendToArchive	Lets you transfer high-res assets from a Profile system to an archive device and optionally delete the high-res assets from the Profile system.
Restore.RestoreFrom Archive	Lets you restore high-res assets from an archive device to a Profile system.
LiteEdit.Editor	Lets you do cuts-only editing.
AdvancedEdit.Editor	Lets you use the Advanced Edit program, which lets you use the editing features of NewsEdit.

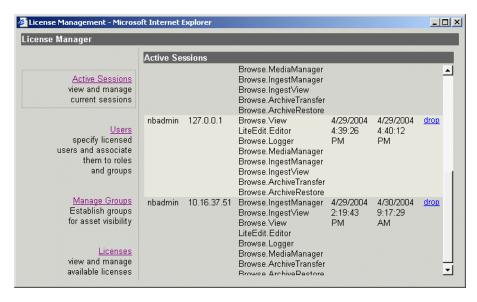
If you assign a Role to more users than the session count for which it is licensed, the Role is not available to all users at times when sessions exceed the count.

- Groups Select the groups for which the user will be allowed to access media assets.
- 4. Click **Add** for new users, or **Update** to modify existing users. You can also click **Delete** to remove a user from the NewsBrowse system.
- 5. Repeat the previous two steps to add additional users.
- 6. Click **Update** to save changes.
- 7. On the NewsBrowse server, restart ISS services. Click **Start | Run** and run issrestart.

Managing NewsBrowse User sessions

The NewsBrowse administrator can view the current users with active sessions and force a session to be dropped, as follows:

1. From the License Manager page, click **Active Sessions**. The Active Sessions page is displayed.



2. Click the **drop** link to drop a user's current active session.

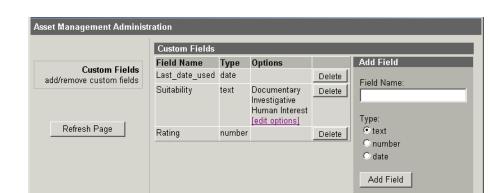
Adding custom fields

The purpose of custom fields is to enhance site-specific management of assets. The NewsBrowse administrator defines a custom field to create an asset metadata-type that uniquely fits the site's workflow. The user of the NewsBrowse application can then assign metadata to an asset by entering text or making a selection in the custom field.

Adding custom fields is optional.

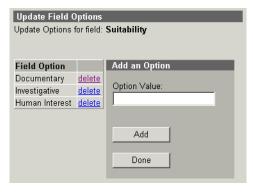
To configure custom fields, do the following:

- 1. From the NewsBrowse Launch page, click **Asset Management Administration**. This requires that you log in as NewsBrowse administrator.
 - Login: root-nb-srv\nbadmin
 - Password: newsat10



The Asset Management Administration page opens.

- 2. For each custom field you add, do the following:
 - a. Enter a field name.
 - b. Select the type of field as follows:
 - Text A free-entry text field or a drop down list of selections that you define, as explained in the next step in this procedure.
 - Number A field in which only numbers can be entered.
 - Date A field that, when clicked, opens a calendar from which a date can be selected.
 - c. Click Add Field.
- 3. If you are adding a text field, you have the following options:
 - To allow text to be freely entered in the field, no further configurations are necessary. Skip to the next step in this procedure.
 - To provide a pre-defined list of selections for the field, click **Edit Options** for the field. The Update Field Options page opens.



For each selection that is to be on the list, enter its text and click **Add**. You can also click **Delete** to remove a selection from the list. When the list is complete,

click Done.

- 4. Click **Add Field** and **Delete** as necessary to complete your custom fields. To view your latest changes, click **Refresh Page**.
- 5. Open the NewsBrowse application, select an asset, and click **Custom**. Your custom fields are available to assign metadata to the asset.

Testing NewsBrowse client operations

To perform a quick check that the web and database services are accessible to a client PC, do the following:

- 1. Log in to a client machine.
- 2. Open Internet Explorer 6 and browse to the following URL:

http://iron-nb-svr/nbui.

In this example, **iron-nb-svr** is the host name or IP address of the NewsBrowse server.

3. Click **Launch NewsBrowse Application**. You are now logged into the NewsBrowse application website and should have assets available for browsing.

Recovery Planning

Establish a recovery plan in the event a NewsBrowse machine fails, so that NewsBrowse services can be re-configured rapidly to minimize impact.

Encoder failure considerations

Encoders provide redundancy through numbers. A plan should identify the critical encoders in the system and alternate encoders that can be reconfigured to substitute in the case of failure. There are no automated fail-over capabilities with NewsBrowse components. It is important to identify which machine(s) host Managed Device Interface services. These services can be pre-installed on secondary devices, although the server should not be configured to monitor them unless a failure of the primary service occurs. Managed Device Interface services can exist on any encoder and the server need only to be reconfigured to point to the new machine in case of failure.

Encoding jobs can be assigned to any available Advanced Encoder. N+1 redundancy is achieved by adding an extra Advanced Encoder.

Server failure considerations

The SQL database should be backed up on a regular basis and stored in a safe location. In the case of server failure the database can then be restored to minimize data loss. If an off-line backup server is purchased it should be pre-configured to operate in the system so in case of primary server failure, minimal time will be spent bringing up the backup system. The backed up database could be restored to this backup server on a regular basis.

Newer NewsBrowse systems have redundant power supplies and mirrored disks to further protect the integrity of the system.

Database maintenance and administration

NewsBrowse utilizes the SQL full recovery model and a maintenance plan is essential to keeping the database in working order. Not only does the database need to be backed up but the accompanying transaction log needs to be backed up as well. Failure to back up the transaction log can cause the database to become inoperable due to the transaction log file growing too large.

The transaction log is responsible for keeping track of all the edits to data until it reaches what is known as a checkpoint. Once the checkpoint is reached, the data should be permanently committed to the database. Problems arise when this checkpoint is reached, data is not committed to the database, and the transaction log continues to grow. If the transaction log reaches the capacity of growth it can render the database inoperable. In the event that the database has been rendered inoperable, a manual truncation of the transaction log will need to be performed, as explained in "Repairing a database that is unusable due to transaction log size" on page 120.

Adopt the following practices to keep the database healthy:

• Daily monitor the growth of the transaction log daily, as explained in "How to

determine the size of the transaction log" on page 120.

- When necessary, manually back up the database and the transaction log, then shrink the transaction log file to release disk resources to the operating system, as explained in "Manually controlling transaction log growth" on page 121.
- Set up a database maintenance plan. This automatically backs up the transaction log and the database. Refer to "Setting up a database maintenance plan" on page 122.

Repairing a database that is unusable due to transaction log size

If the database is rendered inoperable due to the transaction log becoming too large, it is highly likely that the transaction log has never been backed up, a database maintenance plan has not been enabled on the system, or the SQL Server agent is not running to implement your maintenance plan. The following steps should resolve the problem:

- 1. Open SQL Query Analyzer
- 2. Make sure the database in question is selected in the top tool bar. (For this example the *MediaFrame* database will be used.)
- 3. First try to backup the transaction log without truncating it by running the following command:

BACKUP LOG MediaFrame TO Disk = 'filePath\fileName.trn'

Where filePath and fileName is user specified, (e.g. D:\Emergency Backups\MediaFrame_tran_12052003.trn) if the file does not already exist, you will need to create it. If the transaction log is full it is likely that this command will fail but it is important to try it to maintain database integrity.

4. Regardless if the previous command passes or fails, execute the following command to clear the transaction log:

BACKUP LOG MediaFrame WITH TRUNCATE_ONLY

5. To free unused resources to the operating system execute the following command: DBCC SHRINKFILE(MediaFrame log, 2)

How to determine the size of the transaction log

When SQL is installed the space that it is allotted on the operating system is divided into two parts: 50% is given to store transaction logs and 50% is reserved for data. To identify the amount of space the transaction logs is taking up, open SQL Query Analyzer and execute the following command.

DBCC sqlperf(logspace)

This command will return the amount of space each database's transaction log is taking up and the percentage of space the transaction log is using. The column that lists the percent of space the transaction log is taking up is misleading. NewsBrowse databases set the transaction log growth limit to 500MB. If one of the databases transaction logs is larger than 350MB, then follow the steps in the next procedure "Manually controlling transaction log growth".

Manually controlling transaction log growth

Use this procedure when the transaction log is approaching its size limit. First back up the database and the transaction log to keep a record of its current state. Then flush and shrink the transaction log file to reduce its size. To do this open SQL Enterprise Manager and manually backup the database and transaction log of the database in question. The steps to do this are as follows:

Back up the transaction log

The following procedure uses the default location of the transaction log backup, which is as follows:

C:\Program Files\Microsoft SQL Server\MSSQL\BACKUP\<database name>\

If your transaction log backups are in a different location, substitute the different path.

- 1. Open Start | Programs | Microsoft SQL Server | Query Analyzer.
- 2. Connect to the SQL Server which is hosting the NBIngest and MediaFrame databases. An empty query automatically opens.
- 3. To back up the transaction logs, type the following commands. In these examples the number string at the end of the command indicates May 31, 2005 at 12:00. Enter the actual year, month, date, hour, and minute in the indicated YYYYMMDDHHMM format.
 - To back up the NBIngest transaction log, type:

```
BACKUP LOG NBIngest

TO DISK='C:\Program Files\Microsoft SQL
Server\MSSQL\BACKUP\NBIngest\_tlog_200505311200'
```

• To back up the MediaFrame transaction log, type:

```
BACKUP LOG MediaFrame

TO DISK='C:\Program Files\Microsoft SQL
Server\MSSQL\BACKUP\MediaFrame\_tlog_200505311200'
```

4. Continue with the next procedure "Shrink the transaction log".

Shrink the transaction log

This must be done very soon after backing up the transaction log. This will reduce the transaction log to the size specified; the log will then grow as needed.

Use Query Analyzer, as in the previous procedure.

The command to shrink the NBIngest transaction log file is:

```
DBCC SHRINKFILE (NBIngestLog, 10)
```

The command to shrink the MediaFrame transaction log file is:

```
DBCC SHRINKFILE (MediaFrameLog, 10)
```

Setting up a database maintenance plan

The best way to control the growth of transaction logs is to simply back them up, once a day at the very least. SQL 2000 makes it very easy to set up a database maintenance schedule. Before you begin implementing a database maintenance plan using the SQL 2000 Database Maintenance Planner wizard make sure that the SQLSERVERAGENT service is started and its properties are set to auto start for a local system account. If the SQLSERVERAGENT is not running, the database maintenance plan will not run. The following steps describe how to launch and configure the SQL 2000 Database Maintenance Planner:

- 1. Open SQL 2000 Enterprise Manager.
- 2. Expand Microsoft SQL Servers, expand the SQL Server Group and select the SQL server.
- 3. On the Tools menu, click Database Maintenance Planner...
- 4. After the wizard launches click the Next> button.
- 5. Select **These databases** radio button and select the **MediaFrame** and **NBIngest** databases.
- 6. Click the Next> button to navigate to the Update Data Optimization Information page.
- 7. Select the **Update statistics used by query optimizer. Sample** check box and set it to 10% of the database.
- 8. Check the schedule to verify that the time scheduled will not conflict with peak usage of the system. If a schedule time change is needed, click the **Change...** button to modify the time. This option can be run daily but once a week is good.
- 9. Click the **Next>** button to navigate to the **Database Integrity Check** page.
- 10. Select the **Check database integrity** check box.
- 11. Select the **Include indexes** radio button.
- 12. Select the Perform these checks before doing backups check box.
- 13. Check the schedule to verify that the time scheduled will not conflict with peak usage of the system. If a schedule time change is needed, click the **Change...** button to modify the time. This option can be run daily but once a week is good.
- 14. Click the Next> button to navigate to the Specify the Database Backup plan page.
- 15. Select Back up the database as part of the maintenance plan check box.

NOTE: Do not select "Attempt to repair any minor problems".

- 16. Select Verify the integrity of the backup when complete check box.
- 17. Select the **Disk** radio button
- 18. Change the schedule from once a week to daily by clicking the **Change...** button.
- 19. Select the Daily radio button and set the interval to Every 1 day(s).
- 20. Select the **Occurs once at** radio button. If the default time of 2:00:00 AM is not good, change it to a more suitable time.

- 21. Make sure that the **Start Date** is today's date and that the **No** end date radio buttons are selected.
- 22.Click the **OK** button and verify the schedule.
- 23. Click the Next> button to navigate to the Specify Backup Disk Directory page.
- 24. Select the **Use the default backup directory** radio button, except if the site has a specific folder for database backup files. If that is the case, then select the **Use this directory** radio button and enter in the specified path. (Note: SQL can only see local drives and cannot see shared directories or disks that are not native to the machine.)
- 25. Select the Create a subdirectory for each database check box.
- 26. Select the Remove files older than check box and set the value to 1 week(s).
- 27. The backup extension should be set to **BAK**.
- 28.Click the **Next>** button to navigate to the **Specify Transaction Log Back up Plan** page.
- 29. Select Back up the transaction log as part of the maintenance plan check box.
- 30. Select Verify the integrity of the backup when complete check box.
- 31. Select the **Disk** radio button.
- 32.Click the **Change...** button to set the transaction log schedule.
- 33. Select the Daily radio button and set the interval to Every 1 day(s).
- 34. Select the Occurs every radio button and set the interval to every 6 hours.
- 35.Make sure that the **Start Date** is today's date and that the **No end date** radio button is selected.
- 36.Click the **OK** button and verify the schedule.
- 37.Click the Next> button to navigate to the Specify Transaction Log Backup Disk Directory page.
- 38.Select the **Use the default backup directory** radio button, except if the site has a specific folder for database backup files. If that is the case, then select the **Use this directory** radio button and enter in the specified path. (Note: SQL can only see local drives and cannot see shared directories or disks that are not native to the machine.)
- 39. Select the Create a subdirectory for each database check box.
- 40. Select the Remove files older than check box and set the value to 1 week(s).
- 41. The backup extension should be set to **TRN**.
- 42.Click the **Next>** button to navigate to the **Reports to Generate** page.
- 43. Click the **Next>** button to navigate to the **Maintenance Plan History** page.
- 44. Click the Next> button to navigate to the Completing the Database Maintenance Plan Wizard page.
- 45.Enter *NewsBrowse* for the name of the schedule.
- 46.Click the **Finish** button. (Note: If an error occurs, it is most likely that your SQLSERVERAGENT was not started. Start the service and start over.)

If the SQLSERVERAGENT is ever stopped, so is your maintenance plan. Make sure that the service is set to auto start in case of a reboot.

Database Restoration

When NewsBrowse is installed, a maintenance plan should be implemented to schedule backups of the *MediaFrame* and *NBIngest* databases and transaction logs. The rule of thumb in restoring the database is to restore the last successful database backup and transaction log backups preceding system failure. Below is a given scenario of a system failure and the steps necessary to recover.

- 2:00:00 AM database back up performed by the maintenance plan
- 8:00:00 AM transaction log is backed up by the maintenance plan
- 2:00:00 PM transaction log is backed up by the maintenance plan
- 2:30:00 PM system failure occurs

The basic steps to recover are as follows:

- 1. Restore the database backup done at 2:00:00 AM
- 2. Restore the transaction backup done at 8:00:00 AM
- 3. Restore the transaction backup done at 2:00:00 PM

With a database maintenance schedule in place, SQL already recognizes the most recent database backup as well as the sequence of transaction log backups. To restore the NewsBrowse databases to the most current state before failure occurred, open SQL Enterprise Manager, expand the SQL Servers, expand the SQL Server Group, expand the server node, expand the databases directory and do the following:

- 1. Right mouse click the MediaFrame database
- 2. Select All Tasks.
- 3. Select Restore Database...
- 4. Select the **Database** radio button.

SQL automatically selects most recent database backup file and sequence of transaction logs.

- 5. Verify the date and time stamp.
- 6. Click the **OK** button.

SQL will first restore the database, then restore the first transaction log backup, then restore the proceeding transaction logs up until the point of failure. After restore has completed the database will be restored to the point in time of the last backed up transaction log. Repeat the above steps for the *NBIngest* database.

Troubleshooting the NewsBrowse system

Troubleshooting tools

The following troubleshooting utilities can be found on NewsBrowse machines in the Windows menu **Start | Programs | Thomson**.

MediaFrame troubleshooting tools

LogViewer — This utility is available on all NewsBrowse machines and provides a log of information and errors for services running on that particular device.

Asset System Client — This utility on the MDI server provides a view of the events generated by Managed Device Interface services configured in the system.

Configuration Tool — This tool can check network connectivity (ping) from the NewsBrowse server to all the machines in the NewsBrowse system. Open the configuration tool on the NewsBrowse server at **Start | Thomson | NewsBrowse | Utilities**.

Remoting Host Controller — This utility on the MDI server manages Profile Managed Device processes.

Transfer 1.0 — This is an application by which you have visibility via the MDIs to the media files on managed devices. You can do a manual drag-and-drop transfer between devices in Transfer 1.0.

The PC on which Transfer 1.0 is installed must be on the Production network to allow the required access to managed devices. For example, it might be helpful to install Transfer 1.0 on a NewsEdit client machine.

The requirements for a Transfer client PC are as follows:

- Windows XP
- Pentium 4 processor
- Microsoft .NET Framework 1.1

To install and use Transfer 1.0, do the following:

- 1. Enter the following URL in a browser:
 - http://<newsbrowse server name>/nbui/client_setup/Transfer.msi
- 2. Download and open the .msi file to run the Transfer 1.0 installer.
- 3. Follow on-screen instructions, clicking **Next** and **Yes**.
- 4. When you arrive at the Configuration Information page, do the following:
 - a. Enter the IP address or machine name where ASK is running. Typically this would be the NewsBrowse server machine name.
 - b. Select the user credentials as follows:

- Administrator With this option, all operations are available in the Transfer application.
- Browse User Only With this option the Delete, Rename, Create (bin), and Cut/Paste options are not available in the Transfer application:
- 5. Click **Next** and **Finish** to complete the installation wizard.
- 6. To open Transfer 1.0, double-click the desktop shortcut.
- 7. Browse each managed device and verify that files are visible. This confirms that the MediaFrame core level is functioning.

Proxy troubleshooting tools

Timecode Check — This is a utility provided on single-channel encoders that will display the timecode being fed into the Adrienne timecode board. This is valuable for checking that house time is being read when setting up a single-channel encoder. No NewsBrowse services should be running when using this utility.

Ingest Client — This encoder utility exercises a single-channel encoder to test the ability to encode mpeg and initiate record on the high-res video server. Refer to "Test: Router Gateway stand-alone stage" on page 178.

Transfer Client — This encoder utility is used to test scavenge and transcode operations. Refer to "Test: Advanced encoder stand-alone stage - high-res source" on page 80.

Router Gateway Client — This utility allows you to test the connection between the Router Gateway and the router control system. Refer to "Test: Router Gateway stand-alone stage" on page 178.

Smart Bin Encoder Status — On the NewsBrowse launch page, this page displays the status of all Smart Bin Encoders in the system. This page displays the list of all jobs attempted by the Smart Bin Encoders. For each job, the following are provided:

- · encoder name
- the source and destination file names
- the time the job was run
- job status (with error information if the job was unsuccessful)
- job completion percentage (if job is currently running)

Proxy troubleshooting tips

Use the following table to identify and resolve problems related to the creation and storage of low-res proxy assets.

Symptom	Solution
An operational NewsBrowse scavenge system (on an Open SAN) suddenly stops working or there is a drop in scavenge performance for more than an hour.	Debug as follows: 1. Copy and paste a short test clip into the scavenge folder, note the name and time. 2. Profile MDI stage: Use the NewsBrowse event viewer on the machine running the Profile MDI, verify that the Profile MDI service reports the creation of the new clip. Look for a CREATE_CLOSE message. - If the message doesn't show up, or there are errors in the MDI's log, restart the Profile MDI service. 3. Rules Wizard Stage: Look at the events on the NB server. You're looking for a message from the rules wizard that it received a CREATE_CLOSE message from the Profile MDI. You should then see follow-up messages as a new job is being created and sent to the Sequential encoder. - If the message does not arrive, or the Rules Wizard does not send the job, restart the Rules Wizard service. 4. Sequential Encoder: Look at the events on the Sequential encoder. You'll see a new job showing up and the sequential encoder starting. - If the job does not arrive, restart the Proxy Transfer Service. 5. Server: If the job arrives, but the sequential encoder can't start, check the connection to the target Profile: a. Ping the Profile host name, make sure the ProLink server is running, make sure no other application (i.e. VdrPanel or ConfigManager) is trying to use the playout channel. b. If the connection the Profile appears okay, restart the ProxyTransfer service and run the test again with a new test clip. c. If scavenge still fails, there are a couple of possibilities: - Profile is too busy to respond to request. This can happen if several MediaManager sessions are running in full refresh mode. If so, shut down these sessions. - ProNet is wedged. Restart the Profile. In general, don't reboot the system components such as the encoder or the NB server until you've tried the above
The NewsBrowse client browse comes up with results but thumbnails are missing (broken link indicators where thumbnails should be). Video is also inaccessible.	Check Ethernet connections from NAS to the client network. Check that the client account exists on the NAS. This is the account used to log into the client browse machine.
The NewsBrowse client play back video but scrubbing is poor.	There is too much traffic on the network. Try to isolate NewsBrowse from other network activity.
	Use a switch rather than a hub for connectivity.
Recording does not start as scheduled for ingest.	Check that encoder, server and client workstation PC clocks are synchronized to house timecode feed (reference NetTime setup instructions).
	Check that all Thomson services are running on server and encoders (use windows services panel from administrative tools).

Chapter 5 Troubleshooting the NewsBrowse system

Symptom	Solution
Storyboard displays permissions denied error. Timecode does not display with video in clip player.	Check that the server has permissions to access the NAS. Make an initial connection from the server to the NAS by mapping a drive. This establishes the connection for subsequent use - the mapped drive is not used directly.
Video does not load/play in the clip player.	Check that MPEG-1 exists by navigating to the "related" tab in the details display area. If an MPEG link appears, click on it. If video plays then install the "live feed filter" on the client. This can be found from the Client setup link on the NewsBrowse launch page. If video does not display, check that the client has permissions on the NAS.

NewsBrowse application troubleshooting tips

Use the following table to identify and resolve problems related to the access and operation of the NewsBrowse user interface.

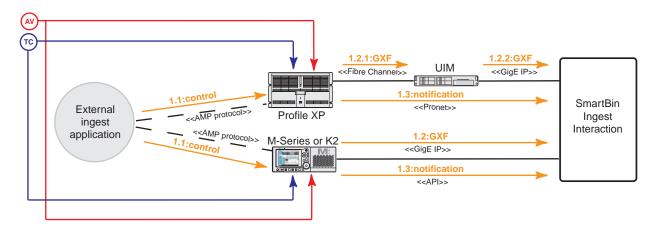
Symptom	Solution
Problem accessing the NewsBrowse application with Internet Explorer - cannot find server or DNS error.	Check the server name or IP address used in the browse address.
	Check that the server is running.
	Check that the server is connected to the client network.
	Check that connections are secure.
	Check that IIS is running on the server.
Web application is accessible using IP address but not server name	Host tables or DNS entries must be set to map name to IP address. This should be coordinated with facility IT personnel.
Problem Accessing the NewsBrowse application - permission denied	Check that the account used to log into the client workstation also exists on the server. This is done through the windows administrative tools.
General Browser Issues (esp. after reinstall).	Be sure to clear the browser cache by selecting Tools > Internet Options from the menu. Then from the General tab select the Delete Files button. Check the Delete all offline content checkbox and click OK.
	Also be sure to update components from the client setup page provided with the NewsBrowse application. The client setup page can be accessed from the NewsBrowse launch page.

Chapter 5 Troubleshooting the NewsBrowse system

Appendix A Component Interaction Diagrams

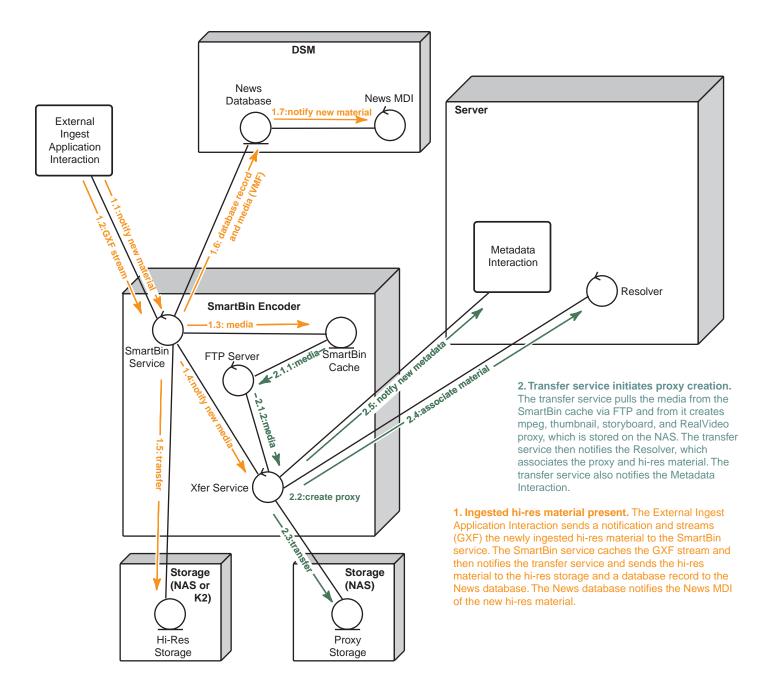
This appendix provides diagrams and explanations of how the system software components interact.

External Ingest Application



1. Ingest Application. An ingest application outside of the NewsBrowse system controls Profile XP, M-Series, or K2 ingest via a protocol such as AMP. When hi-res media is ingested, the Profile XP or M-Series sends the media as a GXF stream and sends a notification about the newly ingested media to the SmartBin Ingest Interaction.

SmartBin Ingest



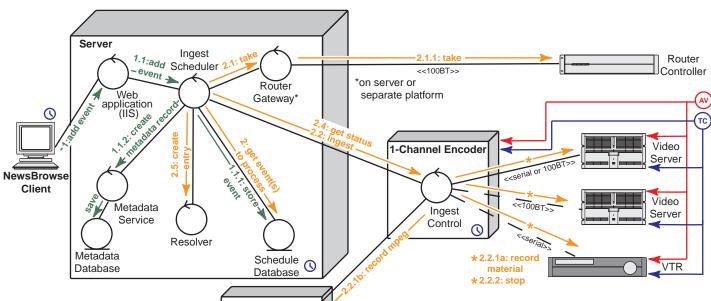
NewsBrowse controlled ingest 1

Storage

Proxy

Storage

(NAS)



1. Add Event. The user enters event information via the web application user interface. The UI passes the event information to the Ingest Scheduler process which stores the event data and creates a metadata entry using the Metadata Services. Synchronized PC clocks are critical for scheduling and processing events.

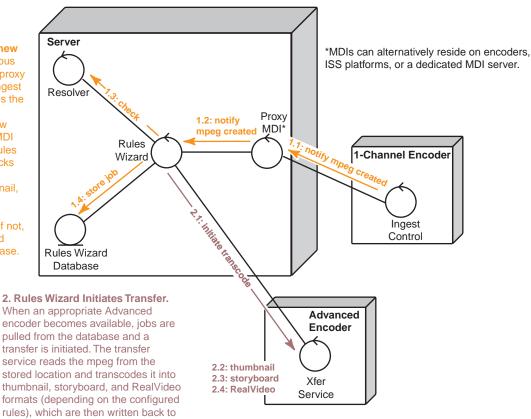
Synchronized PC clocks (via NetTime)

2. Process Event. The Ingest Scheduler process finds events ready to be processed and sends the event info to the encoder (and to the Router Gateway if it's configured in the system) in advance of the actual start time. The router takes immediately while the encoder waits to execute based on the house time. The Ingest Control reads the timecode feed to determine when to execute the record event on the Video Server. The Ingest Control service controls a single Profile (either via serial control or ethernet API) or can optionally control two Profile servers (both via API only) and a backup VTR (serially). The Ingest Control creates mpeg video and writes it to the configured storage location. The Ingest Scheduler creates associations of the mpeg and high-res material with the previously entered metadata.

Not included in this diagram is the interaction whereby the Ingest Control notifies the Proxy MDI, which in turn notifies the Rules Wizard of the mpeg creation. The Rules Wizard then intitiates the creation of thumbnail, storyboard, and Real Video proxy. Refer to the Scavenge Interaction for the flow by which the Rules Wizard initiates proxy creation.

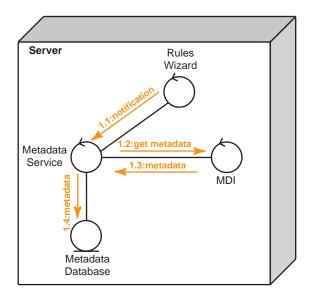
NewsBrowse controlled ingest 2

1. Notification of new mpeg. In the previous diagram, Ingest 1, proxy mpeg is created. Ingest Control then notifies the Proxy MDI of the presence of the new mpeg. The Proxy MDI then notifies the Rules WIzard, which checks to see if the asset already has thumbnail, storyboard, and RealVideo formats associated with it. If not, a job is created and stored in the database.



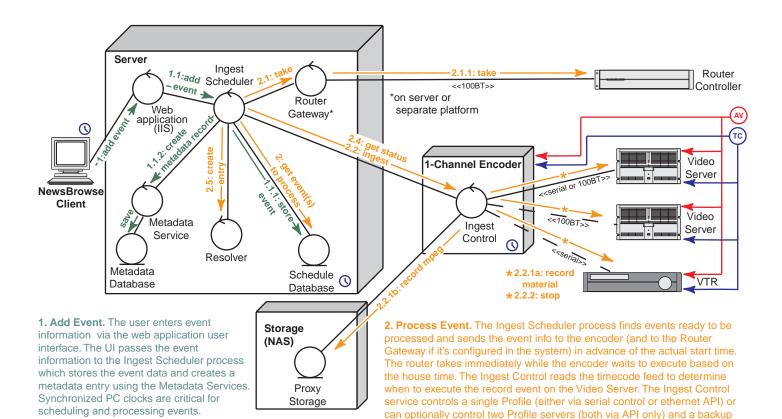
When an appropriate Advanced encoder becomes available, jobs are pulled from the database and a transfer is initiated. The transfer service reads the mpeg from the stored location and transcodes it into thumbnail, storyboard, and RealVideo formats (depending on the configured rules), which are then written back to the same location as the original mpeg

Metadata



1. **Metadata.** When the Rules Wizard or transfer service initiates the creation or modification of proxy, it notifies the Metadata Service. The Metadata Service gets the new or modified metadata from the MDI that has knowledge of the associated hires material and puts it in the metadata database.

NewsBrowse Ingest: Proxy MPEG Creation



Synchronized PC clocks (via NetTime)

Not included in this diagram is the interaction whereby the Ingest Control notifies the Proxy MDI, which in turn notifies the Rules Wizard of the mpeg creation. The Rules Wizard then intitiates the creation of thumbnail, storyboard, and Real Video proxy. Refer to the Scavenge Interaction for the flow by which the Rules Wizard initiates proxy creation.

VTR (serially). The Ingest Control creates mpeg video and writes it to the configured storage location. The Ingest Scheduler creates associations of the mpeg and high-res material with the previously entered metadata.

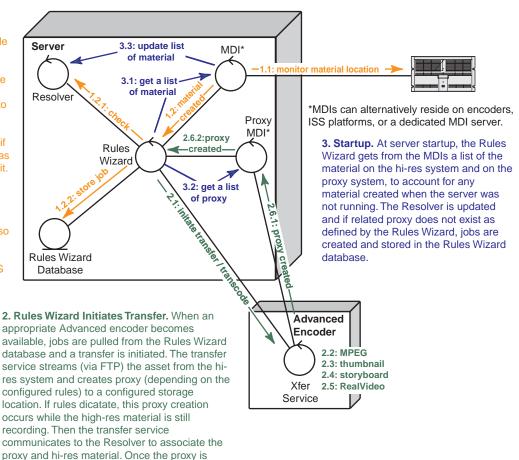
Scavenge

1. Material Created. The MDI monitors the high-res system (Profile XP or News DSM). When hi-res material creation is detected the MDI notifies the Rules Wizard. If rules apply to the high-res material location, the Rules WIzard checks to see if the material already has proxy associated with it. If not, a job is created and stored in the database.

The Proxy MDI can also trigger this interaction by notifying the Rules Wizard of proxy MPEG creation.

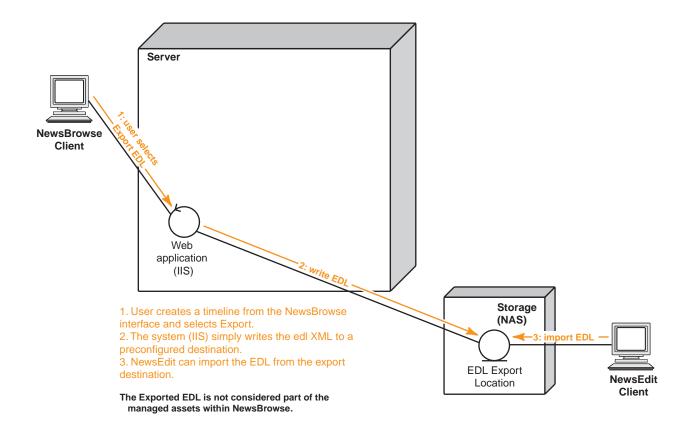
created the transfer service notifies the Proxy

MDI.



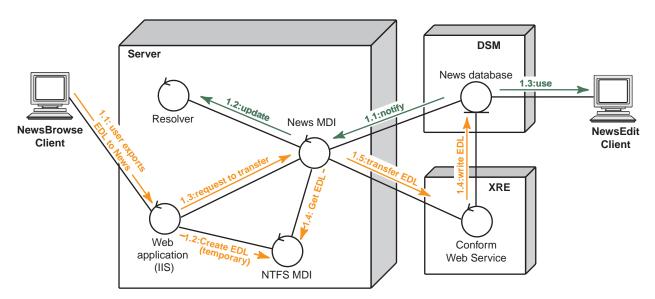
EDL Export as Text File

This export functionality simply writes a text file (XML) to a hard drive. After the export, the applications, such as NewsBrowse and NewsEdit, have no knowledge of the text file.



EDL Export to News database

This export functionality converts the NewsBrowse EDL into a NewEdit sequence. After the conversion the EDL is available to NewsEdit for modification.

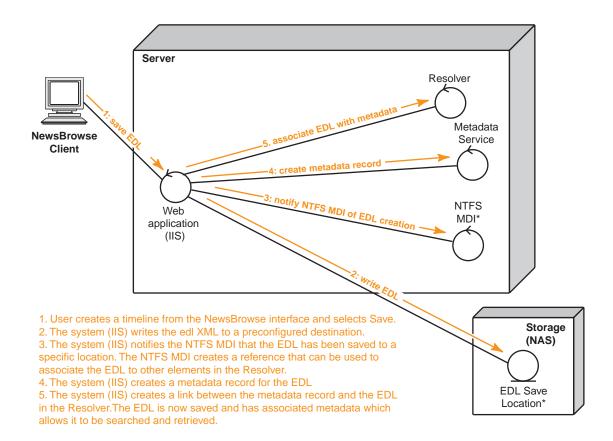


1. Export. User creates a timeline from the NewsBrowse interface and exports it to NewsEdit. The system (IIS) requests that the News MDI transfers the EDL to the Conform Web Service. The Conform Web Service converts the NewsBrowse EDL to a NewsEdit compatible EDL and pushes the EDL to the News database.

2. Identify as NewsBrowse asset. The News database notifies the News MDI of the EDL. The News MDI updates the Resolver so the EDL asset, now on NewsEdit, is visible to NewsBrowse. The EDL is also available to NewsEdit.

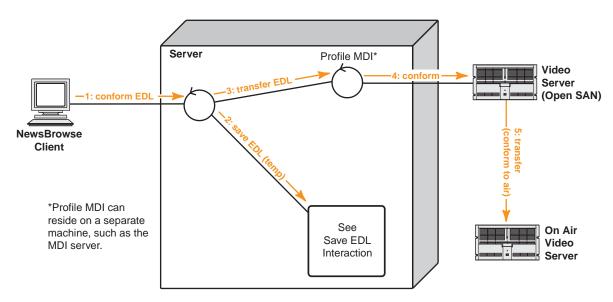
EDL NewsBrowse save

This save functionality retains the EDL in the NewsBrowse domain for further modification with the NewsBrowse application.



EDL Conform on Profile

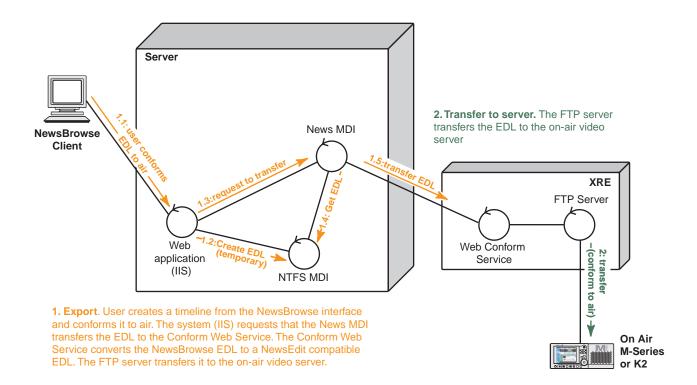
This conform functionality converts the EDL into a Profile XP complex movie. In the NewsBrowse application, the user can select a designated on-air destination, which places the finished complex movie on the on-air Profile XP.



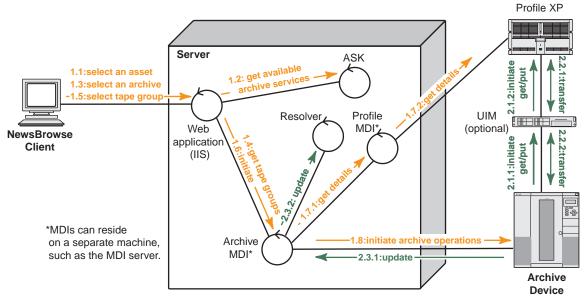
- 1. User creates a timeline from the NewsBrowse interface and selects Conform.
- 2. The system (IIS) performs all the actions associated with the Save EDL interaction but to a temporary location.
- 3. The system (IIS) initiates a transfer of the EDL to a Profile MDI. This causes the conform to take place.
- 4. The EDL which was previously saved to a temporary location is deleted so that only the conformed high-res asset remains associated with the metadata record which was originally created for the EDL.
- 5. If a conform to air, the conformed material is transferred via Fibre Channel to the on air Profile.

EDL Conform via NewsEdit

This conform functionality converts the EDL into a NewsEdit EDL and automatically places it on the designated on-air video server.



Archive operations on Profile XP

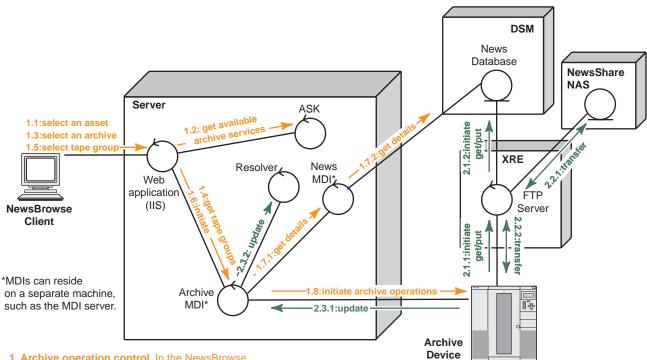


1. Archive operation control. In the NewsBrowse application, the user selects an asset, navigates to the management tab, and selects the archive option. The system queries the ASK for available archive devices. (Also filters out for hi-res material that already exists in archive by querying the Resolver). The user then chooses an available archive. The system queries the archive MDI to obtain a list of available tape groups. The user then selects the target tape group and initiates the archive operation. IIS accepts the request and submits a transfer job to the Archive MDI. The Archive MDI gets details about the affected material from the Profile MDI. The Archive MDI intiates the archive operation on the archive device.

2. Transfer material. The archive device initiates the transfer of material to/from the Profile XP. Once the transfer is complete, the Archive MDI updates the Resolver to link the newly transfered hi-res material to the existing metadata record in the system. The MDI optionally initiates the removal of the online hi-res material from the Profile XP if the option to do so was initially selected.

During the archiving process the system displays the archive status which is retrieved from the Archive MDI.

Archive operations on News system

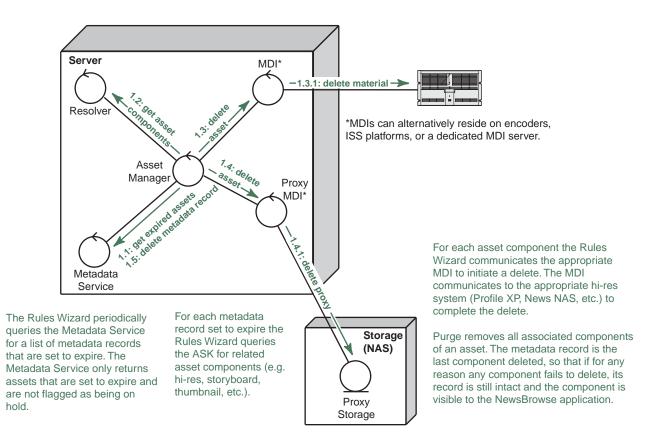


1. Archive operation control. In the NewsBrowse application, the user selects an asset, navigates to the management tab, and selects the archive option. The system queries the ASK for available archive devices. (Also filters out for hi-res material that already exists in archive by querying the Resolver). The user then chooses an available archive. The system queries the archive MDI to obtain a list of available tape groups. The user then selects the target tape group and initiates the archive operation. IIS accepts the request and submits a transfer job to the Archive MDI. The Archive MDI gets details about the affected material from the News MDI. The Archive MDI intiates the archive operation on the archive device.

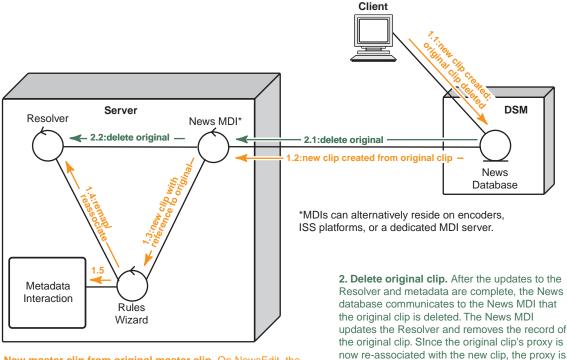
2. Transfer material. The archive device initiates the transfer of material to/from the News system. Once the transfer is complete, the Archive MDI updates the Resolver to link the newly transfered hi-res material to the existing metadata record in the system. The MDI optionally initiates the removal of the online hi-res material from the News system if the option to do so was initially selected.

During the archiving process the system displays the archive status which is retrieved from the Archive

Purge



Consolidate



NewsEdit

not deleted.

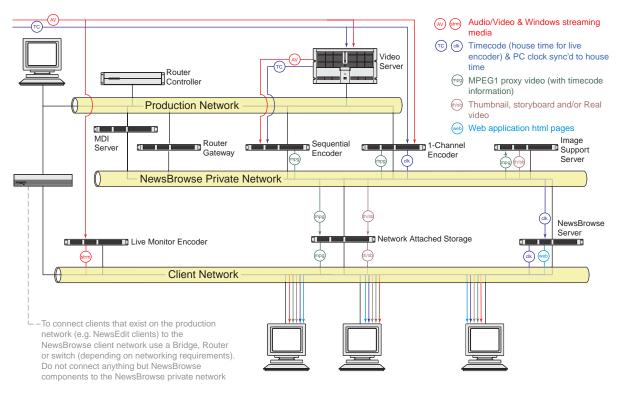
1. New master clip from original master clip. On NewsEdit, the user creates a new master clip from an exisiting master clip and then consolidates the media, which deletes the original clip. The News database communicates to the News MDI about the new clip. The News MDI notifies the Rules Wizard and passes along information about how the new clip relates to the original clip, including temporal references. The Rules Wizard updates the Resolver, associating the original clip's existing proxy** with the new clip while remapping temporal references and thumbnails so that the proxy correctly represents the new clip. The Rules Wizard also triggers the Metadata Interaction so the new clip has the correct metadata.

**If the original clip has no existing proxy, the Rules Wizard triggers the creation of proxy, as in the Scavenge Interaction. (not shown)

Appendix **B**Legacy systems

This appendix documents system architectures, hardware platforms, and software components that are no longer recommended for new NewsBrowse systems, but that are retained in existing NewsBrowse systems.

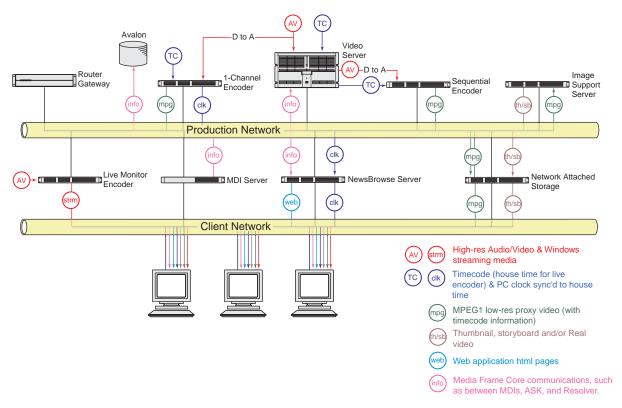
Three tier system diagram



Systems that are upgrading from NewsBrowse version 1.5 to version 2.0 or higher can use the three tier network architecture. NewsBrowse version 1.5 required the three tier network, while NewsBrowse version 2.0 and higher supports either a two tier or a three tier network.

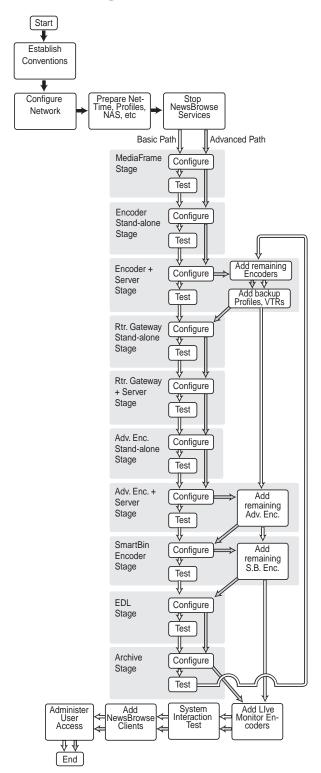
The system illustrated here includes all hardware platform types. Smaller systems might not include all types of hardware platforms. Consult the system design for your specific system to determine the hardware platforms you must install.

Two tier system diagram version 2.0



This diagram illustrates the recommended architecture for NewsBrowse version 2.0. It includes devices that are no longer supported.

Configuration overview - Profile XP/Open SAN



This flowchart illustrates the major tasks required for configuring a NewsBrowse system for the Profile XP/Open SAN.

Core configuration tasks are broken down into stages. You can work through the configuration stages in different ways, as follows:

If you are new to the NewsBrowse system, follow the Basic path. At each configuration page, configure only those settings documented in this manual as Basic ✓. This path allows you to learn the system and resolve configuration problems in stages, with a minimal number of configuration variables and machines added to the system at each stage. Then, after you have gained the understanding to make each stage of the system work properly, configure the remainder of the system and add all machines.

If you are experienced with the NewsBrowse system and you want the fastest possible configuration, follow the **Advanced** path and configure the entire system in one pass, adding all machines at each stage. At each configuration page, you can configure settings documented as **Advanced** ✓ as well as those documented as **Basic** ✓.

You can also choose a combination of Basic and Advanced paths to suit your level of understanding and the design of the particular NewsBrowse system you are configuring.

NewsBrowse server instructions: Axiom platform

The central component of the NewsBrowse system is the NewsBrowse server. Depending on the design of your system, it can host the following software components:

- The web-application for user interaction
- The Ingest Scheduler which drives the encoders
- The Rules Wizard for background processing
- The database and Managed Device Interface services for holding and relating assets in the system.

The server connects to all encoders and the Network Attached storage via the network. Refer to the system diagrams in Chapter 1, *System Overview*. The client network is available for access to the web application.

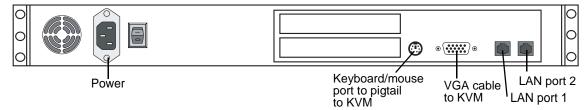
Platform Specifications are as follows:

- P 3, 1Ghz or better (1 or 2 CPU)
- 512 MB RAM- CD-ROM Drive
- Minimum 20GB Program Drive
- Windows 2000 Server (SP3)
- NET Framework 1.1

- Internet Explorer 6 (SP1)
- Windows Media Player 7.1
- Flash Player 6 (6.0.65.0 update)
- Microsoft SQL Server (SP3)
- 100Tx LAN (x2)

Cable as illustrated.

Axiom platform



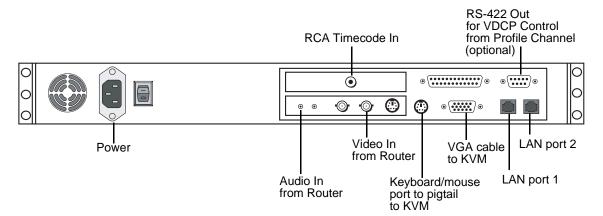
- For systems with one unified Production Network, connect port 1 to the Production Network.
- For systems with a Production Network consisting of a media network and a control network, connect port one to the control network.
- For three tier networks, connect port 1 to the Private Network.
- Connect port 2 to the Client Network.

Sequential encoder instructions

The sequential encoder creates MPEG-1 proxy versions of high-resolution video assets that already exist on a video server.

Single-channel encoders and sequential encoders both share the same hardware and are wired up identically except for timecode and video/audio sources.

If a NewsBrowse system uses single-channel encoders for the creation of MPEG, the sequential encoder can be an optional component.



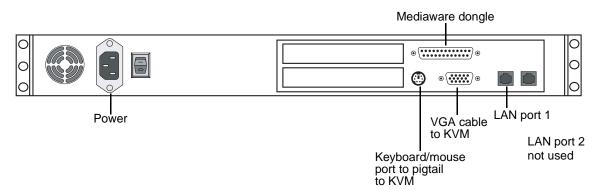
- Connect a cable from the Video In port on the Encoder to the analog video feed source.
- Connect a cable from the Audio In port on the Encoder to the analog audio feed source.
- Connect a Timecode cable from the Timecode In port (RCA port) to the Profile Media Server Timecode Out port; the Profile port must be configured as a Timecode generator and should be free running time of day, closely reflecting the actual time of day.
- Connect two Ethernet cables from LAN1 and LAN2 ports on the Encoder to a network router or switch.
- Optionally connect a RS-422 control cable from the COM2 port on the encoder to the RS-422 port on the Profile Media Server (only if API is not used). Refer to "RS-422 Cable Pinouts" on page 154.

Image Support Server (ISS) instructions

The NewsBrowse Image Support Server is host for the background metadata extraction services used within NewsBrowse. From the Image Support Server, NewsBrowse processes MPEG-1 proxy content and extracts thumbnail images to be used for proxy identification, extracts dynamic scene detection images for storyboard creation, and renders RealVideo for low bitrate proxy content.

Platform Specifications:

- Pentium 3 1Ghz or better (1 or 2 CPU)
- 256 MB RAM
- · CD-ROM Drive
- Minimum 20GB Program Drive
- Windows 2000 Workstation (SP3)
- .NET Framework 1.1
- Internet Explorer 6 (SP1)
- Real Producer 8.5
- Mediaware hardware dongle



- Attach the Mediaware dongle to the parallel printer port on the back of the Image Support Server to enable generation of thumb-nails and storyboard extraction.
- Connect an Ethernet cable from the LAN1 port on the ISS to a network router or switch.

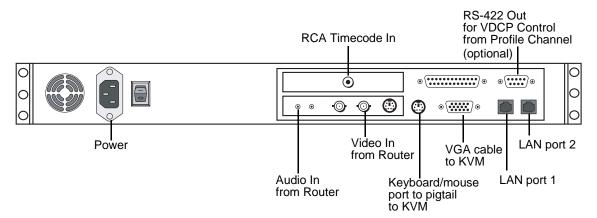
Single-channel encoder instructions

The single-channel encoder creates MPEG-1 proxy versions of high-resolution video in parallel with ingest into a video server. A NewsBrowse system may contain multiple single-channel encoders.

If a NewsBrowse system uses Advanced encoders for the creation of MPEG, the single-channel encoder can be an optional component.

Platform Specifications:

- P 3, 1Ghz or better (1 or 2 CPU)
- 512 MB RAM-
- CD-ROM Drive
- Minimum 20GB Program Drive
- Windows 2000 Server (SP3)
- .NET Framework 1.1
- Internet Explorer 6 (SP1)
- 100Tx LAN (x2)



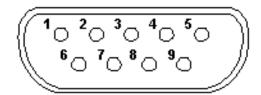
- Connect a cable from the Video In port on the Encoder to the analog video feed source.
- Connect a cable from the Audio In port on the Encoder to the analog audio feed source.
- Connect a Timecode cable from the Timecode In port (RCA port) to the house timecode feed.
- For systems with one unified Production network, connect LAN port 1 to the Production network.
- For systems with a Production network consisting of a media network and a control network, connect LAN port 1 to the media network and LAN port 2 to the control network.
- Make sure the LAN port 1 is connected to the network where the Profile exists.
 Also make sure that the IP address for LAN port 1 is the host tables. A single-channel encoder can be configured to control up to two Profiles simultaneously using Ethernet API.
- Optionally connect a RS-422 control cable from the COM2 port on the encoder to the RS-422 port on the Profile Media Server (only if API is not used). See below for cable pinouts.

• Optionally connect a RS-422 control cable from the COM2 port on the encoder to a backup VTR. See below for cable pinouts.

RS-422 Cable Pinouts

The RS-422 cable that connects the single-channel encoder and the sequential encoder to a VDCP record channel on the Profile Media Server is a special cable. It needs to use the pinouts described below.

Encoder DB9-F		Profile DB9-M	
1	Tx-	8	Rx-
2	Tx+	3	Rx+
3	Rx+	7	Tx+
4	Rx-	2	Tx-
5	ground	4	ground



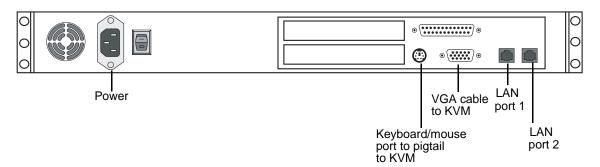
Router Gateway instructions

The NewsBrowse Router Gateway is the host platform for the Router Gateway Service. The NewsBrowse system supports SMS7000 router control and Encore router control via SMS7000 Native Protocol over Ethernet. This device is driven from the Ingest Scheduling process on the NewsBrowse server. The Router Gateway lets NewsBrowse schedule and control ingest services by communicating with your existing router, allowing you to have more ingest feeds than NewsBrowse channels. The Router Gateway provides the bridge between the NewsBrowse Network environment and the Audio/Video Router Control environment.

The Router Gateway is an optional component of the NewsBrowse system. Systems without a stand-alone Router Gateway platform can install the Router Gateway software components on another NewsBrowse system platform, such as the MDI server.

Platform Specifications:

- Pentium 3 1Ghz or better (1 or 2 CPU)
- 256 MB RAM
- CD-ROM Drive
- Minimum 20GB Program Drive
- Windows 2000 Workstation (SP3)
- .NET Framework 1.1
- Internet Explorer 6 (SP1)
- 100Tx LAN (x2)



- Connect LAN port 1 to the Production network.
- Connect LAN port 2 to the network where the Router Control system can be accessed.

Prepare Profile Media Servers

On each Profile Media Server that is to interact with the NewsBrowse system, check the following configurations and modify settings as necessary.

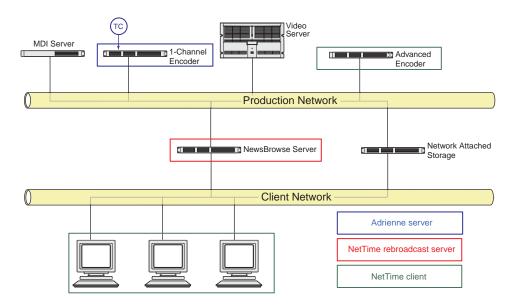
- 1. Set up as a NetTime client. Refer to preceding procedures.
- 2. Click **Start** | **Run**, enter *regedit* and press **Enter**. The Registry Editor opens.
- 3. In the Registry Editor open the following key:

 HKEY_LOCAL_MACHINE/SOFTWARE/Tektronix/Profile/ShuttleAtMode
 Set the key to TRUE.
- 4. On the Profile XP, start PortServer.
- 5. Add a shortcut to PortServer to the startup folder. This ensures that PortServer always runs on the Profile XP, as it is required for NewsBrowse operation.
- 6. Verify that the following account has been added to the Profile system:

username: nbadminpassword: newsat10

NetTime system

The following diagram illustrates the NetTime system. This system is required for the Profile XP/Open SAN environment.



For the K2 storage environment there is not an exacting requirement for clock synchronization, but you can use NetTime to keep logging entry times in sync on Production Network machines. Client machines do not need NetTime.

Prepare NetTime

This section provides instructions for NetTime on the Profile XP/Open SAN NewsBrowse system. On the K2 storage NewsBrowse system, the requirement for clock synchronization is only to keep log entries matching on production network machines. On the K2 storage NewsBrowse system, you do not need to install NetTime on NewsBrowse clients.

NetTime keeps the system clocks on NewsBrowse machines in sync. Since the Profile Media Servers and single-channel encoders use the house timecode feeds, the other machines need to be kept in sync as well. On systems that control ingest and have single-channel encoders, the primary purpose of NetTime is to keep the Ingest Scheduler, which runs on the NewsBrowse server, and the NewsBrowse client machines synchronized to house time. On systems that do not control ingest, NetTime is still useful to keep clocks synchronized so that system logs can be correlated.

The following procedure uses a single-channel encoder as the Adrienne Absolute Time Server. If your system does not control ingest and has no single-channel encoders, you can use any machine as the Adrienne Absolute Time Server.

The single-channel encoder runs the Adrienne Absolute Time Server. NetTime clients on the production network reference the Adrienne Absolute Time Server. A NetTime server runs on the NewsBrowse server, which rebroadcasts the time to the client network. NetTime clients on the client network reference the NetTime server.

Set up NetTime with the following procedures:

- "Prepare NetTime servers" on page 158
- "Prepare NetTime clients" on page 158

Prepare NetTime servers

You use one single-channel encoder as the primary Adrienne Absolute Time Server, and another single-channel encoder as the secondary (redundant) Adrienne Absolute Time Server. A LTC connection to house timecode is required for single-channel encoders functioning as Adrienne Absolute Time Servers.

NOTE: Make sure that the Thomson Ingest Control service is off before starting this procedure. If the service is on and you run AecPciPoll.exe, the single-channel encoder locks up.

To prepare a single-channel encoder as a Adrienne Absolute Time Server, do the following:

1. On the single-channel encoder, run the following:

C:\AecPciPoll.exe



This verifies that the Adrienne card is properly installed and the house timecode is valid.

- 2. Run C:\Load Service.bat and in Task Manager, verify that NtPciClk.exe is running.
- 3. Restart the encoder and verify that *NtPCiClk.exe* restarted automatically.
- 4. Open *C:**ATCS10.exe* and click **Yes** to install.
- 5. Restart the encoder and verify that the Absolute Time Server icon appears in the system tray.
- 6. The encoder is now functioning as the primary Adrienne Absolute Time Server. Repeat this procedure on a second single-channel encoder, to make it the secondary Adrienne Absolute Time Server.

Prepare NetTime clients

You can also optionally prepare encoders and other NewsBrowse machines as NetTime clients, in case you want to use them to run the NewsBrowse application for test purposes or to keep the PC clock in sync with the rest of the system for the log files.

Some clients need special configuration to ensure time synchronization throughout the NewsBrowse system. Since your single-channel encoder Adrienne Absolute Time Server is on the Production Network, only NetTime clients on the Production Network have access. You must provide access for the external (Client Network) NetTime clients as well. To do this, you configure a NetTime client machine (in this case, the NewsBrowse server) which has access to both Production and Client Networks to rebroadcast the time sync to external networks. NetTime clients on external networks can then look to the NewsBrowse server as their NetTime server.

To prepare a NetTime client, do the following:

- 1. Open the following folder:
 - *C:\Time Sync Software\Client*
- 2. Open *NetTime-2b6.exe* and click **Yes** to install. Choose the defaults, including **configure as service**.
- 3. Set Net Time options as follows:
 - a. Enter the host name for the primary and secondary server according to the following table:

NetTime Client	Primary Server	Secondary Server
A Production Network Client	First Encoder	Second Encoder
NewsBrowse server	First Encoder	Second Encoder
External (Client Network) Client	NewsBrowse server	_

- b. Select the RFC868(TCP) protocol for both servers
- c. For the NewsBrowse server, select Allow other computers to sync to this computer.
- d. Leave other fields at the defaults and click Okay.
- 4. The PC clock should automatically update to match the server. If not, check network connectivity and review install steps. All machines must be set for the same time zone to function properly.

Prepare NAS - Serial ATA network platform

To configure the Serial ATA network (a.k.a. Ciprico 1700 or DiMedia) NAS for the NewsBrowse networks, check the following configurations and modify settings as necessary.

NOTE: Procure IP addresses from the local network administrator prior to configuring the NAS unit. Access to configuration pages is dependent upon valid IP addresses.

- 1. From any Production network machine, enable the network to recognize the NAS by adding an IP address within the subnet range of 192.168.50.0.
- 2. For the first NAS machine (*nb-nas-1*), open the NAS configuration software in Internet Explorer by entering the following in the browser address bar:

https://192.168.50.31:9890

NOTE: Notice the s in the https: address. Also, make sure your browser allows cookies and JavaScript (or JIT).

Subsequent NAS machines (*nb-nas-2*, *nb-nas-3*) have IP addresses incremented accordingly (192.168.50.32, 192.168.50.33)

The NAS Administration Tool window opens at the Welcome page.

- 3. Enter the password. The default password is *triton*. The Status page opens.
- 4. In the tree view click **Network | Network Ports**. The Configure Network Ports page opens.
- 5. Configure network ports as follows:
 - a. **Port 0 Client Network** Set the IP address and subnet mask for the Client network as specified by the local network administrator.

NOTE: The DiMeda NAS requires a static IP address for the client port. Set this up with the local network administrator.

b. **Port 1 Production Network** - Set the IP address for the production network as specified by the local network administrator, then set the subnet mask to 255.255.255.0.

NOTE: For detailed information about configuration options, click the Help icon (?) in the upper right corner of each window.

- c. Click **Save**, then select the **Restart** option to restart. Reboot takes 2-10 minutes. Do not power-down the enclosure during reboot.
- 6. After the NAS reboots, access the NAS configuration software as described earlier in step 2 and step 3, except this time, enter the following in the browser address bar:

```
https://<Client IP Address>:9890
```

The Status page appears.

- 7. In the Status page tree view, click **Network | Names/IPs**. The Names and IPs page opens.
- 8. Set the following:
 - **Domain name** Enter the Client network Domain name.
 - **Gateway** Enter the IP address for the Client network gateway. Consult the network administrator.
 - **Node Name** For example: (*root*-nb-nas-*n*)
- 9. In the tree view click **System | System Administration | Date/Time**. The Date/Time page opens.
- 10. Select the correct time zone, date, and time.
- 11. Click **Save**, then select the **Restart** option to restart.

Reboot takes 2-10 minutes. Do not power-down the enclosure during reboot.

- 12. After the NAS reboots, access the NAS configuration software again as described in step 6. The Status page appears.
- 13. In the Status page tree view, click **Storage | Shares | Create** and then click the **Next** button. The CIFS Share page opens.
- 14. Specify CIFS options as follows:
 - a. Enter Media as the share name.
 - b. Set user privileges. Select all of the following options:
 - Writeable
 - Public
 - Browseable
 - Available

(Do not select Case Sensitive)

- c. Click Save.
- 15. Close the NAS Administration Tool.

Prepare NAS - Linux Fastora

On Linux Fastora NAS devices, check the following configurations and modify settings as necessary.

- 1. Using Internet Explorer, browse to the NAS machine. For example: http://root-nb-nas-n
- 2. Login as administrator. The password is *triton*.
- 3. Navigate in left pane to Server Configuration | Basic Configuration.
- 4. Under the general tab set the following:
 - Server Name
 - Domain name (for client network)
 - DNS server (from customer IT dept.).
- 5. Under LAN Port 1 tab, do the following:
 - · Select manual configuration
 - · Set the IP address
 - Subnet mask is 255.255.255.0
- 6. Leave LAN Port 2 unchanged (disconnected)
- 7. Under LAN Port 3 tab, select Get network configuration through DHCP
- 8. At Server Configuration | Date Setup, set the date and time.
- 9. Click Security Setup | Shared Folder Setup. Select the Windows/Apple/Novell privileges tab. User privileges for the media folder should be as follows:
 - everyone RO
 - nbadmin RW

10.Click Network Setup | Windows Network. Check Enable Windows Networking.

- 11.Enter the following:
 - · customer Domain
 - account and password (customer IT dept. will need to provide this)
 - enter the WINS server

Host table files

Find host table files at *C:\WINNT\system32\drivers\etc*

Devices share a common host table, which lists out the Production Network IP settings. For security purposes, the IP addresses should be non-routable (i.e. 192.168.xxx.xxx) and be part of the same subnets used by the Profile/Open SAN systems. The customer may request a particular subnet (routable or not) depending on

the needs of the facility. The only client side IP address needed in the host table is for the client switch itself, which is useful for accessing the web management page from the NewsBrowse devices.

The following is an example of host table entries. Not shown are entries for Profile systems, UIMs, and other machines on the network. Refer to the documentation for these other machines for host table requirements.

```
#General Host Table
#-----
#NewsBrowse server
192.168.30.21
               iron-nb-svr
#NewsBrowse MDI server
192.168.30.101 iron-nb-mdi
#NewsBrowse NAS
192.168.30.71
                iron-nb-nas-1
192.168.30.72
                iron-nb-nas-2
#NewsBrowse Advanced encoders
192.168.30.50
                iron-nb-adv-1
192.168.30.51
                iron-nb-adv-2
#NewsBrowse single-channel encoders
192.168.30.26
                                 #Open SAN Profile mpvs-1 vtr 01
                nb-enc-1
                                 #Open SAN Profile mpvs-1 vtr 02
192.168.30.27
                nb-enc-2
192.168.30.28
                nb-enc-3
                                 #Open SAN Profile mpvs-1 vtr 03
192.168.30.29
                nb-enc-4
                                 #Open SAN Profile mpvs-1 vtr 04
```

#NB Router Gateway

192.168.30.111 iron-nb-rtr

#The following Client LAN entries are included in this host table for #reference only. Machines on client network use DNS lookup only.

#NewsBrowse live monitor encoder

10.16.37.91 iron-nb-live-1 #Client LAN

Appendix B Legacy systems

10.16.37.92 iron-nb-live-2 #Client LAN
#NewsBrowse Ethernet Switch

10.16.37.20 iron-nb-2950-client-1 #Client LAN
192.168.30.200 iron-nb-2950-prod-1

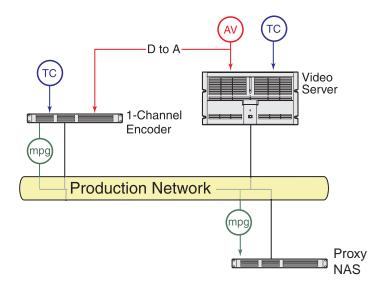
Host table tips:

- If you are exporting NewsBrowse EDLs to NewsEdit, the NewsEdit workstation must be able to resolve the Profile MDI name (present in the EDL) to the IP address of the Profile XP system to which the MDI connects. The recommended solution is to map the MDI name to the Profile IP address in the NewsEdit workstation's host table. Refer to "MDI and Encoder logical names convention" on page 37.
- The NAS and NewsBrowse server IP address need to be resolved using the Client side IP address via DNS lookup, not the host table.
- If the server has a canonical name, the host table for any machine that runs MDIs that are subscribed to by the server must match case for the entire canonical name. E.g., if the server's canonical name is "NB-SERVER1.mycorp.net", then the host table entry in the MDI server(s) must match; if the entry is "NB-SERVER1.MYCORP.NET", then it will not work. Pinging will not show the problem. The problem doesn't show up until the MDIs attempt to notify the server.

Encoder stand-alone stage

For this configuration stage you configure and test one single-channel encoder, one NAS, and one Profile XP server to work together.

The portion of the NewsBrowse system configured and tested in this stage is illustrated by the following diagram.

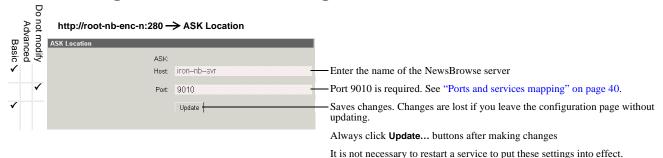


Refer to "System diagram - Profile XP or Open SAN storage" on page 13 for a view of the entire NewsBrowse system.

To do the basic configuration and testing of a single-channel encoder, do the following:

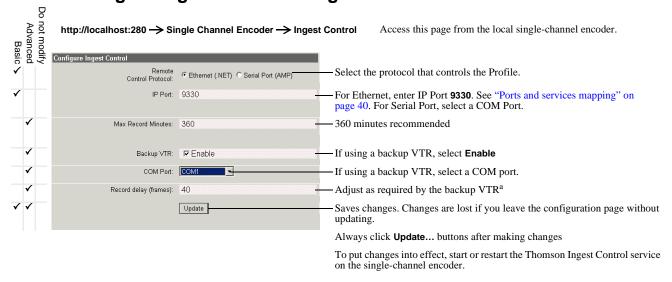
- 1. "Configure ASK Location: Single-channel encoder" on page 166
- 2. "Configure Ingest Control: Single-channel encoder" on page 166
- 3. "Configure Proxy Asset (NAS): Single-channel encoder" on page 167
- 4. "Configure media server: Single-channel encoder" on page 168
- 5. "Configure MPEG encoder: Single-channel encoder" on page 169
- 6. "Test: Encoder stand-alone stage" on page 169
- 7. "Checklist: Encoder stand-alone stage" on page 171

Configure ASK Location: Single-channel encoder



This page tells the single-channel encoder where to look for the ASK service, which runs on the NewsBrowse server. The function of the ASK is to store the location of other services in the NewsBrowse system that the encoder might need to access.

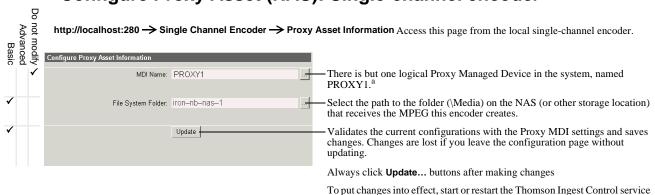
Configure Ingest Control: Single-channel encoder



a. Tune at a later time to make sure the VTR start matches the Profile and encoder start time.

This page provides general information about the single-channel encoder and how it controls the Profile Media Server and (if you use one) a backup VTR.

Configure Proxy Asset (NAS): Single-channel encoder



a. PROXY1 can have multiple folders (on multiple machines) defined as locations for assets.

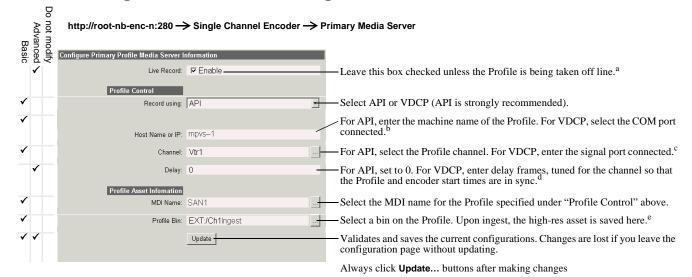
This page specifies the location in which the single-channel encoder places the proxy MPEG it creates.

on the single-channel encoder.

When this page opens and when you click a ... button, fields and lists are populated with valid information as currently defined on the ASK settings page and the Proxy MDI settings page.

If you have not yet configured Proxy MDI settings (as in the MediaFrame stage), you must type in the File System Folder path (\\root-nb-nas-n\Media) rather than using the ... button and then selecting from a list. In this case you can ignore error messages about the Proxy MDI information not being available.

Configure media server: Single-channel encoder



a. Normally the media server is enabled. Uncheck only when the Profile is off line, but if you still need a second Profile or backup VTR to run.

This page configures the connection between the single-channel encoder and the Profile channel it controls. Make sure that you correctly associate the MDI with the correct Profile Media Server.

on the single-channel encoder.

To put changes into effect, start or restart the Thomson Ingest Control service

If you have a backup Profile, return to the **Single Channel Encoder** \rightarrow **Backup Media Server** link and configure similarly. On the backup server configuration page, you must check **Enable**, as it is unchecked by default.

b. This field is dependent upon the API/VDCP selection above.

c. For API, this list is automatically populated by reading the channel names, as in Configuration Manager, from the Profile specified in the "Host Name..." field above.

d. This field is dependent upon the API/VDCP selection above.

e. This list is automatically populated by reading bins and volumes, as in Media Manager, from the Profile specified in the "Host Name..." field above

Do not modify S Advanced Basic http://root-nb-enc-n:280 → Single Channel Encoder → MPEG Encoder -Leave at default of 1000000. Mpeg bit rate: 1000000 -Leave at default of 0. Modify only to debug server/encoder timecode problems. Mpeg delay (frames): 0 Video source: CS video Composite Select fields per second: FPS_5994 for drop-frame NTSC, FPS_60 for non-drop-frame NTSC, FPS_50 for PAL. Audio Gain Level: 0.0 dB The MPEG encoder audio output. Adjust to calibrate Advanced Edit audio, or to improve the quality of the desktop audio (i.e. if the source is 'too hot') Update : Saves changes. Changes are lost if you leave the configuration page without Always click **Update...** buttons after making changes To put changes into effect, start or restart the Thomson Ingest Control service on the single-channel encoder.

Configure MPEG encoder: Single-channel encoder

This page configures the parameters the encoder uses when it creates the MPEG proxy assets.

Test: Encoder stand-alone stage

The following test exercises system functionality exclusive to the basic configurations for the single-channel encoder. A successful test verifies that the basic configurations are correct.

Test description: A short test clip (high-res) is recorded on the Profile Media Server, while at the same time the low-res proxy asset is created on the NAS.

NOTE: Run this test only in the stand-alone stage, with machines that have not yet been added as managed devices (as in the + Server stage). Once the server is connected, this test can result in corrupt database records.

Run the test as follows:

1. Make sure that the NewsBrowse system is not in use.

NOTE: Running these tests will tie up a channel and could collide with commands from the Ingest Schedule page. Inform operators that they must not use the channels under test.

2. Click Start | Programs | Thomson | Event Viewer. Event Viewer opens.

3. Click **Start | Programs | Thomson NewsBrowse | Ingest Client**. The Ingest Client application opens.



If you open the Ingest Client application on an operational NewsBrowse system, you'll see the status messages of the last encode job.

- 4. Configure as follows:
 - Host Name or IP: localhost
 - Port: 9330
- 5. Click **Connect** to establish a connection with the Ingest Control service that controls the target Profile. Look for the following report in the Status area to verify the connection:
 - State: IDLE
- 6. Configure as follows to create a high-res and a low-res asset:
 - Asset Name: Enter a name for the test asset you are about to create.
 - Start Time: Enter ASAP. This starts recording immediately, similar to a crash record. Or you can enter a start time a few minutes ahead of the current time.
 - Duration: Enter **00.00.20.00** (this is 20 seconds, which is adequate for test purposes)
- 7. Click **Ingest**. The ingest job is submitted and a ProNet session is established with the Profile. Watch the reports in the Status area to verify that the creation of the assets is progressing. Look for the following report to verify completion:

- State: SUCCEEDED
- 8. In Event Viewer, verify informational messages regarding the creation of the assets.

NOTE: If you've not yet configured the MDIs, you may get some error messages in Event Viewer as the encoder attempts to communicate completion information to MDI services. In this case these messages can be ignored.

- 9. In the Ingest Client application, click **Get Assets**. For both the high-res and the low-res assets, look for the following report:
 - COMPLETE_OK
- 10.On the Profile system, use Media Manager to verify that a clip with the correct duration was created. Note the location of the clip, as it is used in configuration stage tests later in this chapter.
- 11.On the NAS, use Windows Explorer to verify that the MPEG clip was created. Open and play the clip. Validate video and audio.

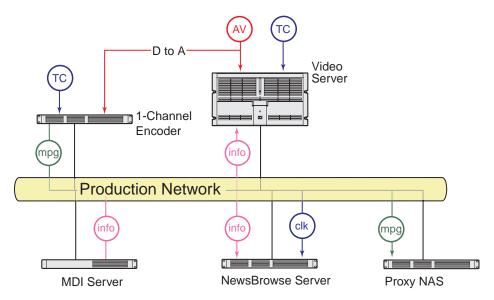
Checklist: Encoder stand-alone stage

Use the following check list to verify that the basic configuration and testing of the single-channel encoder is complete.
☐ Audio/Video/Timecode connected properly
☐ NetTime server running
☐ Profile(s) record high-res
☐ Encoder writes to NAS
☐ MPEG playback with audio

Encoder + Server stage

For this configuration stage you configure the NewsBrowse server to work together with the single-channel encoder, NAS, and Profile XP server from the Encoder stand-alone stage. MDI services are also required, as configured in the MediaFrame stage.

The portion of the NewsBrowse system configured and tested in this stage is illustrated by the following diagram.

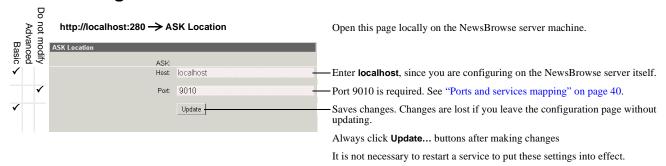


Refer to "System diagram - Profile XP or Open SAN storage" on page 13 for a view of the entire NewsBrowse system.

To do the basic configuration and testing for the Encoder + Server stage, do the following:

- 1. "Configure ASK Location: NewsBrowse server" on page 173
- 2. "Configure Media Frame Core ASK: Single-channel encoder" on page 173
- 3. "Configure Ingest Scheduler: NewsBrowse server" on page 174
- 4. "Set up NewsBrowse client for configuration stage tests" on page 175
- 5. "Test: Encoder + Server stage" on page 175
- 6. "Checklist: Encoder + Server stage" on page 176

Configure ASK Location: NewsBrowse server

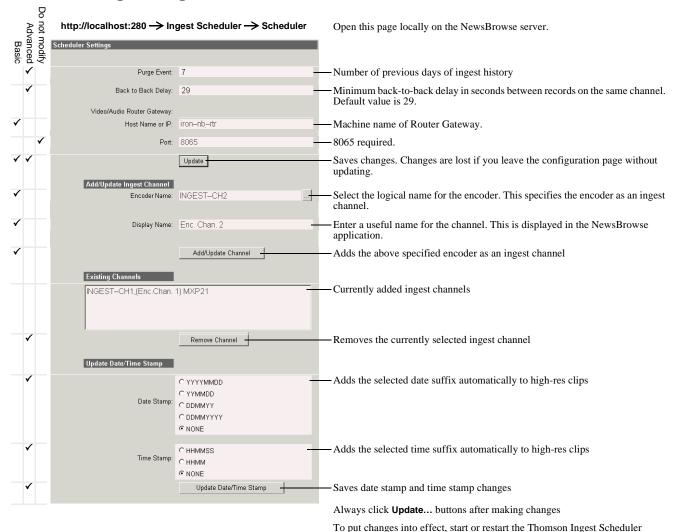


This page tells the NewsBrowse server where to look for the ASK service. Since the ASK service runs on the NewsBrowse server, you enter *localhost* for the ASK host location. On all other machines you must enter the name of the NewsBrowse server.

Configure Media Frame Core ASK: Single-channel encoder

Make sure the single-channel encoder's Ingest Control service is registered with the ASK software component with a logical name, as explained in "Configure Media Frame ASK: Register components" on page 60.

Configure Ingest Scheduler: NewsBrowse server



The page defines resources available and operating parameters for ingest jobs.

service.

Add the encoder as an ingest channel.

For "Video/Audio Router..." settings, refer to "Add Router Gateway to Ingest Scheduler" on page 181. If you are configuring the basic Encoder + Server stage, do not yet configure these settings.

Set up NewsBrowse client for configuration stage tests

Temporarily set up a PC as a NewsBrowse client. You can use the NewsBrowse server, except if the server is the HAFT platform.

NOTE: It is no longer recommended to install Windows Media Player on the HAFT platform because of compatibility problems, so you can not run the NewsBrowse application locally on the HAFT platform.

Setting up a NewsBrowse client is explained in "Set up client PCs" on page 111. If you use the NewsBrowse server as a NewsBrowse client, it is only for the purpose of the staged configuration process. Once the entire NewsBrowse system is operating, you should no longer use the NewsBrowse server as a NewsBrowse client.

Other configurations normally required for NewsBrowse clients, such as NewsBrowse users and licenses, are not necessary when the NewsBrowse client runs on the NewsBrowse server, because you log into the server as NewsBrowse administrator.

To use an external PC as a NewsBrowse client, refer to "Add NewsBrowse Clients" on page 110 for the complete instructions.

Test: Encoder + Server stage

The following test exercises system functionality exclusive to the basic configurations for the Encoder + Server stage. A successful test verifies that the basic configurations are correct.

Test description: Using the NewsBrowse user interface, one test clip is manually recorded (crash record) and one test clip is schedule recorded. The NewsBrowse system correctly controls the creation of (at the right time) the high-res material on the Profile Media Server and the low-res proxy assets on the NAS.

Run the test as follows:

1. Make sure that the NewsBrowse system is not in use.

NOTE: Running these tests will tie up a channel and could collide with commands from the Ingest Schedule page. Inform operators that they must not use the channels under test.

- 2. From the NewsBrowse server, open the NewsBrowse application.
- 3. Click the **ingest** tab at the top of the NewsBrowse window. The Ingest page opens.
- 4. On the Ingest page, verify that you can see the single encoder with the correct channel name at the top of the column.
- 5. Make sure you are on today's schedule, and enable auto-refresh.
- 6. If not already running, start Event Viewer by clicking **Start | Programs | Thomson | Event Viewer**. You can view activity in Event Viewer as you run tests.
- 7. Do a crash record as follows:
 - a. On the Ingest page, click the red record button at the top of the channel column. The Add Schedule Event window appears showing the current time as the start

time of the record, with a default duration of 30 minutes.

- b. Enter a meaningful test clip name
- c. Change the duration to one minute. Duration uses the SMPTE timecode format: hours:minutes:seconds:frames.
- d. Click **Add Event**. The event gets added to the Ingest Schedule in the current time slot and begins recording.
- e. Change to List View and track progress until the job reports COMPLETED.
- 8. Do a scheduled record as follows:
 - a. On the Ingest page, double-click in the channel column at a time that is ahead of the current time. The Add Schedule Event window appears.
 - b. Enter a meaningful test clip name.
 - c. Change the start time to a time that is a few minutes ahead of the current time. Start Time uses a 24-hour clock.
 - d. Change the duration to one minute.
 - e. Click Add Event. The event is added to the Ingest Schedule in the specified time slot.
 - f. Change to List View, wait until the recording begins, and track progress until the job reports COMPLETED. Verify that the job starts at the correct time.
- 9. Check for the crash record and schedule record material as follows:
 - a. Click the **browse** tab at the top of the NewsBrowse window.
 - b. On the find tab, verify that the crash record and scheduled record clips are listed.
 - c. For each of these clips, select it, then click the **related** tab. Verify that **online media** and **MPEG Video** are listed.

Checklist: Encoder + Server stage

Use the following check list to verify that the basic configuration and testing of the single-channel encoder plus NewsBrowse server is complete.
□ Clock synched
☐ Crash record successful
☐ Scheduled record on time
□ New MPEG proxy in system

Router Gateway stand-alone stage

For this configuration stage you configure the Router Gateway component for control of your router controller (if used in your system).

Refer to "System diagram - Profile XP or Open SAN storage" on page 13 for a view of the entire NewsBrowse system.

To do the basic configuration and testing of the Router Gateway stand-alone stage, do the following:

- 1. "Add Router Gateway" on page 177
- 2. "Configure ASK Location: Router Gateway" on page 178
- 3. "Configure Router Gateway" on page 178
- 4. "Test: Router Gateway stand-alone stage" on page 178
- 5. "Checklist: Router Gateway stand alone stage" on page 179

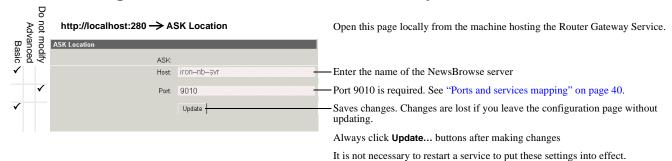
Add Router Gateway

The machine that hosts the Router Gateway software component acts as the Router Gateway machine, as follows:

Dedicated Router Gateway — In some NewsBrowse systems, the Router Gateway software component is on a stand-alone Router Gateway machine. If your system has a dedicated Router Gateway machine, it comes from the factory with the Router Gateway software component installed, so you do not need to do any further installation. The Router Gateway machine requires only network connections in preparation for its use in the NewsBrowse system.

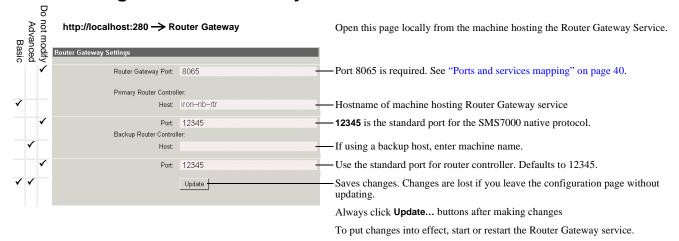
MDI server as Router Gateway — The Router Gateway software component can also reside on another NewsBrowse machine, such as the MDI server. If your system uses the MDI server as the Router Gateway host, you must first install the Router Gateway software component from the NewsBrowse server installation program. Run the installation program and install only Router Gateway. Refer to "About NewsBrowse software" on page 27.

Configure ASK Location: Router Gateway



This page tells the Router Gateway where to look for the ASK service, which runs on the NewsBrowse server. The function of the ASK is to store the location of NewsBrowse components.

Configure Router Gateway



This page specifies the machine or (backup) machines that host the Router Gateway Service.

Test: Router Gateway stand-alone stage

The following test triggers the Router Gateway component to send a control signal to the router controller. A successful test verifies that the basic configurations are correct.

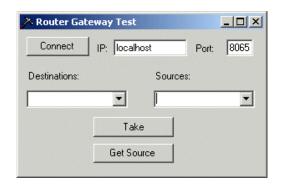
Test description: Using the Router Gateway Client application, change the source and destination of the router.

Run the test as follows:

1. Make sure that the NewsBrowse system is not in use.

NOTE: Running these tests will tie up a channel and could collide with commands from the Ingest Schedule page. Inform operators that they must not use the channels under test.

2. From the Router Gateway host, click **Start | Programs | Thomson | NewsBrowse | Diagnostic Tools | Router Gateway Client**. The Router Gateway Client application opens.



- 3. Configure as follows:
 - IP: localhost
 - Port: 8065.
- 4. Click **Connect**. Verify that the Destinations and Sources drop-down lists are populated, which means the connection is successful.
- 5. Configure as follows to trigger the router controller:
 - Destinations: Select a destination from the list that is not the destination currently used by the router.
 - Sources: Select a source from the list that is not the source currently used by the router
- 6. Monitor the video and audio currently routed. Click **Take**. Verify that the video and audio changes.
- 7. Repeat previous steps to validate that takes work for all destinations that are configured to an ingest channel.

Checklist: Router Gateway stand alone stage

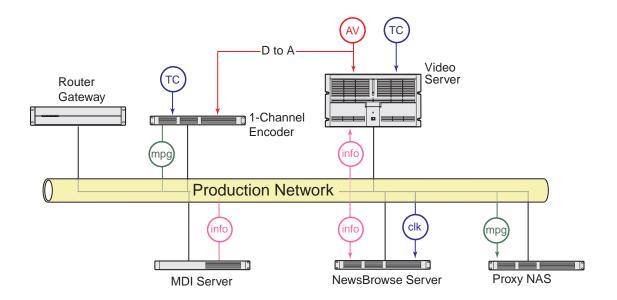
Use the following check list to verify that the basic configuration and testing of the Router Gateway stand alone stage is complete.

- ☐ The machine hosting the Router Gateway software component connects to the router controller.
- ☐ The Router Gateway software component can change Destinations and Sources on the router controller.

Router Gateway + Server stage

For this configuration stage you configure the Router Gateway component for control of your router controller (if used in your system).

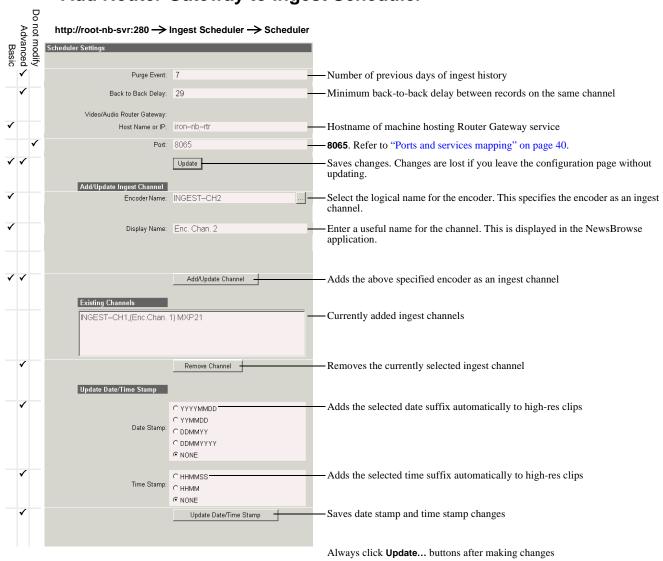
The portion of the NewsBrowse system configured and tested in this stage is illustrated by the following diagram.



Refer to "System diagram - Profile XP or Open SAN storage" on page 13 for a view of the entire NewsBrowse system.

To do the basic configuration and testing of the encoder plus server, do the following:

- 1. "Add Router Gateway to Ingest Scheduler" on page 181
- 2. "Test: Router Gateway + Server stage" on page 182
- 3. "Checklist: Router Gateway + Server stage" on page 182



Add Router Gateway to Ingest Scheduler

This page make the Router Gateway machine available to the Ingest Scheduler service.

In the Router Gateway + Server stage, configure only Video/Audio Router Gateway and Add/Update Ingest Channel settings.

on the NewsBrowse server.

To put changes into effect, start or restart the Thomson Ingest Scheduler service

Test: Router Gateway + Server stage

The following test triggers the router controller as part of Profile ingest. A successful test verifies that the basic configurations are correct.

Test description: Using the NewsBrowse application, use the Router option in conjunction with Profile ingest.

Run the test as follows:

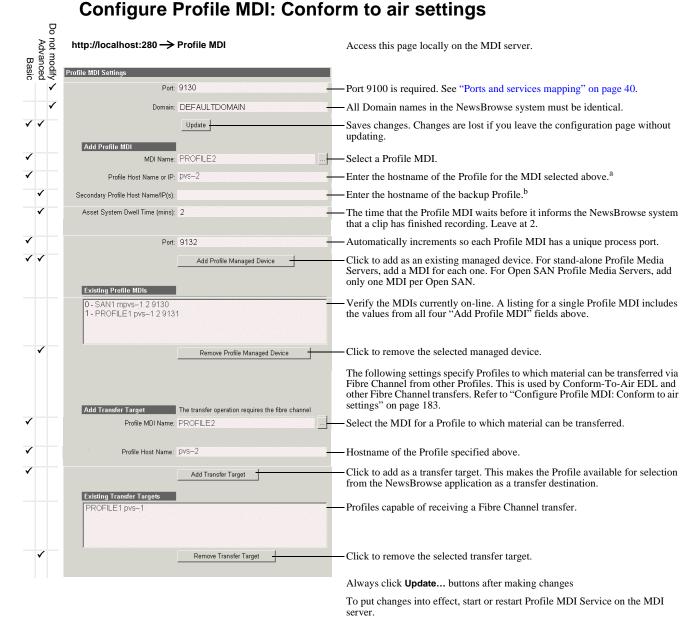
1. Make sure that the NewsBrowse system is not in use.

NOTE: Running these tests will tie up a channel and could collide with commands from the Ingest Schedule page. Inform operators that they must not use the channels under test.

- 2. From the NewsBrowse server, open the NewsBrowse application.
- 3. Click the **ingest** tab at the top of the NewsBrowse window. The Ingest page opens.
- 4. Make sure you are on today's schedule, and enable auto-refresh.
- 5. Verify that the router option is available as follows:
 - a. On the Ingest page, click the red record button at the top of the channel column. The Add Schedule Event window appears showing the current time as the start time of the record, with a default duration of 30 minutes.
 - b. Verify that the **router source** list is present. Change the router source.
 - c. Enter a meaningful test clip name.
 - d. Change the duration to one minute. Duration uses the SMPTE timecode format: hours:minutes:seconds:frames.
 - e. Click **Add Event**. The event gets added to the Ingest Schedule in the current time slot and begins recording.
 - f. Verify that the router changes the video and audio signal correctly.

Checklist: Router Gateway + Server stage

Use the following check list to verify that the basic configuration and testing of the Router Gateway + Server stage is complete.
☐ Router-control connections successful between NewsBrowse server and Router Gateway
☐ NewsBrowse application controls router at ingest



^{a.}Make sure the Profile name is entered just as it is in the host table.

This page configures the Managed Device Interface (MDI) for the Profile Media Servers that record and store the high-res media. The NewsBrowse system depends on the Profile MDI to make high-res media assets visible across the system.

For the EDL stage, configure the settings related to the EDL Conform to air feature. Specify one of more on-air Profiles as the targets to which conformed high-res clips can be transferred for playout.

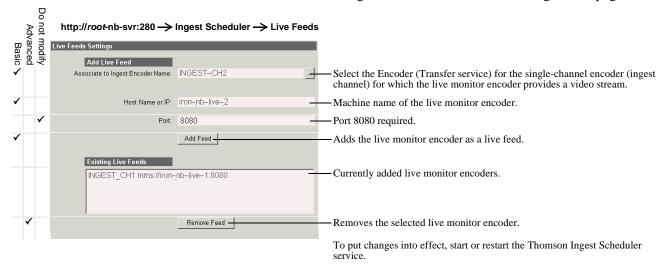
For other settings, refer to "Configure Profile MDIs" on page 66.

b. Make sure the Profile name is entered just as it is in the host table.

Add live monitor encoders

If your system uses live monitor encoders, add them to the system as follows:

- 1. If you have not already done so, cable and configure for network access similar to the NewsBrowse server.
- 2. Connect the audio/video feed for an ingest channel.
- 3. Add live monitor encoders on the Ingest Scheduler Live Feeds configuration page.



- 4. On each live monitor encoder, start Windows Media Encoder. There should be a Windows Media Encoder shortcut on the Windows desktop.
- 5. Open the NewsBrowse application and on the Ingest page verify that the video stream appears.

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