grass valley

NewsBrowse

DESKTOP BROWSING SYSTEM

Installation and Configuration Guide

SOFTWARE VERSION 2.0

071-8307-00
MAY 2004

the most watched worldwide

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.

Contents

Safety Summaries

General Safety Summary

Review the following safety precautions to avoid injury and prevent damage to this product or any products connected to it.

Only qualified personnel should perform service procedures.

While using this product, you may need to access other parts of the system. Read the *General Safety summary* in other system manuals for warnings and cautions related to operating the system.

Injury Precautions

Use Proper Power Cord

To avoid fire hazard, use only the power cord specified for this product.

Ground the Product

This product is grounded through the grounding conductor of the power cord. To avoid electric shock, the grounding conductor must be connected to earth ground. Before making connections to the input or output terminals of the product, ensure that the product is properly grounded.

Do Not Operate Without Covers

To avoid electric shock or fire hazard, do not operate this product with covers or panels removed.

Do Not operate in Wet/Damp Conditions

To avoid electric shock, do not operate this product in wet or damp conditions.

Do Not Operate in an Explosive Atmosphere

To avoid injury or fire hazard, do not operate this product in an explosive atmosphere.

Avoid Exposed Circuitry

To avoid injury, remove jewelry such as rings, watches, and other metallic objects. Do not touch exposed connections and components when power is present.

Product Damage Precautions

Use Proper Power Source

Do not operate this product from a power source that applies more than the voltage specified.

Provide Proper Ventilation

To prevent product overheating, provide proper ventilation.

Do Not Operate With Suspected Failures

If you suspect there is damage to this product, have it inspected by qualified service personnel.

Battery Replacement

To avoid damage, replace only with the same or equivalent type recommended by the circuit board manufacturer. Dispose of used battery according to the circuit board manufacturer's instructions.

Safety Terms and Symbols

Terms in This Manual

These terms may appear in this manual:

WARNING: Warning statements identify conditions or practices that can result in personal injury or loss of life.

CAUTION: Caution statements identify conditions or practices that may result in damage to equipment or other property, or which may cause equipment crucial to your business environment to become temporarily non-operational.

Terms on the Product

These terms may appear on the product:

DANGER indicates a personal injury hazard immediately accessible as one reads the marking.

WARNING indicates a personal injury hazard not immediately accessible as you read the marking.

CAUTION indicates a hazard to property including the product.

Symbols on the Product

The following symbols may appear on the product:

DANGER high voltage

Protective ground (earth) terminal

ATTENTION – refer to manual

Service Safety Summary

WARNING: The service instructions in this manual are intended for use by qualified service personnel only. To avoid personal injury, do not perform any servicing unless you are qualified to do so. Refer to all safety summaries before performing service.

Do Not Service Alone

Do not perform internal service or adjustment of this product unless another person capable of rendering first aid and resuscitation is present.

Disconnect Power

To avoid electric shock, disconnect the main power by means of the power cord or, if provided, the power switch.

Use Care When Servicing With Power On

Dangerous voltages or currents may exist in this product. Disconnect power and remove battery (if applicable) before removing protective panels, soldering, or replacing components.

To avoid electric shock, do not touch exposed connections

Certifications and Compliances

Canadian Certified Power Cords

Canadian approval includes the products and power cords appropriate for use in the North America power network. All other power cords supplied are approved for the country of use.

FCC Emission Control

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Changes or modifications not expressly approved by Grass Valley can affect emission compliance and could void the user's authority to operate this equipment.

Canadian EMC Notice of Compliance

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A préscrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

EN55103 1/2 Class A Warning

This product has been evaluated for Electromagnetic Compatibility under the EN 55103-1/2 standards for Emissions and Immunity and meets the requirements for E4 environment.

This product complies with Class A (E4 environment). In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

FCC Emission Limits

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesirable operation.

Laser Compliance

Laser Safety Requirements

The device used in this product is a Class 1 certified laser product. Operating this product outside specifications or altering its original design may result in hazardous radiation exposure, and may be considered an act of modifying or new manufacturing of a laser product under U.S. regulations contained in 21CFR Chapter 1, subchapter J or CENELEC regulations in HD 482 S1. People performing such an act are required by law to recertify and reidentify this product in accordance with provisions of 21CFR subchapter J for distribution within the U.S.A., and in accordance with CENELEC HD 482 S1 for distribution within countries using the IEC 825 standard.

Laser Safety

Laser safety in the United States is regulated by the Center for Devices and Radiological Health (CDRH). The laser safety regulations are published in the "Laser Product Performance Standard," Code of Federal Regulation (CFR), Title 21, Subchapter J.

The International Electrotechnical Commission (IEC) Standard 825, "Radiation of Laser Products, Equipment Classification, Requirements and User's Guide," governs laser products outside the United States. Europe and member nations of the European Free Trade Association fall under the jurisdiction of the Comité Européen de Normalization Electrotechnique (CENELEC).

Safety Certification

This product has been evaluated and meets the following Safety Certification Standards:

Standard	Designed/tested for compliance with:
UL1950	Safety of Information Technology Equipment, including Electrical Business Equipment (Third edition).
IEC 950	Safety of Information Technology Equipment, including Electrical Business Equipment (Second edition, 1991).
CAN/CSA C22.2, No. 950-95	Safety of Information Technology Equipment, including Electrical Business Equipment.
EN60950	Safety of Information Technology Equipment, including Electrical Business Equipment 1992.

Environmental Criteria

The following table lists the environmental criteria for the NewsBrowse system.

Characteristics	Description	
Operating Temperature	*Requirement:*	10° to 40°C
Storage Temperature	*Requirement:*	-40° to 65°C
Operating Altitude	*Requirement:*	To 10,000 feet
	Supplemental Data:	IEC 60950 compliant to 2000 meters
Storage Altitude	*Requirement:*	To 40,000 feet
Mechanical Shock	*Supplemental Data:*	Class 5 (30G) Grass Valley 001131500
Random Vibration	*Requirement:*	Operational: Class 6 Grass Valley 001131500
	Requirement:	Non-Operational: Class 5 Grass Valley 001131500
Transportation	*Requirement:*	Grass Valley 001131500
Equipment Type	*Supplemental Data:*	Information Technology
Equipment Class	*Supplemental Data:*	Class 1
Installation Category	*Requirement:*	Category II Local level mains, appliances, portable equipment, etc.
Pollution Degree	*Requirement:*	Level 2 operating environment, indoor use only.
Relative Humidity	*Requirement:*	Operating 80% from +30° to +40°C Non-Operating 90% from +30° to +60°C Do not operate with visible moisture on the circuit boards.

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 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 software upgrade instructions, software specifications and requirements, feature changes from the previous releases, helpful system administrative information, and any known problems. You receive this document bundled with the latest version of software.

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 3 9721 3737	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.

Chapter 1

System Overview

NewsBrowse is a media management and editing system. When integrated with a Profile XP Media Server and a NewsEdit system, NewsBrowse supports the complete newsroom workflow — from ingest to editing to distribution to archive.

This chapter includes the following topics:

Functional description

NewsBrowse processes an incoming feed and simultaneously encodes it into two formats: a low-resolution (MPEG-1) format stored locally on the Network Attached Storage (NAS) unit, and a high-resolution format stored on the Profile Media Server.

NewsBrowse further processes the low-resolution files to create video thumbnails, storyboards and RealVideo. You can use a web browser to edit stories using the low-resolution media, which is accessible from the journalist's desktop. NewsBrowse also provides a rich metadata search engine that allows you to search for clips using various criteria.

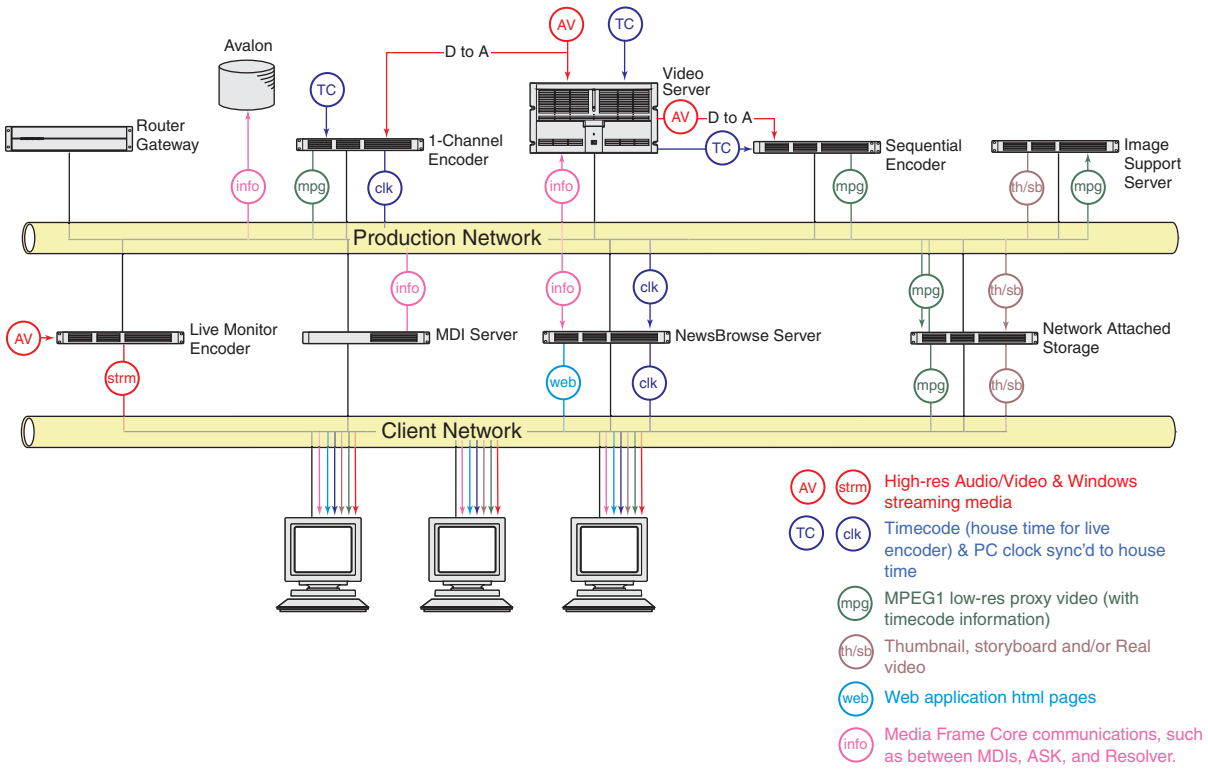
Once you complete a sequence with the NewsBrowse editor, NewsBrowse can use that sequence to pull the corresponding high-resolution video from the Profile Media Server and assemble an on-air quality sequence. NewsEdit can also use the sequence in a similar way. NewsBrowse can also monitor the Profile Media Server to create low-resolution files that do not exist, and stream live feeds.

From the NewsBrowse application you can archive and restore high-resolution media. Archived media is still visible from the NewsBrowse application.

For descriptions of the machines used as platforms for the NewsBrowse system, refer to "Cable hardware components" on page 19.

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

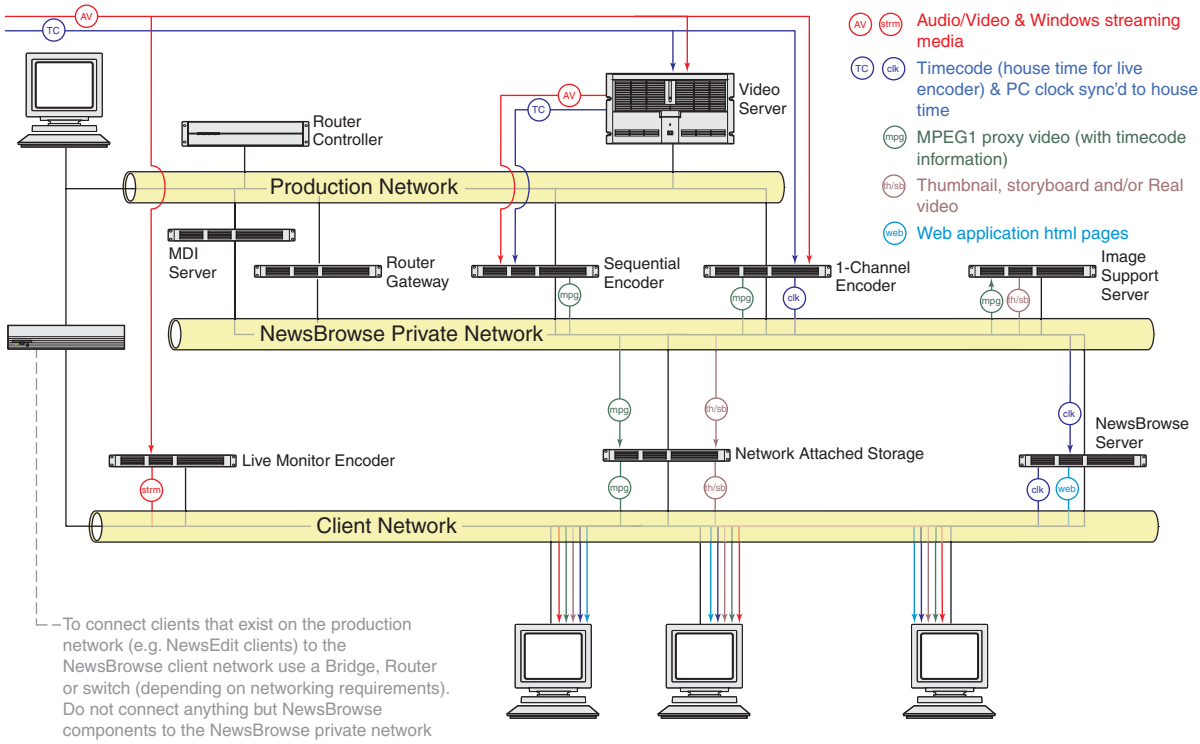
Two tier system diagram



System that are built new for NewsBrowse version 2.0 or higher use the two tier network architecture.

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.

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.

Chapter 2

Installing NewsBrowse Machines

This chapter provides instructions for installing the hardware platforms that support the NewsBrowse system. When you are done installing the hardware platforms, 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 for your specific rack to install each component of the NewsBrowse system. One rack-unit spacing is recommended between components for ventilation.

Cable hardware components

Refer to the system design for your particular NewsBrowse system and either the "Two tier system diagram" on page 16 or the "Three tier system diagram" on page 17 to identify the hardware components and cabling requirements for your NewsBrowse system. Then turn to the instructions in this section for the hardware components included in your system 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.
- NewsBrowse requires analog video and audio feeds. Digital to Analog conversion of signals may be required.
- Single-channel encoders, sequential encoders and live monitor encoders all require audio/video connections. Both single-channel and sequential encoders require timecode feeds (house-time or from Profile respectively).
- For all NewsBrowse machines, connect the keyboard/mouse cable harness as follows:
  - Plug the Y-cable into the keyboard/mouse port on the back of the machine and into one end of the keyboard and mouse ports on the cable harness.
  - Plug the VGA cable on the harness to the back of the machine.
  - Plug the other end of the harness into a PC connection on the KVM Keyboard/ Monitor Drawer unit. (If you are not using the KVM component, plug the cables into a PC keyboard, mouse, and VGA port.)

NewsBrowse server instructions

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, as per your system's two tier or three tier network architecture. The client network is available for access to the web application.

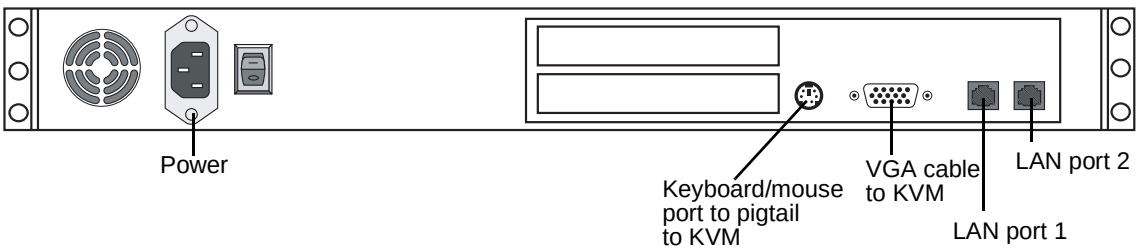
For the NewsBrowse server you have the option of the Axiom or the Dell platform.

Platform Specifications are as follows:

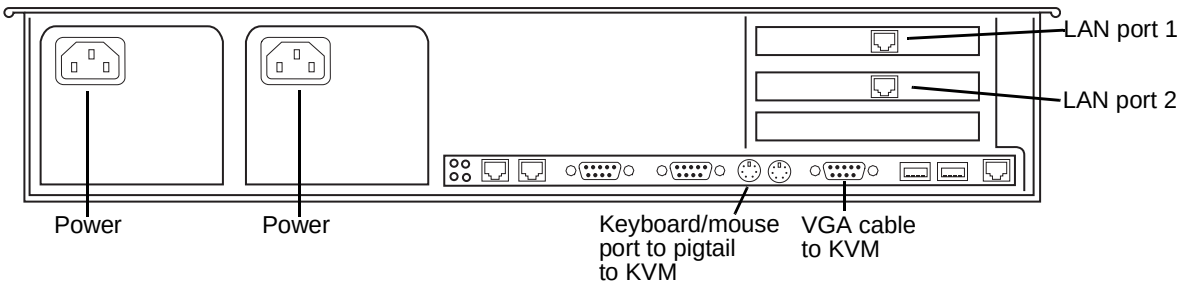
- P 3, 1Ghz or better (1 or 2 CPU)
- 512 MB RAM- CD-ROM Drive
- Minimum 20GB Program Drive
- Windows 2000 Server (SP3)
- .NET Framework (SP2)
- Internet Explorer 6 (SP1)
- Windows Media Player 7.1
- Flash Player 6 (6.0.65.0 update)
- Microsoft SQL Server (SP3)
- 100Tx LAN (x2)

Cable as illustrated.

Axiom platform



Dell platform



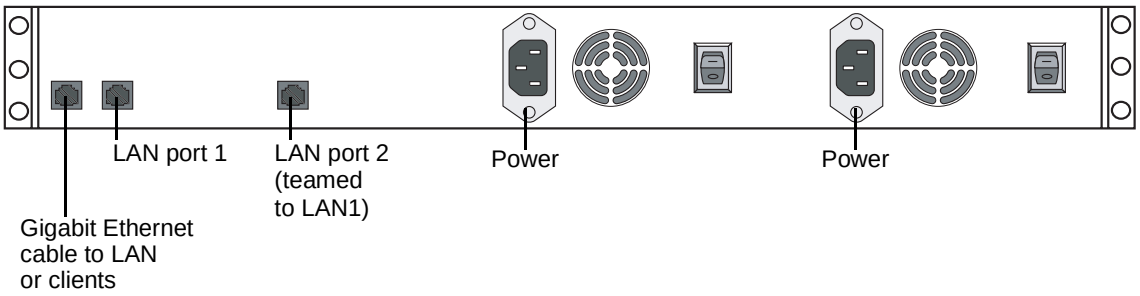
Connect LAN ports to a network router or switch. Connect port 1 to the Production Network (or Private Network for three tier) and port 2 to the Client Network.

Network Attached Storage (NAS) instructions

The NewsBrowse Network Attached Storage (NAS) unit provides storage for MPEG-1 proxy video, storyboards, thumbnails and RealVideo. 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 teamed 100Tx connections over the network. Client access is provided via Gigabit Ethernet uplink to the Client Network.

Platform Specifications are as follows:

- Redundant Power Supplies.
- 1000BaseT LAN
- 100Tx LAN (x2)
- RAID protected drives



Cable as illustrated and as follows:

- Connect a Gigabit Ethernet cable from the port on the NAS to your LAN or directly to NewsBrowse clients.
- Connect two Ethernet cables from **LAN1** and **LAN2** ports on the NAS to a network router or switch.
- 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.

Single-channel encoder instructions

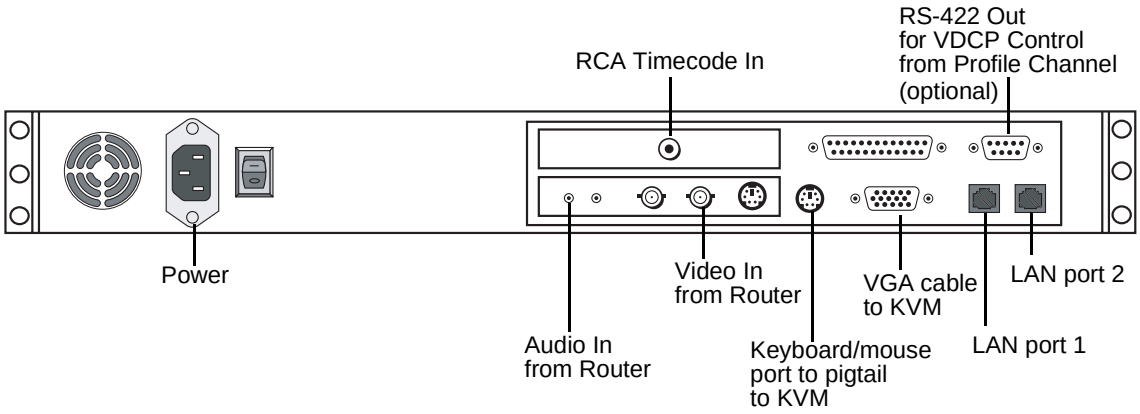
The single-channel encoder creates MPEG-1 proxy versions of high-resolution video. The single-channel encoder records MPEG-1 proxy in parallel with ingest into a video server. A NewsBrowse system may contain multiple single-channel encoders.

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 sequential 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 (SP2)
- Internet Explorer 6 (SP1)
- 100Tx LAN (x2)



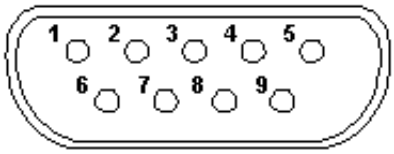
Cable as illustrated and as follows:

- 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.
- Connect two Ethernet cables from the **LAN1** and **LAN2** ports on the Encoder to a network router or switch. Make sure the LAN2 port is connected to the network where the Profile exists. 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

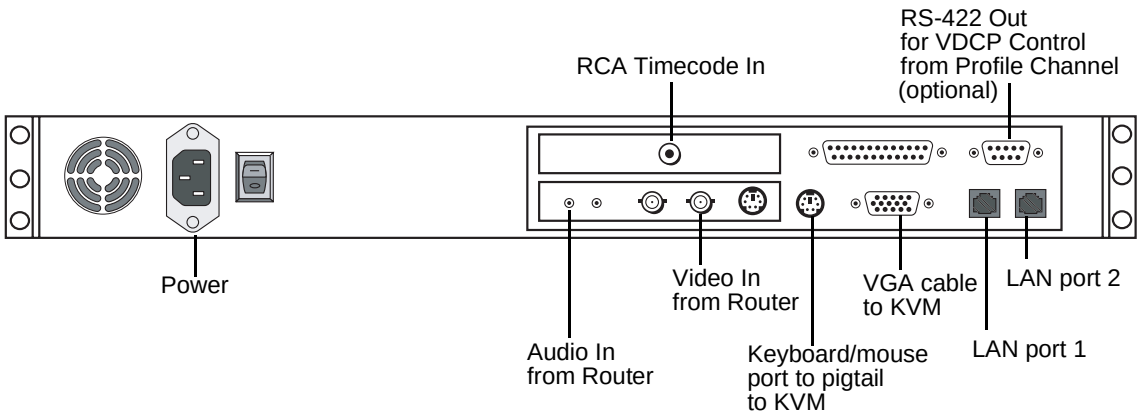


Sequential encoder instructions

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.



Cable as illustrated and as follows:

- 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 23.

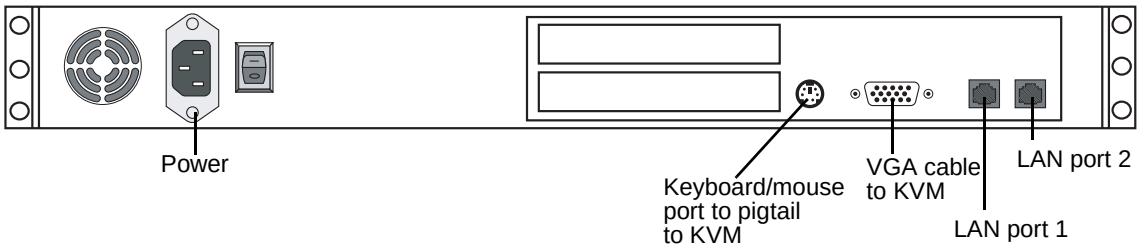
MDI Server instructions

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:

- 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 (SP2)
- Internet Explorer 6 (SP1)
- 100Tx LAN (x2)



Cable as illustrated and as follows:

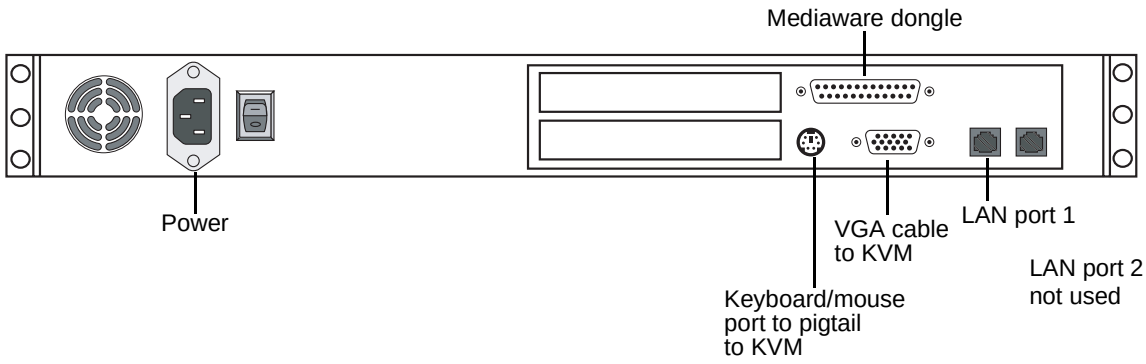
- Connect LAN ports to a network router or switch. Connect port 1 to the Production Network (or Private Network for three tier) and port 2 to the Client Network.

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 (SP2)
- Internet Explorer 6 (SP1)
- Real Producer 8.5
- Mediaware hardware dongle



Cable as illustrated and as follows:

- 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.

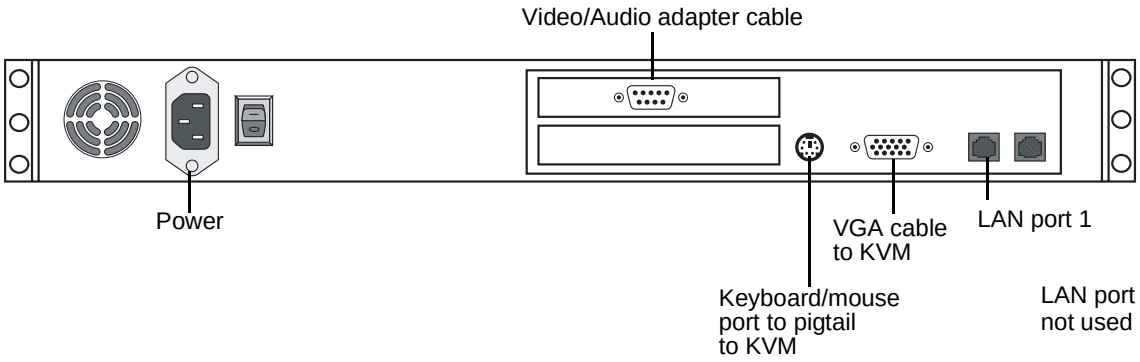
Live monitor encoder instructions

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 an Ethernet cable from the **LAN2** port on the live monitor encoder to a network router or switch.
- Connect Analog Audio and Video harness to the source that corresponds to the desired feed for web-based monitoring.

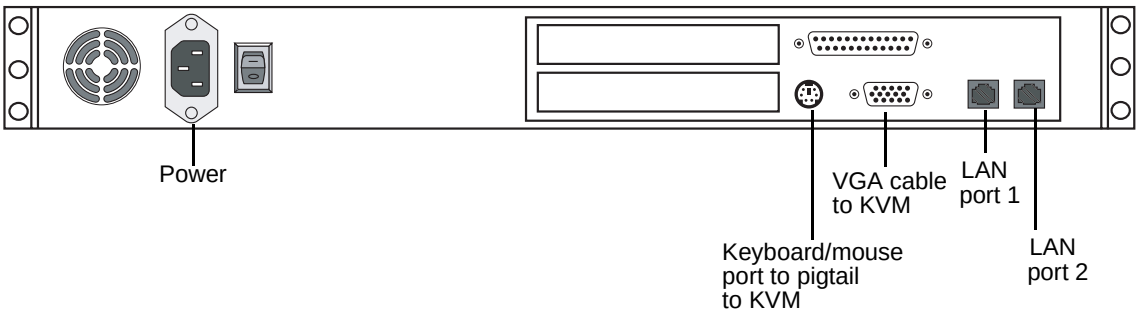
Router Gateway instructions

The NewsBrowse Router Gateway is the host platform for the Router Gateway Service. The NewsBrowse system supports SMS7000 router control via SMS7000 Native Protocol over Ethernet, and supports Encore router controls 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 (SP2)
- Internet Explorer 6 (SP1)
- 100Tx LAN (x2)



Cable as illustrated and as follows:

- Connect an Ethernet cable from the LAN1 port on the Router Control Gateway to the NewsBrowse network switch.
- Connect an Ethernet cable from the LAN2 port on the Router Gateway to the network where the Router Control system can be accessed.

Chapter 3

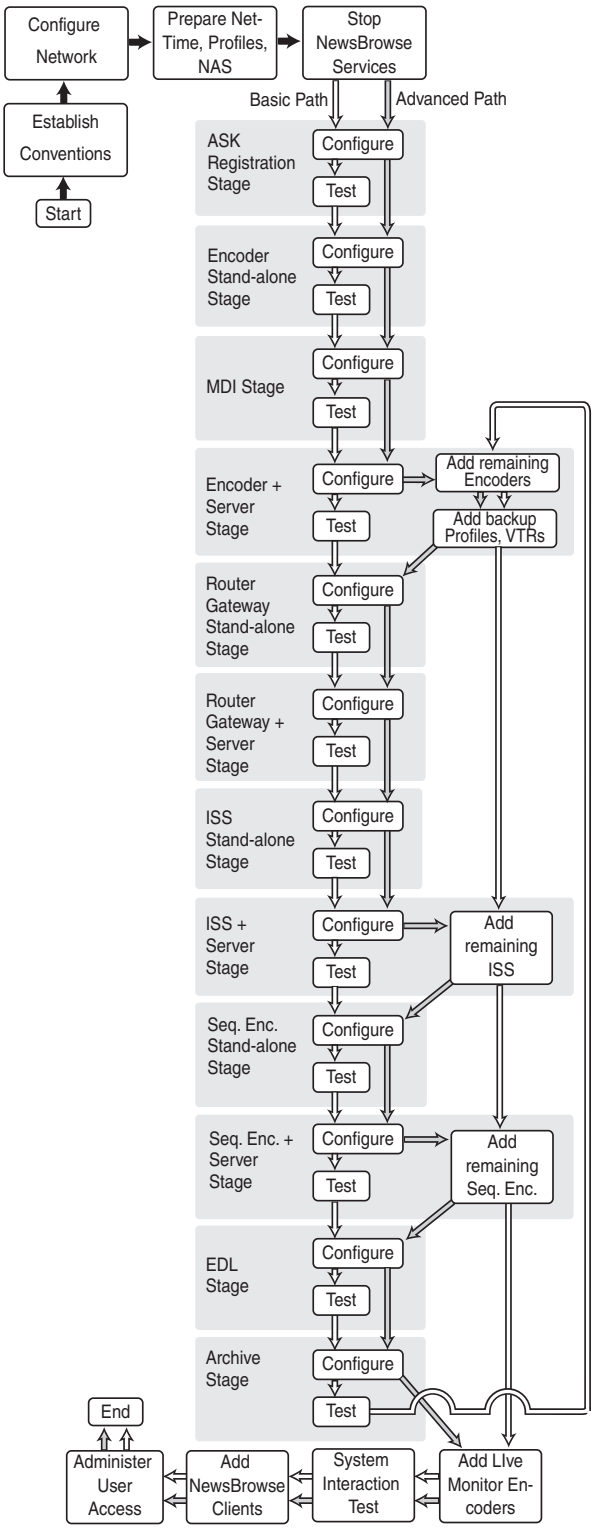
Configuring the NewsBrowse System

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" on page 30.
- 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



This flowchart illustrates the major tasks required for configuring a NewsBrowse system. 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, you 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.

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
NewsBrowse server	*root*_nb_svr
Network Attached Storage (NAS)	*root*_nb_nas_1…n
Managed Device Interface (MDI) Server	*root*_nb_mdi
Single-channel encoder	*root*_nb_enc_1…n
Sequential (scavenge) Encoder	*root*_nb_seq_1…n
Image Support Server (ISS)	*root*_nb_iss_1…n
Live monitor encoder	*root*_nb_live_1…n
Router Gateway	*root*_nb_rtr
Stand-alone Profile Media Server	pvs_1…n
Open SAN Profile Media Server	mpvs_1…n

Channel naming convention

In general, channel counting begins at one (not zero), with the first channel assigned to the first channel in the first Profile in the system. Keep channel names short, as they need to fit across the Ingest Schedule pages. Here's an example for an Open SAN system using MPVS1104:

NewsBrowse Encoder	Channel Name	Profile Channel
*root*_nb_enc_1	Ch1	Profile 1, VTR 1
*root*_nb_enc_2	Ch2	Profile 1, VTR 2
*root*_nb_enc_3	Ch3	Profile 1, VTR 3
*root*_nb_enc_4	Ch4	Profile 1, VTR 4
*root*_nb_enc_5	Ch5	Profile 2, VTR 1
*root*_nb_enc_6	Ch6	Profile 2, VTR 2
…	…	…

With this naming convention, if there is a problem, you can use the channel number to quickly determine which encoder and which Profile are affected.

MDI naming convention

You should use a consistent naming convention for the Managed Device Interfaces (MDIs) in the system. The NewsBrowse system manages a device through an MDI. Each type of device has its own MDI. The MDI software component usually is not hosted on the same machine that it manages, so is it helpful to be able to differentiate between the name of the MDI, the name of the machine that hosts the MDI, and the name of the device the MDI manages. The following table illustrates a suggested convention.

MDI type	MDI name(s)	Comments
Proxy	PROXY1	There is but one Proxy MDI in the system. It manages the storage locations on all the NAS machines.
Profile	SAN1	Manages the one designated Profile on an Open SAN
	PROFILE1, PROFILE2, PROFILE3,…	Manages a stand-alone Profile system. Enumerate in parallel with the machine naming convention.
NTFS	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.
Avalon Archive	ARCHIVE1	Manages the Avalon device

Services naming convention

Similar to MDIs, you need to have a naming convention for the Ingest Control service and the Proxy Transfer service. These services run on encoders, but they need their own name for configuration purposes, so is it helpful to be able to differentiate between the configured name of the service, and the host (table) name of the encoder on which the service runs. The following table illustrates a suggested convention.

Service type	Service name(s)	Comments
Ingest Control	INGEST_CH1, INGEST_CH2, INGEST_CH3	The Ingest Control service runs on single-channel encoders. Enumerate in parallel with the host (table) names of the encoders.
Proxy Transfer	SCAVENGE1, SCAVENGE2, SCAVENGE3	For Proxy Transfer service running on sequential encoders, use this naming convention. Enumerate in parallel with the host (table) names of the encoders.
	ISS1, ISS2, ISS3	For Proxy Transfer service running on Image Support Servers, use this naming convention. Enumerate in parallel with the host (table) names of the Image Support Servers.

Ports and services convention

NewsBrowse software components are distributed among the machines that make up the NewsBrowse system. These software components run as Windows services, which communicate over designated ports. As you configure the NewsBrowse system, you must correctly designate port numbers for NewsBrowse software components (services), such that the port numbers and components match between configuration pages.

Do not create your own convention for port usage. Designate ports as specified in the following table:

Services	Port	Comments
Core Services		
Thomson Ask	9010	New service for version 2.0
Thomson Metadata	9014	Not visible on a configuration page
Thomson Resolver	9016	Not visible on a configuration page
Thomson Rules Wizard	9018	Not visible on a configuration page
Thomson Ingest Scheduler	8055	Starting range for first remote control. Not visible on a configuration page.
Ingest Services		
Thomson Ingest Control (single-channel encoder)	9330	Version 1.5 default port number was 8045.
Transfer Services		
Thomson Proxy Transfer (sequential encoder, ISS)	9230	Starting range for first control. Version 1.5 default port number was 8070.
Managed Device Interface (MDI) Services		
Thomson Proxy MDI	9110	—
Thomson Profile MDI[a]	9100	—
Thomson Avalon Archive MDI	9120	New service for version 2.0
Thomson NTFS MDI	9115	New service for version 2.0
Miscellaneous Services		
Thomson Router Gateway	8065	—

[a] The Profile MDI 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 Profile MDI Service stops/starts all of the host processes.
The version 1.5 default port number for these processes was 8022, with no range.

These services are distributed on different machines in the system. They would not normally run on any one machine, as explained in "Accessing NewsBrowse services" on page 43.

The NewsBrowse system also depends upon Microsoft Internet Information Services (IIS) and SQL services.

Topics later in this manual provide specific instructions for entering port numbers on each configuration page.

Site-specific configuration tables

Create tables similar to the examples given here as required by the site's specific NewsBrowse system. Use conventions as described earlier in this chapter. The values in **bold** text in these example tables are pre-defined—you should not change them as you fill in your own site-specific table. Values with *italic* text are an example of the entry you make in your own table. Cells with a "NA" have no applicable value.

In these examples the system root used for naming is "iron". Replace "iron" with a root name appropriate to the site.

The screen shots and other examples in the remainder of this manual use the example names and values in these tables

	Machine types	**Machine names** The host (table) name you give each machine	**MDI types** The type of MDI required for each machine	**MDI name** The name you give each MDI	**MDI host** The machine that hosts the MDI(s)	**Ports** The port used by the MDI	**Other info**
1.	Open SAN Profile Media Server	*mpvs_1*	Profile MDI	*SAN1*[a]	*iron_nb_mdi*	**9100**	Process port 9130[b]
2.		*mpvs_2*	NA				
3.		*mpvs_3*	NA				
4.		*mpvs_4*	NA				
5.	Stand-alone Profile Media Server	*pvs_1*	Profile MDI	*PROFILE1*			Process port 9131
6.		*pvs_2*	Profile MDI	*PROFILE2*			Process port 9132
7.	NAS (or other storage device for proxy assets)	*iron_nb_nas_1*	Proxy MDI[c]	*PROXY1*	*iron_nb_mdi*	**9110**	File system folder(s): *iron_nb_nas_1\Media*
8.		*iron_nb_nas_2*					*iron_nb_nas_2\Media*
9.		*iron_nb_nas_3*					*iron_nb_nas_3\Media*
10.	Avalon Archive	*<hostname>-idm*[d]	Avalon Archive MDI		*iron_nb_mdi*	**9120**	
11.	Machines with NTFS storage	*iron_nb_svr*	NTFS MDI[e]	*NTFS1*	*iron_nb_svr*[f]	**9115**	File system folder(s): *iron_nb_svr\TempEDL*
12.		*iron_nas_1*					*iron_nas_1\EDLs* *iron_nas_1\Audio*
13.		*iron_nas_2*					*iron_nas_2\Audio*

[a] Only one Profile per Open SAN has a MDI

[b] Processes use ports 9130 - 9139. Refer to "Ports and services convention" on page 33.

[c] A single instance of the Proxy MDI manages all the proxy storage machines.

[d] The host table must have an entry with "-idm" appended to the name of the archive device. Refer to "Configure Avalon Archive MDI" on page 102.

[e] A single instance of the NTFS MDI manages storage on multiple machines.

[f] The NTFS MDI must run on the NewsBrowse server.

The following table lists other NewsBrowse machines and services. For Transfer and Ingest services you assign a name associated with “Device Type”. This is similar to assigning MDI names. Refer to “Configure Media Frame Core ASK: Register components” on page 47. These services always reside on the same machine that they manage.

	Machine types	**Machine names** The host (table) name you give each machine	**Device types** The “Device Type” service required on each machine	**Service name** The name you give each service, similar to MDI.	**Ports** The port used by the service	**Other info**
14.	NewsBrowse server	*iron_nb_svr*	NA	NA	NA	
15.	Single-channel encoder	*iron_nb_enc_1*	Ingest	*INGEST_CH1*	**9330**	Display Names: Enc. Chan. 1
16.		*iron_nb_enc_2*	Ingest	*INGEST_CH2*		Enc. Chan. 2
17.	MDI server	*iron_nb_mdi*	NA	NA	NA	
18.	Image Support Server (ISS)	*iron_nb_iss_1*	Transfer	*ISS1*	**9230**	
19.		*iron_nb_iss_2*	Transfer	*ISS2*		
20.	Sequential encoder	*iron_nb_seq_1*	Transfer	*SCAVENGE1*	**9110**	
21.		*iron_nb_seq_2*	Transfer	*SCAVENGE2*		
22.	Live monitor encoder	*iron_nb_live_1*	NA	NA	NA	
23.		*iron_nb_live_1*	NA	NA	NA	
24.	Router Gateway	*iron_nb_rtr*	NA	NA	NA	

Configure network: Two tier

If your system is new for version 2.0 or higher, configure a two tier network, as explained in the following topics. This is the recommended architecture for version 2.0 and higher. Also refer to "Two tier system diagram" on page 16.

Systems upgrading from version 1.5 may retain the three tier network (which was required for version 1.5) as NewsBrowse 2.0 and higher supports both the three tier architecture and the two tier architecture. Refer to "Three tier system diagram" on page 17. If you are upgrading from version 1.5 to version 2.0 or higher, refer to *NewsBrowse Release Notes* for three tier network configuration instructions.

Distribute host tables

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

With NewsBrowse systems version 2.0 and higher, host tables for the two tier deployment are simpler than those for the three tier deployment. All NewsBrowse 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 for the NewsBrowse system. Not shown are entries for Profile systems and other machines on the network.

```
#------------------------------------------------------
#General Host Table
#------------------------------------------------------

#NewsBrowse server

192.168.30.21     iron_nb_svr


#NewsBrowse NAS

192.168.30.71     iron_nb_nas_1
192.168.30.72     iron_nb_nas_2


#NewsBrowse Image support servers

192.168.30.50     iron_nb_iss_1
192.168.30.51     iron_nb_iss_2


#NewsBrowse single-channel encoders

192.168.30.26     nb_enc_1          #Open SAN Profile mpvs_1 vtr 01
```

```
192.168.30.27     nb_enc_2          #Open SAN Profile mpvs_1 vtr 02
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


#NewsBrowse sequential encoders

#192.168.30.80    nb_seq_1
192.168.30.81     nb_seq_2


#NewsBrowse MDI server

192.168.30.101    iron_nb_mdi


#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
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:

- 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.

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:

- Single-channel encoder
- Sequential (Scavenge) Encoder

- Image Support Server (ISS)
- Router Gateway

From the factory, the machines are set with static IP and as members of 'WORKGROUP'. Change the IP addresses according to the host table. Use standard Windows procedures.

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
- Live monitor encoder

NAS machines are also on the Client network. You configure NAS machines in "Prepare Network Attached Storage (NAS)" on page 42.

The DNS will provide the IP lookup for the NewsBrowse devices attached on the client domain. You must use static IP addresses because DHCP has not been qualified.

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.
- The IP address for the NewsBrowse server
- The IP address for the MDI server
- The IP address for each live monitor encoder
- The IP address for each NAS
- 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
2. Set IP address for each port, DNS servers
3. Set DNS settings

Test: Verify two tier network settings

Run the following tests to verify your network settings.

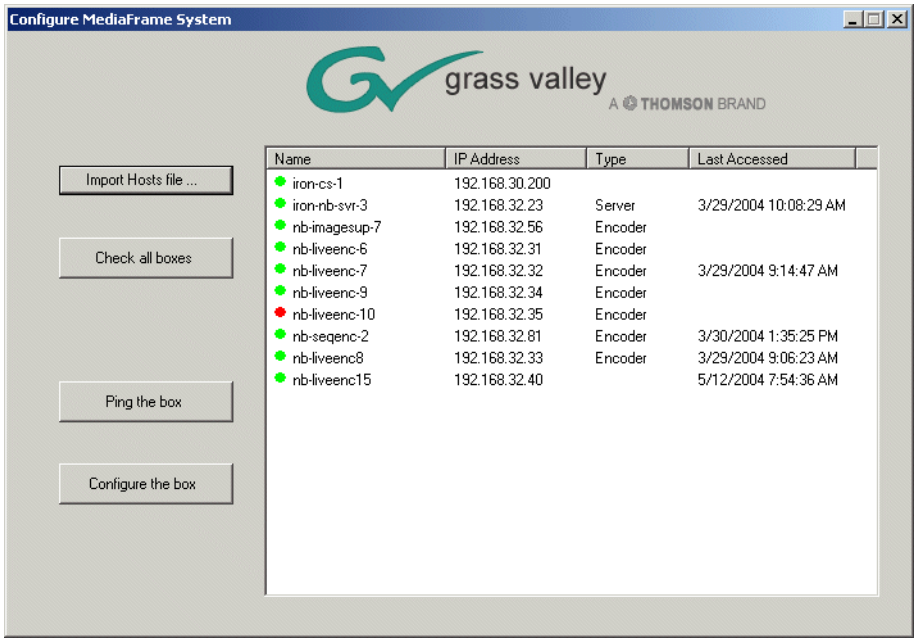
Ping test

Write a .bat file in notepad according to the following example:

```
ping iron_nb_svr
ping iron_nb_enc_1  REM all encoders
...
ping iron_nb_nas_2  REM all NAS
...
ping pvs_1      REM all Profiles under NB control
...
```

Run this from every NewsBrowse machine and verify that you have basic connectivity in both directions along with the correct name resolution.

You can also do a ping test from the NewsBrowse configuration tool. Open the configuration tool on the NewsBrowse server at **Start | Thomson | NewsBrowse | Utilities | Configuration Tool**.



Prepare for core configuration stages

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

Prepare NetTime

NetTime keeps the system clocks on NewsBrowse machines in sync. It is used to keep the Ingest Scheduler and Clients synchronized to house time. The Profile Media Servers and NewsBrowse encoders use the house timecode feeds.

One of your NewsBrowse machines functions as a NetTime server. The other NewsBrowse machines are NetTime clients. NetTime keeps the clients in sync with the server.

Set up NetTime with the following procedures:

- "Prepare NetTime servers" on page 40
- "Prepare NetTime clients" on page 40

Prepare NetTime servers

You use one single-channel encoder as the primary NetTime server, and another single-channel encoder as the secondary (redundant) NetTime server. A LTC connection to house timecode is required for single-channel encoders functioning as NetTime servers.

To prepare a single-channel encoder as a NetTime server, do the following:

1. On the single-channel encoder, open the following folder:

   C:\Net Time Components\TC Timesync

2. Open *AecPciPoll.exe*. This verifies that the Adrienne card is properly installed and the house timecode is valid.
3. Open a DOS window and navigate to *C:\Net Time Components\TC Timesync*
4. Run *Load Service.bat* and in Task Manager, verify that NtPciClk.exe is running.
5. Restart the encoder and verify that NtPCiClk.exe restarted automatically.
6. Open the folder *C:\Net Time Components\Server*.
7. Open *ATCS10.exe* and click **Yes** to install.
8. Restart the encoder and verify that the Absolute Time Server icon appears in the system tray.
9. The encoder is now functioning as the primary NetTime server. Repeat this procedure on a second single-channel encoder, to make it the secondary NetTime server.

Prepare NetTime clients

Before you use a PC to run the NewsBrowse client application, it must be prepared as a NetTime client. If you are following the basic configuration path, you must at a minimum prepare the NewsBrowse server as a NetTime client, as it is temporarily used as a NewsBrowse client in "Set up NewsBrowse client for configuration stage

tests" on page 67. Then, at the end of the basic configuration path, you can prepare NetTime on your NewsBrowse client PCs. 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 NetTime 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. You can optionally also configure the MDI server to rebroadcast the time sync, so it can back up the NewsBrowse server should there be a problem.

To prepare a NetTime client, do the following:

1. Open the following folder:

   C:\Net Time Components\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 NetTime primary and secondary server according to the following table:

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

   b. Select the **RFC868(TCP)** protocol for both servers

   c. For the NewsBrowse server and (optional) MDI Server only, 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 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.

Prepare Network Attached Storage (NAS)

On 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

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

    - NewsBrowse server
    - Single-channel encoder
    - Sequential (scavenge) Encoder
    - Image Support Server

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

    a. 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

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

13. 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:

    a. Make sure you can ping the NewsBrowse server with both the short name (*root*_nb_svr) and the long name (*root*_nb_svr.*domain*.com).

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

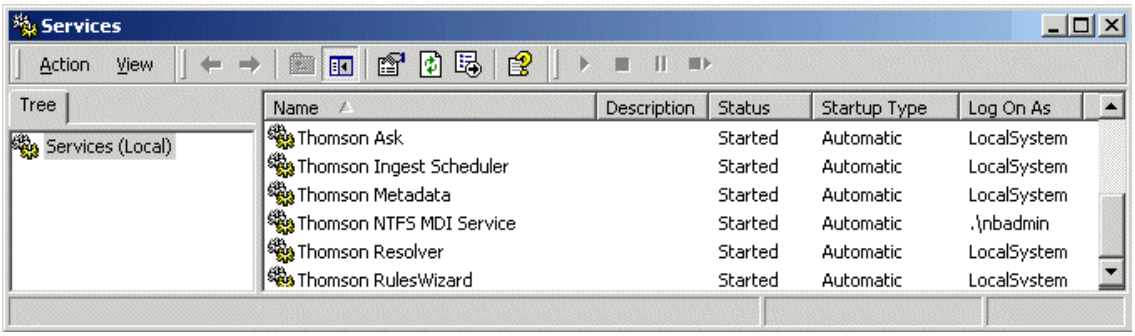
       *root*_nb_nas_1\Media

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

Accessing NewsBrowse services

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

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



Refer to "Ports and services convention" on page 33 for a list of NewsBrowse services.

Accessing NewsBrowse system configuration pages

Use Internet Explorer to browse to port 280 of a NewsBrowse machine to access its configuration pages. You must have administrator permissions on the NewsBrowse 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: *****

***** Contact Grass Valley Support for password.

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

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

- From the local computer, use the following URL:

  `http://localhost:280`

- From the NewsBrowse server, you can also open the NewsBrowse launch page and 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.

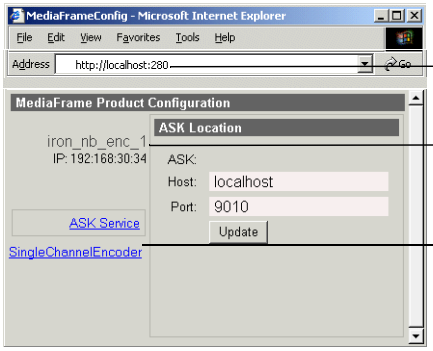
- From a network-connected computer, substitute *localhost* in the URL with the computer's network name. For example, to access the configuration pages or the NewsBrowse launch page on a NewsBrowse server named *iron_nb_svr*, use the following URLs:

  `http://iron_nb_svr:280`

  `http://iron_nb_svr/nbui`

You must have network access to open configuration pages. With either a two tier or a three tier network architecture, 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 NewsBrowse configuration pages, do the following:



Enter the URL to the configuration page at port 280 and press **Enter**.

Verify the machine name and IP address, to confirm that you are configuring the correct machine. There can be multiple IP addresses for the different NewsBrowse networks.

Click links to open configuration pages.

Stop NewsBrowse services

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

Go to each NewsBrowse machine and turn off all "Thomson…" services, as described in "Accessing NewsBrowse services" on page 43. 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 assets. When a test asset is created, the Rules Wizard can trigger the creation of various types of proxy media assets. This causes problems because the partially configured system is unable to handle the assets correctly.

ASK registration stage

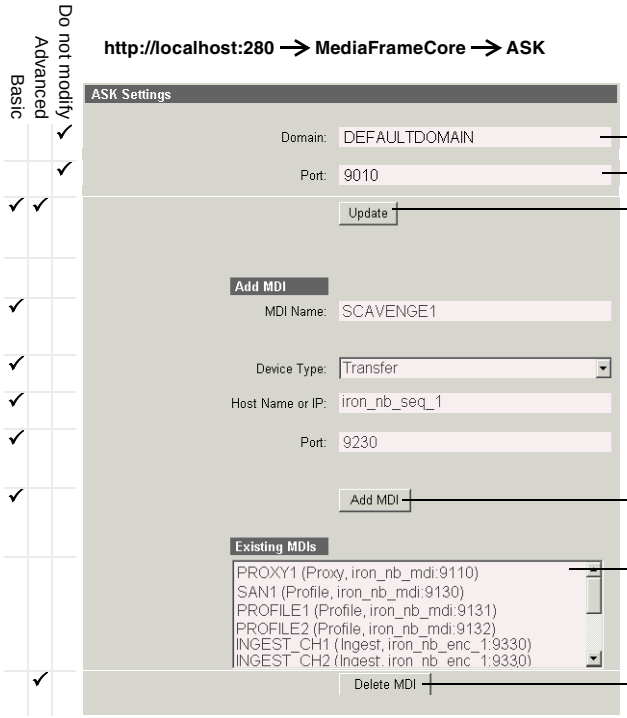
The ASK software component runs on the NewsBrowse server. It is the central registry for all the software components of the NewsBrowse system. As software components carry out tasks in a functioning system they regularly refer to the ASK component to establish communication and exchange commands and data.

The NewsBrowse system 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. For this reason you should configure the ASK component first.

To do the basic configuration and testing of the ASK software component, do the following:

1. "Configure Media Frame Core ASK: Register components" on page 47
2. "Test: ASK registration stage" on page 48
3. "Checklist: ASK registration stage" on page 48

Configure Media Frame Core ASK: Register components



Open this configuration page locally on the NewsBrowse server machine.

All Domain names in the NewsBrowse system must be identical.

Port 9010 is required. See "Ports and services convention" on page 33.

Saves changes. Changes are lost if you leave the configuration page without updating.

For the following settings, use the table below and refer to "Site-specific configuration tables" on page 34. Add each MDI and "Device Type" service in the NewsBrowse system

Click to add an MDI.

Lists currently added MDIs.

Deletes the currently selected MDI.

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

Start or restart the ASK service on the NewsBrowse server.

When you add an MDI for this type of machine/device…	Select "Device Type"…	Enter "MDI Name"…	Enter "Host Name or IP"…	Enter "Port"…	Comments
Open SAN Profile[a]	Profile	As per convention. Refer to "MDI naming convention" on page 32.	Host (table) name of the machine hosting the Profile MDIs. Typically the MDI server	9130 - 9139	These are process ports, as explained in "Ports and services convention" on page 33. Assign numbers in an intentional sequence, so they are easy to match in "Configure Profile MDIs" on page 60.
Stand-alone Profile	Profile				
NTFS storage on Windows machines	NTFS	NTFS1, as per convention.	NewsBrowse server host (table) name, as the server is the required NTFS MDI host.	Leave field blank. Correct port number is automatically entered on "Add MDI". Refer to "Ports and services convention" on page 33 to verify.	
Single-channel encoder	Ingest	As per convention. Refer to "Services naming convention" on page 32.	Single-channel encoder host (table) name		
Sequential encoder	Transfer		Sequential encoder host (table) name		
ISS	Transfer		ISS host (table) name		
Proxy	Proxy	PROXY1, as per convention.	Host (table) name of the machine hosting the Proxy MDI. Typically the MDI server.		
Avalon Archive	Avalon Archive	ARCHIVE1, as per convention.	Host (table) name of the machine hosting the Avalon Archive MDI		

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

This page registers MDIs and services with the ASK software component, which runs on the NewsBrowse server.

Test: ASK registration stage

The following test verifies that configuration pages are correctly loading the configured MDI information.

Test description: Open configuration pages and verify MDI lists.

Run the test as follows:

1. Make sure that the NewsBrowse system is not in use.
2. On the NewsBrowse server, open the **Ask Location** configuration page. Verify that it is configured to **localhost** and port **9010**. These should be the default values. Refer to "Configure ASK Location: NewsBrowse server" on page 65.
3. Open the **Media Frame Core | Rules Automation** page. For the **Profile MDI** field, click the **...** button. After a short pause, a list should appear. Verify that the configured Profile MDI names are listed. Close the list without selecting anything.
4. Open the **Ingest Scheduler | Scheduler** page. For the **MDI Name** field, click the **...** button. After a short pause, a list should appear. Verify that the configured Ingest MDI names are listed. Close the list without selecting anything.

Checklist: ASK registration stage

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

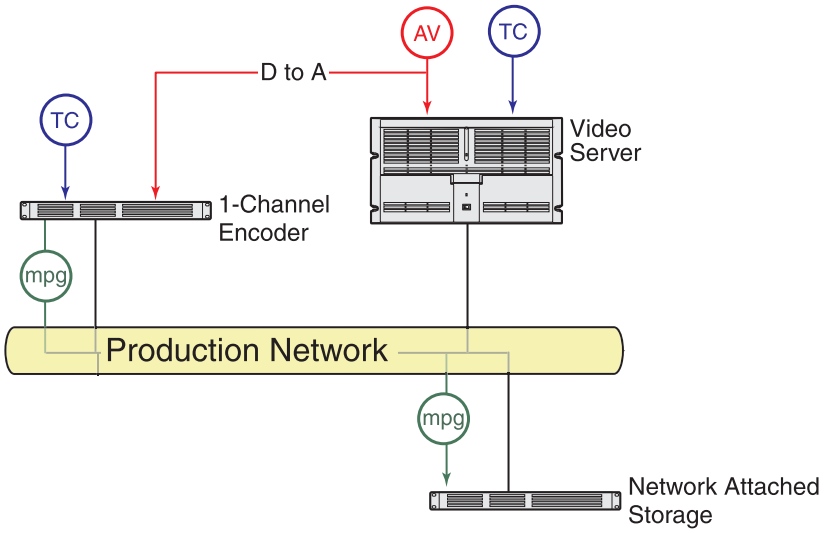
☐ All MDI names and "Device Type" service names are registered with ASK.

☐ Configuration pages load MDI names.

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.

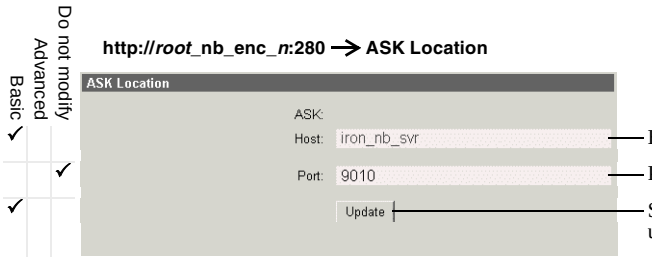


Refer to “Two tier system diagram” on page 16 for a view of the entire NewsBrowse system.

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

1. “Configure ASK Location: Single-channel encoder” on page 50
2. “Configure Ingest Control: Single-channel encoder” on page 50
3. “Configure Proxy Asset (NAS): Single-channel encoder” on page 51
4. “Configure media server: Single-channel encoder” on page 52
5. “Configure MPEG encoder: Single-channel encoder” on page 53
6. “Test: Encoder stand-alone stage” on page 53
7. “Checklist: Encoder stand-alone stage” on page 55

Configure ASK Location: Single-channel encoder



Enter the name of the NewsBrowse server

Port 9010 is required. See "Ports and services convention" on page 33.

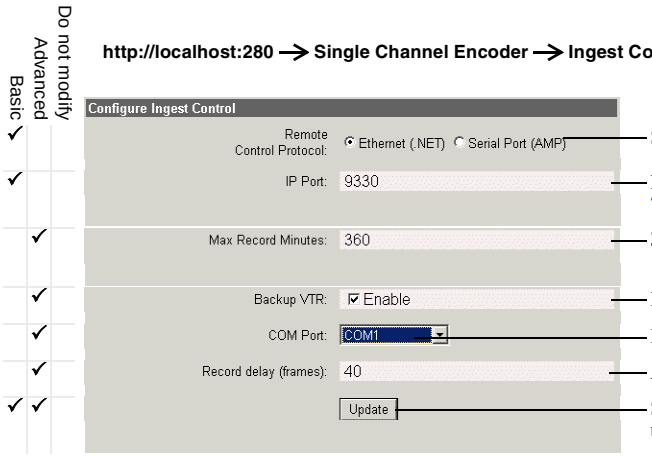
Saves changes. Changes are lost if you leave the configuration page without updating.

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

It is not necessary to restart a service to put these settings into effect.

This page tells the single-channel encoder where to look for the ASK service, which is one of the Media Frame Core software components and 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



Access this page from the local single-channel encoder.

Select the protocol that controls the Profile.

For Ethernet, enter IP Port **9330**. For Serial Port, select a COM Port. See "Ports and services convention" on page 33.

360 minutes recommended

If using a backup VTR, select **Enable**

If using a backup VTR, select a COM port.

Adjust as required by the backup VTR[a]

Saves changes. Changes are lost if you leave the configuration page without updating.

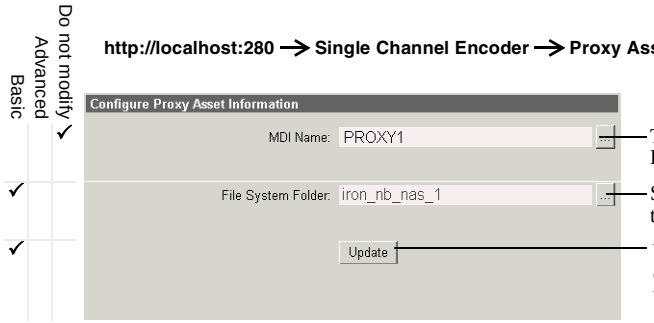
Always click **Update...** buttons after making changes

Start or restart the Thomson Ingest Control service on the 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



There is but one logical Proxy Managed Device in the system, named PROXY1.[a]

Select the path to the folder (\Media) on the NAS (or other storage location) that receives the MPEG this encoder creates.

Validates the current configurations with the Proxy MDI settings and saves changes. Changes are lost if you leave the configuration page without updating.

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

Start or restart the Thomson Ingest Control service on the single-channel encoder.

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

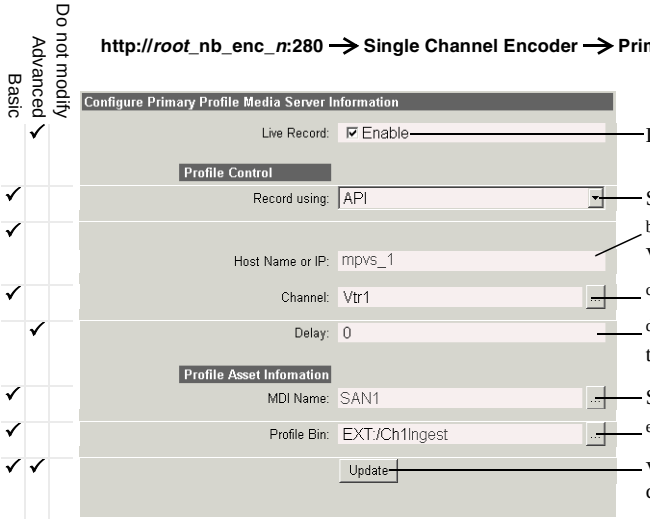
This page specifies the location (on a NAS machine) in which the single-channel encoder places the proxy MPEG it creates.

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

If you are doing the initial configuration of the Encoder stand-alone stage and you have not yet configured Proxy MDI settings (as in the MDI 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. Refer to "Site-specific configuration tables" on page 34. You can ignore error messages about the Proxy MDI information not being available.

Configure media server: Single-channel encoder

http://*root*_nb_enc_*n*:280 → Single Channel Encoder → Primary Media Server



Leave this box checked unless the Profile is being taken off line.[a]

Select API or VDCP (API is strongly recommended).

[b]For API, enter the machine name of the Profile, as it is in the host table. For VDCP, select the COM port connected.

[c]For API, select the Profile channel. For VDCP, enter the signal port connected.

[d]For API, set to 0. For VDCP, enter delay frames, tuned for the channel so that the Profile and encoder start times are in sync.

Select the MDI name for the Profile specified under "Profile Control" above.

[e]Select a bin on the Profile. Upon ingest, the high-res asset is saved here.

Validates and saves the current configurations. Changes are lost if you leave the configuration page without updating.

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

Start or restart the Thomson Ingest Control service on the 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.

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.

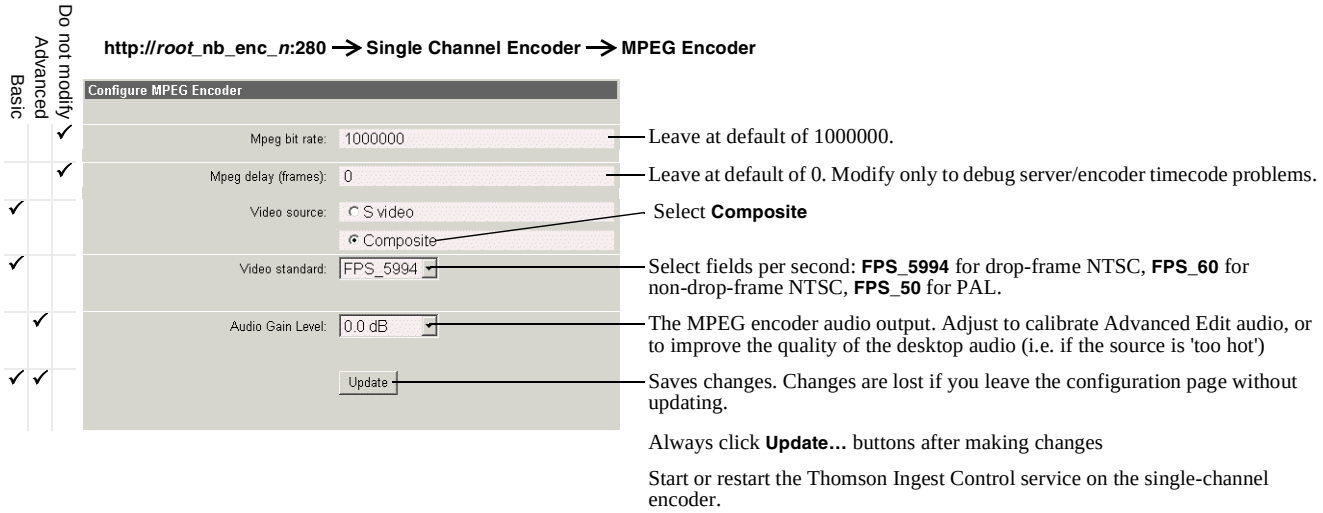
d. This field is dependent upon the API/VDCP selection above.

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.

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. Refer to "Site-specific configuration tables" on page 34.

If you have a backup Profile, return to the **Single Channel Encoder → Backup Media Server** link and configure similarly. You must check **Enable** to use a backup media server, as it is unchecked by default.

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.

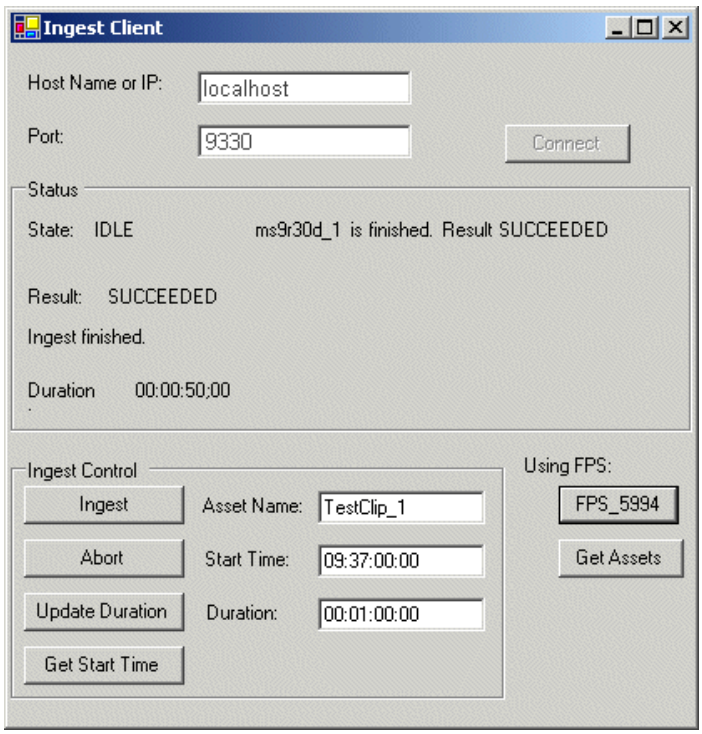
Run the test as follows:

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: You may get some error messages in Event Viewer as the encoder attempts to communicate completion information to MDI services. These can be ignored if you've not yet configured the MDIs as in "Managed Device Interface (MDI) stage" on page 56.

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 hi-res

☐ Encoder writes to NAS

☐ MPEG playback with audio

Managed Device Interface (MDI) stage

In this configuration stage you add a Managed Device Interface (MDI) server to the NewsBrowse system and then set up managed device interfaces so that Profile video servers and Proxy (NAS) devices are on-line as managed devices. Each type of device has a MDI 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.

The Encoder + Server configuration stage and other similar configuration stages require managed device interfaces to run their tests.

To bring Profile and Proxy managed devices on-line, do the following:

- "Prepare MDI server" on page 57
- "Configure ASK Location: MDI server" on page 58
- "Configure Proxy MDI" on page 59
- "Configure Profile MDIs" on page 60
- "Test: MDI stage" on page 61
- "Checklist: MDI stage" on page 63

Prepare MDI server

The machine that hosts the MDI services acts as the MDI server. Identify the machine that is the MDI server as follows:

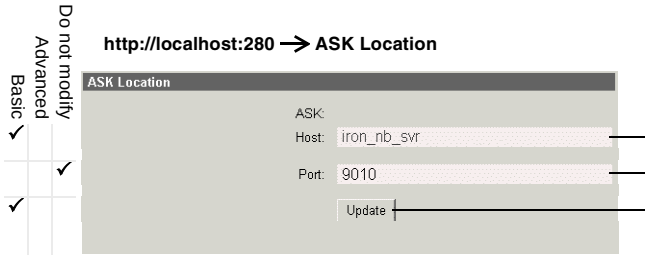
Dedicated MDI server — For medium to large NewsBrowse systems, the MDI services are on a stand-alone MDI server machine, to ensure system performance. If your system has a dedicated MDI server, it comes from the factory with Profile and Proxy MDI services installed, so you do not need to do any further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

On the MDI server, click **Start | Programs | Thomson | NewsBrowse | Utilities**. Verify that **Remoting Host Controller** is listed on the menu. This utility is used for the test later in this stage. If it is not installed on the MDI server, install it as the “Remote Host applet” from the NewsBrowse server installation program.

For the remaining configuration steps in this stage, open configuration pages locally (http://localhost:280) on the machine running the MDI services.

Configure ASK Location: MDI server



Access this page locally on the MDI server.

Enter the name of the NewsBrowse server[a]

Port 9010 is required. See "Ports and services convention" on page 33.

Saves changes. Changes are lost if you leave the configuration page without updating.

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

It is not necessary to restart a service to put these settings into effect.

a. If the MDI server is the NewsBrowse server, enter "localhost".

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

Configure Proxy MDI

Basic	Advanced	Do not modify	
			http://localhost:280 → Proxy MDI
	✓		Domain: DEFAULTDOMAIN
	✓		MDI Name: PROXY1
	✓		Port: 9110
✓	✓		Update
			Add Monitored Storage Location
✓			Monitored Storage Location:
✓			Add Monitored Location
			Existing Monitored Storage Locations
			\\iron_nb_nas_1\Media \\iron_nb_nas_1\Media\Enc1 \\iron_nb_nas_1\Media\Enc2 \\iron_nb_nas_1\Media\Scavenge \\iron_nb_nas_2\Media
	✓		Remove Monitored Location

Access this page locally on the MDI server.

All Domain names in the NewsBrowse system must be identical.

Must be set to PROXY1, as per convention.

Port 9110 is required. See "Ports and services convention" on page 33.

Saves changes. Changes are lost if you leave the configuration page without updating.

For each NAS machine, enter the UNC path to the "Media" folder. This is the location to which the NewsBrowse system writes the proxy media assets.[a]

Click to add as a location.

Lists the currently added locations. You can add multiple locations. You should have one or more locations listed for each NAS machine.

Removes the currently selected location.

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

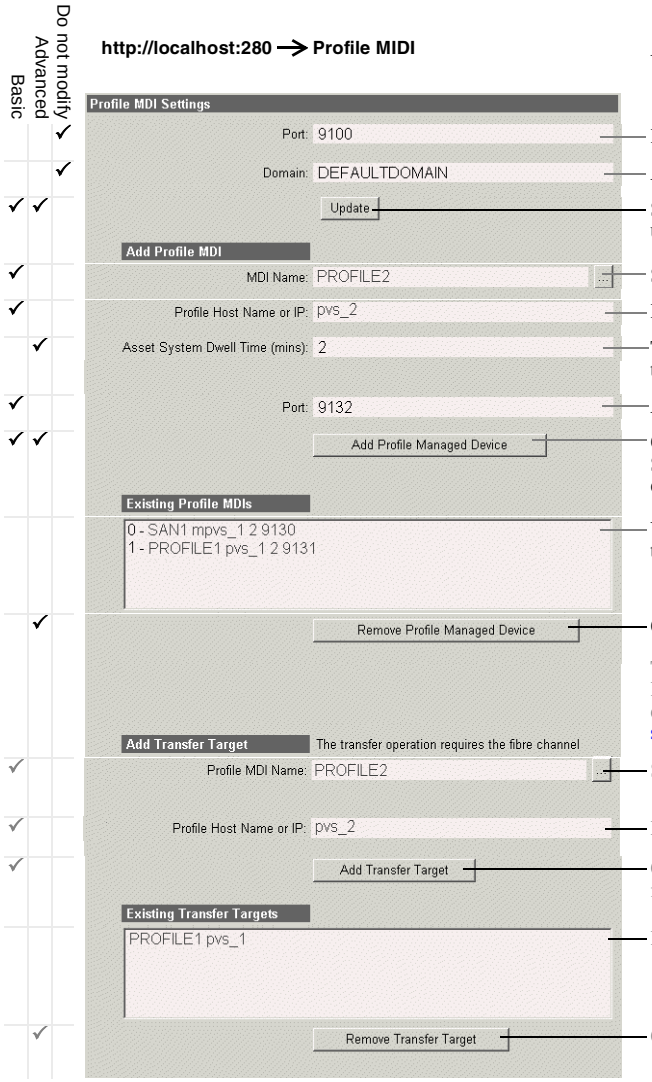
Start or restart the Proxy MDI Service on the MDI server.

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

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

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 assets.

Configure Profile MDIs



Access this page locally on the MDI server.

Port 9100 is required. See "Ports and services convention" on page 33.

All Domain names in the NewsBrowse system must be identical.

Saves changes. Changes are lost if you leave the configuration page without updating.

Select a Profile MDI.

Enter the host (table) name of the Profile for the MDI selected above.[a]

The time that the Profile MDI waits before it informs the NewsBrowse system that a clip has finished recording. Leave at 2.

Automatically increments so each Profile MDI has a unique process port.

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.

Verify the MDIs currently on-line. A listing for a single Profile MDI includes the values from all four "Add Profile MDI" fields above.

Click to remove the selected 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 94.

Select the MDI for a Profile to which assets can be transferred.

Host (table) name of the Profile specified above.

Click to add as a transfer target. This makes the Profile available for selection 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

Start or restart Profile MDI Service on the MDI server.

[a] Make sure the Profile name is entered just as it is in the host table.

This page configures the Managed Device Interfaces (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.

As you add Profile MDIs, refer to "Site-specific configuration tables" on page 34 and make sure that you associate Profile MDIs and Profile host names correctly.

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 Core ASK: Register components" on page 47.

If you are configuring the basic MDI stage, do not yet configure transfer targets.

Test: MDI stage

The following test exercises system functionality exclusive to the Managed Device Interfaces in this stage. A successful test verifies that the basic configurations are correct.

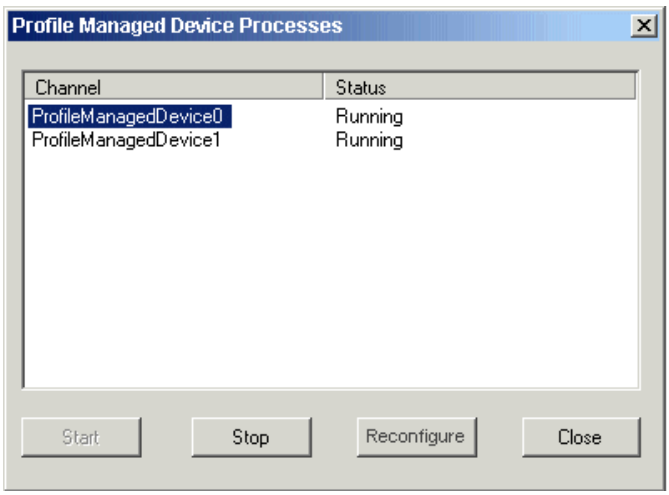
Test description: Using the Managed Device Interfaces, view the assets on each managed device and verify visibility into the machine's file system.

Run the test as follows:

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

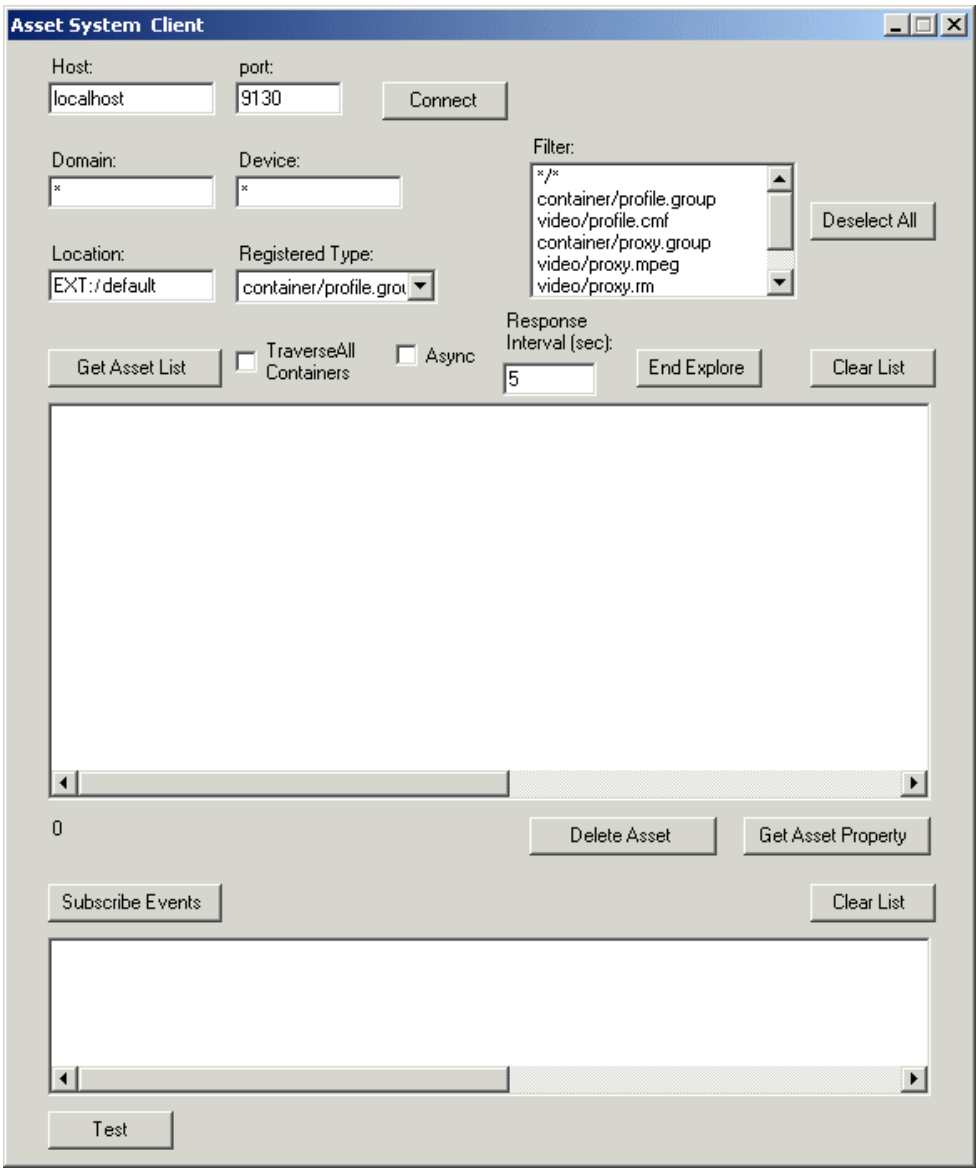
NOTE: Running these tests will tie up a channel and could collide with commands from the Ingest Schedule page. Inform operators that they must not use the channels under test.

2. On the machine that hosts the MDI services, click **Start | Programs | Thomson | NewsBrowse | Utilities | Remoting Host Controller**. The Remoting Host Controller application starts up. Startup is verified by the icon in the Windows system tray as it displays first a red X, then changes to a normally displayed icon.
3. Right-click the icon in the system tray and select **Remoting Host Controller**. The Remoting Host Controller application opens. The Profile MDI Service must be running, as it supports the Remoting Host Controller application.



4. Verify that the number of processes running is the same as the number of Profile Media Servers added as managed devices.
5. Close the Remoting Host Controller application.

6. On the machine that hosts the MDI services, click **Start | Programs | Thomson | NewsBrowse | Diagnostic Tools | Asset System Client**. The Asset System Client application opens.



7. Configure as follows to check the connection to a Profile managed device:
   - Host: **localhost**
   - Port: **9130** or another process port number for a Profile MDI. You can find the process port number for each Profile MDI on the Profile MDI Settings configuration page in the Existing Profile MDIs box.
8. Click **Connect**. Verify that the Get Asset List button and other buttons become enabled, which means the connection is successful.

9. Click **Subscribe Events**. This subscribes to notifications from the asset system. With this enabled you should see a message when an asset is created or deleted.
10. Configure as follows to view assets on a Profile managed device:
    - Enable the **Traverse All Containers** check box.
    - Location: Leave this field blank. With Traverse All Container enabled, when the Get Asset List button is clicked it will get all of the assets for the MDI. If you enter a path to a specific clip, you must use forward slashes in the path.
    - Registered Type: **container/***
11. Click **Get Asset List**. Verify that a list of media assets appears.
12. Select an asset and click **Properties.** Verify that properties for the asset appears.
13. Repeat step 9 through step 12 for each Profile managed device, as listed on the Profile MDI Settings configuration page in the Existing Profile MDIs box.
14. Configure as follows to check the Proxy MDI connection:
    - Host: **localhost**
    - Port: **9110**
15. Click **Connect**. Verify that the Get Asset List button and other buttons become enabled, which means the connection is successful.
16. Configure as follows to view assets at a Proxy location:
    - Enable the **Traverse All Containers** check box.
    - Location: Leave this field blank.
    - Registered Type: **container/***
17. Click **Get Asset List**. Verify that a list of media assets appears, for example, the low-res assets created in "Test: Encoder stand-alone stage" on page 53.
18. Select an asset and click **Properties**. Verify that properties for the asset appears.
19. On the NewsBrowse server, start the Asset System Client and click **Subscribe Events** as in step 9 above. When testing the notifications with the Asset System Client, it should run on the server – the same machine on which the Rules Wizard runs. This helps validate the networking configuration between the two machines.

Checklist: MDI stage

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

☐ The machine designated as the MDI server has the Proxy MDI service and the Profile MDI service installed and running.

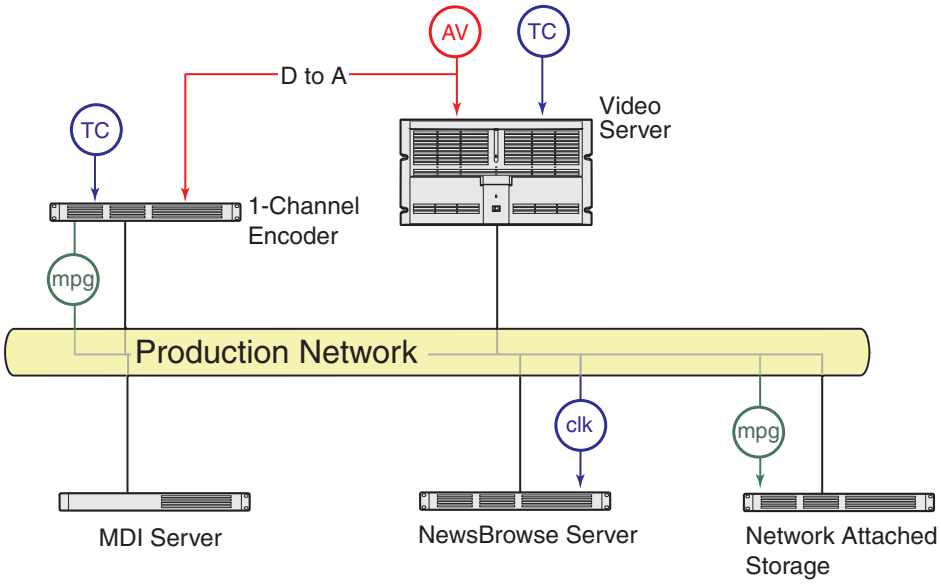
☐ Each Profile Media Server added as a managed device has a Profile Managed Device Process running on the MDI server machine.

☐ From the Asset System Client application on the MDI server, assets and their properties are visible from each Profile Media Server or Open SAN and from each machine configured as a Proxy location.

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 MDI stage.

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

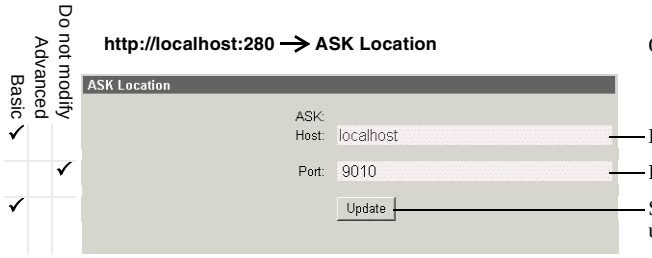


Refer to “Two tier system diagram” on page 16 for a view of the entire NewsBrowse system.

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

1. “Configure ASK Location: NewsBrowse server” on page 65
2. “Configure Media Frame Core ASK: Single-channel encoder” on page 65
3. “Configure Ingest Scheduler: NewsBrowse server” on page 66
4. “Set up NewsBrowse client for configuration stage tests” on page 67
5. “Test: Encoder + Server stage” on page 67
6. “Checklist: Encoder + Server stage” on page 68

Configure ASK Location: NewsBrowse server



Open this page locally on the NewsBrowse server machine.

Enter **localhost**, since you are configuring on the NewsBrowse server itself.

Port 9010 is required. See "Ports and services convention" on page 33.

Saves changes. Changes are lost if you leave the configuration page without updating.

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

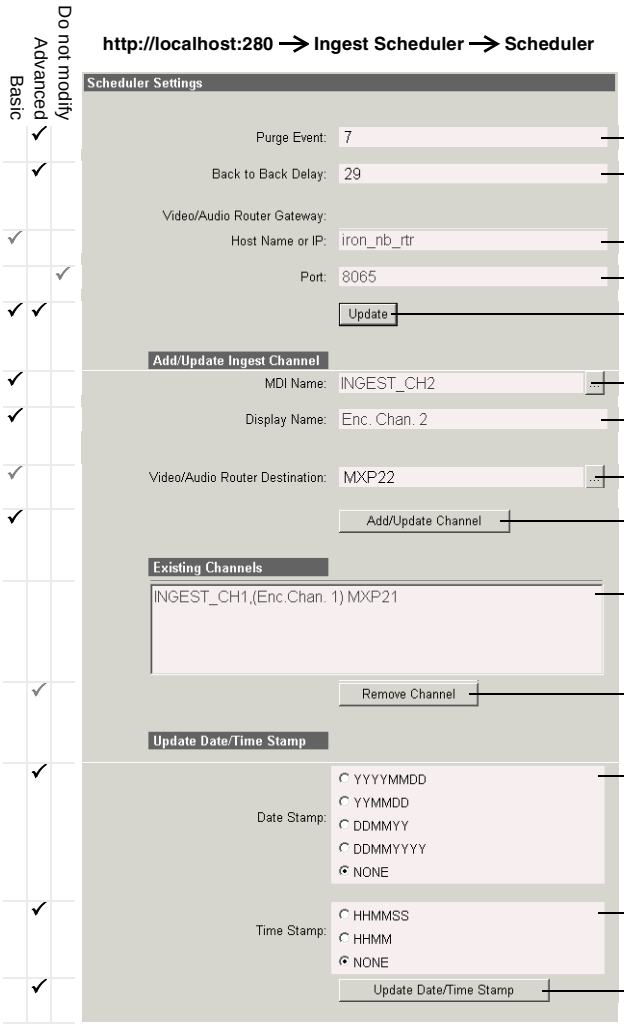
It is not necessary to restart a service to put these settings into effect.

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 as a "Ingest" device, as explained in "Configure Media Frame Core ASK: Register components" on page 47.

Configure Ingest Scheduler: NewsBrowse server



Open this page locally on the NewsBrowse server.

Number of previous days of ingest history

Minimum back-to-back delay in seconds between records on the same channel. Default value is 29.

Machine name (from host file) of Router Gateway.

8065 required.

Saves changes. Changes are lost if you leave the configuration page without updating.

Select the MDI for the encoder. This specifies the encoder as an ingest channel.

Enter a useful name for the channel. This is displayed in the NewsBrowse application.

Select the router destination for the channel.

Adds the above specified encoder as an ingest channel

Currently added ingest channels

Removes the currently selected ingest channel

Adds the selected date suffix automatically to high-res clips

Adds the selected time suffix automatically to high-res clips

Saves date stamp and time stamp changes

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

Start or restart the Thomson Ingest Scheduler service.

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

Add the encoder as an ingest channel.

For “Video/Audio Router…” settings, refer to “Add Router Gateway to Ingest Scheduler” on page 73. 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 the NewsBrowse server as a NewsBrowse client. This is explained in "Prepare NetTime clients" on page 40 and in "Set up client PCs" on page 108. Using the NewsBrowse server as a NewsBrowse client 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 107 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 creates (at the right time) the high-res assets 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 assets 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 assets 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 "Two tier system diagram" on page 16 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 69
2. "Configure ASK Location: Router Gateway" on page 69
3. "Configure Router Gateway" on page 70
4. "Test: Router Gateway stand-alone stage" on page 70
5. "Checklist: Router Gateway stand alone stage" on page 71

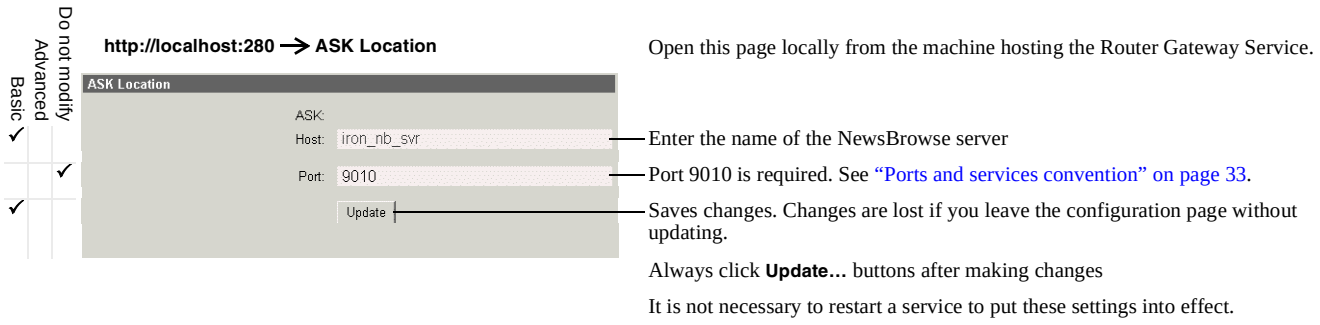
Add Router Gateway

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.

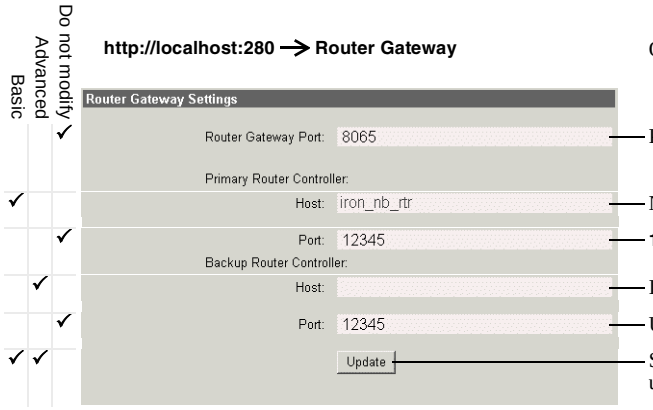
MDI server as Router Gateway — The Router Gateway software component can also reside on another NewsBrowse machine, such as the MDI server. If your system uses the MDI server as the Router Gateway host, you must first install the Router Gateway software component from the NewsBrowse server installation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

Configure ASK Location: Router Gateway



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

Configure Router Gateway



Open this page locally from the machine hosting the Router Gateway Service.

Port 8065 is required. See "Ports and services convention" on page 33.

Name (as it is in host table) of machine hosting Router Gateway service

12345 is the standard port for the SMS7000 native protocol.

If using a backup host, enter machine name.

Use the standard port for router controller. Defaults to 12345.

Saves changes. Changes are lost if you leave the configuration page without updating.

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

Start or restart the Router Gateway service.

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.

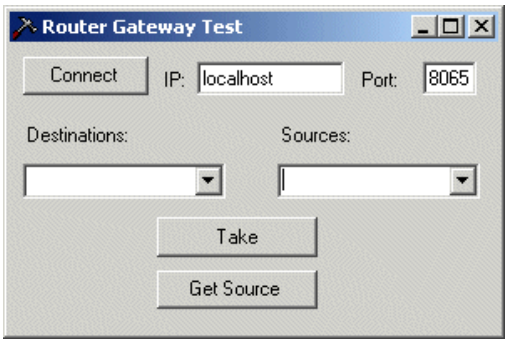
Test description: Using the Router Gateway Client application, change the source and destination of the router.

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.

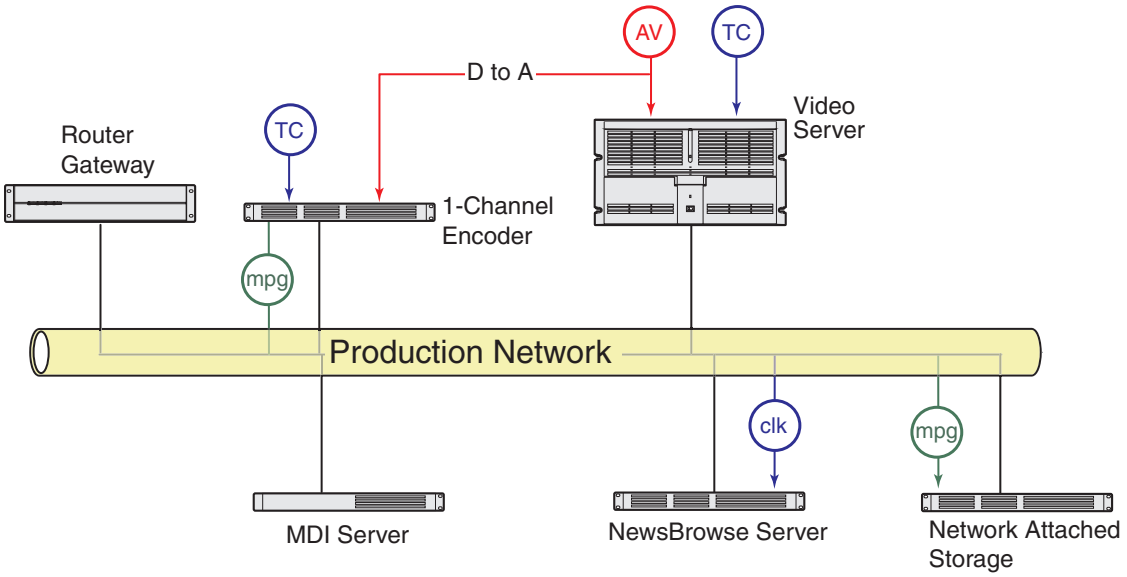
☐ The machine hosting the Router Gateway software component connects to the router controller.

☐ 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.

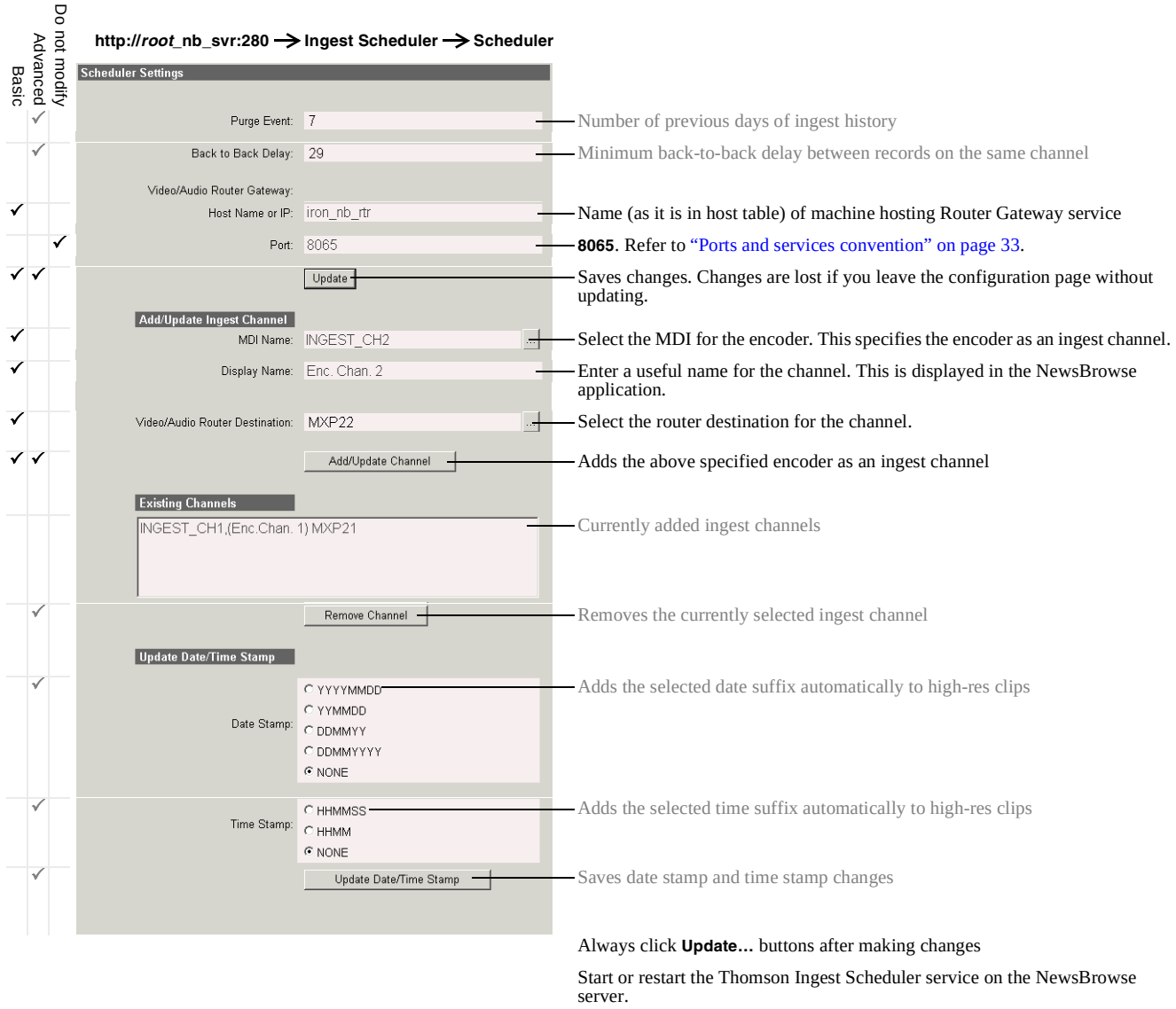


Refer to “Two tier system diagram” on page 16 for a view of the entire NewsBrowse system.

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

1. “Add Router Gateway to Ingest Scheduler” on page 73
2. “Test: Router Gateway + Server stage” on page 73
3. “Checklist: Router Gateway + Server stage” on page 74

Add Router Gateway to Ingest Scheduler



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

If you have previously added an ingest channel but have not yet configured its router destination, you will have to remove the channel and then add it again but with the router destination configured.

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.

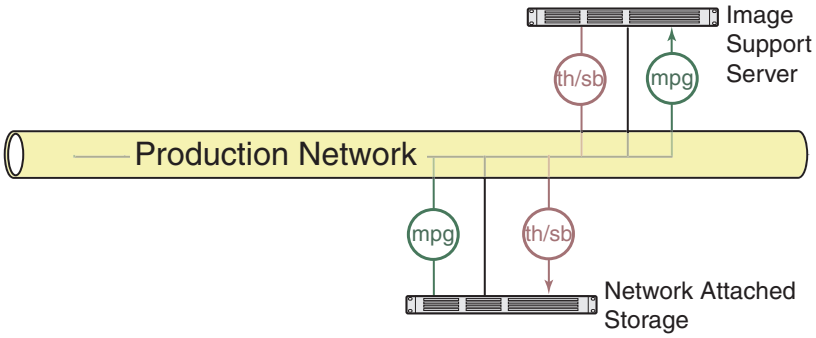
☐ Router-control connections successful between NewsBrowse server and Router Gateway

☐ NewsBrowse application controls router at ingest

Image Support Server (ISS) stand-alone stage

For this configuration stage you configure and test one Image Support Server and one NAS to work together.

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

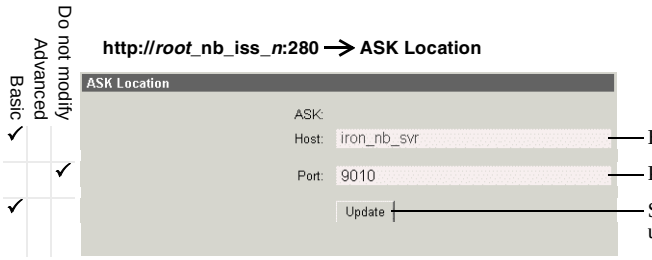


Refer to “Two tier system diagram” on page 16 for a view of the entire NewsBrowse system.

To do the basic configuration and testing of a Image Support Server stand-alone, do the following:

1. “Configure ASK Location: ISS” on page 76
2. “Configure Transfer Control: ISS” on page 76
3. “Configure Proxy Asset (NAS): ISS” on page 77
4. “Configure Real Media Encoder: ISS” on page 77
5. “Test: ISS stand-alone stage” on page 77
6. “Checklist: ISS stand-alone stage” on page 79

Configure ASK Location: ISS



Enter the name of the NewsBrowse server

Port 9010 is required. See "Ports and services convention" on page 33.

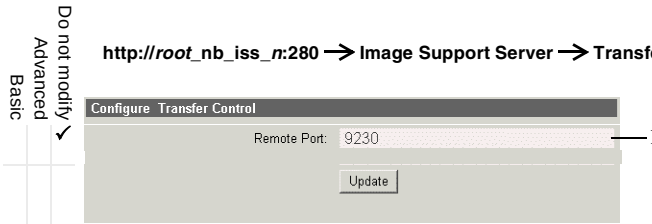
Saves changes. Changes are lost if you leave the configuration page without updating.

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

It is not necessary to restart a service to put these settings into effect.

This page tells the Image Support Server where to look for the ASK service, which is one of the Media Frame Core software components and runs on the NewsBrowse server. The function of the ASK is to store the location of NewsBrowse components.

Configure Transfer Control: ISS



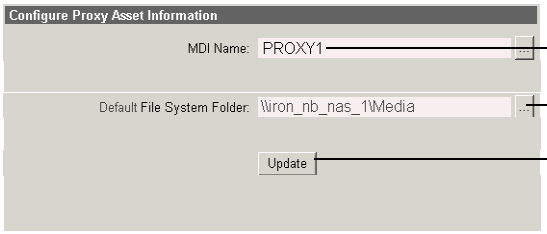
Port 9230 is required. See "Ports and services convention" on page 33.

This page specifies the port for the Thomson Proxy Transfer service.

Configure Proxy Asset (NAS): ISS

Do not modify
Advanced
Basic

http://*root*_nb_iss_*n*:280 → Image Support Server → Proxy Asset Information



There is but one logical Proxy Managed Device in the system, named PROXY1.[a]

Select the path to the folder (\Media) on the NAS (or other storage location) that receives the MPEG this encoder creates.[b]

Validates the current configurations with the Proxy MDI settings and saves changes. Changes are lost if you leave the configuration page without updating.

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

Start or restart the Proxy Transfer service on the ISS.

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

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

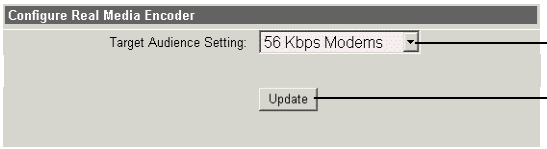
This page specifies the default location (on a NAS machine) in which the ISS places the thumbnail, storyboard, and RealVideo assets it creates.

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 Real Media Encoder: ISS

Do not modify
Advanced
Basic

http://*root*_nb_iss_*n*:280 → Image Support Server → Real Media Encoder



Select **56K**. Higher settings consume ISS system resources and cause performance degradation.

Saves changes. Changes are lost if you leave the configuration page without updating.

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

Start or restart the Proxy Transfer service on the ISS.

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

Test: ISS stand-alone stage

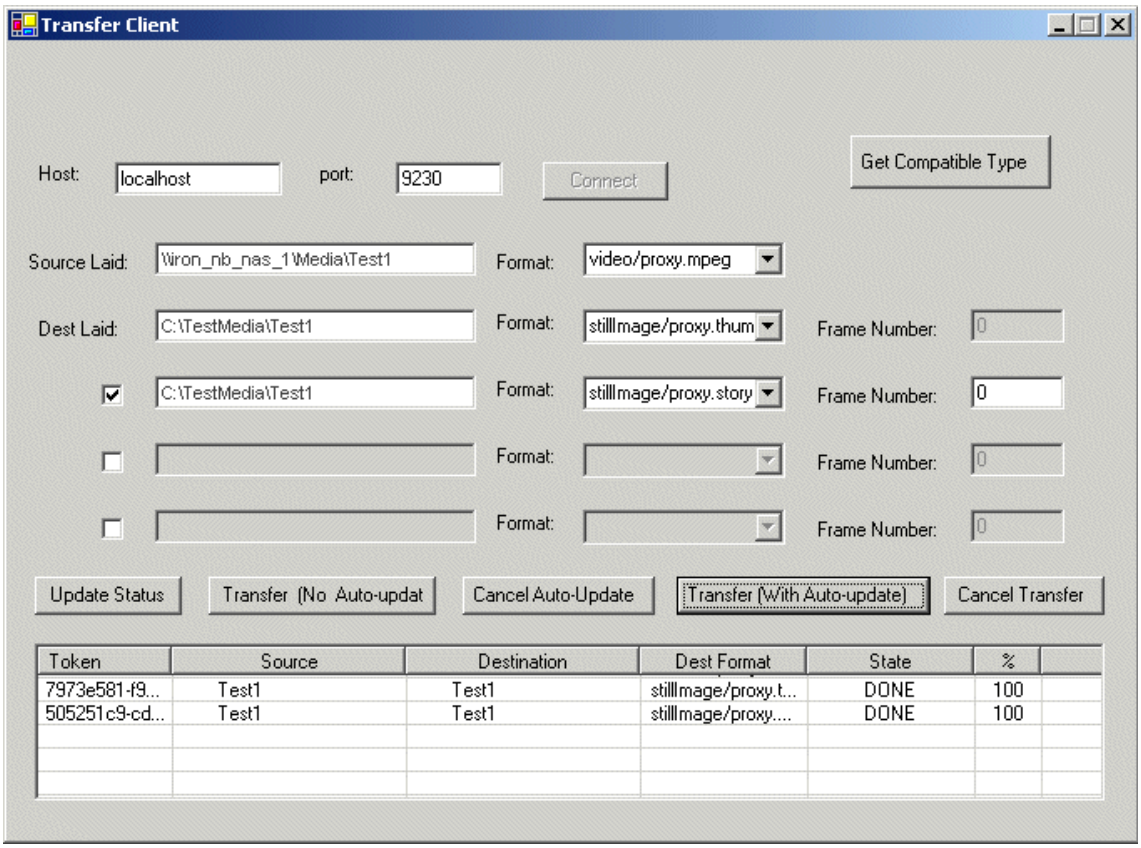
The following test exercises system functionality exclusive to the basic configurations for the Image Support Server. A successful test verifies that the basic configurations are correct.

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

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. Click **Start | Programs | Thomson | NewsBrowse | Diagnostic Tools | Transfer Client**. The Transfer Client application opens.



3. Configure as follows to check the connection to a NAS machine:
   - Host: **localhost**
   - Port: **9230**
4. Click **Connect**. Verify that the …Update… and …Transfer… buttons become enabled, which means the connection is successful.
5. Configure as follows to transfer/transcode a thumbnail asset from a MPEG asset:
   - Source Laid: Enter the path to a MPEG asset on a NAS machine. You can use an asset created in an earlier test.
   - (Source) Format: **video/proxy.mpeg**
   - Dest Laid: Enter a directory on the local ISS machine. This is for this test only. The test files are written to the directory.
   - (Destination) Format: **stillImage/proxy.thumbnail**
6. Select the checkbox to enable the next row, then configure as follows to transfer/transcode a storyboard asset from a MPEG asset:

- Source Laid: Enter the path to a MPEG asset on a NAS machine. You can use an asset created in an earlier test.
- (Source) Format: **video/proxy.mpeg**
- Dest Laid: Enter a directory on the local ISS machine. This is for this test only. The test files are written to the directory.
- (Destination) Format: **stillImage/proxy.storyboard**

7. Click **Transfer (With Auto update)**. Track progress in the State column until it reports DONE.
8. Using Windows Explorer, verify that the thumbnail and storyboard test files were written to the proper directory.

Checklist: ISS stand-alone stage

Use the following check list to verify that the basic configuration and testing of the stand-alone Image Support Server is complete.

☐ ISS is connected to NAS

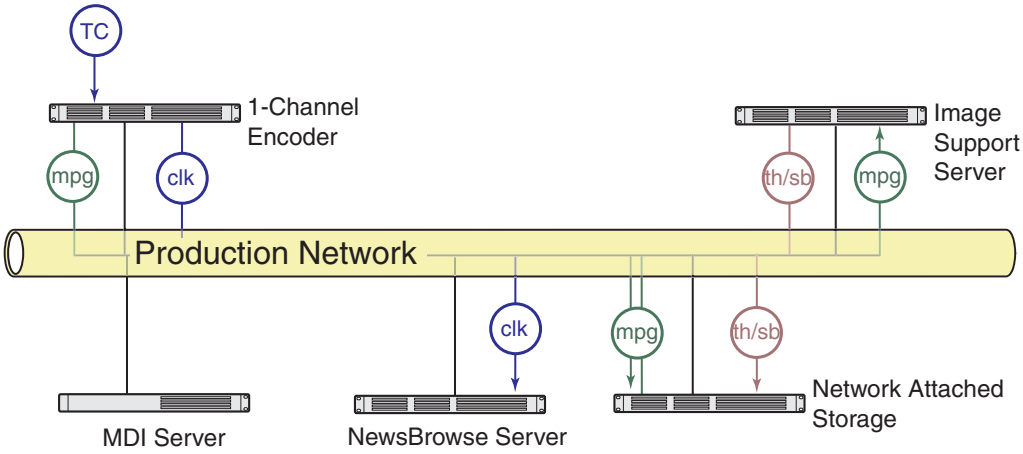
☐ Thumbnails files are created.

☐ Storyboard files are created.

ISS + Server stage

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

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



Refer to “Two tier system diagram” on page 16 for a view of the entire NewsBrowse system.

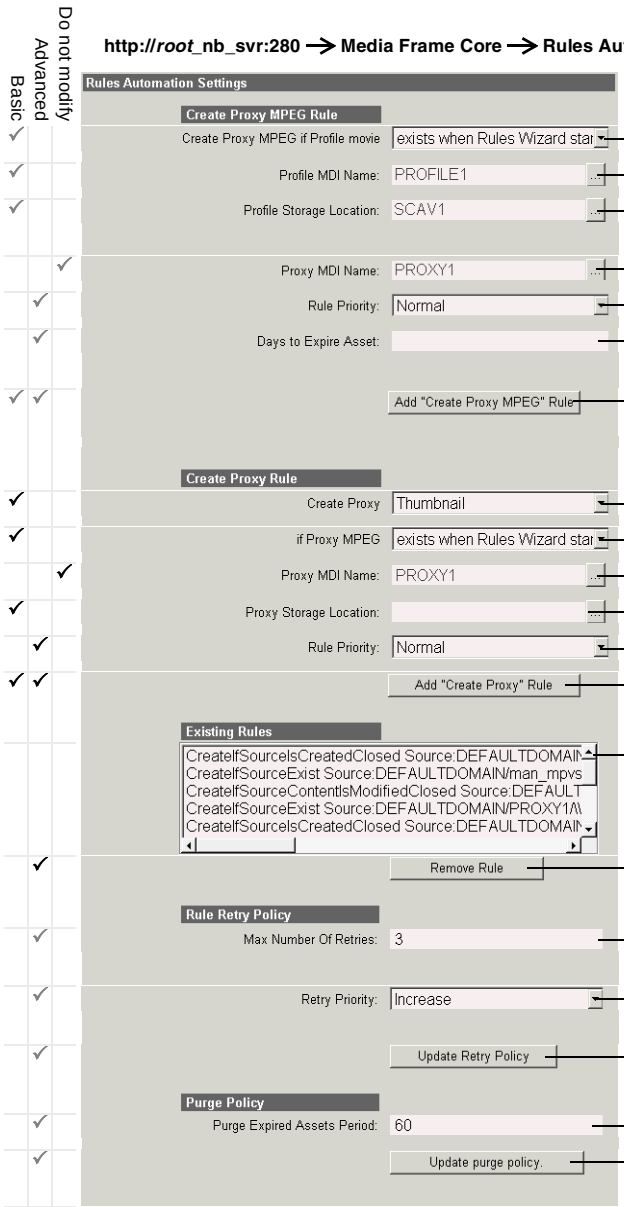
To do the basic configuration and testing of the encoder plus server, do the following:

1. “Configure Media Frame Core ASK: ISS” on page 80
2. “Configure Rules Automation: ISS” on page 81
3. “Test: ISS + Server stage” on page 82
4. “Checklist: ISS + Server stage” on page 83

Configure Media Frame Core ASK: ISS

Make sure the ISS’s Proxy Transfer service is registered with the ASK software component as a “Transfer” device, as explained in “Configure Media Frame Core ASK: Register components” on page 47.

Configure Rules Automation: ISS



The following settings define sequential encoder rules, for the creation of MPEG proxy assets.

Select a rule

Select the MDI for the Profile monitored by sequential encoder.

Enter the path to the bin on the Profile that the NewsBrowse system monitors for movies. ***Note: You must use forward slashes for this path.***

Must be PROXY1

Set all rules to Normal to ensure all are processed

Defines the age of the MPEG asset after which it is automatically deleted from the system the next time the purge rule runs. Leave blank to never expire.

Adds settings above as a sequential encoder rule

The following settings define Image Support Server rules, for the creation of thumbnail, storyboard, and Real Video assets

Select an asset type

Select a rule

Must be PROXY1

[a]Leave blank, so the system can use any NAS and keep proxy assets together

Set all rules to Normal to ensure all are processed

Adds settings above as a Image Support Server rule

Displays all currently added rules, for both sequential encoders and Image Support Servers.

Removes the currently selected rule

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.

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

Expired assets are purged from the system after this many days.

Saves Purge setting changes. Changes are lost if you leave the configuration page without updating.

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 ISS + Server stage, don't start the service until instructed to do so in the ISS + Server stage test.

a. When this field is left blank, the Rule specifies "*" as the Proxy Storage Location, so the Default File System Folder is used, as configured in "Configure Proxy Asset (NAS): ISS" on page 77 or "Configure Proxy Asset (NAS): Sequential encoder" on page 85.

This page defines the rules for a sequential encoder creating MPEG proxy assets and an ISS creating thumbnail, storyboard, and Real Video assets. If you are doing the initial configuration of the ISS + Server stage, define only Image Support Server rules.

You can define six ISS rules, two for each asset-type. To ensure consistency, for each asset-type you require, add both rules.

The following table maps the six ISS rules and provides an example text string for each rule, as appears in the Existing Rules box when the rule is added.

If Proxy MPEG...	Create Thumbnail assets	Create Storyboard assets	Create Real Video assets
... exists when Rules Wizard Starts up	CreateIfSourceExist Source:DEFAULTDOMAIN/ PROXY1/*/*,video/proxy.mpeg Destination:DEFAULTDOMAIN/ PROXY1/*/*,stillImage/ proxy.thumbnail Priority:Normal	CreateIfSourceExist Source:DEFAULTDOMAIN/ PROXY1/*/*,video/proxy.mpeg Destination:DEFAULTDOMAIN/ PROXY1/*/*,stillImage/ proxy.storyboard Priority:Normal	CreateIfSourceExist Source:DEFAULTDOMAIN/ PROXY1/*/*,video/proxy.mpeg Destination:DEFAULTDOMAIN/ PROXY1/*/*,video/proxy.rm Priority:Normal
...is created	CreateIfSourceIsCreatedClosed Source:DEFAULTDOMAIN/ PROXY1/*/*,video/proxy.mpeg Destination:DEFAULTDOMAIN/ PROXY1/*/*,stillImage/ proxy.thumbnail Priority:Normal	CreateIfSourceIsCreatedClosed Source:DEFAULTDOMAIN/ PROXY1/*/*,video/proxy.mpeg Destination:DEFAULTDOMAIN/ PROXY1/*/*,stillImage/ proxy.storyboard Priority:Normal	CreateIfSourceIsCreatedClosed Source:DEFAULTDOMAIN/ PROXY1/*/*,video/proxy.mpeg Destination:DEFAULTDOMAIN/ PROXY1/*/*,video/proxy.rm Priority:Normal

Refer to "Configure Rules Automation: Sequential encoder" on page 90 for sequential encoder rules.

Test: ISS + Server stage

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

Test description: Trigger rules by creating a clip on a Profile Media server 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: 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. 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 asset is created. This could take a few minutes after the ingest recording completes.
6. Start the Thomson Rules Wizard service on the NewsBrowse server. In the NewsBrowse application on the related tab, verify that the thumbnail, storyboard, or Real Video assets are created for the MPEG asset, as per your currently configured rules. This could take a few minutes.
7. Ingest a short test clip. On the related tab, verify that the MPEG proxy asset is created and the other assets are created as well. This could take a few minutes.

8. Stop the Thomson Rules Wizard service, Thomson Resolver service, and the Thomson Metadata service on the NewsBrowse server.

Checklist: ISS + 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.

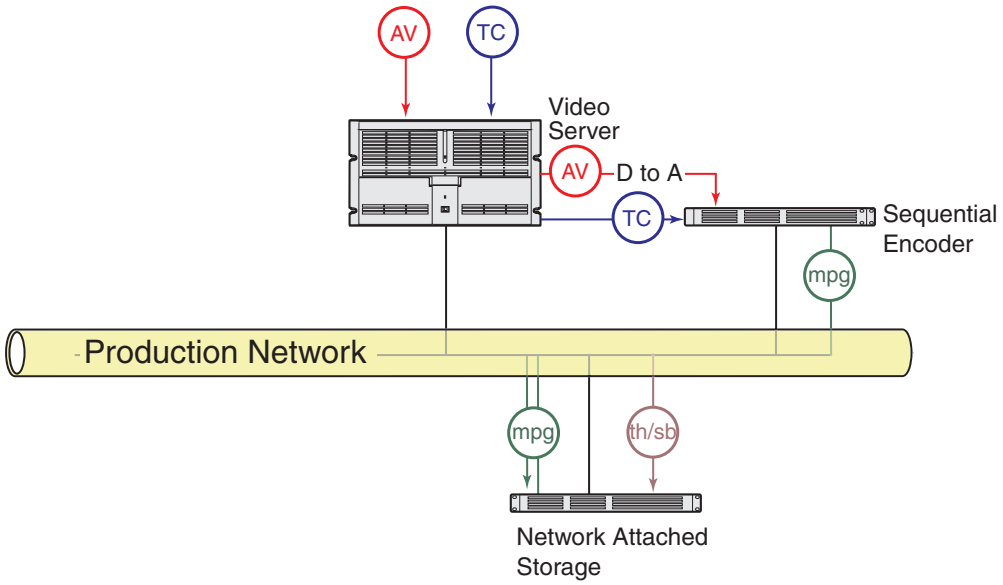
☐ When the Rules Wizard starts up, rules work as configured for the creation of thumbnail/storyboard/Real Video assets.

☐ When a clip is ingested, rules work as configured for the creation of thumbnail/storyboard/Real Video assets.

Sequential encoder stand-alone stage

For the basic configuration process you configure and test one sequential encoder, one NAS, and one Profile XP server to work together.

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



Refer to “Two tier system diagram” on page 16 for a view of the entire NewsBrowse system.

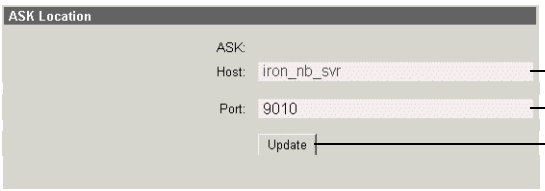
To do the basic configuration and testing of a sequential encoder, do the following:

1. “Configure ASK Location: Sequential encoder” on page 85
2. “Configure Transfer Control: Sequential encoder” on page 85
3. “Configure Proxy Asset (NAS): Sequential encoder” on page 85
4. “Configure Media Server: Sequential encoder” on page 86
5. “Configure MPEG encoder: Sequential encoder” on page 86
6. “Test: Sequential encoder stand-alone stage” on page 87
7. “Checklist: Sequential encoder stand-alone stage” on page 88

Configure ASK Location: Sequential encoder

Do not modify / Advanced / Basic

http://*root*_nb_iss_*n*:280 → ASK Location



- Enter the name of the NewsBrowse server
- Port 9010 is required. See "Ports and services convention" on page 33.
- Saves changes. Changes are lost if you leave the configuration page without updating.

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

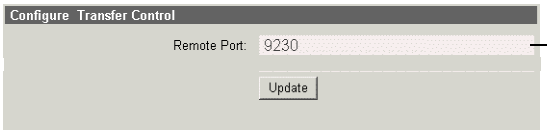
It is not necessary to restart a service to put these settings into effect.

This page tells the sequential encoder where to look for the ASK service, which is one of the Media Frame Core software components and 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 Transfer Control: Sequential encoder

Do not modify / Advanced / Basic

http://*root*_nb_seq_*n*:280 → Sequential Encoder → Transfer Control



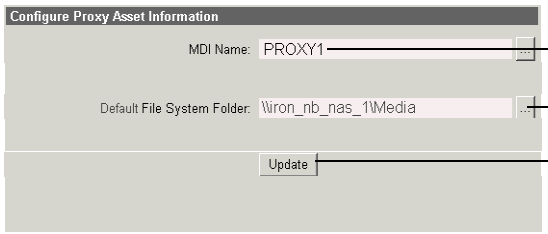
- Port 9230 is required. See "Ports and services convention" on page 33.

This page specifies the port for the Thomson Proxy Transfer service. The default values should be correct.

Configure Proxy Asset (NAS): Sequential encoder

Do not modify / Advanced / Basic

http://*root*_nb_seq_*n*:280 → Sequential Encoder → Proxy Asset Information



- There is but one logical Proxy Managed Device in the system, named PROXY1.[a]
- [b]Click the ... button and select the path to the directory (\Media) on the NAS (or other storage location) that receives the MPEG this encoder creates.
- Validates the current configurations with the Proxy MDI settings and saves changes. Changes are lost if you leave the configuration page without updating.

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

Restart the Proxy Transfer service on the sequential encoder.

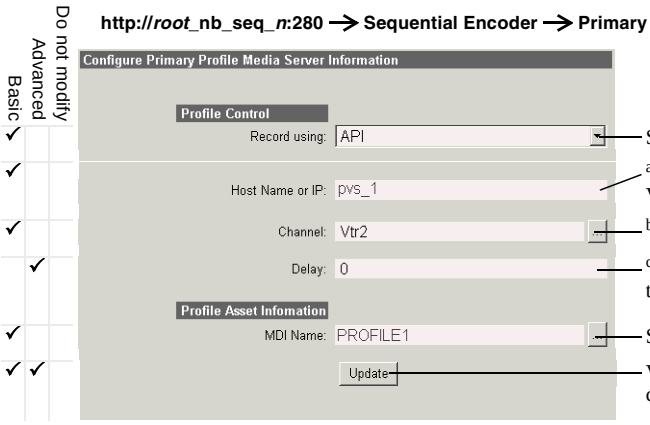
a. PROXY1 can have multiple directories (on multiple machines) defined as locations for assets. These locations are defined on other Proxy Asset configuration pages.

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

This page specifies the default location (on a NAS machine) in which the sequential encoder places the MPEG proxy assets it creates.

Configure Media Server: Sequential encoder

http://*root*_nb_seq_*n*:280 → Sequential Encoder → Primary Media Server



Select API or VDCP (API is strongly recommended).

[a]For API, enter the machine name of the Profile, as it is in the host table. For VDCP, select the COM port connected.

[b]For API, select the Profile channel. For VDCP, enter the signal port connected.

[c]For API, set to 0. For VDCP, enter delay frames, tuned for the channel so that the Profile and encoder start times are in sync.

Select the MDI name for the Profile specified under "Profile Control" above.

Validates and saves the current configurations. Changes are lost if you leave the configuration page without updating.

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

Start or restart the Thomson Proxy Transfer service on the sequential encoder.

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

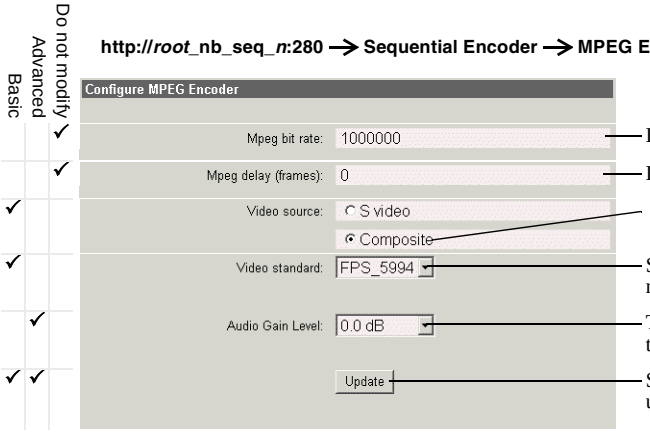
b. For API, this list is automatically populated by reading the channel names, as in Configuration Manager, from the Profile specified in the "Host Name…" field above.

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

This page configures the connection between the sequential encoder and the Profile it monitors.

Configure MPEG encoder: Sequential encoder

http://*root*_nb_seq_*n*:280 → Sequential Encoder → MPEG Encoder



Leave at default of 1000000.

Leave at default of 0. Modify only to debug server/encoder timecode problems.

Select **Composite**

Select fields per second: **FPS_5994** for drop-frame NTSC, **FPS_60** for non-drop-frame NTSC, **FPS_50** for PAL.

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')

Saves changes. Changes are lost if you leave the configuration page without updating.

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

Restart the Thomson Proxy Transfer service on the sequential encoder.

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

Test: Sequential encoder stand-alone stage

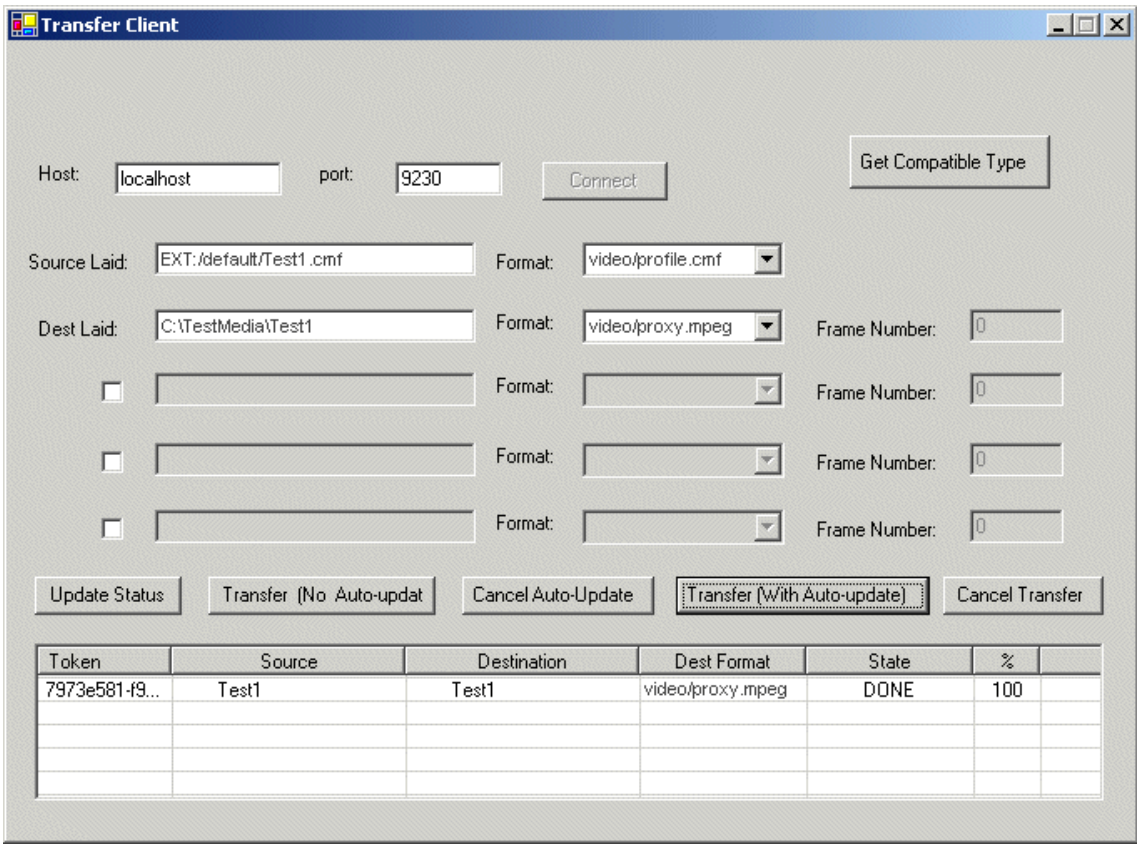
The following test exercises system functionality exclusive to the basic configurations for the sequential encoder. A successful test verifies that the basic configurations are correct.

Test description: An MPEG proxy asset is created from an existing clip on a Profile Media Server.

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 sequential encoder, click **Start | Programs | Thomson | NewsBrowse | Diagnostic Tools | Transfer Client**. The 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 create a MPEG asset:
   - Source Laid: Enter the path to a clip on a Profile. For example, **EXT:/default/*clip_name*.cmf** to on a stand-alone Profile, **V:/default/*clip_name*.cmf** on an Open SAN.

NOTE: The Source path must use forward slashes. Also, the volume name of the Profile is case sensitive.

   - (Source) Format: **video/profile.cmf**
   - Dest Laid: Enter a directory on the local sequential encoder machine. This is for test purposes only. The test MPEG file will be written to this directory.

NOTE: The Destination path must use back slashes

   - (Destination) Format: **video/proxy.mpeg**
7. Click **Transfer (With Auto update)**. Watch the report in the State column to verify that the MPEG creation is successful.
8. Using Windows Explorer, verify the MPEG asset created. Open and play the clip. Validate video and audio. (No thumbnails, storyboards, or Real media files will be created, since the Rules Wizard is not started.)

Checklist: Sequential encoder stand-alone stage

Use the following check list to verify that the basic configuration and testing of the stand-alone sequential encoder is complete.

☐ Audio/Video connected properly

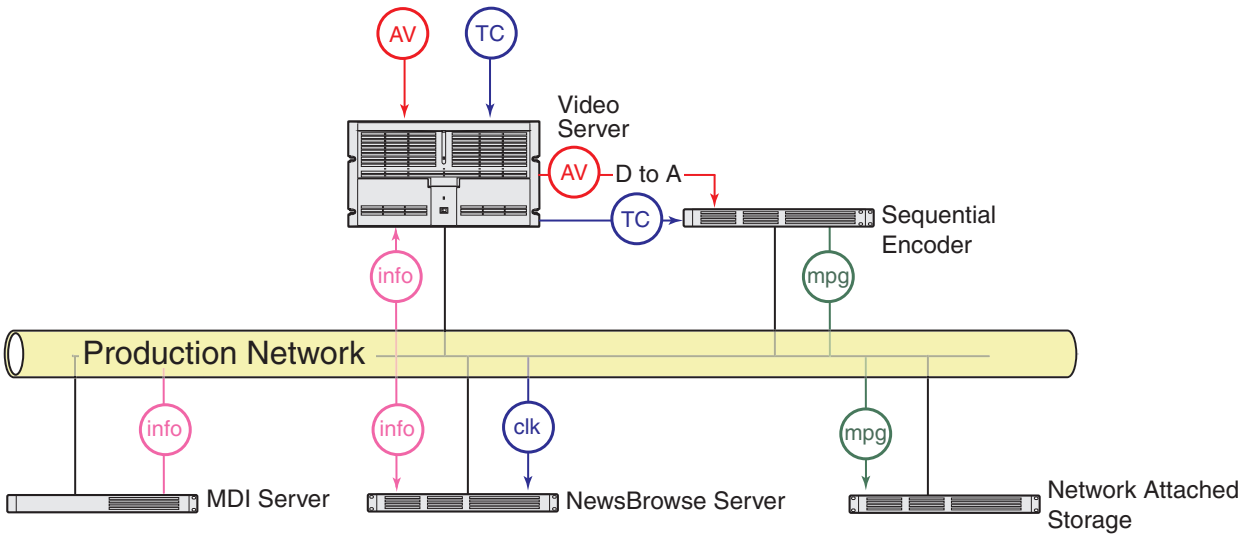
☐ Encoder writes to NAS

☐ MPEG playback with audio

Sequential encoder + Server stage

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

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



Refer to "Two tier system diagram" on page 16 for a view of the entire NewsBrowse system.

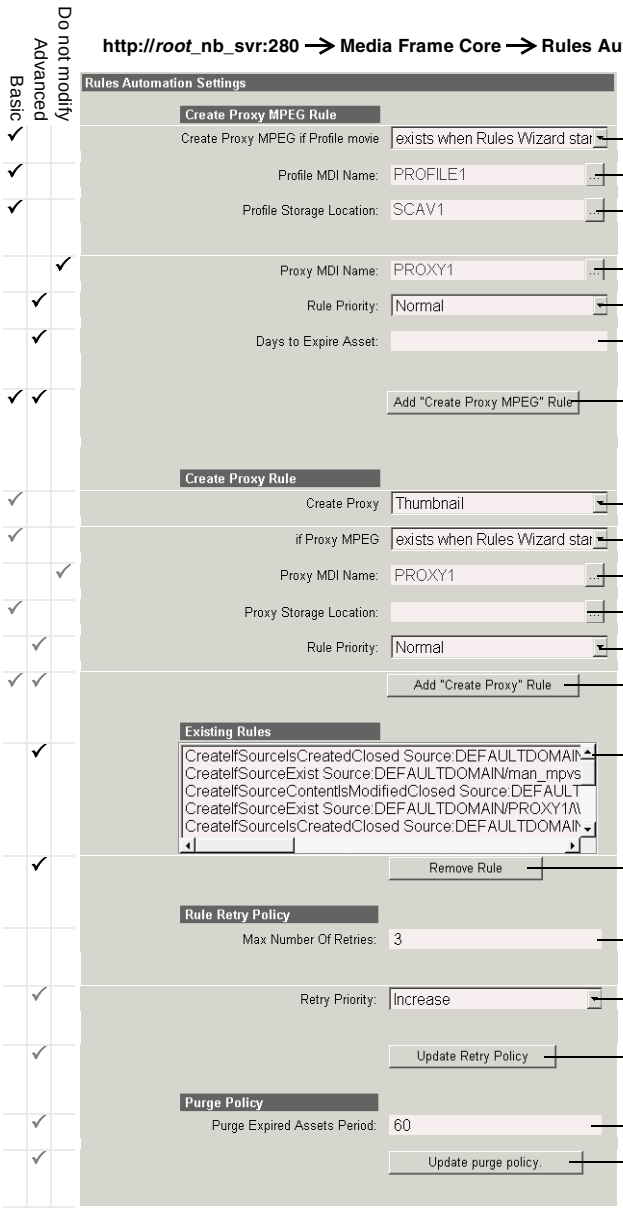
To do the basic configuration and testing of the sequential encoder plus server, do the following:

1. "Configure Media Frame Core ASK: Sequential encoder" on page 89
2. "Configure Rules Automation: Sequential encoder" on page 90
3. "Test: Sequential encoder + Server stage" on page 91
4. "Checklist: Sequential encoder + Server stage" on page 92

Configure Media Frame Core ASK: Sequential encoder

Make sure the sequential encoder's Proxy Transfer service is registered with the ASK software component as a "Transfer" device, as explained in "Configure Media Frame Core ASK: Register components" on page 47.

Configure Rules Automation: Sequential encoder



The following settings define sequential encoder rules, for the creation of MPEG proxy assets.

- Select a rule
- Select the MDI for the Profile monitored by sequential encoder.
- Enter the path to the bin on the Profile that the NewsBrowse system monitors for movies. ***Note: You must use forward slashes for this path.***
- Must be PROXY1
- Set all rules to Normal to ensure all are processed
- Defines the age of the NewsBrowse asset after which it is automatically deleted from the system the next time the purge rule runs. Leave blank to never expire.
- Adds settings above as a sequential encoder rule

The following settings define Image Support Server rules, for the creation of thumbnail, storyboard, and Real Video assets

- Select an asset type
- Select a rule
- Must be PROXY1
- [a]Leave blank, so the system can use any NAS and keep proxy assets together
- Set all rules to Normal to ensure all are processed
- Adds settings above as a Image Support Server rule
- Displays all currently added rules, for both sequential encoders and Image Support Servers.
- Removes the currently selected rule
- 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.
- 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
- Expired assets are purged from the system after this many days.
- Saves Purge setting changes. Changes are lost if you leave the configuration page without updating.

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 Sequential encoder + Server stage, don't start the service until instructed to do so in the Sequential encoder + Server stage test.

a. When this field is left blank, the Rule specifies "*" as the Proxy Storage Location, so the Default File System Folder is used, as configured in "Configure Proxy Asset (NAS): ISS" on page 77 or "Configure Proxy Asset (NAS): Sequential encoder" on page 85.

This page defines the rules for a sequential encoder creating MPEG proxy assets and an ISS creating thumbnail, storyboard, and Real Video assets. If you are doing the initial configuration of the sequential encoder + Server stage, define only sequential encoder rules.

You can define three sequential encoder rules for each Profile bin the NewsBrowse system monitors. To ensure consistency, for each bin, add all three rules.

The following table maps the sequential encoder rules and provides an example text string for each rule, as appears in the Existing Rules box when the rule is added.

Create Proxy MPEG if Profile movie…	For movies in bin SCAV1, Profile 1	For movies in bin SCAV2, Profile 2
…exists when Rules Wizard Starts up	CreateIfSourceExist Source:DEFAULTDOMAIN/PROFILE1/EXT:/SCAV1/*,video/profile.cmf Destination:DEFAULTDOMAIN/PROXY1/*/*,video/proxy.mpeg Priority:Normal	CreateIfSourceExist Source:DEFAULTDOMAIN/PROFILE2/EXT:/SCAV2/*,video/profile.cmf Destination:DEFAULTDOMAIN/PROXY1/*/*,video/proxy.mpeg Priority:Normal
…is created	CreateIfSourceIsCreatedClosed Source:DEFAULTDOMAIN/PROFILE1/EXT:/SCAV1/*,video/profile.cmf Destination:DEFAULTDOMAIN/PROXY1/*/*,video/proxy.mpeg Priority:Normal	CreateIfSourceIsCreatedClosed Source:DEFAULTDOMAIN/PROFILE2/EXT:/SCAV2/*,video/profile.cmf Destination:DEFAULTDOMAIN/PROXY1/*/*,video/proxy.mpeg Priority:Normal
…has its content modified	CreateIfSourceContentIsModifiedClosed Source:DEFAULTDOMAIN/PROFILE1/EXT:/SCAV1/*,video/profile.cmf Destination:DEFAULTDOMAIN/PROXY1/*/*,video/proxy.mpeg Priority:Normal	CreateIfSourceContentIsModifiedClosed Source:DEFAULTDOMAIN/PROFILE2/EXT:/SCAV2/*,video/profile.cmf Destination:DEFAULTDOMAIN/PROXY1/*/*,video/proxy.mpeg Priority:Normal

Refer to "Configure Rules Automation: ISS" on page 81 for ISS rules.

Test: Sequential encoder + Server stage

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

Test description: Trigger rules by creating/modifying a clip on a Profile Media server 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 Profile Media Server, copy a clip into a bin monitored by the sequential encoder.
6. On the NewsBrowse server, start the Thomson Rules Wizard. Watch Event Viewer and verify that the MPEG asset is created for the clip.
7. On the Profile Media Server, copy another clip into the bin. Watch Event Viewer and verify that the MPEG proxy asset is created for the clip.
8. On the Profile Media Server, modify a clip (rename) in the bin. Watch Event Viewer and verify that the MPEG proxy asset is created for the modified clip.

Checklist: Sequential encoder + Server stage

Use the following check list to verify that the basic configuration and testing of the sequential encoder plus NewsBrowse server is complete.

☐ When the Rules Wizard starts, rules work as configured for creation of proxy MPEG.

☐ When a Profile clip is copied into a monitored bin, rules work as configured for creation of proxy MPEG.

☐ When a Profile clip is modified, rules work as configured for creation of proxy MPEG.

EDL Export, Save, Conform stage

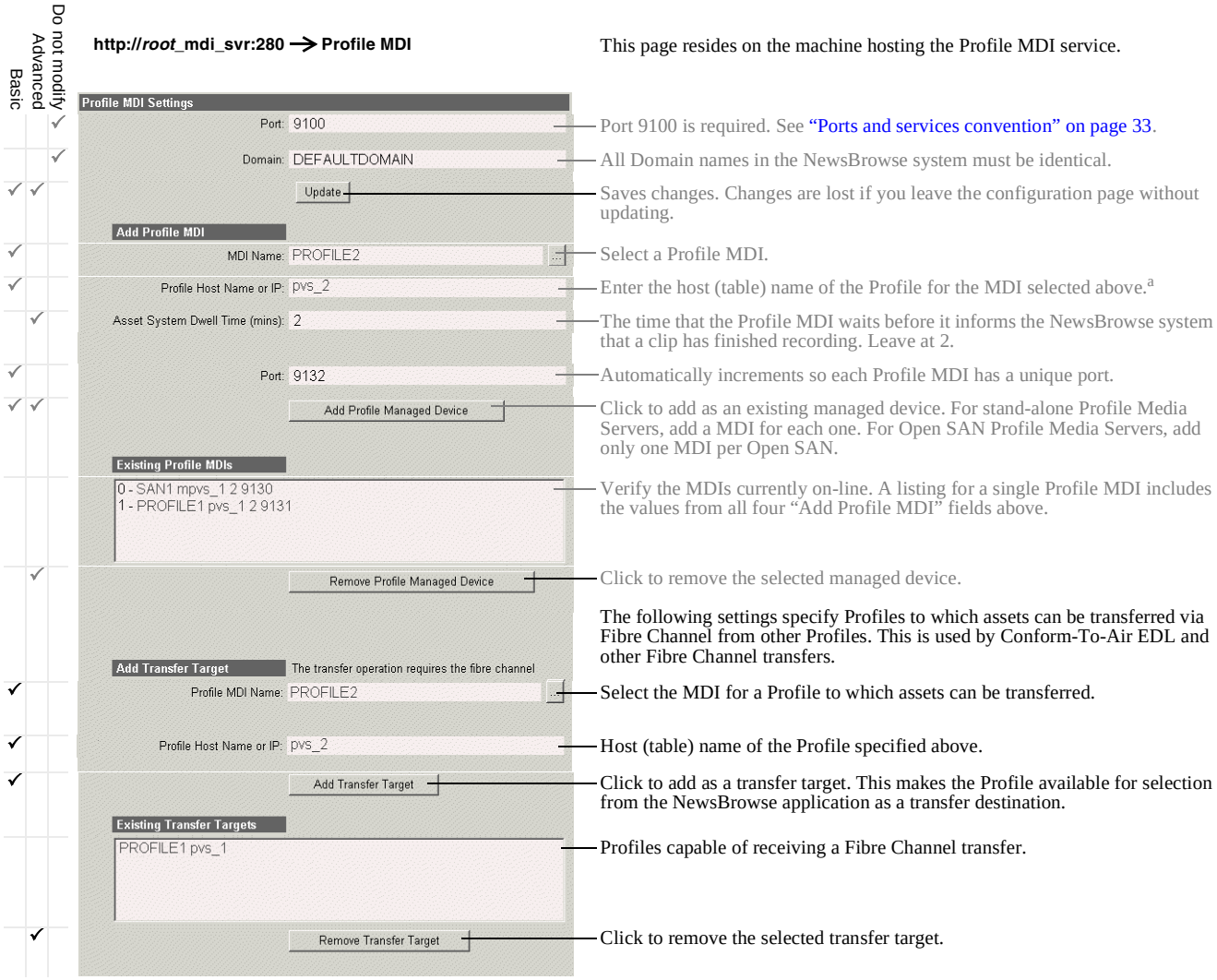
For this configuration stage you configure the settings for the following Edit Decision List (EDL) features. These features are available in the NewsBrowse application when EDLs are created:

- 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 Profile Media Server.
- Conform to Air — Creates a high-res asset that matches the EDL on one Profile Media Server, then transfers the asset to another Profile Media Server.

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

1. “Configure Profile MDI: Conform to air settings” on page 94
2. “Configure NTFS MDI” on page 95
3. “Configure Media Frame Core ASK: NTFS” on page 95
4. “Configure Conform Services” on page 96
5. “Configure Export Services” on page 97
6. “Configure Save EDL settings” on page 97
7. “Test: EDL stage” on page 97
8. “Checklist: EDL stage” on page 98

Configure Profile MDI: Conform to air settings



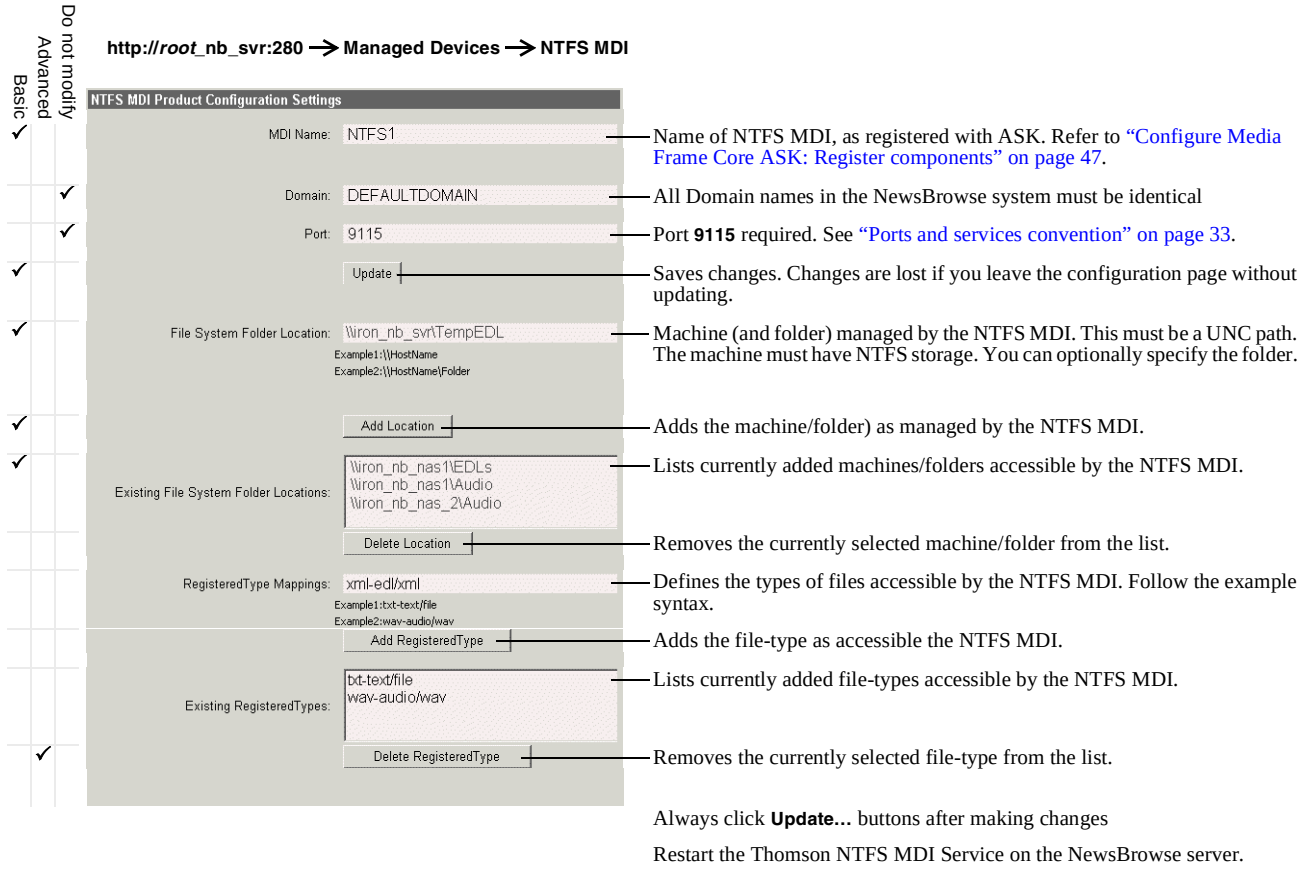
a. Make sure the Profile name is entered just as it is in the host table.

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.

Refer to "Configure Profile MDIs" on page 60.

Configure NTFS MDI



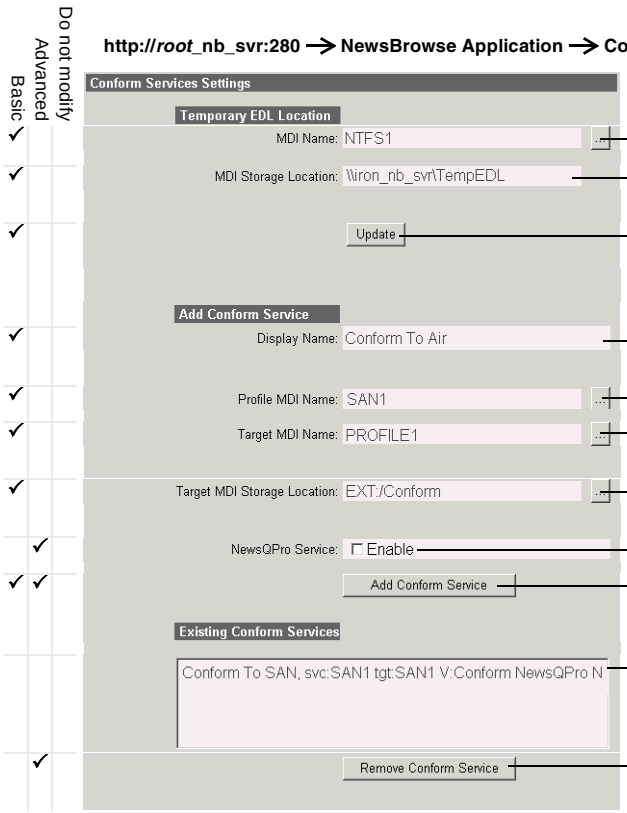
This page specifies the machines, directories, and file types that the NTFS MDI can access. The NewsBrowse application makes these available as selections for saving and managing assets, including EDLs.

- Enter a location for saving EDLs. Typically this would be on a NAS machine, such as *root*_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 *root*_nb_svr\TempEDL.
- 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 as a "NTFS" device, as explained in "Configure Media Frame Core ASK: Register components" on page 47.

Configure Conform Services



When an EDL is conformed it is temporarily stored in the location specified by the following settings.

Select the name for the NTFS MDI (NTFS1).

Enter a full UNC path to the directory (on a machine with NTFS storage) in which the EDLs are temporarily stored.[a]

Saves changes. Changes are lost if you leave the configuration page without updating.

The following settings specify a Profile that can be used to conform an EDL.

Enter the label for display in the NewsBrowse application that identifies the service of a Profile conforming an EDL.

Select the MDI for the Profile that does the conformance.

The Profile managed by this MDI is a play-to-air Profile to which Conform-to-Air high-res assets are transferred.

[b]Location (bin) on the play-to-air Profile where the Conform-to-Air high-res asset is stored.

Select to make the EDL available to NewsQPro.

Add the service to conform EDLs.

Currently added services available to conform EDLs. You can add services using several Profiles, so that they can be selected in the NewsBrowse application when conforming an EDL.

Removes the currently selected EDL service.

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

Restart the NewsBrowse application to put changes into effect.

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

b. This list is automatically populated by reading the volume and bin names, as in Media Manager, from the Profile indicated by "Target MDI Name" above.

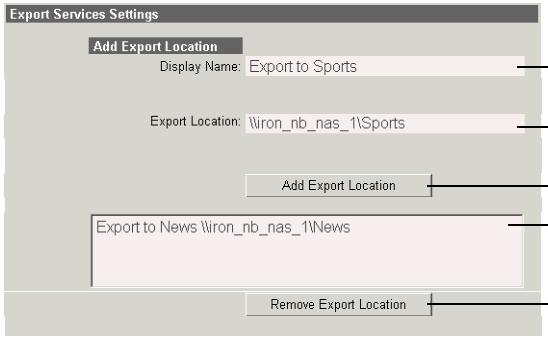
This page tells the NewsBrowse application where to store EDLs that are to be conformed and specifies Profiles that are available to conform EDLs. You can add multiple Profiles as Conform Services, each of which is then available for selection from the NewsBrowse application.

For a Conform-To-Air service, one Profile (often an Open SAN Profile) does the work of conforming the EDL, then the resultant high-res asset is transferred to an On-Air Profile (usually a stand-alone Profile) for playout. You must define the NewsBrowse application display name, the Profiles, and the locations to make this type of Conform-to-Air service available in the NewsBrowse application.

Configure Export Services

Do not modify / Advanced / Basic

http://*root*_nb_svr:280 → NewsBrowse Application → Export Services



Enter the label for display in the NewsBrowse application that identifies the location to which EDLs can be exported.

Enter a full UNC path to the directory to which the EDLs are exported.[a]

Adds the location as an export location.

Currently added location available for exporting EDLs. You can add several locations, so that they can be selected in the NewsBrowse application when exporting an EDL.

Removes the currently selected location.

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

Restart the NewsBrowse application to put changes into effect.

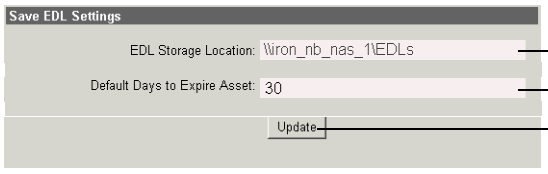
a. This directory must be shared so it can be accessed by the NewsBrowse server.

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.

Configure Save EDL settings

Do not modify / Advanced / Basic

http://*root*_nb_svr:280 → NewsBrowse Application → Save EDL



EDLs are saved to this location, usually a NAS machine.

After this many days, a saved EDL is deleted. Enter 0 to never delete.

Saves changes. Changes are lost if you leave the configuration page without updating.

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

Restart the NewsBrowse application to put changes into effect.

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

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, the EDL file should be in the export destination.
10. To verify Conform, on the Profile/Open SAN a resulting high-res asset should be created with the exported EDL name. Playback the conformed asset from the Profile/Open SAN.
11. To verify Conform with Transfer to On-Air, a high-res asset should exist on the On-Air server. Playback the conformed asset from the On-Air server.

Checklist: EDL stage

Use the following check list to verify that the basic configuration and testing of the stand-alone Image Support Server is complete.

☐ EDL is created and saved.

☐ Saved EDL available as asset from NewsBrowse application

☐ EDL exports to specified location

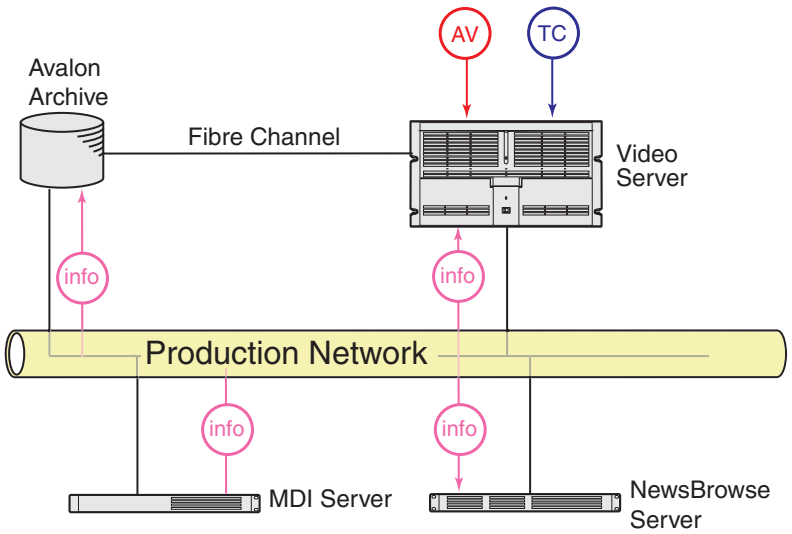
☐ Profile correctly creates conformed EDL

☐ Transfer to On-Air EDL plays from On-Air Profile

Archive stage

For this configuration stage you configure the Avalon Archive MDI, Profile Media Servers, 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 configure and test the Archive stage, do the following:

1. “Add Avalon Archive MDI” on page 100
2. “Verify archive preparations” on page 100
3. “Configure ASK Location: Avalon Archive MDI host” on page 101
4. “Configure Media Frame Core ASK: Avalon Archive” on page 101
5. “Configure Avalon Archive MDI” on page 102
6. “Configure Archive Services” on page 103
7. “Test: Archive stage” on page 103
8. “Checklist: Archive stage” on page 104

Add Avalon Archive MDI

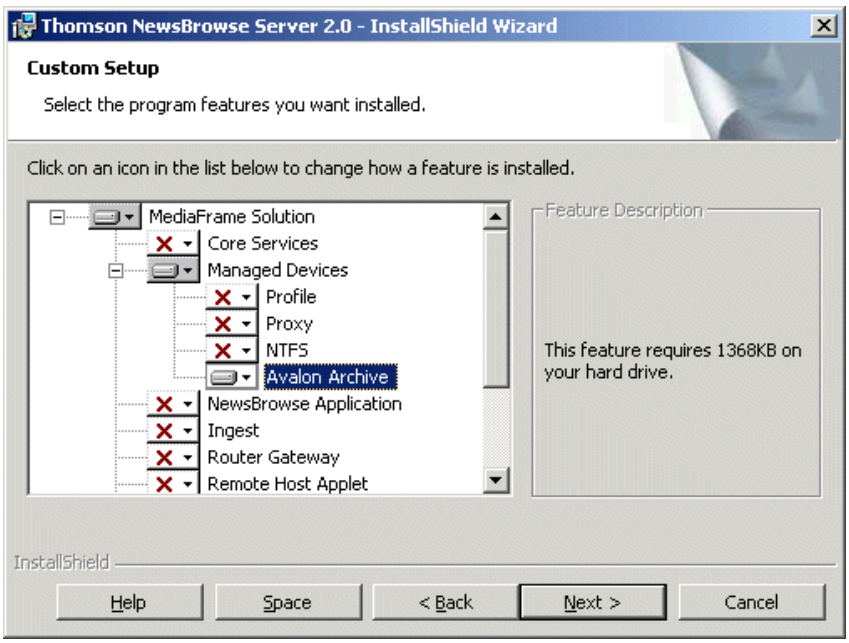
The Avalon Archive MDI software component runs as the Thomson Avalon Archive MDI service. This software component must be installed on a network connected computer, as follows:

NewsBrowse MDI server — If your system has a dedicated MDI server machine, install on it the Avalon Archive MDI software component.

Other PC — If your system does not have a dedicated MDI server, you can install the Avalon Archive MDI software component on a PC that meets the following requirements:

- Network access to NewsBrowse server, MDI server, archive devices, and NewsBrowse client PCs.
- P4 1.6Ghz processor
- 256 MB RAM
- Windows 2000, 2000 server, or XP
- .NET Framework v1.1 runtime
- *nbadmin* user account with administrator privileges
- Internet Explorer 6 (SP1)
- IIS (web server)

You can install the Avalon Archive MDI software component from the NewsBrowse server installation program. Select only **Avalon Archive** from the Custom setup page.



Verify archive preparations

Make sure the archive device is prepared properly as follows:

Machine which runs Avalon IDM Software (Archive):

1. Login to the machine and go to /avalon/aam/utils

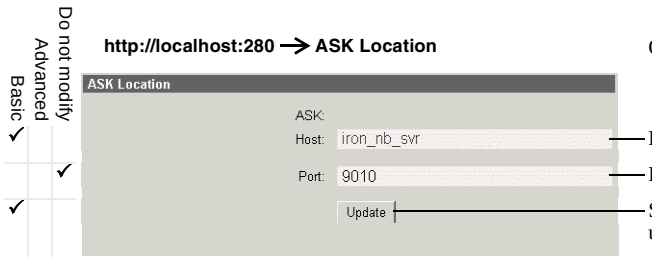
2. Run stataam and verify all services running properly.
3. Make sure host tables are set correctly. Verify for the machine name/IP which IDM will talk to.
4. Make sure the Fiber channel interfaces are configured so that Avalon IDM can talk to the Profiles.

Network Connectivity:

From each machine in the following list, ping all the other machines in the list:

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

Configure ASK Location: Avalon Archive MDI host



Open this page locally on the machine that hosts the Avalon Archive MDI.

Enter the name of the NewsBrowse server

Port 9010 is required. See "Ports and services convention" on page 33.

Saves changes. Changes are lost if you leave the configuration page without updating.

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

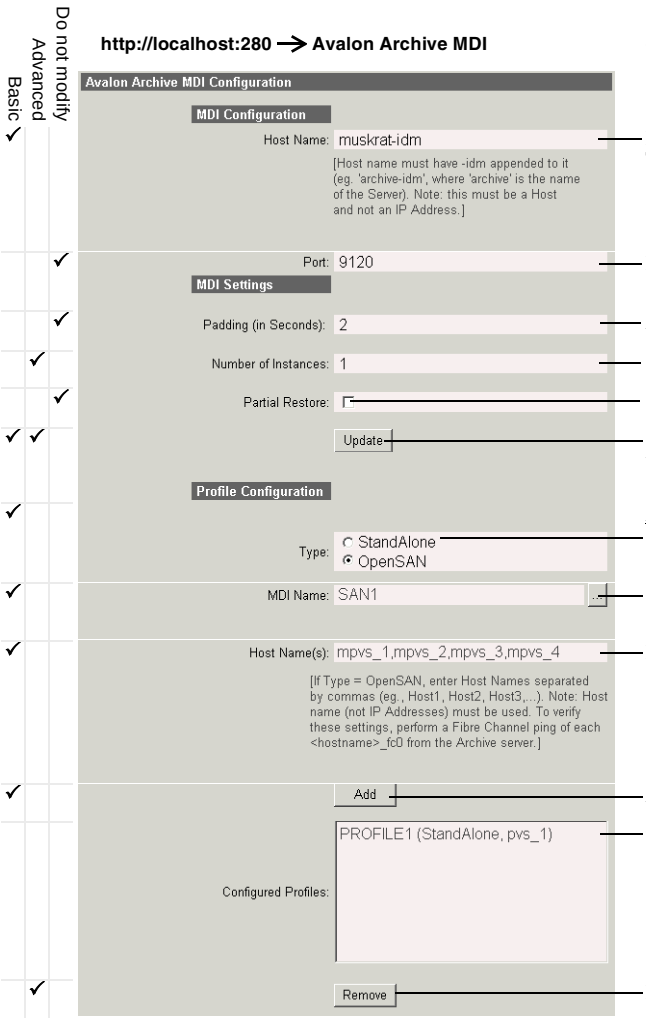
It is not necessary to restart a service to put these settings into effect.

This page tells the Avalon Archive MDI host where to look for the ASK service, which is one of the Media Frame Core software components and runs on the NewsBrowse server. If the Avalon Archive MDI host is a MDI server or other NewsBrowse machine this configuration has likely already been done.

Configure Media Frame Core ASK: Avalon Archive

Make sure the Avalon Archive MDI is registered with the ASK software component as a "Avalon Archive" device, as explained in "Configure Media Frame Core ASK: Register components" on page 47.

Configure Avalon Archive MDI



Open this page locally from the Avalon Archive MDI host.

Name of the Avalon Archive machine. Append *-idm* to the end of the name. This name (with *-idm* appended) must also be in the host table.

Enter **9120**. See "Ports and services convention" on page 33.

Adds media to the clip to ensure correct long GOP structure. Leave at 2.

The number of archive devices controlled by the MDI.

Reserved for use in future versions. Leave unchecked.

Saves changes. Changes are lost if you leave the configuration page without updating.

Add Stand-Alone Profile	Add Open San
Select **StandAlone**	Select **OpenSAN**
Select the MDI name for the Profile.	Select the MDI name for the one designated Profile on the Open SAN.
Host (table) name of Profile.	Enter host (table) name of each Profile on the Open San, with commas separating.[a]

Adds a Profile or Open SAN from/to which assets can be archived/restored.

Currently added Profiles or Open SANs.

Deletes the currently selected device.

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

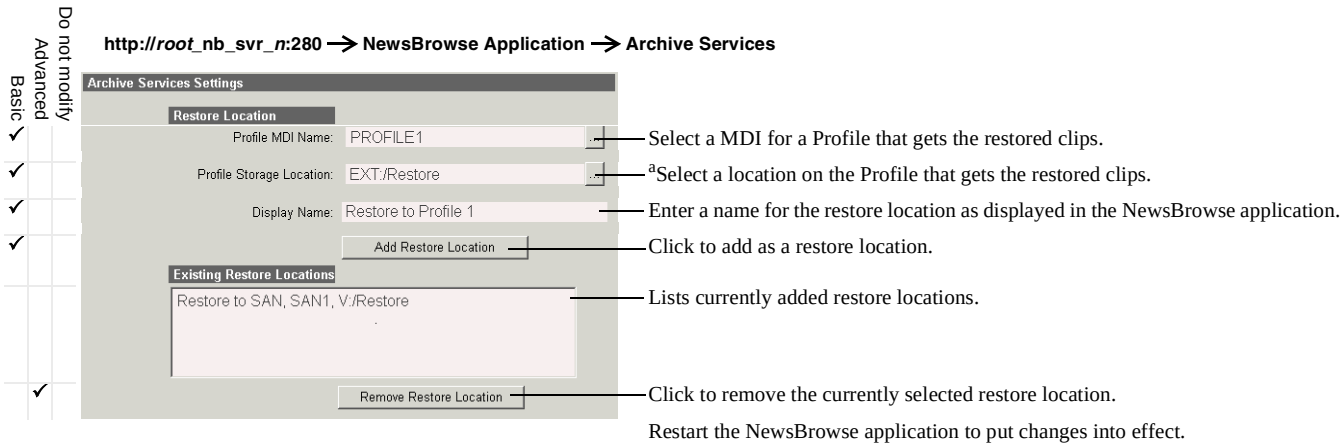
Start or restart the Thomson Avalon Managed Device service.

a. The Avalon Archive MDI uses a "Round Robin" approach to find an open channel for an archive job. The order of Profiles entered here is the order in which the MDI seeks an open channel.

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

This page tells the Avalon Archive MDI where to look for the Profile Media Servers for archive and restore of high-res media assets. Add all Profiles and Open SANs that are part of the NewsBrowse system.

Configure Archive Services



a. This list is 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 Avalon Archive MDI where to place high-res assets as they are restored from the archive device.

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 a clip. After a short pause, the clip 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

   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 111.

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 Profile system 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 asset transfers (archives) from Profile to Avalon.

☐ High-res asset transfers (restores) from Avalon to Profile 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.

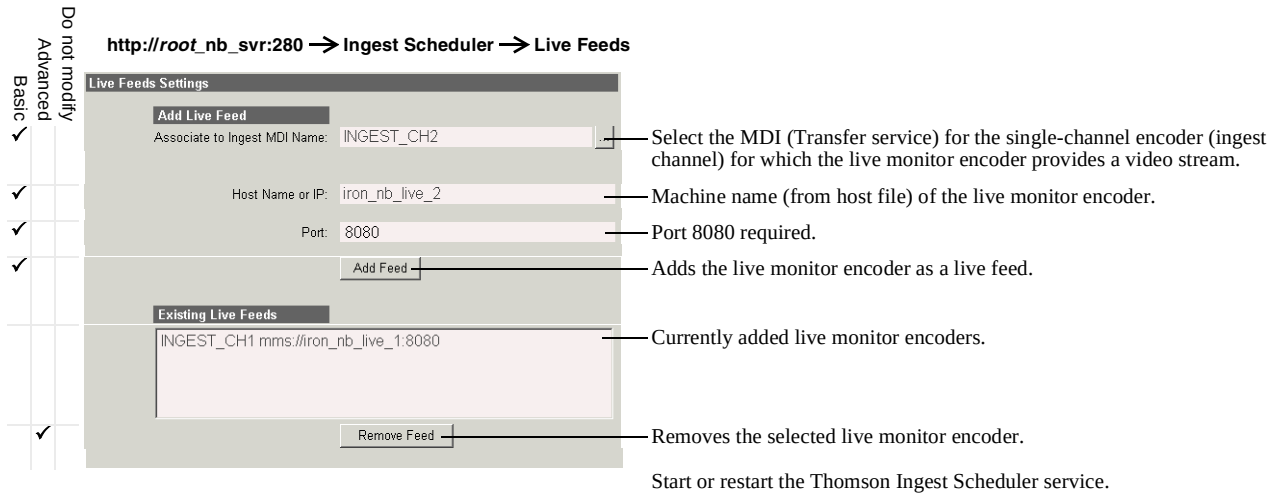
Do the following tasks to deploy your remaining NewsBrowse machines, as appropriate for the machines included in your particular NewsBrowse system. For instructions, refer to the applicable configuration stages early in this chapter.

- Add backup Profiles. Refer to "Configure media server: Single-channel encoder" on page 52 and "Configure Profile MDIs" on page 60.
- Add backup VTRs. Refer to "Configure Ingest Control: Single-channel encoder" on page 50 and "Configure media server: Single-channel encoder" on page 52.
- Deploy remaining single-channel encoders. Refer to "Encoder stand-alone stage" on page 49 and "Encoder + Server stage" on page 64.
- Deploy remaining ISS. Refer to "Image Support Server (ISS) stand-alone stage" on page 75 and "ISS + Server stage" on page 80.
- Deploy remaining sequential encoders. Refer to "Sequential encoder stand-alone stage" on page 84 and "Sequential encoder + Server stage" on page 89.

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.

Test system interactions with multiple machines

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

Multiple channel ingest test

This test verifies ingest and creation of proxy assets for all channels simultaneously.

1. Make sure that the NewsBrowse system is not otherwise in use.
2. Make sure that all the Profile system channels for which NewsBrowse creates proxy media have an appropriate media feed.
3. On the NewsBrowse server, open Thomson Event Viewer.
4. In the NewsBrowse application, schedule ingest events on each channel to occur all at the same time.
5. Once the events start recording, select the find tab on the left side of the application and press the go button with no criteria specified. Assets with the event names should appear in the results list.
6. Select an asset from the results list to load the details on the right side of the application. Video should be visible.
7. After the recording is complete, reload assets and verify that thumbnails and storyboards are created as well. This takes approximately two times the duration of the original media so for example you must wait at least two minutes after completion of recording a one minute asset.

Multiple scavenge test

This test verifies that scavenge operations can simultaneously control all sequential encoders and appropriate Profile channels to optimize performance during times of heavy proxy asset creation.

To test multiple scavenge operations, do the following:

1. Prepare a quantity of test clips on a Profile system, such that you have one more test clip than the number of sequential encoders in your system. For example, if you have four sequential 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. In any case, the bin 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 Profile system bin (preferably a bin that is currently empty) for monitoring by the NewsBrowse system for scavenge operations. Define a sequential encoder “Create Proxy MPEG if Profile movie…is created” rule for the

bin. It is not necessary to create ISS rules for the creation of other proxy assets, as this functionality is tested in the previous "Multiple channel ingest test".

4. On the Profile system, use Media Manager to 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 sequential 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. The default interval is 24 hours. To expedite testing go to the windows services panel and restart the rules wizard 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 Profile 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 107
- "Set up client PCs" on page 108
- "Configure NewsBrowse Licenses" on page 108
- "Testing NewsBrowse client operations" on page 115

If you are upgrading from NewsBrowse system version 1.5 to version 2.0 or higher, refer to *NewsBrowse Release Notes* for upgrade instructions regarding NewsBrowse clients.

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. Refer to "Two tier system diagram" on page 16.

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 Network Attached Storage (NAS)" on page 42 for test procedures.
- Flash Player
- Live Filter
- NetTime

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

1. From a client PC, open Internet Explorer 6 and browse to the following URL to open the NewsBrowse launch page:

   http://*root*_nb_srv/nbui.

2. From the NewsBrowse Launch page, click **Client Setup**. Follow the Client Setup on-screen instruction for Flash Player, for Live Filter, and (if you have not already done so) for NetTime. Also refer to "Prepare NetTime" on page 40.

Continue with the next procedure "Configure NewsBrowse Licenses".

Configure NewsBrowse Licenses

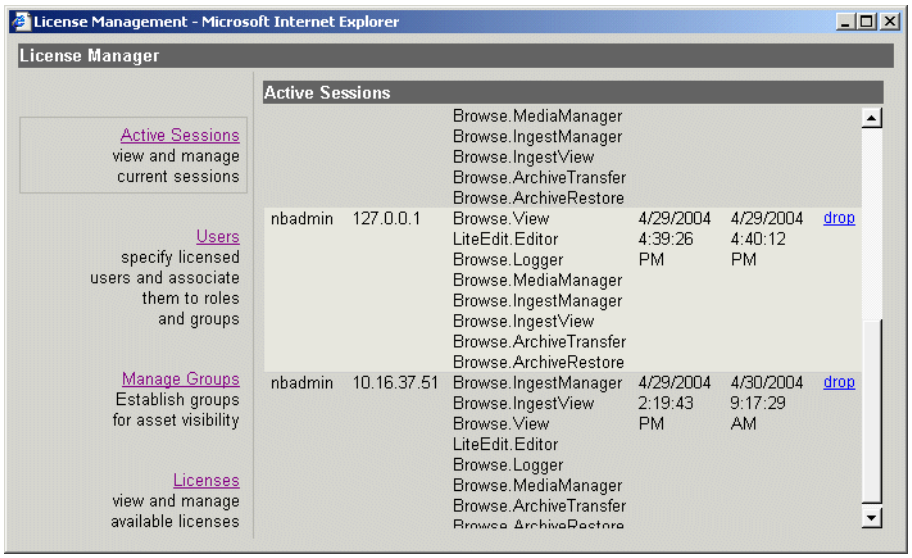
You must configure the NewsBrowse server as per your NewsBrowse license to allow user access to NewsBrowse application features.

To configure for NewsBrowse licenses, do the following:

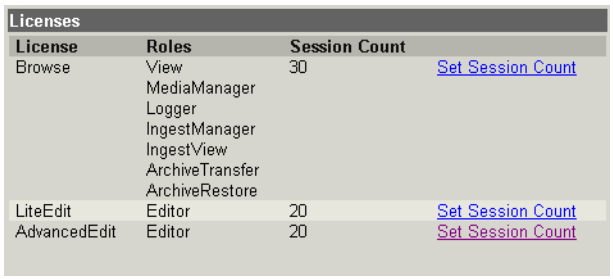
1. From the NewsBrowse Launch page, click **License & User Management**. This requires that you log in as NewsBrowse administrator.
   - Login: `root_nb_srv\nbadmin`
   - Password: `*****`

   The License Manager page opens.

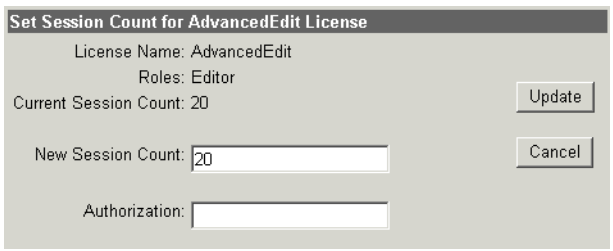
***** Contact Grass Valley Support for password.



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 110
- "Configure NewsBrowse Users" on page 111
- "Managing NewsBrowse User sessions" on page 113

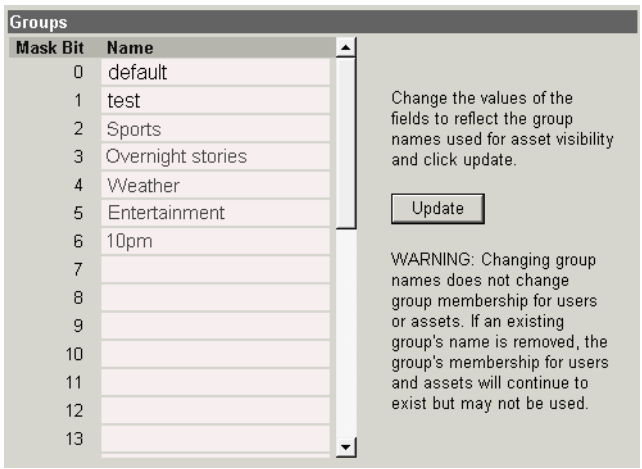
Configure NewsBrowse Groups

The purpose of NewsBrowse groups is to manage users' 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 only those assets in the groups to which the user belongs.

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

To configure NewsBrowse groups, do the following:

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



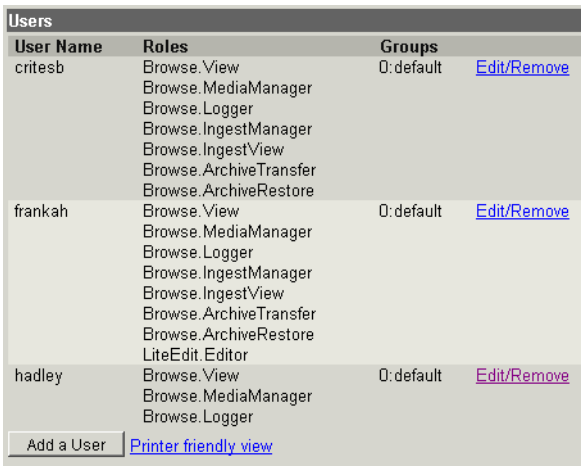
2. Enter names to define groups according to the workflow with which the system is used.
3. Click **Update** to save changes.

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.

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.

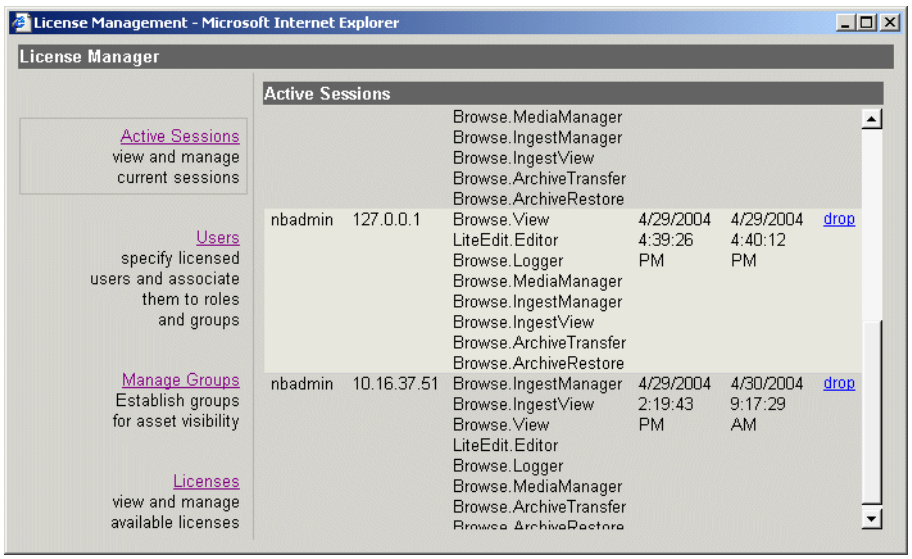
- Groups — Select the groups for which the user will be allowed to access media assets.

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.

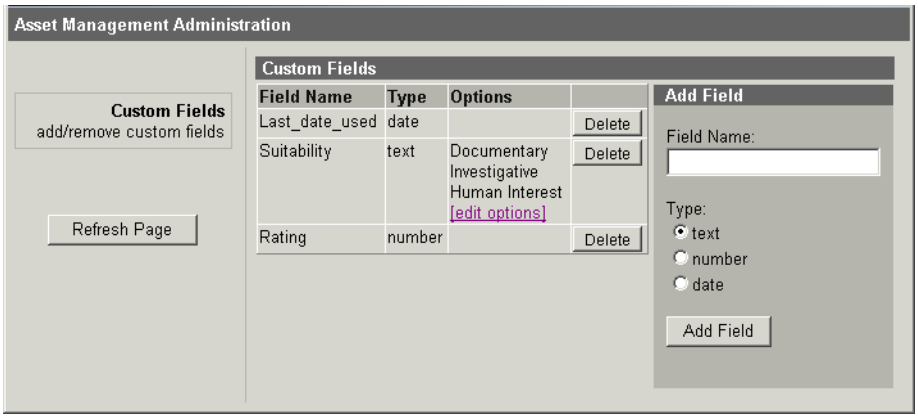
To configure custom fields, do the following:

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: *****

   ***** Contact Grass Valley Support for password.

The Asset Management Administration page opens.



2. For each custom field you add, do the following:

   a. Enter a field name.

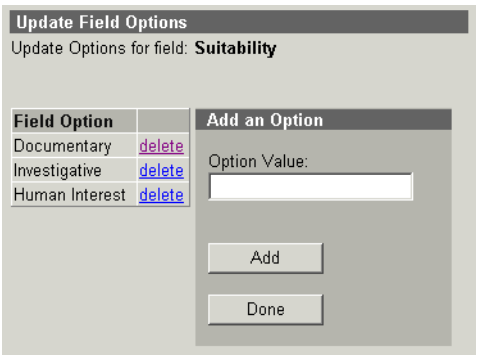
   b. Select the type of field as follows:

      - 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.

Chapter 4

Recovery Planning

Establish a recovery plan for the customer 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 (for either Proxy MDI or Profile MDI). 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.

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

The *AMDBSan.exe* is a utility that will compare the GeneralMetaDataTBL and URN2URITBL of the ThomsonAM database to locate orphan records. It will compare all the URN_UID's from the URN2URITBL to the URN's in the GeneralMetaDataTBL to see if a metadata record exists. If the metadata record does not exist then it is considered an orphan record.

AMDBScan is located in the *C:\Program Files\Thomson\NewsBrowse* directory. To activate the AMDBScan utility it can be simply double clicked or run from a command prompt. As it runs, it will create a log file as well as display results in the DOS window. If any orphan records are detected the user will be prompted and asked if they would like to remove the orphan records. The interface will require a (y/n) response from the user. If the response is *y* then the orphan records are removed. If the answer is *n*, the orphan records are not removed. The log file created will also reside in the *C:\Program Files\Thomson\NewsBrowse* directory with the file name *AMDBScan_Log_MMDDYYYYHHMMSS.txt*.

Database Maintenance

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 118.

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 119.
- 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 119.
- 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 120.

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 *ThomsonAM* database will be used. The code will be the same for *Thomson_Ingest* and *Thomson_RulesWizard*.)
3. First try to backup the transaction log without truncating it by running the following command:

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

   Where filePath and fileName is user specified, (e.g. D:\Emergency Backups\ThomsonAM_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 ThomsonAM WITH TRUNCATE_ONLY

5. To free unused resources to the operating system execute the following command:

   DBCC SHRINKFILE(ThomsonAM_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:

1. From the Enterprise Manager right mouse click the database in question; select **All Tasks\ Backup Database…**
2. Make sure that the **Database Complete** radio button is selected.
3. In the **Destination** section under **Backup to:**, check the file path and make sure the file has a *.bak* extension. If it does not have a *.bak* extension or the path is not where you would like the backup file to reside, click the **Remove** button to remove the file and the associated path. Click the **Add…** button and browse to the directory to which you would like to store the file. Make sure you give it a file name with the *.bak* file extension. (For example: *D:\DB\ThomsonAM.bak*) Click the **OK** button and verify that the path entered is listed in the Backup to: list.
4. In the **Overwrite** section make sure that **overwrite existing media** radio button is selected.
5. Click the **OK** button to backup the database.
6. To backup the transaction log the steps are very similar. Open the Enterprise Manager right mouse click the database in question, select **All Tasks\ Backup Database…**
7. Make sure that the **Transaction log** radio button is selected.
8. In the **Destination** section under **Backup to:**, check the file path and make sure the file has a *.trn* extension. If it does not have a *.trn* extension or the path is not where you would like the backup file to reside, click the **Remove** button to remove the file and the associated path. Click the **Add…** button and browse to the directory to which you would like to store the file. Make sure you give it a file name with the *.trn* file extension. (For example: *D:\DB\ThomsonAM.trn*) Click the **OK** button and

verify that the path entered is listed in the Backup to: list.

9. In the **Overwrite** section make sure that **overwrite existing media** radio button is selected.
10. Click the **OK** button to backup the Transaction log.
11. Open SQL Query Analyzer.
12. Make sure the database in question is selected in the top tool bar.
13. Execute the following code:

```
BACKUP LOG ThomsonAM WITH TRUNCATE_ONLY
DBCC SHRINKFILE(ThomsonAM_log, 2)
```

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 **Thomson_Ingest, Thomson_RulesWizard** and **ThomsonAM 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 **Attempt to repair any minor problems** check box.
13. Select the **Perform these checks before doing backups** check box.
14. 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.

15. Click the **Next>** button to navigate to the **Specify the Database Backup plan** page.
16. Select **Back up the database as part of the maintenance plan** check box.
17. Select **Verify the integrity of the backup when complete** check box.
18. Select the **Disk** radio button
19. Change the schedule from once a week to daily by clicking the **Change…** button.
20. Select the **Daily** radio button and set the interval to **Every 1 day(s)**.
21. 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.
22. Make sure that the **Start Date is today's date** and that the **No end date** radio buttons are selected.
23. Click the **OK** button and verify the schedule.
24. Click the **Next>** button to navigate to the **Specify Backup Disk Directory** page.
25. 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.)
26. Select the **Create a subdirectory for each database** check box.
27. Select the **Remove files older than** check box and set the value to **1 week(s)**.
28. The backup extension should be set to **BAK**.
29. Click the **Next>** button to navigate to the **Specify Transaction Log Back up Plan** page.
30. Select **Back up the transaction log as part of the maintenance plan** check box.
31. Select **Verify the integrity of the backup when complete** check box.
32. Select the **Disk** radio button.
33. Click the **Change…** button to set the transaction log schedule.
34. Select the **Daily** radio button and set the interval to **Every 1 day(s)**.
35. Select the **Occurs every** radio button and set the interval to every **6 hours**.
36. Make sure that the **Start Date** is today's date and that the **No end date** radio button is selected.
37. Click the **OK** button and verify the schedule.
38. Click the **Next>** button to navigate to the **Specify Transaction Log Backup Disk Directory** page.
39. 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.)
40. Select the **Create a subdirectory for each database** check box.

41. Select the **Remove files older than** check box and set the value to **1 week(s)**.
42. The backup extension should be set to **TRN**.
43. Click the **Next>** button to navigate to the **Reports to Generate** page.
44. Click the **Next>** button to navigate to the **Maintenance Plan History** page.
45. Click the **Next>** button to navigate to the **Completing the Database Maintenance Plan Wizard** page.
46. Enter *NewsBrowse* for the name of the schedule.
47. 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 was installed, a maintenance plan should have been implemented to schedule backups of the *ThomsonAM*, *Thomson_Ingest* and *Thomson_RulesWizard* 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 ThomsonAM 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 *Thomson_Ingest* and *Thomson_RulesWizard* databases.

Chapter 5

Troubleshooting the NewsBrowse system

Troubleshooting tools

Troubleshooting utilities can be found on NewsBrowse machines in the Windows menu **Start | Programs | Thomson | NewsBrowse | Diagnostic 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.

Timecode Check — This is a utility provided on 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.

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. Refer to "Test: MDI stage" on page 61.

Remoting Host Controller — This utility on the MDI server manages Profile Managed Device processes. Refer to "Test: MDI stage" on page 61.

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: Encoder stand-alone stage" on page 53.

Transfer Client — This encoder utility is used to test scavenge and transcode operations. Refer to "Test: ISS stand-alone stage" on page 77 and "Test: Sequential encoder stand-alone stage" on page 87.

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 70.

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**.

Troubleshooting tips

Use the following table to identify and resolve NewsBrowse system problems.

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.
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).
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.

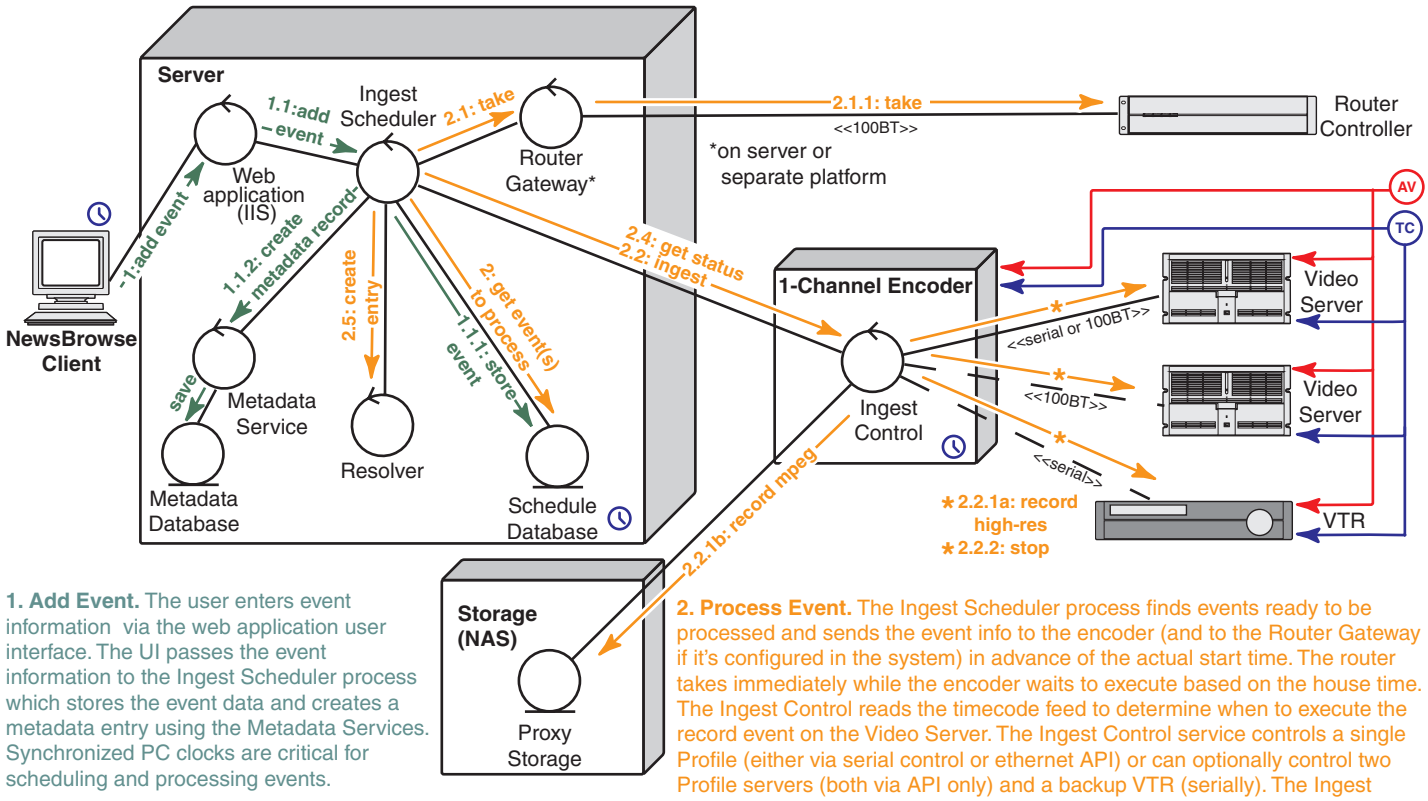
Symptom	Solution
General Browser Issues (esp. after reinstall).	Be sure to clear the browser cache by selecting Tools > Internet Options from the menu. Then from the General tab select the Delete Files button. Check the Delete all offline content checkbox and click OK. Also be sure to update components from the client setup page provided with the NewsBrowse application. The client setup page can be accessed from the NewsBrowse launch page.

Appendix **A**

Component Interaction Diagrams

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

Ingest



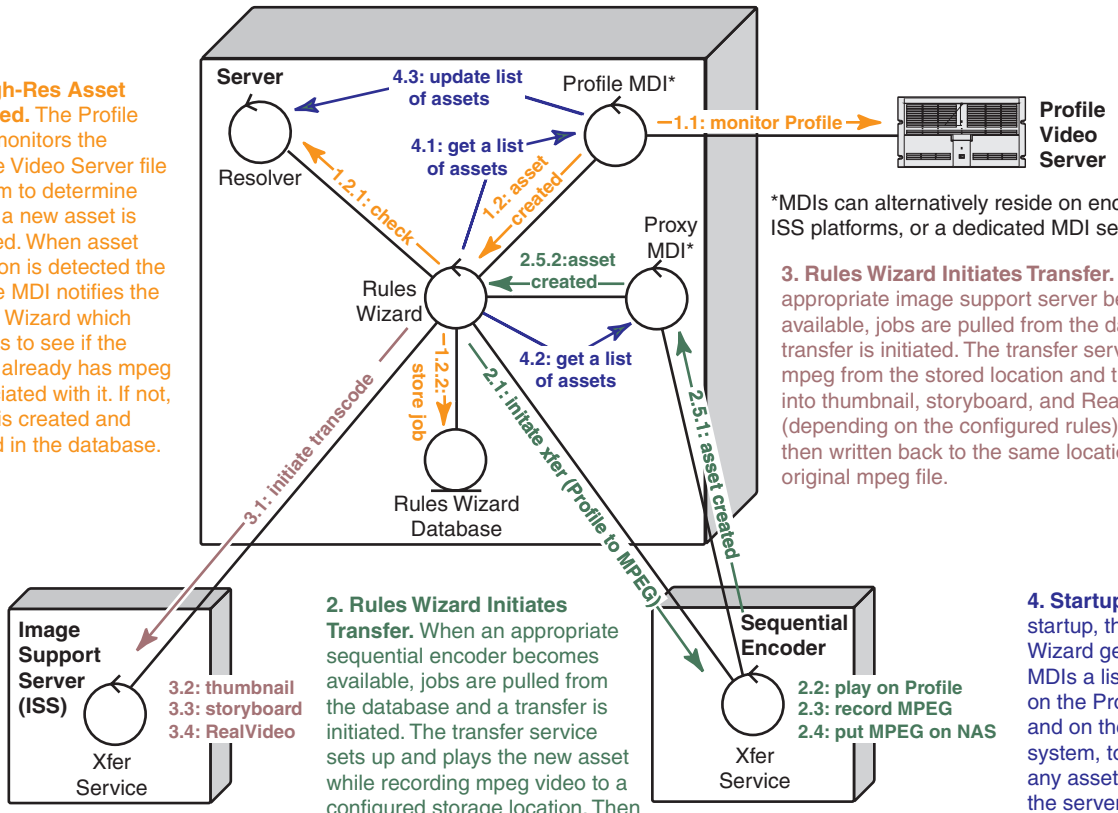
1. Add Event. The user enters event information via the web application user interface. The UI passes the event information to the Ingest Scheduler process which stores the event data and creates a metadata entry using the Metadata Services. Synchronized PC clocks are critical for scheduling and processing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

Not shown on this diagram is the interaction whereby the Ingest Control notifies the Proxy MDI that the mpeg has been created. See the Scavenge diagram for this interaction.

Scavenge



1. High-Res Asset Created. The Profile MDI monitors the Profile Video Server file system to determine when a new asset is created. When asset creation is detected the Profile MDI notifies the Rules Wizard which checks to see if the asset already has mpeg associated with it. If not, a job is created and stored in the database.

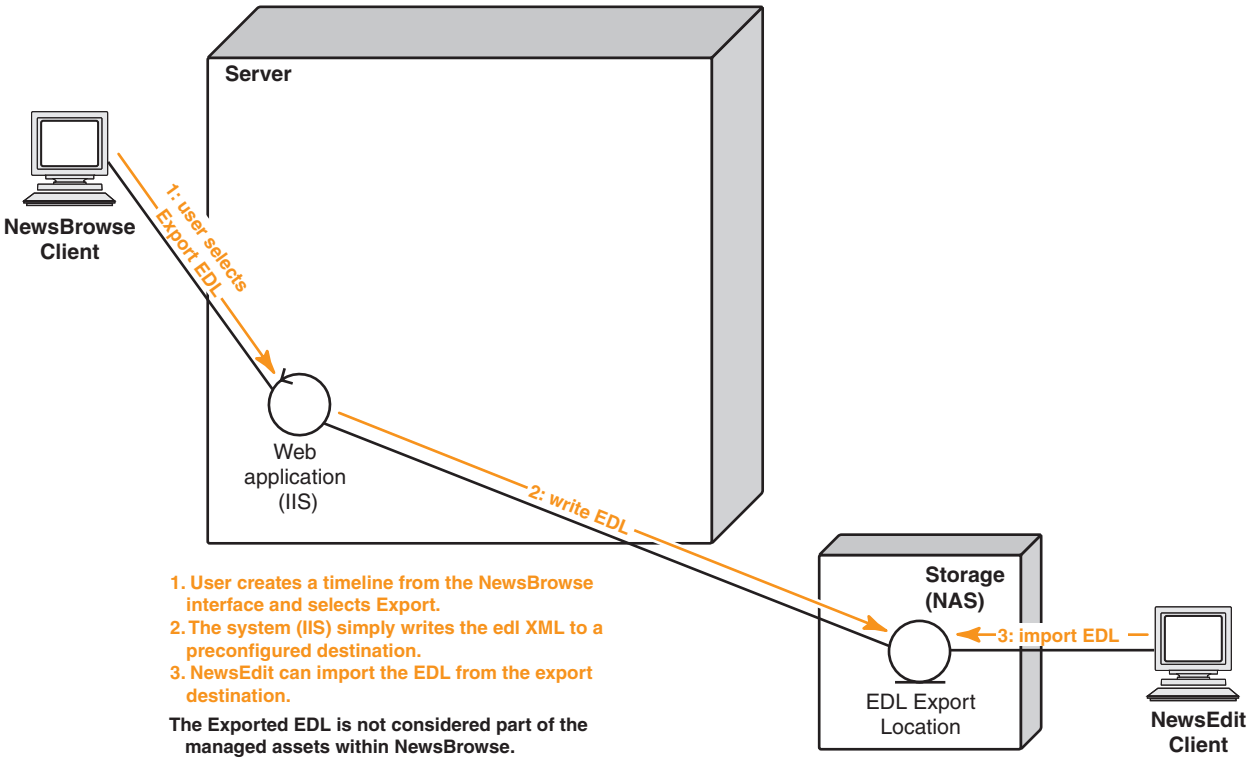
*MDIs can alternatively reside on encoders, ISS platforms, or a dedicated MDI server.

3. Rules Wizard Initiates Transfer. When an appropriate image support server 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 file.

2. Rules Wizard Initiates Transfer. When an appropriate sequential encoder becomes available, jobs are pulled from the database and a transfer is initiated. The transfer service sets up and plays the new asset while recording mpeg video to a configured storage location. Then it associates the high-res material with the mpeg. Once the mpeg has been created the transfer service notifies the Proxy MDI which in turn notifies the Rules Wizard for further processing (not shown).

4. Startup. At server startup, the Rules Wizard gets from the MDIs a list of the assets on the Profile system and on the Proxy system, to account for any assets created when the server was not running. The Resolver is updated and if related assets do not exist as defined by the Rules Wizard, jobs are created and stored in the database.

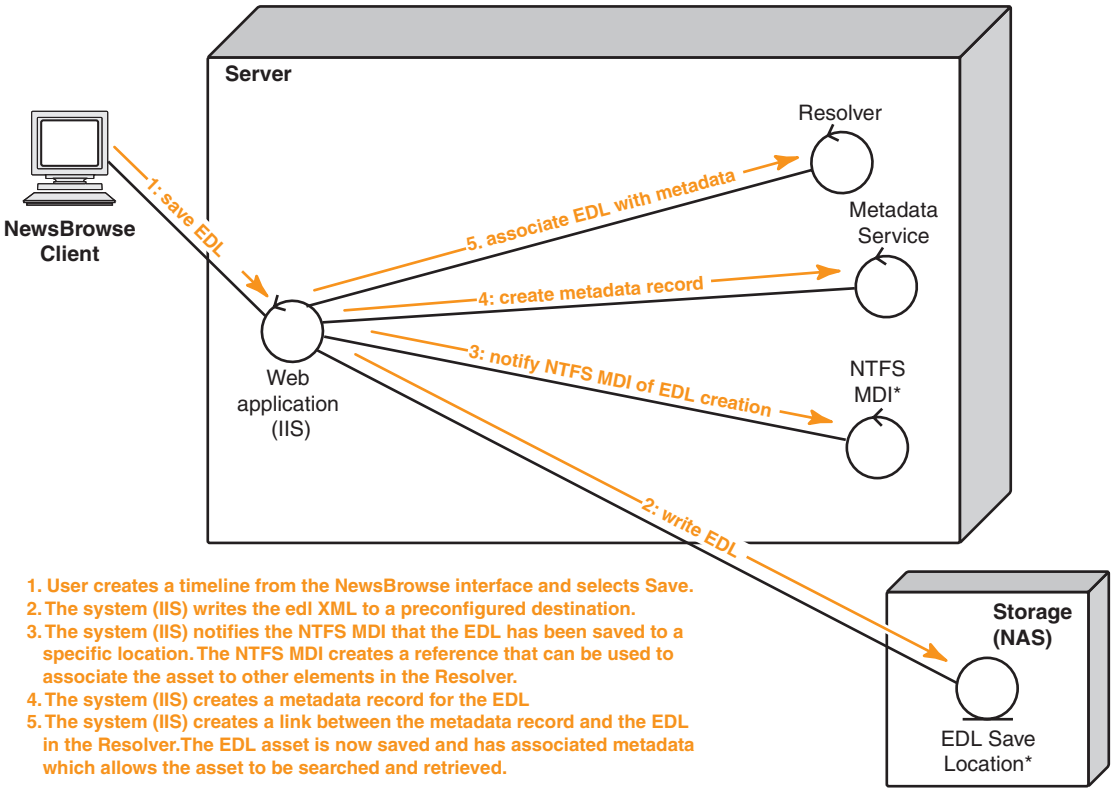
EDL Export



1. User creates a timeline from the NewsBrowse interface and selects Export.
2. The system (IIS) simply writes the edl XML to a preconfigured destination.
3. NewsEdit can import the EDL from the export destination.

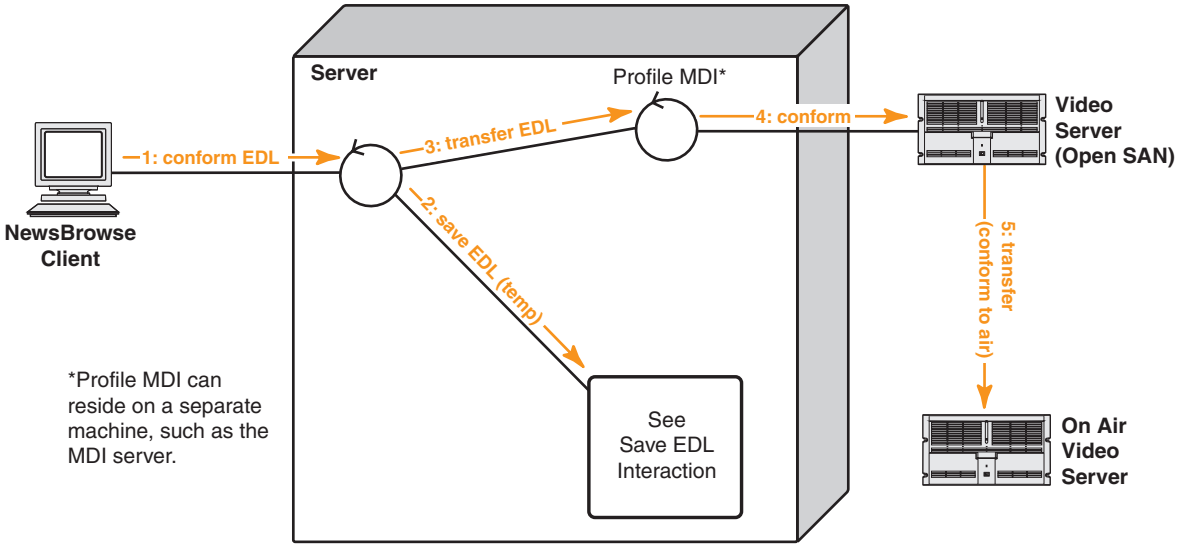
The Exported EDL is not considered part of the managed assets within NewsBrowse.

EDL Save



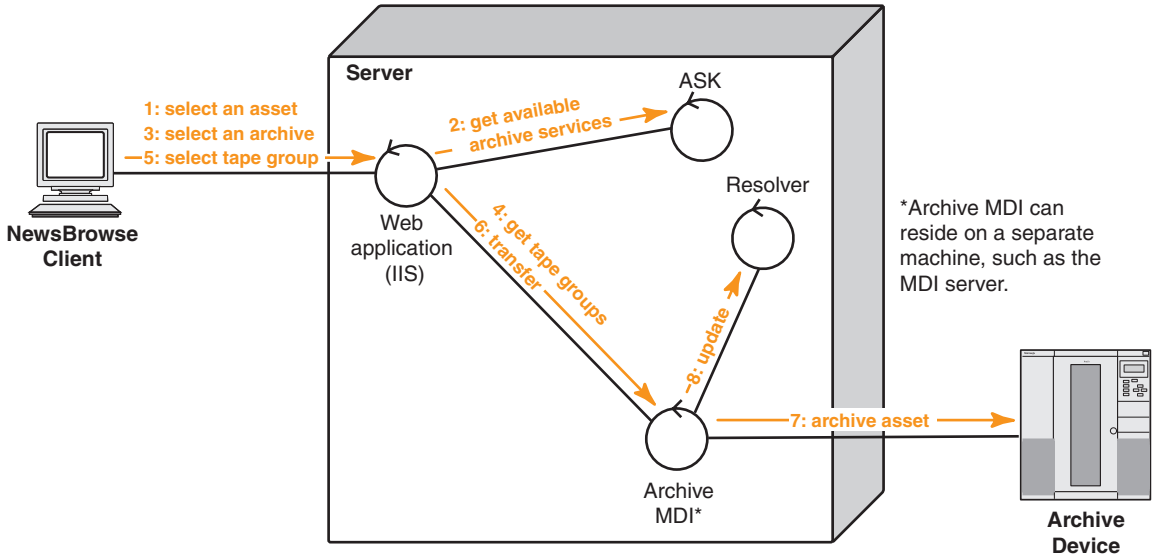
1. User creates a timeline from the NewsBrowse interface and selects Save.
2. The system (IIS) writes the edl XML to a preconfigured destination.
3. The system (IIS) notifies the NTFS MDI that the EDL has been saved to a specific location. The NTFS MDI creates a reference that can be used to associate the asset to other elements in the Resolver.
4. The system (IIS) creates a metadata record for the EDL
5. The system (IIS) creates a link between the metadata record and the EDL in the Resolver.The EDL asset is now saved and has associated metadata which allows the asset to be searched and retrieved.

EDL Conform



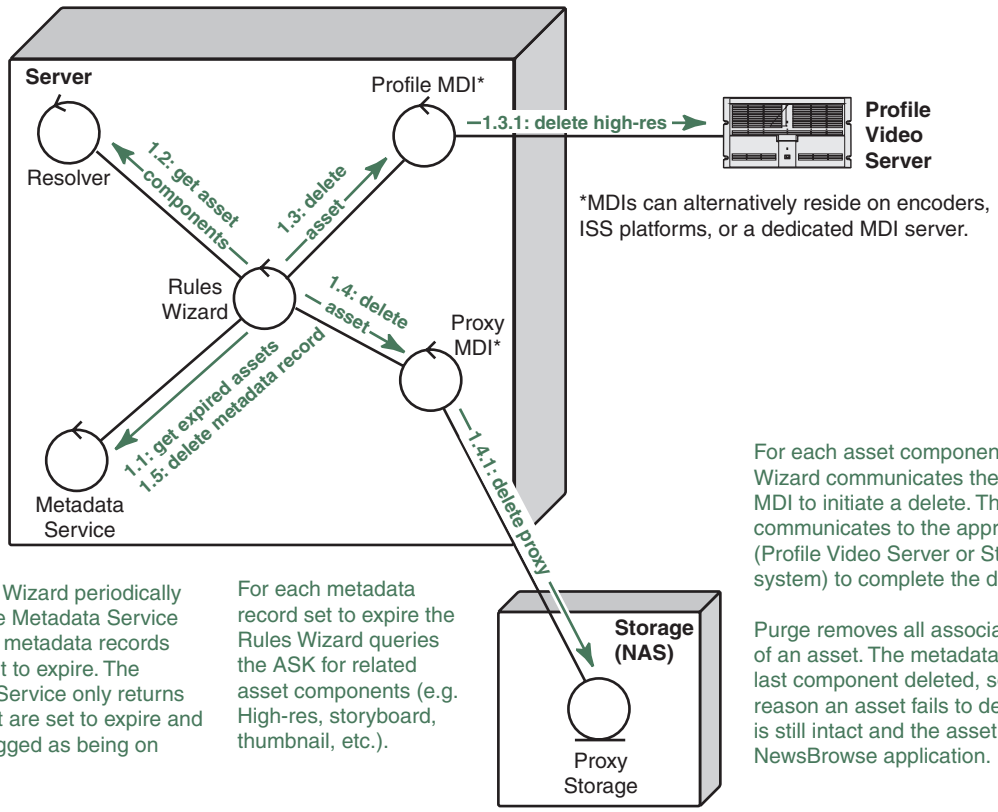
1. User creates a timeline from the NewsBrowse interface and selects Conform.
2. The system (IIS) performs all the actions associated with the Save EDL interaction but to a temporary location.
3. The system (IIS) initiates a transfer of the EDL to a Profile MDI. This causes the conform to take place.
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 asset is transferred via Fibre Channel to the on air Profile.

Archive



1. User selects an asset, navigates to the management tab, selects the archive option.
2. The system queries the ASK for available archive devices. (Also filters out for assets that already exist in archive by querying the Resolver)
3. The user chooses an available archive.
4. The system queries the archive MDI to obtain a list of available tape groups.
5. The user selects the target tape group and initiates the archive process.
6. IIS accepts the archive request and submits a transfer job to the archive MDI.
7. The archive MDI performs the archive operation by transferring an online asset to the archive device.
8. The archive MDI updates the Resolver to link the newly archived asset to the existing metadata record in the system. The MDI optionally removes the online material from the system if the option to do so was selected initially
9. During the archiving process the system displays the archive status which is retrieved from the archive MDI which was used to perform the transfer.

Purge



*MDIs can alternatively reside on encoders, ISS platforms, or a dedicated MDI server.

The Rules Wizard periodically queries the Metadata Service for a list of metadata records that are set to expire. The Metadata Service only returns assets that are set to expire and are not flagged as being on hold.

For each metadata record set to expire the Rules Wizard queries the ASK for related asset components (e.g. High-res, storyboard, thumbnail, etc.).

For each asset component the Rules Wizard communicates the appropriate MDI to initiate a delete. The MDI communicates to the appropriate device (Profile Video Server or Storage file system) to complete the delete.

Purge removes all associated components of an asset. The metadata record is the last component deleted, so that if for any reason an asset fails to delete, its record is still intact and the asset is visible to the NewsBrowse application.

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