



**Installation ▪ Configuration ▪ Management Guide**

**MAPreview™ Version 2.1**



**T E L E S T R E A M**

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# Table of Contents

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## About This Guide

Support and Information .....	About-1
How to Use this Guide .....	About-1
Notational Conventions .....	About-3
Typographical Conventions .....	About-4
We'd Like to Hear From You! .....	About-4

---

## Chapter 1 Introduction

Introduction.....	1-2
MAP Editions .....	1-2
Roles in MAP.....	1-2
MAP Services Architecture and Inter-Operation.....	1-3
MAP Communication Ports .....	1-4
Accessing MAP Media from Clients .....	1-5
Physical & Alias Locations for Storage Depots .....	1-8
Web Server vs. Streaming Media Server .....	1-8
MAP Components.....	1-10
MAP Management Consoles .....	1-10



Capture.MAP .....	1-11
Factory.MAP.....	1-12
Ratings Parser .....	1-12
EventReader .....	1-12
Archive.MAP .....	1-12
Gateway.MAP.....	1-13
HyperLaunch Receive Server .....	1-13
MAP Explorer.....	1-14
MAP Player.....	1-14
MAP Quick Review .....	1-15
MAP Search.....	1-16
Launch .....	1-17
Label Designer .....	1-18

---

## **Chapter 2 Up & Running**

MAP Up & Running Overview .....	2-2
Locate and Install the MAPreview server.....	2-2
Power On and Configure for LAN .....	2-3
System Log In with Administrative Privileges.....	2-3
Checking and Configuring MAP Settings .....	2-4

---

## **Chapter 3 Installing MAP Services, Clients, & Utilities**

MAP Installation Overview .....	3-2
MAPreview server Platform and Preparation Requirements	3-3
Hardware Requirements .....	3-3
Software Requirements.....	3-4



---

Windows OS and Network Configuration .....	3-7
MAP Port Configuration.....	3-9
MAP Client Platform OS Requirements.....	3-11
MAP Web Client Platform OS Requirements .....	3-11
Using the MAP Installer Console .....	3-12
Server Installation .....	3-12
Clients Installation .....	3-13
Utilities Installation.....	3-13
Installing MAP Services .....	3-14
Start the Installer .....	3-15
Installing Gateway.MAP.....	3-19
Start the Installer .....	3-19
Installing MAP Ratings Parser and Configurator .....	3-21
Attaching MAP USB Dongles .....	3-23
Viewing Machine ID and License Information .....	3-23
Updating the MAP Dongle .....	3-24
Installing MAP Explorer.....	3-25
Start the Installer .....	3-25
Installing MAP Quick Review .....	3-28
Start the Installer .....	3-28
Installing MAP Search.....	3-31
Start the Installer .....	3-31
Re-installing ASP.NET for IIS.....	3-35

---

## **Chapter 4 MAP Services Configuration & Administration**

Configuring MAP Services.....	4-2
Displaying Services .....	4-2
Starting and Stopping a Service.....	4-3
Modifying Services Settings.....	4-3
Configuring System Alerts .....	4-5
Configuring and Using MAP EventReader .....	4-8
Using the MAP Management Console .....	4-10
Starting the Management Console.....	4-10
Content.MAP Administration.....	4-11
Creating Media Folders .....	4-12
Setting Media Folder Properties .....	4-13
Capture.MAP Administration.....	4-19
Accessing Captured Media in Content.MAP.....	4-19
Creating Schedules .....	4-24
Creating Segments .....	4-25
Starting a Channel.....	4-28
Factory.MAP Administration.....	4-29
Distributed Factory.MAP Services .....	4-29
Adding and Removing Factory.MAPPreview servers ...	4-31
Managing Media Tasks .....	4-32
Creating a Media Portal .....	4-33
Codecs Properties .....	4-37

---

## **Chapter 5 MAP Administration**



MAP Software Versions.....	5-2
Adding Distributed Services to the Console.....	5-2
Selecting the MAP Service To Manage .....	5-3
Creating MAP S e rvices Alerts.....	5-3
Synchronizing MAPreview servers .....	5-7
Capture Service Regular Maintenance .....	5-10
Restart Your Server Regularly .....	5-10
Defragment Server Hard Drives .....	5-10
Virus Scans and Software Updates .....	5-12
Backup System Alternatives During Maintenance.....	5-12
Add a Capture Card .....	5-13
Install & Configure Capture Card.....	5-13
Add a Store .....	5-14
Create and Configure a Channel.....	5-14
Create and Configure a Schedule.....	5-15
Establishing Multiple Schedules.....	5-16
Schedule Types .....	5-16
Daily Schedule.....	5-16
Weekly Schedule.....	5-16
Monthly Schedule.....	5-17
Yearly Schedule .....	5-17
Exactly Schedule.....	5-17
Never Schedule.....	5-17
View Live Streams During Capture.....	5-17
Capturing Ratings Provider Metadata.....	5-18
Configuring Ratings INI Files .....	5-18



Setting up As Run Logs .....	5-22
Setting Up a TV Schedule Provider.....	5-23
Converting Speech to Text.....	5-24
Enabling Speech Recognition .....	5-25
Burning in Time Code .....	5-25
Add a Top-Level Distributed Media Folder.....	5-27
Configuring Media Folder Properties .....	5-28
Create a New Version of Master Media Files .....	5-29
Saving a New Version on External Systems .....	5-29
Exporting Binders to Another MAP Systems.....	5-30
Concurrent Transcoding Jobs .....	5-31
Monitoring and Resubmitting Transcoding Jobs .....	5-32
Archiving Expired Media .....	5-33
Restoring Archived Media.....	5-33

---

## **Chapter 6    Web Access, HyperLaunch Receive Server, Gateway**

Configure Window Media Service and Virtual Directories .	6-2
Create a WMS Publishing Point .....	6-2
Configure IIS and Virtual Directories.....	6-3
Create a Virtual Directory in IIS.....	6-4
Install MAP Web Search on IIS Server .....	6-5
Configuring Content.MAP for IIS Access.....	6-6
Provide Credentials.....	6-6
Referencing Media Folder Stores .....	6-6
Specifying Capture Stores as UNC Paths .....	6-7



---

Adding a Store in UNC Path Format .....	6-8
Creating Aliases for Web Access.....	6-8
Configuring MAP for Access via Web Browser.....	6-10
Configuring HyperLaunch Receive Server.....	6-12
Monitoring a HyperLaunch Receive Server .....	6-14
Launch the Management Console.....	6-14
Monitor Current Sessions .....	6-14
Add HyperLaunch Receive Server to MMC .....	6-14
Using the Gateway.MAP Console .....	6-16
Creating a ClipMail Account.....	6-18
Creating a Folder Monitor Account.....	6-19
Setting up a ClipMail Address for Sending Media via Gateway.MAP.....	6-20

---

## **Chapter 7    MAP System Planning Guide**

System Planning .....	7-1
Single Server Drive & Partition Requirements.....	7-1
MAP Capture Server Requirements .....	7-2

---

## **Chapter 8    Upgrading, Repairing, and Uninstalling MAP**

Upgrading a MAP System .....	8-2
Repairing a MAP System .....	8-2
Uninstalling MAP Services .....	8-3
Uninstalling MAP Player, Explorer, and Quick Review .....	8-3
Uninstalling Gateway.MAP .....	8-3
Uninstalling MAP Web Search.....	8-3
Uninstalling HyperLaunch Receive Server .....	8-3



---

## **Appendix A Troubleshooting MAP**

Content.MAP Issues .....	A-1
Capture.MAP Issues .....	A-2
MAP Player Issues.....	A-3
General MAP Services Issues.....	A-4
MAP Explorer Issues .....	A-5
Web Browser Issues .....	A-6

---

## **Appendix B Media Formats**

Copy—Duplicate Original Format .....	B-2
QuickTime Media Format.....	B-2
Movie Codecs .....	B-2
Video Codecs .....	B-3
Audio Codecs.....	B-7
Real Networks Media Format.....	B-8
Movie Codecs .....	B-8
Windows Media Format.....	B-11
Movie Codecs .....	B-11
AVI Media Format .....	B-14
Video Codecs .....	B-14
Audio Codecs.....	B-16
MPEG1 System Stream Media Format.....	B-17
Video Codecs .....	B-17
Audio Codec .....	B-18

---

MPEG2 Program Stream Media Format.....	B-18
Video Codecs .....	B-19
Audio Codec .....	B-19

---

## **Appendix C Destinations**

FTP Server .....	C-2
HyperLaunch Receive Server .....	C-3
HyperLaunch Receive Server (Secure).....	C-3
Local Drive or Network Share.....	C-4
Network File Share (Specific User Name) .....	C-4

---

<b>Index .....</b>	<b>Index-1</b>
--------------------	----------------





---

# List of Figures

Figure 1–1. Typical MAP system configuration.....	1-1
Figure 1–2. MAP services management console.....	1-11
Figure 1–3. Factory.MAP operator console.....	1-12
Figure 1–4. Archive.MAP operator console.....	1-13
Figure 1–5. Gateway.MAP operator console.....	1-13
Figure 1–6. MAP Explorer is integrated in Windows Explorer .....	1-14
Figure 1–7. MAP Player is a powerful, specialized media player.....	1-15
Figure 1–8. Quick Review is a specialized search and play application .....	1-16
Figure 1–9. MAP Search allows users to use MAP via a Web browser.....	1-17
Figure 1–10. Launch console displays media portals and portal tasks.....	1-17
Figure 1–11. Use Label Designer to create custom metadata tags for media.....	1-18
Figure 3–1. Computer Name Changes dialog.....	3-7
Figure 3–2. Sample MAPreview server HOSTS file (with scrambled IP addresses) .....	3-8
Figure 3–3. MAP Installer console.....	3-12
Figure 3–4. MAPreview server installation options .....	3-12
Figure 3–5. MAP client installation options.....	3-13
Figure 3–6. MAP utilities installation options.....	3-13
Figure 3–7. MAP Installer main console.....	3-15
Figure 3–8. MAPreview server installer options .....	3-15
Figure 3–9. MAP Setup Wizard Welcome panel.....	3-17
Figure 3–10. MAP Installer console’s main window .....	3-19



Figure 3–11. MAPreview server installation options .....	3-19
Figure 3–12. Gateway.MAP Setup Wizard Welcome window.....	3-20
Figure 3–13. Click Yes to restart your server .....	3-20
Figure 3–14. MAP Installer console’s main window .....	3-21
Figure 3–15. MAP Utilities installation options.....	3-21
Figure 3–16. Ratings Setup Wizard Welcome window .....	3-22
Figure 3–17. License Information dialog .....	3-23
Figure 3–18. MAP dongle license data updater.....	3-24
Figure 3–19. MAP Installer console’s main window .....	3-25
Figure 3–20. MAP client installation options.....	3-25
Figure 3–21. MAP Setup Wizard Welcome panel.....	3-27
Figure 3–22. MAP main installer console .....	3-28
Figure 3–23. MAP client installation options.....	3-28
Figure 3–24. MAP Setup Wizard Welcome panel.....	3-30
Figure 3–25. MAP Installer console’s main window .....	3-31
Figure 3–26. MAP utilities installation options.....	3-31
Figure 3–27. MAP Web Search Setup Wizard Welcome panel.....	3-32
Figure 4–1. Administrative Tools window .....	4-2
Figure 4–2. Stop and start services in the Services window.....	4-3
Figure 4–3. Capture.MAP properties.....	4-4
Figure 4–4. Use the Recovery tab for service restart options.....	4-5
Figure 4–5. MAP default system alerts .....	4-6
Figure 4–6. Use the Recovery tab for service restart options.....	4-7
Figure 4–7. Use the MAP event log to view MAP errors .....	4-8
Figure 4–8. MAP errors generate events, which you can view .....	4-8
Figure 4–9. Configure EventReader to send email when MAP errors occur .....	4-9
Figure 4–10. Manage services in Windows management console .....	4-10
Figure 4–11. Creating new media folder .....	4-12



Figure 4–12. Top-level folders in the media folders panel .....	4-12
Figure 4–13. Media folder authentication properties .....	4-13
Figure 4–14. Media folder authentication properties .....	4-14
Figure 4–15. Media folder Access properties.....	4-14
Figure 4–16. Media folder Storage properties .....	4-15
Figure 4–17. Media folder Storage properties and Depot properties .....	4-15
Figure 4–18. Media folder Expiration properties .....	4-16
Figure 4–19. Media folder Expiration properties .....	4-17
Figure 4–20. Media folder Versions properties .....	4-17
Figure 4–21. Media folder Metadata properties .....	4-18
Figure 4–22. Browse For Folder dialog.....	4-20
Figure 4–23. Locate and select the directory.....	4-21
Figure 4–24. Adding a channel in MMC.....	4-21
Figure 4–25. Channel General properties window .....	4-22
Figure 4–26. Channel Capture properties .....	4-22
Figure 4–27. Channel Settings properties.....	4-23
Figure 4–28. Channel Providers properties .....	4-24
Figure 4–29. Name the schedule, specify the type and time period .....	4-25
Figure 4–30. Create a new segment in the schedule frame .....	4-25
Figure 4–31. Segment properties – General tab .....	4-26
Figure 4–32. Segment properties – Capture tab .....	4-26
Figure 4–33. Segment properties – Labels tab .....	4-27
Figure 4–34. Capture.MAP channel details and video monitor .....	4-28
Figure 5–1. Add a distributed service to the MAP console.....	5-2
Figure 5–2. Add a distributed service to the MAP console.....	5-3
Figure 5–3. Use Computer Management to create alerts .....	5-4
Figure 5–4. Name the new alert.....	5-5
Figure 5–5. Set up the alert counters .....	5-5



Figure 5–6. Provide a comment for the alert .....	5-5
Figure 5–7. Use the Action tab to specify what action to take .....	5-6
Figure 5–8. Performance MMC displays alerts you’ve created .....	5-6
Figure 5–9. Update the Action tab to execute the send alert command .....	5-7
Figure 5–10. Synchronize your server with an Internet time server.....	5-8
Figure 5–11. Disk Defragmentation utility.....	5-11
Figure 5–12. Disk defragmentation report.....	5-11
Figure 5–13. Automatic updates recommended settings.....	5-12
Figure 5–14. Using the Ratings Configurator to set up an INI file .....	5-19
Figure 5–15. Setting up demographics in Ratings Configurator .....	5-20
Figure 5–16. Setting up channels in Ratings Configurator.....	5-20
Figure 5–17. Use Filters tab to burn in time code .....	5-26
Figure 5–18. Registry Editor Window in Windows .....	5-31
Figure 6–1. IIS virtual directories correspond to MAP stores.....	6-5
Figure 6–2. Configure virtual directories with a UNC path .....	6-5
Figure 6–3. Specify an account for media access credentials .....	6-6
Figure 6–4. Select the media folder in the management console .....	6-7
Figure 6–5. Display media folder properties and click Storage .....	6-7
Figure 6–6. Use Depot Properties to permit access via a Web browser or streaming server ...	6-8
Figure 6–7. The Network Location wizard finds destinations .....	6-9
Figure 6–8. Identify the server destination and port.....	6-9
Figure 6–9. Enter user info or check Use anonymous access.....	6-10
Figure 6–10. Select the directory for media delivery .....	6-10
Figure 6–11. HyperLaunch Receive Server properties.....	6-12
Figure 6–12. Use the Security tab to save the security key .....	6-13
Figure 6–13. Use the console to monitor sessions.....	6-14
Figure 6–14. Configure and monitor HyperLaunch Receive Server in MMC .....	6-15
Figure 6–15. Gateway.MAP console – Accounts tab .....	6-16



---

Figure 6–16. Gateway.MAP console – ClipMail Status tab .....	6-16
Figure 6–17. Gateway.MAP console – Folder Monitor Status tab .....	6-17
Figure 6–18. ClipMail Account Properties dialog.....	6-18
Figure 6–19. Folder Monitor Account Properties dialog.....	6-19
Figure 6–20. Setting up a gateway address in ClipMail.....	6-20





---

# List of Tables

Table 1–1.	MAP Services and Applications Ports .....	1-5
Table 3–1.	MAPreview server Hardware Requirements .....	3-4
Table 3–2.	MAP Services Required Software Components .....	3-4
Table 3–3.	MAP Web Search Required Software Components .....	3-6
Table 3–4.	MAP Services and Applications Ports .....	3-9
Table 4–1.	Media Tasks Table .....	4-32
Table 4–2.	General Properties .....	4-36
Table 4–3.	Encoder Properties .....	4-36
Table 4–4.	Codecs Properties .....	4-37
Table 4–5.	Filters Properties .....	4-38
Table 4–6.	Supported Protocols .....	4-38
Table 7–1.	Daily Media Capture Space Requirements .....	7-3
Table B–1.	DV Standard Definition NTSC .....	B-2
Table B–2.	DV Standard Definition PAL Codec .....	B-3
Table B–3.	Avid (ABVB, NuVista, Meridien Interlaced/Progressive) Codec .....	B-3
Table B–4.	Cinewave 8Bit YUV Codec .....	B-3
Table B–5.	FlexVideo Codec (installed by customer) .....	B-4
Table B–6.	FMA Movie Codec (installed by customer) .....	B-4
Table B–7.	Motion JPEG B Codec .....	B-5
Table B–8.	QuickTime Movie Codec .....	B-5
Table B–9.	Photo-JPEG Codec .....	B-5



Table B–10. Radius Cinepak Codec .....	B-6
Table B–11. Sorenson Video 2 (Basic and Pro) Codec .....	B-6
Table B–12. Sorenson Video 3 (Basic and Pro) Codec .....	B-7
Table B–13. Raw PCM Audio Codec .....	B-7
Table B–14. QDesign Music 2 Audio (Basic and Pro) Codec .....	B-8
Table B–15. Single Bit Rate (HTTP or download) Codec .....	B-8
Table B–16. SureStream (Real Server) Codec .....	B-9
Table B–17. Single Rate (HTTP or Download) Codec .....	B-11
Table B–18. Multiple Rate (Windows Media Server) Codec .....	B-12
Table B–19. Single Rate Quality VBR Codec .....	B-13
Table B–20. DivX Pro Codec .....	B-14
Table B–21. Uncompressed AVI Video Stream Codec .....	B-14
Table B–22. Microsoft Video 1 Codec .....	B-15
Table B–23. Cinepak by Radius Codec .....	B-15
Table B–24. Intel Indeo Video 4.5 Codec .....	B-15
Table B–25. Indeo Video 5.10 Codec .....	B-15
Table B–26. Uncompressed AVI Audio Stream Codec .....	B-16
Table B–27. Microsoft IMA ADPCM Codec .....	B-16
Table B–28. Microsoft ADPCM Codec .....	B-16
Table B–29. Microsoft CCITT G.711 A-law and u-law Codec .....	B-16
Table B–30. Voxware Audio Codec .....	B-16
Table B–31. Fraunhofer IIS MPEG Layer-3 (advanced) Codec .....	B-17
Table B–32. MPEG1 Constrained Parameters (CPB) Codec .....	B-17
Table B–33. MPEG1 Variable Bit rate (VBR) Codec .....	B-18
Table B–34. MPEG1 Layer 2 Codec .....	B-18
Table B–35. MPEG2 4:2:0 ML@MP Constant Bit Rate (CBR) Codec .....	B-19
Table B–36. MPEG1 Layer 2 Codec .....	B-19
Table C–1. FTP Server Destination Parameters .....	C-2



Table C-2. HyperLaunch Server Destination Parameters .....	C-3
Table C-3. Secure HyperLaunch Server Destination Parameters .....	C-3
Table C-4. Local Drive or Network Share Destination Parameters .....	C-4
Table C-5. Network File Share (Specific User Name) Destination Parameters .....	C-4





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# About This Guide

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## HOW TO USE THIS GUIDE

This guide is intended for digital media professionals who manage Media Application Platform in their organization, or who configure, manage and monitor MAP services and programs or use MAP to produce, store, and access media in a media production environment.



You may view or print this guide with Adobe Acrobat Reader, available on Adobe's Web site at [www.adobe.com](http://www.adobe.com). Online Help is available in each MAP program by clicking the Help icon on the program's toolbar.

In addition to a table of figures and tables, glossary and index, this guide contains the following sections:

### **Chapter 1, Introduction**

This chapter introduces Telestream's Media Application Platform and its products, and provides a high level view of MAP functionality and the main MAP services and clients. This chapter also describes each component of MAP and how MAP can be used by third-party programs.

### **Chapter 2, Up & Running**

If you have purchased a pre-installed MAPreview system, you can use this chapter to configure the hardware for your network and configure MAPreview to get it up and running quickly.

### **Chapter 3, Installing MAP Services, Clients, & Utilities**

This chapter provides installation procedures for installing MAP services, management consoles, and client programs in a single- or multi-server installation, including attaching a MAP dongle. This chapter also provides installation procedures for MAP utilities.

### **Chapter 4, MAP Services Configuration & Administration**

This chapter helps you perform basic up and running configuration and administrative tasks, including initial configuration of each MAP service.

### **Chapter 5, MAP Administration**

This chapter provides step-by-step instructions for performing ongoing MAP configuration and administrative tasks.

### **Chapter 6, Web Access, HyperLaunch Receive Server, Gateway**

This chapter provides MAP administrators step-by-step instructions for configuring MAP for publishing MAP media via IIS, Windows Media Server and SharePoint, and for configuring and managing HyperLaunch Receive Server and Gateway.MAP.

### **Chapter 7, MAP System Planning Guide**

This chapter provides the information you need to plan and implement a multi-server MAP installation. In this chapter, you'll also review the hardware and software platform requirements for MAP services and client programs, so that you can audit your servers and upgrade or purchase properly configured servers for your system.



## Chapter 8, Upgrading, Repairing, and Uninstalling MAP

This chapter provides step-by-step instructions for upgrading, repairing, and uninstalling MAP.

## Appendix A, Troubleshooting MAP

Use this appendix to identify likely causes for problems you may encounter when using MAP services and client programs.

## Appendix B, Application Notes

This appendix provides application notes for MAP in a variety of operational environments.

## Appendix C, Metadata Tools

This appendix describes metadata analysis and extraction tools.

## Appendix B, Media Formats

This appendix specifies each media format supported by MAP, including movie, audio and video codec specifications, and application notes.

## Appendix C, Destinations

This appendix describes destinations to which you can deliver media from MAP, via a variety of network protocols.

---

## NOTATIONAL CONVENTIONS

The following sections describe notational conventions used to make the guide more readable.

### Notes, Tips, and Cautions

Note paragraphs are set in italic type to draw your attention to special circumstances:



---

#### Note

*Text associated with this graphic highlights important information about the topic you're studying. Be sure to read this information before continuing.*

---



---

Tip paragraphs provide helpful information you may not be aware of, or that may make using MAP easier:



---

### Tip

*Tips are bits of information you might not be aware of, or that make using MAP easier.*

---

Caution paragraphs are set in bold type to draw your attention to situations that may cause permanent changes to your operating system or cause data loss.



---

### Caution

**A caution paragraph indicates an action that may cause potential loss of data, or other permanent changes to MAP or your media assets. Be sure you have backups, and are aware of the consequences of your action before proceeding.**

---

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## TYPOGRAPHICAL CONVENTIONS

Certain typographical conventions are used as visual clues in this guide. Sample information, or a specific format to be entered by you is shown in italics, or in a courier-style font.

For example:

Type your domain (*mydomain.com*) in the domain field.

Type `import FileName` where `FileName` is the fully qualified path.

---

## WE'D LIKE TO HEAR FROM YOU!

If you have comments or suggestions about improving this document, other Telestream documents, or our Web site – or if you've discovered an error or omission, please email us at [support@telestream.net](mailto:support@telestream.net).



---

# Introduction

Telestream's media capture, processing, and publication workflow automation solution – Media Application Platform (MAP) – provides media organizations the convenience and power of multi-channel media recording, organization, and indexing for fast processing and consumption via client MAP applications. MAP is a valuable system for any workflow where media producers capture, organize, and view live feeds or previously-aired content.

Figure 1–1. Typical MAP system configuration



## Topics

- [Introduction](#) on page 1-2
- [MAP Editions](#) on page 1-2
- [Roles in MAP](#) on page 1-2
- [MAP Services Architecture and Inter-Operation](#) on page 1-3
- [MAP Components](#) on page 1-10



## INTRODUCTION

Because MAP utilizes powerful Microsoft technologies, XML and standard file transfer methods, it is cost effective and highly scalable. MAP is integrated with Microsoft technologies to provide simple plug-and-play compatibility with a broad range of third-party systems and programs. For instance, MAP is integrated with Windows Speech API so that customers can plug in their favorite speech-to-text engine. MAP also integrates the Removable Storage Manager (RSM), allowing removable media libraries to be attached easily.

MAP may be installed entirely on a single computer or on a server for access by distributed clients. For high-volume and high-performance requirements, MAP services may be distributed as a cluster.

MAP may be configured to create different versions of media, automatically decoding and encoding source media into a wide variety of streaming and broadcast formats, and deliver the encoded media to destinations you specify. Destinations can include media servers, network folders or SAN pools, FTP sites, or other Internet-accessible storage devices.

---

## MAP EDITIONS

MAP is provided in two configurations to meet media professionals' needs.

### MAPreview

MAPreview provides multi-feed media capture based on preset schedules. You simply search and play. MAPreview is ideal for conducting high-volume, multi-channel real-time media capture for competitive news analysis, broadcast compliance logging, ad-run verification, lectures and distance learning, review of military events, legislative session recording, and digital surveillance.

### MAP

MAP simplifies import and organization of rich media files and has all of the functionality of MAPreview except for live, real-time capture of media. This workgroup organizer is ideal for media owners and producers who want to organize media files in a meaningful way, making it easier to find, re-purpose, and share media with colleagues.

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## ROLES IN MAP

MAP users can generally be categorized as administrators, producers, and consumers, and may play one or more roles – especially in small or medium-sized organizations. For example, an associate producer may play the role of producer for part of a day, and consumer at other times.

In larger organizations, the administrative and production role is often the responsibility of several individuals.



## Administrators

MAP administrators are typically network engineers, IT professionals or senior media professionals who are responsible for setting up and configuring Windows servers, and maintaining networks. Often they are responsible for network security – controlling user names and passwords and granting access to corporate systems and assets.

The role of a MAP administrator typically includes specifying hardware purchases, installing MAP software, setting up authentication and access rights, and specifying where media is stored. Administrators are usually responsible for setting up capture cards, although the producer may take on the role of managing capture cards, as well as setting up media folder settings and destinations.

MAP administrators usually configure services with the management console.

## Producers

Producers are personnel who are associated with the production and management of media. They may be responsible for creating media folders, setting folder properties including determining who has access, ingesting media into the MAP media database (via drag-n-drop, 3<sup>rd</sup> party applications or live capture) and determining what versions are created and where they are stored. Typically, a producer is also responsible for managing metadata related to the media they are producing.

Producers typically configure MAP via MAP's Windows Explorer.

## Consumers

In the context of MAP, consumers are MAP users who utilize media and metadata in the course of their daily tasks. Typically, consumers primarily use MAP Explorer, MAP Player, MAP Quick Review, or MAP Search to browse media folders, search for media (by name, date and time, or the contents of metadata associated with the media they are seeking), and play media. They also may review metadata, and copy it into other applications.

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## MAP SERVICES ARCHITECTURE AND INTER-OPERATION

It is important that all MAP services and clients have proper access to all shared media locations, both physical and virtual. A *physical location* in MAP is the address of the server and directory path where the media files are stored, in Windows or UNC path notation. For example, C:\MediaStore – a local physical location, or \\MAPServer\MediaStore – a network physical location.

A *virtual location* in MAP is a URL, which identifies the virtual directory on the IIS Web server or the publishing point on a Windows Media server which contains the physical location of the media store itself. For example, <http://MyWebServer/Streaming/>.

It is also important to open and enable all communications ports and protocols to enable MAP services and clients to communicate and inter-operate.

Work with your IT staff to determine the level of authentication required to access shared storage locations and to assure that the required communications ports and methods are open on your network.

A MAP system consists of three Windows services. Each service performs a specific function.



- Capture.MAP (used with MAPreview) performs the function of recording live feeds based on automatic or pre-determined schedules, extracting track and label metadata, and registers the captured media file with associated metadata into the MAP Content database. Generally, the media captured by Capture.MAP are stored locally in shared network locations on the MAP Capture server's internal storage. To assure that this service has full authority to the network shares, you must log in with appropriate credentials.
- The heart of MAP is the MAP Content database. The Content database is controlled by Content.MAP. Content.MAP keeps track of media, metadata and other files associated with each MAP media asset in a virtual hierarchal media folder structure. Each media folder in a Content database has an associated group of data (Parent media asset, transcoded child media assets, track and label metadata, documents files and their respective network locations), collectively known as a MAP Binder. MAP Binders are indexed to provide searching for any element that is associated with its Parent asset. Content.MAP creates new MAP folders and binders on demand (from end users, Capture.MAP, and Factory.MAP), and provides client access to existing media folders and binders. Content.MAP's media folders contain properties governing their behavior. These properties consist of: authentication rules, user success rules, storage depot locations, metadata rules, notification plugins and binder expiration rules.  
Media folder properties may be inherited by sub folder, or they vary from folder to folder allowing for different behavior based on organizational needs. The Content service requires access to the all local and network storage locations containing media that is associated with a MAP binder, whether they are established through the Capture service or Content service. To assure that Content.MAP has full authority to the network shares, log Content.MAP in with the appropriate credentials.
- Factory.MAP provides media transcoding (flipping), media delivery, media analysis, and metadata extraction. Factory.MAP must also have adequate authority to read from all MAP network media storage locations. To assure that this service has full authority to the network locations log Factory.MAP in with the appropriate credentials.

## MAP Communication Ports

A MAP system's services can reside on a single server, or they can be distributed across several servers on a LAN, and MAP clients may be LAN or WAN-based.

A variety of communication ports are used by MAP services and client applications to communicate among MAP services, and also to communicate with MAP clients. These ports are required to be open between MAPreview servers and computers running MAP clients. These ports may be blocked by corporate firewalls, network firewalls, personal firewalls, or other applications. Consult with your network administrator for details.



### Note

*Assure that the following TCP ports are opened and unrestricted between servers and clients on your MAP System's network.*



Table 1–1. MAP Services and Applications Ports

MAP Service/Application	Port #
Content Service	8085
Capture Service	8086
Factory Service	8087
Archive Service	8088
Console Applet	8089
Receive Service	8090
Launch clients	8091
IIS Port	8000

### WebDAV

WebDAV is a set of extensions to the HTTP protocol which allows for common file system communications. WebDAV protocol is built into Windows, for use by Windows applications for file system tasks. MAP uses WebDAV when MAP clients including MAP Explorer, MAP Quick Review, and MAP Player communicate with Content.MAP to display and utilize media folders.

The default port is 80 and should not be changed. If other services, such as an IIS Web Server, are using port 80, IIS should be set to another port in order to accommodate MAP system requirements.

### HyperLaunch

Telestream's HyperLaunch protocol uses UDP and defaults to port 69. This port can be changed to another port as required, based on the destination's UDP port – a MAP Content server or HyperLaunch Receive Server.

### Gateway

The Gateway application uses TCP port 21 and 23 for FTP and email respectively.

### EventReader

The EventReader application uses TCP 23 for communications with an email server in order to send email alerts when MAP errors or failures are selected.

## Accessing MAP Media from Clients

There are three methods that MAP clients use to access MAP media via LAN or WAN from MAP client programs on distributed PCs.

### HTTP WebDAV Redirector through Content.MAP

- Requires a MAP client to be installed



- Progressive downloads – not good for multiple concurrent streams
- Does not support direct access to the time line until fully downloaded
- Authentication is performed through the MAP Content service
- If a MAP client cannot access media files directly from the physical location or through an aliased location this method will be used.

### **Accessing Media Directly from Physical Storage**

This method is used when accessing media on a Content server, Capture server or other physical network storage location.

- Authentication is performed through the client computer
- Requires each client to have read access to the physical storage locations
- Allows direct timeline access and multi-stream support. This method is very efficient but requires more care in setting up proper network access permission.
- The MAP Player will always default to the physical location if it can be accessed

### **Accessing Media Aliased via a Virtual Store**

When media is accessed from servers such as IIS or other Web server, or a media server including Windows Media Services or Helix Media Server, it is accessed via a virtual storage location.

- Provides the most efficient access to the media
- Authentication is performed through the Web server virtual directory or Media Server publishing point
- MAP Player uses this method if access to the physical location isn't available.

### **Streaming and Timeline Characteristics**

If media is aliased through a Web servers virtual directory:

- Streams use progressive download techniques
- Does not support direct timeline access until entire file has been downloaded to the client computer
- Does not support an efficient interface for multiple stream access through the MAP Player due to the nature of progressive download.
- Works well for simple media file viewing when accessed via MAP Search or SharePoint Web Parts.

If media is aliased through a Media Server publishing point (from servers including Windows Media Services or Helix Media Servers)

- Can support direct time line access to any location in the stream.
- Most efficient method of multi-stream access through the MAP Player
- Allows for easy access across LAN or WAN using MAP Search or SharePoint Web portals.

## **Choosing the Best Method for your MAP System**

The method you choose depends on the architecture of your network, the method you use to view the media, and the client used in access the media.

Use the factors above and the in-depth descriptions following, to determine how to set up your MAP system for the most efficient access to media files.



## Client Access to Media Files

Generally, client program access to media files in MAP requires read permissions to all network MAP media storage locations; however, access to media files can be aliased via Web virtual directories or media server publishing points. In these cases the Web or Media server requires the proper permissions established in order to access the physical storage locations. If a Web or media server will be used to stream media files, make sure the appropriate ports/protocols are opened (HTTP, RTSP, MMS, UDP, TCP, etc.).

## Streaming Media Delivery Considerations

MAP enables live capture streams and media files to contain a virtual alias URL. This virtual alias URL provides a method of accessing media files through Web Server virtual directories or Media Server publishing points. The following list of common protocols used by Web and Media Servers can help you determine protocol settings you'll need to make when implementing MAP. Consult your network administrator for more details.

### Web Server

Web virtual directories use HTTP over TCP. Default port: 80.



### Note

*If your Web Server will be running on a server also running MAP Content service, it must be set to a port other than port 80.*

### Media Server Streaming Protocols

**RTSP (Real Time Stream Protocol).** TCP 554 (In/Out), UDP 5004 (out), UDP 5005 (In/Out)

**MMS (Microsoft Media Server).** TCP 1755 (In/Out), UDP 1755 (In/Out), UDP 1024-5000 (Out)

**HTTP.** TCP 80 (In/Out)

## MAP Player Access to Media Files

When MAP Player plays media contained in a MAP binder, it accesses media from locations contained in a binder's storage location object. This object contains the physical address (and an alias URL, if it was populated within the media folder properties). The first attempt to access the media file directly is from the physical storage depot through the UNC associated with its physical location. If access is denied and an alias URL exists, the media will be stream from the alias URL. If there is no alias URL, MAP Player will play the media file by accessing the MAP binder through the MAP Explorer name space extensions using WebDAV (due to the nature of WebDAV the file may be progressively downloaded to the MAP Player instead of directly streamed).



Be aware that certain MAP Player functions only work when the media is accessed directly from the physical storage location (see Note below). Keep this in mind when setting up storage access for MAP clients.



### Note

*The MAP Player's Step function (one frame forward or backward) and Trim (allowing the creation of a new WMV file derived from mark-in and mark-out points) requires that the MAP Player have read permissions directly to the physical media storage location. Otherwise only reference playlist files can be generated based on the aliased or WebDAV locations.*

All browser-based access uses the alias URL to play a media file contained in a MAP binder. The alias URL property must exist in order for media to be played via browser-based MAP access.

## Physical & Alias Locations for Storage Depots

There are four important details to consider regarding a MAP storage depot:

1. There are two locations associated with each storage depot: a *physical storage location* and a *virtual alias location*.
2. The physical storage location is used to store media files to a local or network location.
3. The alias location is a secondary network location that may be an FTP address, a Web server virtual directory, or a media server publishing point.
4. In order for MAP Content to associate the *physical location* of media captured by MAP Capture with an *alias location*, the physical storage location and alias need to be added to the Content storage depot list. In addition, the Read-Only box must be checked to prevent the Content service from using this physical location.

When accessing media files via their physical or alias locations, consider these three factors:

1. From MAP Player, media files are accessed directly from their physical location if the client has read permissions to this location. If MAP Player does not have read permission to the physical location AND an alias location exists, the alias will be used. If no alias location is available, the media will be accessed via HTTP through MAP's .NET WebDAV re-director.
2. MAP Player's media trim feature (allowing the creation of a new WMV file derived from mark-in and mark-out points) requires that MAP Player have read permissions directly to the physical media storage location. Otherwise, only reference playlist files can be generated based on the aliased or WebDAV locations.
3. From a browser-based interface, a media file is always accessed via the alias location. If no alias exists, media access will fail.

## Web Server vs. Streaming Media Server

If you browse the Internet, then you are already familiar with Web servers such as IIS. However, you may not realize that when you stream audio and video content over the Internet, the content is most likely delivered from a streaming media server, such as Windows Media Server and Helix.

A streaming media server differs from a Web server in several ways:



- Web server delivers data as quickly as possible with no end-user control. In contrast, a streaming media server maintains a constant connection, regulating the data being sent to the client based on feedback from the player.
- Web servers do not use advanced protocols that enhance playback, and progressively download media to the client system. Streaming media servers stream playback control options such as fast forward, rewind, jump directly to a search result or to a specific time code. You can also start, stop, or pause the stream at any time, just as you can when watching a movie with your VCR.
- Web servers do not support live stream. Live streams originate directly from a MAP Capture server's encoder(s) which are restricted in the number of concurrent connections and maximum CPU overhead.

## Streaming Server Concepts

The content your Streaming Media server streams to clients may be either a live stream from MAP Capture or preexisting content that is stored in a physical MAP storage depot.

If you are planning to stream live content from your MAP Capture system, a Media Streaming server publishing point will need to be created. This publishing point connects to the output of the Capture server's encoder on the TCP port designated in the Broadcast properties in the Settings tab of each channel. In addition, to stream media files stored in a physical MAP storage depot, a publishing point needs to be established to that physical location.

To learn more about the basics of streaming using Microsoft's Windows Media Services, download the Windows Media Services Help document from <http://go.microsoft.com/fwlink/?LinkId=33119>.

### Streaming Media Publishing Points

Streaming Media servers use publishing points to provide a common aliased URL to media files stored in MAP storage depots or to the live streaming output of a MAP Capture encoder. These connections are controlled and managed through the Stream Media server.

### On-Demand Publishing Point

You will need to establish an On-Demand publishing point for each physical MAP Storage depot containing media. (See the Microsoft Windows Media Services documentation for details on establishing a publishing point on the Streaming Media server – <http://go.microsoft.com/fwlink/?LinkId=33119>).

### Associating a Publishing Point to a MAP Storage Depot

The association of physical storage location to an alias URL (*publishing point*) is done within the media folder Storage property dialog. For every physical location storing media in MAP, an entry needs to be made in the media folder Storage property.

### Live Broadcast Publishing Point

If you will be viewing live streams from MAP, you need to establish a live Broadcast publishing point for each MAP Capture channel. (See the Microsoft Windows Media Services documentation for details on establishing a publishing point on the Streaming Media server – <http://go.microsoft.com/fwlink/?LinkId=33119>).



## Associating a Publishing Point to a Live MAP Capture Encoder Stream

The association of a live MAP Capture encoder stream to a Streaming Media server's Broadcast publishing point is performed within each MAP Capture channel's Broadcast property in the Settings tab (for MAP V2.02 and above).



### Note

*When overlap is enabled on a MAP Capture encoder, the TCP port will toggle between the Primary and Secondary ports. To accommodate for this, develop a Server Side playlist for your Publishing Point by including both ports in a failover scheme. This playlist will first attempt to connect to the Primary port. If it is not currently active it will connect to the Secondary port. Use Repeat Count with the value "indefinite" to loop continuously. In this case, the Channel's Primary and Secondary URL entries will be the same. See playlist example below.*

### Server Side Playlist for Broadcast Publishing Point

This is an example of a server side playlist set up for a broadcast publishing point.

```
<?wsx version="1.0" encoding="utf-8"?>
<smil repeatCount="indefinite">
  <media src="http://map-
cap01:10000?WMNoDataTimeout=1000"/>
  <media src="http://map-
cap01:10001?WMNoDataTimeout=1000"/>
</smil>
```

## MAP COMPONENTS

MAP is a collection of software components, each with a specific role in a MAP system. Some components are services or administrative applications, responsible for tasks including: schedule and capture live media, organize and provide access to media and metadata, and automatically transcode new media, plus automatic media archiving and restoration, for example.

Other components are client and utility programs. Client programs such as MAP Explorer and MAP Player are powerful extensions to Microsoft technologies, which allow users to search and update metadata and play media. MAP is also accessible via Web browsers, and a .NET Web Service interface provides extensibility and customization for special MAP clients.

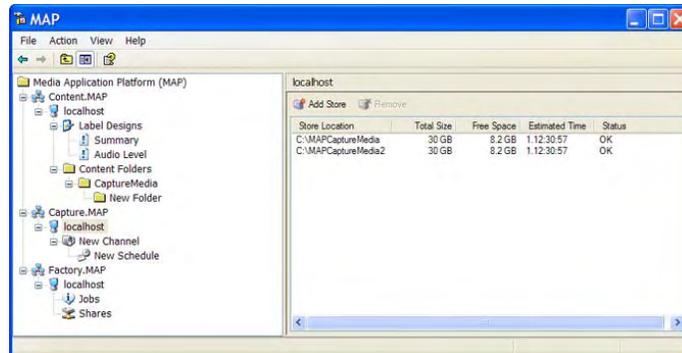
## MAP Management Consoles

MAP management consoles (Figure 1-2) are installed during a services installation as a plug-in to Microsoft Management Console on the MAPreview



server for centralized configuration and management of Content, Capture, and Factory services by administrators.

Figure 1–2. MAP services management console



The management console is very flexible. You can use one or more consoles, and manage any combination of services you have installed.

## Capture.MAP

Capture.MAP is a service, that is used by producers to capture and digitize base band audio/video media – up to 4 live feeds. Capture.MAP controls capture devices (often called capture cards) and captures and stores media according to the Capture.MAP schedule. Depending on the number of capture cards and processor speed, several channels can be simultaneously captured on each Capture.MAPPreview server.

## Capture Cards

If you plan to capture live media, you must purchase and install video capture cards in your server. MAP supports Osprey 440 cards.

When you purchase capture cards, you should install and configure them according to the manufacturer's instructions.



### Note

*Telestream may support additional capture cards. If you are using a capture card that is not identified here, contact customer support to determine if Telestream should consider qualifying the card.*

## Content.MAP

Content.MAP is the heart of MAP. The Content.MAP service is used by producers to organize, manage and display media and associated metadata. It can be configured with rules to implement delivery, transcoding, expiration, access rights, metadata generation and media indexing. This service processes all the textual and track metadata searching.

Content.MAP service can be installed on the Capture.MAPPreview server or on a separate server. Telestream recommends a separate Content.MAPPreview server for larger applications; especially those requiring a large number of capture services (now or for future expansion) as well as a large number of concurrent clients.

Virtual folders in MAP called *media folders* each have a set of user-configurable properties that control how Content.MAP manages the media contained in them.



These properties (or rules) enable features including delivery, transcoding, expiration, access rights, metadata generation, and media indexing.

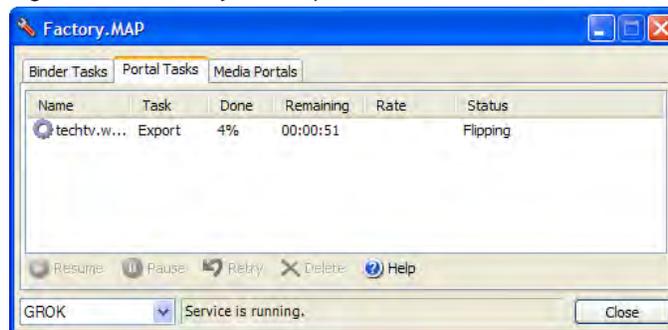
Content.MAP maintains all of the media folder properties, media links, and label and track metadata in its media database. Content.MAP service also processes all the textual and track metadata searching.

## Factory.MAP

Factory.MAP is a service which is used to transcode media from one format to another, and deliver it to a media folder or an external file system (an on air server, for example). Just like Content.MAP service, Factory.MAP may also be installed on the Capture.MAPreview server, depending on server CPU utilization requirements.

Factory.MAP also includes a console, accessible in the tooltray, for monitoring Factory.MAP. The console is installed automatically whenever Factory.MAP is installed.

Figure 1–3. Factory.MAP operator console



Factory.MAP is not used explicitly by end users. Factory.MAP is activated by Content.MAP to create new media versions (based on versioning rules established for each media folder), and for transcoding tasks initiated when an end user drops media in special folders called *media portals*. Media portals are created in the Factory.MAP management or operator console and then added to MAP Explorer using the Add Media Portal Wizard.

## Ratings Parser

The Ratings Parser is responsible for generating XML files with ratings metadata extracted from ratings spreadsheets, based on configuration file generated by the Ratings Configurator. When ingested via Capture.MAP on incoming media, the ratings are available for viewing in MAP Player and MAP Explorer.

## EventReader

The EventReader is also automatically installed whenever a service is installed. The EventReader is responsible for monitoring MAP services events as they are written to event logs, and sending notifications (as configured by the customer) when an abnormal condition occurs.

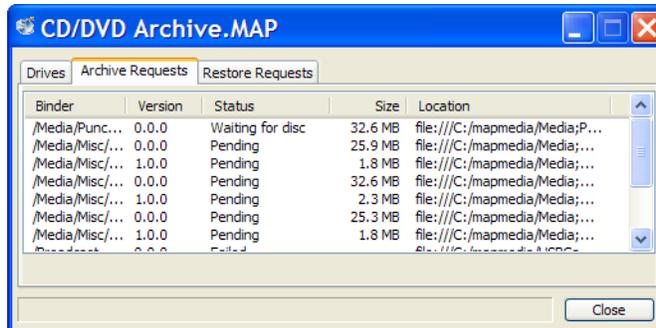
## Archive.MAP

Archive.MAP is a utility client that provides support for archiving the actual media that is referenced in the Content.MAP database. Archival is an ongoing process based on the rules set up within media folders in Content.MAP. There is



no default device specified for MAP archive. Archive.MAP is installed when you install MAP services.

Figure 1–4. Archive.MAP operator console



Storage devices include local or network folders, CD-R/W drives, DVD-R/W drives, and SAN devices. Additional archive automated methods are available based on Microsoft's Removable Storage Manager. In a multi-server environment, Telestream recommends that Archive.MAP be installed on the same server as Content.MAP (and not on a Capture server), because these applications are not time-critical for the operation of the system.

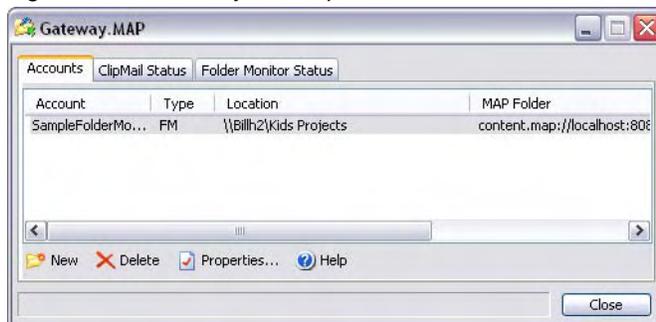
When a user attempts to access media that has been archived to off-line storage, Content.MAP requests that a restore be performed to move the media back into on-line storage by issuing a restore request to Archive.MAP.

Archive.MAP is not a MAP Content database archiving application. You need to provide backup and archive processes for MAP data yourself.

## Gateway.MAP

Gateway.MAP allows you to ingest media from a ClipMail appliance or from a local or network directory (called a *monitored folder*) directly to a MAP media folder. Gateway.MAP is optional, and installed as a separate install process.

Figure 1–5. Gateway.MAP operator console



Once you install Gateway.MAP on a server and add accounts with media folders, your ClipMail users and other systems can deliver media directly to a media folder via the gateway from anywhere in the world.

## HyperLaunch Receive Server

HyperLaunch is Telestream's patent-pending high-performance, fault-tolerant protocol providing guaranteed, secure delivery of media and related documents anywhere in the world from remote or portable locations.

HyperLaunch Receive Server performs three important functions:



- Resume transfers interrupted by network failures
- Resume transfers when sender changes locations
- Enhance throughput over wireless and other high-loss connections to optimize throughput often over 90%.

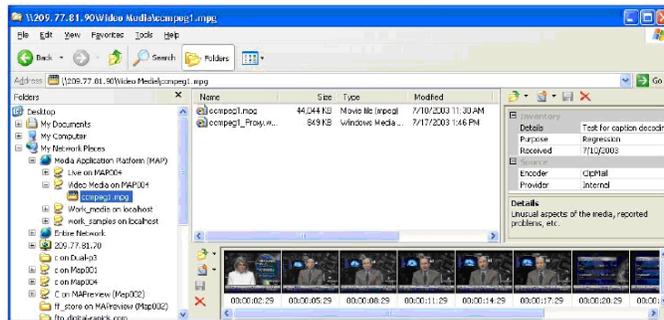
HyperLaunch builds on TCP/IP to establish sessions between MAP and Telestream's Launch applications (Windows and Macintosh) for high-performance, guaranteed, secure media delivery.

HyperLaunch Receive Server is automatically installed when MAP services are installed.

## MAP Explorer

Telestream's MAP Explorer application (Figure 1–6) is an extension of Windows Explorer and operates on Windows XP and Windows 2003 computers. MAP Explorer communicates with the Content.MAP service and allows MAP users to manage media, search for media, and play, trim and view media in MAP media folders.

Figure 1–6. MAP Explorer is integrated in Windows Explorer



MAP Explorer is integrated directly in Windows Explorer and automatically displays special frames for media files and associated business documents, and metadata tracks and labels for selected media.

In addition to using MAP Explorer to view and manage media, users can import or export media directly from MAP into 3<sup>rd</sup> party media applications (software and hardware), including NLEs, hardware encoders, software transcoders, PowerPoint, Microsoft Producer, and other media applications.

## MAP Player

MAP Player is a specialized, high-performance media player (based on Windows Media Player), which can play up to 25 media files at one time – in sync. In



addition, users can search for specific occurrences of metadata, create mark-in and mark-out points to trim and save new clips.

Figure 1–7. MAP Player is a powerful, specialized media player



MAP Player makes it easy for producers to review several edits of the same scene simultaneously, shots from multiple camera angles or to watch competing news broadcasts at the same time, for example. MAP Player is automatically installed when Explorer.MAP or Quick Review clients are installed.

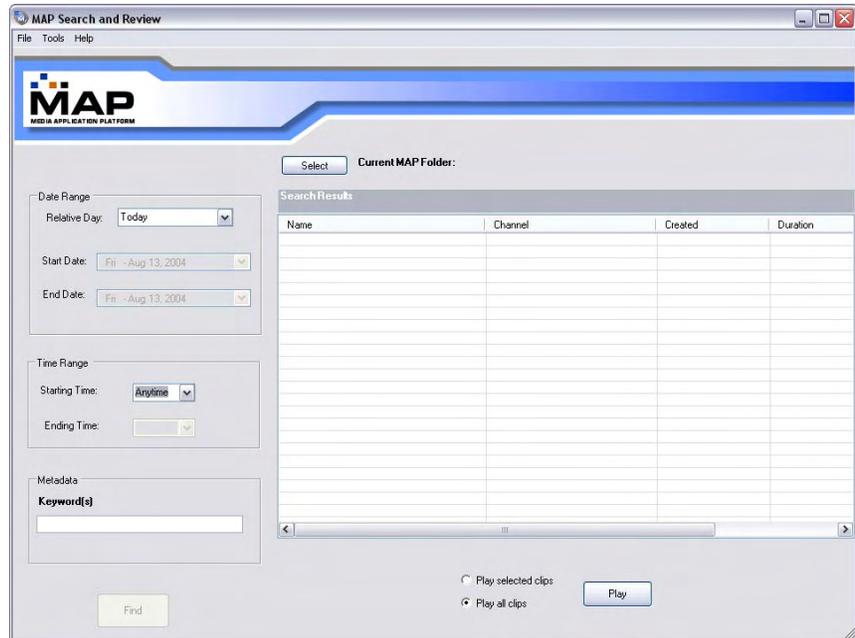
## MAP Quick Review

Quick Review is a client Windows application, which may be installed separately on any client computer running Windows XP or Windows 2003.



End users can use MAP Quick Review as an alternative to MAP Explorer when they only want to locate and play media. MAP Quick Review is ideal for users who are not updating metadata or performing other media management tasks.

Figure 1–8. Quick Review is a specialized search and play application



You can use MAP Quick Review to easily connect to media folders and search for media. Using MAP Quick Review, users can:

- Connect to media folders on the local computer or via the network
- Search metadata by date, time, and keyword
- Save searches and open them later for re-searching
- View details of media hits
- Select one or more clips for play in MAP Player.

## MAP Search

MAP Search is an ASP application can be installed on Windows servers running IIS. When installed, users can run MAP Search on any accessible Windows and Mac OS X computer to search and play media in your MAP media database using a Web browser.

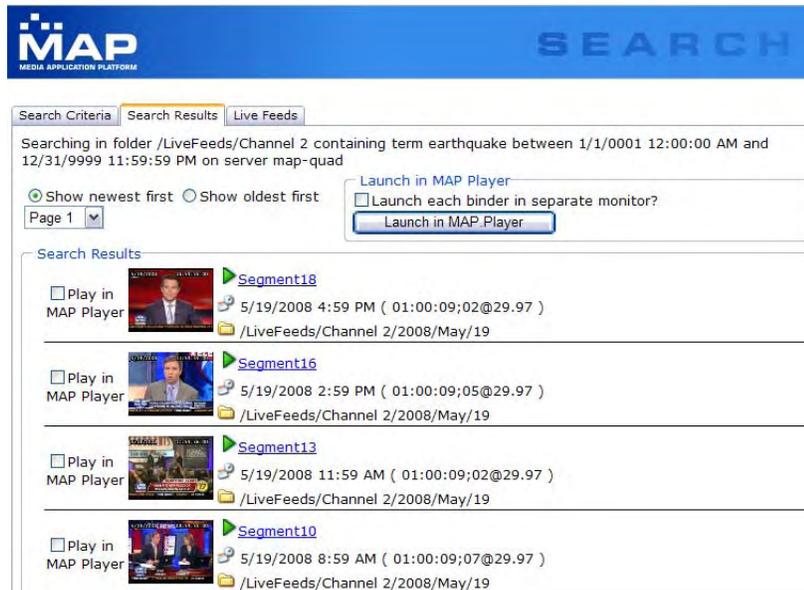
For users who want to search, view or download media, the Web browser is an ideal way to provide easy access. When users log on to MAP via MAP Search using a URL you provide, they can search and play media directly in a Web browser, for example:

[http://MAPreview\\_Server:8000/MAPClient/Search.aspx](http://MAPreview_Server:8000/MAPClient/Search.aspx)



MAP Search is a DLL which communicates between the ASP page and the co-located Content.MAPreview server, and a Web page which allows you to search on metadata and play the media.

Figure 1–9. MAP Search allows users to use MAP via a Web browser



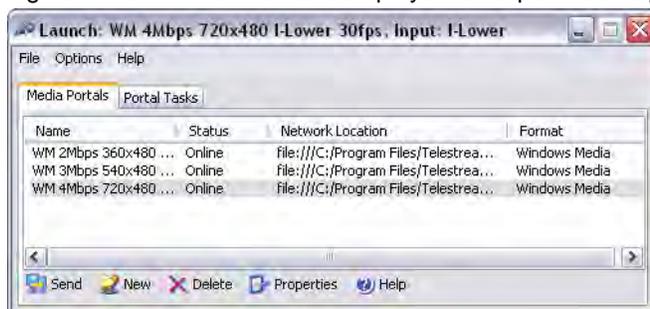
For MAP users who need only search and play access to media or metadata in the MAP media database, MAP extends the power of Microsoft IIS by integrating MAP Search. This allows end users to access MAP using only a Web browser. MAP users can use the MAP Web site to search and play media anywhere, anytime.

## Launch

Launch is a robust file transfer client for Windows and Mac OS X that improves and simplifies delivery of broadcast-quality media via LAN, corporate intranets, or wireless Internet, including WiFi connections commonly found at Internet cafes, hotels, and event sites, plus 3G wireless broadband where available in urban centers – making it easy to deliver media from virtually any location.

Launch connects to HyperLaunch Receive servers via media portals, which end users set up to transcode, optionally add other documents and metadata, and deliver the bundle to MAP or other servers.

Figure 1–10. Launch console displays media portals and portal tasks

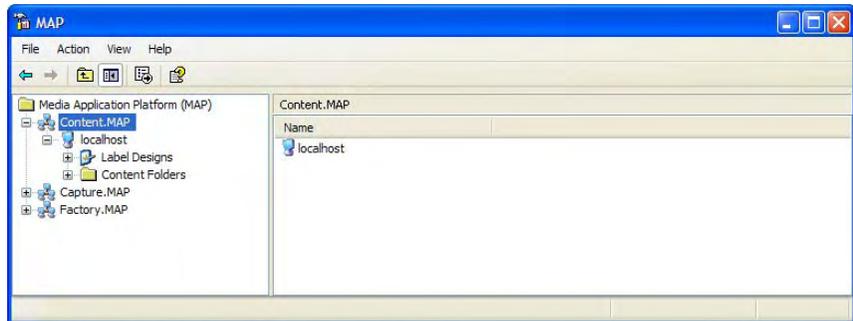


Launch can be installed separately on client computers. Launch is not included in the MAP installer. Launch is available separately from Telestream.

## Label Designer

The Label Designer is automatically installed whenever MAP services are installed. Label Designer can be used to create custom metadata labels. The Label Designer can be accessed from the Management Console or MAP Explorer.

Figure 1–11. Use Label Designer to create custom metadata tags for media



The Label Designer allows you to design text metadata labels and allow your end users to store the information you need and associate it with the media they are capturing, ingesting, and transcoding.

Label Designer is also included with Launch applications.

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## Up & Running

If you have purchased a pre-installed MAPreview system, use this chapter to configure the hardware for your network and configure MAPreview to get it up and running quickly.

### Topics

- [MAP Up & Running Overview](#) on page 2-2
- [Locate and Install the MAPreview server](#) on page 2-2
- [Power On and Configure for LAN](#) on page 2-3
- [Checking and Configuring MAP Settings](#) on page 2-4



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### Caution

**Before configuring MAP software, Telestream recommends backing up programs and data on your server, and making sure that your MAPreview server is included in your ongoing backup/archive policy.**

**Telestream also recommends creating a restore point before configuration. To create a restore point, click start > Programs > Accessories > System Tools > System Restore. In the System Restore dialog, click Create a Restore point and click Next. Name this restore point (*Before MAP Config*, for example) and click Create.**

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## MAP UP & RUNNING OVERVIEW

To configure a pre-installed MAPreview server to capture and use video in your environment, you'll perform these tasks:

1. Locate and install the MAPreview server (immediately following).
2. Power on the server and configure network settings for your LAN (page 2-3)
3. Plug the MAP dongle into your MAPreview server to operate Capture.MAP in production mode.
4. Restart your servers so that the MAP services begin operating.
5. Optionally install Ratings Parser if you plan to ingest daily show ratings.
6. Configure MAP Web Search if you plan to provide Web browser access to MAP media.
7. Optionally install Gateway.MAP.
8. Install MAP clients on client computers (MAP Explorer, MAP Player) for your MAP end users.

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## LOCATE AND INSTALL THE MAPREVIEW SERVER

To prepare servers for MAP services, first confirm that each server meets the hardware requirements (following). Then perform the following steps.

### Unpack the MAPreview server

Unpack the contents of the original shipping container; identify each component and determine that they are in satisfactory condition. If any shipping damage is visible, note it on your shipping documents and contact your shipping agent and Telestream or authorized Telestream distributor.



---

#### Note

*Save all packaging materials and store them in a safe place. If you require service – or move your MAPreview server – the packaging materials may be used for safe shipment.*

---

### Environmental and Power Operating Requirements

Plan adequate space for cable routing from the back of the chassis. Ensure that the MAPreview server is in close proximity to your Ethernet and video cables, and that cable connectors are not stressed, bent, or crimped.

When installing the MAPreview server, ensure that you install it in a place and environment that meets the hardware manufacturer's venting, atmospheric, temperature, and power requirements.

### Locate the MAPreview server

Ideally, rack-mount your MAPreview server for safety and operational efficiency. Alternatively, select a stable and level, smooth, hard surface. Avoid carpeted or cloth-covered surfaces which may inhibit airflow or reduce heat dissipation, and contribute to overheating. Also, select a safe isolated location with network access, proper environment and protection from accidental contact



with the device, and power and data transmission cables by users that might cause a trip hazard, damage the MAPreview server, or cause it to fall.

## Connect Power and Ethernet Cable

Attach the power cord and Ethernet cable to the MAPreview server.



### Caution

**Telestream recommends connecting computer equipment to AC power through an uninterruptible power supply (UPS) with surge protection. Fluctuations in commercial supply voltage can damage unprotected electronic equipment.**

**A high-quality surge suppressor may be substituted if a UPS is not available, but it may not provide adequate protection.**

## Attach MAP Dongle

Remove the dongle from its protective packaging and insert it into a USB port before powering up the MAPreview server.

## Connect Video and Audio

With the MAPreview server off, connect up to four composite video in BNC cables to channels 1 through 4, routed with the appropriate signal for video capture. Also, connect audio cables (RCA jacks) to associated audio input jacks on the card. Make sure that each cable is labeled to insure that you know which station/source video is on each cable.

---

## POWER ON AND CONFIGURE FOR LAN

### Power on the MAPreview server

With power, Ethernet and video connected, and the MAP dongle in place, power up the MAPreview server.

### System Log In with Administrative Privileges

When the MAPreview server boots up, log in. using the default user name and password. The default user name is *mapuser*, and the password is also *mapuser*. For security purposes, you may want to change the user name and password. The default computer name is *MAPreview\_Server*.

The default user name and password is part of the local administrator's group. It is necessary to maintain a login with administrative privileges for MAP Content, MAP Factory, and MAP Capture services.

**Changing the Machine Name.** If you change the name of the MAPreview server, you must modify some of the pre-defined storage paths to reflect the new server name. There are two places where you need to change the name.

The first is Capture Server properties ([Capture.MAP Administration](#) on page 4-19), the second is Media Folders ([Setting Media Folder Properties](#) on page 4-13). You should use UNC paths to identify these locations.



## Adding the MAPreview server to a Network

Each MAPreview server is set up at the factory to use DHCP so that it can automatically obtain a network address from your DHCP server and operate correctly on your network.

If you do not permit DHCP or you want to assign a specific IP Address to this computer, power up the MAPreview server and modify the TCP/IP settings now.

---

## CHECKING AND CONFIGURING MAP SETTINGS

MAPreview is set up to capture 4 channels at 1 hour segments 24 hours per day. Before beginning capture, review all MAP settings to make sure they meet your requirements. For support, contact Telestream ([Support and Information](#) on page About-1).



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### Note

*For detailed information on configuring each MAP service, see [MAP Services Configuration & Administration](#) on page 3-1.*

---

## MAP Capture

The default channel settings are: 320x240 350kb/s @29.97. Audio 48Kbps 32kHz stereo. To learn about managing and configuring MAP Capture, or to change these settings, see [Capture.MAP Administration](#) on page 4-19.

All four channels are configured with a schedule to capture 1 hour segments 24 hours per day. Video is 320 x 240, 350Kbps @ 29.97FPS for NTSC and 25FPS for PAL. Audio is 48Kbps 32 kHz stereo.

Before you start capturing, if you need to make changes, perform the following steps:

1. Name the channels appropriately, based on the input signal to the Osprey440 capture card (the card is marked 1-4 and corresponds to each of the pre-configured channels, ch1-4). Channel 1 (ch1) uses source one on the capture card, ch2 uses source two, etc.
2. Check the schedule for each channel and adjust it accordingly.

All storage locations for MAP Capture media stores (in Channel Properties) should be referenced by machine name, in UNC format.

## MAP Player

If you plan on using MAP Player to play video you've searched for in MAP Search, you need to install the MAP Player on each client Windows computer. (MAP Player is not available on Mac OS X – use Flip4Mac WMV ([www.flip4mac.com](http://www.flip4mac.com))). To install MAP Player, install MAP Quick Review. See [Installing MAP Quick Review](#) on page 3-28.

## MAP.Content Media Folders

All media is stored in the *MAPstorage* directory. The top level media folder is named *Live*. Media folders are set up to provide closed caption, summary label, and key frame extraction. To learn about configuring and managing media folders in MAP, see [Content.MAP Administration](#) on page 4-11.

Media expiration default is 30, 60 or 90 days (based on drive size and purchase options), and may be altered by you at any time.



All storage locations for MAP Content media stores (in Folder Properties in the Storage tab) should also be referenced by machine name, in UNC format.

## MAP Search

Before users can use MAP Search in a Web browser on their own computer, you need to configure the following ([Installing MAP Search](#) on page 3-31):

**Feature List.** Edit the web.config file to enable the features of Search you want your users to have. By default, MAP Player is disabled in MAP Search; live feeds is enabled. To play media with MAP Player on remote computers, you must install MAP Quick Review, which includes MAP Player.

**MAPreview server List.** Edit the ContentServers.xml file to include the list of MAPreview servers users have access to if more than one.

**Live Feeds.** Edit the LiveFeeds.xml file to display the list of live feeds you want users to be able to monitor in MAP Search.

**MAP Search URL.** You need to form a URL based on your machine name, IIS port and provide it to your end users to run the application.

The default Web Page access and port forms this URL: `http://localhost:8000/MAPClient/search.aspx`. (This URL only works when used in the Web browser directly on the MAP server.)

For example: `http://MAPreview_Server:8000/MAPClient/Search.aspx`.





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# Installing MAP Services, Clients, & Utilities

Use this chapter to install MAP services and utility clients, and install MAP clients on user's computers throughout your organization. You'll also use this chapter to make sure your servers meet platform requirements and attach a USB dongle to the MAPreview server to enable the MAP license.

## Topics

- [MAP Installation Overview](#) on page 3-2
- [MAPreview server Platform and Preparation Requirements](#) on page 3-3
- [Hardware Requirements](#) on page 3-3
- [Software Requirements](#) on page 3-4
- [Windows OS and Network Configuration](#) on page 3-7
- [MAP Port Configuration](#) on page 3-9
- [MAP Client Platform OS Requirements](#) on page 3-11
- [MAP Web Client Platform OS Requirements](#) on page 3-11
- [Using the MAP Installer Console](#) on page 3-12
- [Installing MAP Services](#) on page 3-14
- [Installing Gateway.MAP](#) on page 3-19
- [Installing MAP Ratings Parser and Configurator](#) on page 3-21
- [Attaching MAP USB Dongles](#) on page 3-23
- [Viewing Machine ID and License Information](#) on page 3-23
- [Updating the MAP Dongle](#) on page 3-24
- [Installing MAP Explorer](#) on page 3-25
- [Installing MAP Quick Review](#) on page 3-28
- [Installing MAP Search](#) on page 3-31
- [Re-installing ASP.NET for IIS](#) on page 3-35



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### Caution

**Before installing software, Telestream recommends backing up programs and data on your server.**

**Telestream also recommends creating a restore point before installation. To create a restore point, click start > Programs > Accessories > System Tools > System Restore. In the System Restore dialog, click Create a Restore point and click Next. Name this restore point (*Before MAP Install*, for example) and click Create.**

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## MAP INSTALLATION OVERVIEW

If you are updating MAP to a newer version, be sure to follow the steps recommended in [Upgrading a MAP System](#) on page 8-2.

If you are installing a multi-server MAP system, Telestream recommends that you install MAP on a single server first and take the tours in the MAP Quick Start Guide to become familiar with MAP's features.



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### Note

*If you are performing a multi-server installation, be sure to complete a multi-server installation plan. See [Chapter 5, Multi-Server Planning and Configuration](#) on page 5-1.*

---

To install MAP services, clients, and utilities in your environment, you'll perform these tasks:

- Plan which MAP services and utilities to install, and which servers to use.
- Audit and upgrade servers to meet MAP hardware & software requirements.
- Uninstall MAP services if you're upgrading. You *must* restart your computer before re-installing MAP.
- If you plan to access MAP via Web browsers, install IIS on the server before installing MAP services.
- Perform a a MAPreview server install (with EventReader, Label Designer, MAP Player, Quick Review, Explorer) and other software components as required by the MAP Services Installer Wizard.
- Plug the MAP dongle into your MAPreview server to operate Capture.MAP in production mode.
- Restart your servers so that the MAP services begin operating.
- Optionally install Ratings Parser if you plan to ingest daily show ratings.
- Optionally install MAP Web Search if you plan to provide Web browser access to MAP media.
- Optionally install MAP SharePoint Web Parts if you plan to publish MAP media via SharePoint
- Optionally install Gateway.MAP.
- Optionally install HyperLaunch Receive Server and Launch clients.
- Install MAP clients on client computers (MAP Explorer, MAP Player, and MAP Quick Review) for your MAP end users.



---

### Notes

*Don't plug in a MAP dongle before installing MAP. Windows may not have the appropriate driver.*

*The MAP installer copies several software components to various directories on the server. To install all software, you must log on with a User ID that has administrative privileges.*

*Be sure to restart your computer before performing an installation if you previously uninstalled MAP Services to repair or upgrade MAP.*

*Make sure that the Services window (Control Panel > Administrative Tools > Services) is NOT open during installation, or MAP services can not be installed and registered as a service.*

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## MAPREVIEW SERVER PLATFORM AND PREPARATION REQUIREMENTS

To prepare servers for MAP services, first confirm that each server meets the hardware requirements (following). Then perform the following steps.

### Recommended Tasks

These tasks are optional, but highly recommended before installing MAP:

1. Create partitions and initialization drives.
2. Perform an operating system installation, plus service packs and upgrades as indicated by Microsoft Windows Update Service.
3. Set up and configure Windows OS and network settings to best meet the rigorous networking requirements for MAPreview server operation.
4. If MAP will be accessed via a Web browser, activate IIS on a port other than 80. MAP services use port 80; the recommended port for IIS is 8000.
5. Ensure that no media applications are installed or running on this server, such as DVD or VCD decoders, or other media transcoding applications.

### Required Tasks

These two tasks are required:

1. Audit each server and perform hardware modifications or upgrades necessary to qualify the server for the hardware requirements for MAP services, including hard drives, CD/DVDs, additional RAM, and capture cards.
2. Download each software component from the Microsoft Web site, and install or upgrade each component and configure it as necessary to qualify each platform for running MAP services.

### Hardware Requirements

Drive/partition requirements depend on the amount of data you plan to capture.

#### Single MAPreview server Drive and Partition Requirements

You should configure a MAPreview server that is intended to run all MAP services with at least 2 hard drives, or with a single hard drive or RAID with 2 or more partitions. The OS and MAP drive/partition should be at least 50GB, allocated exclusively to MAP services and related MAP software, and the MAP database.

The other drives or partitions should be sized according to media capture requirements and exclusively allocated to captured media.

#### Capture.MAPreview server Drive and Partition Requirements

You should configure each Capture server with at least 2 hard drives, or with a single hard drive or RAID with 2 or more partitions. The OS and MAP drive/partition should be at least 20GB so that you can install Windows, and also install MAP services on the OS/MAP drive.

The other drives or partitions should be sized according to media capture requirements and exclusively allocated to captured media.



## Content.MAPreview server Drive and Partition Requirements

You should configure each Content server with at least 2 hard drives, or with a single hard drive or RAID with 2 or more partitions. The OS-only partition should be large enough so that you can install Windows.

Install MAP services on Content.MAPreview servers on a separate drive/partition. The separate drive/partitions should be 50GB or bigger, and allocated exclusively to MAP services and related MAP software, and the MAP database.

## Capturing Media

If you plan to capture one or two channels of media, store less than 200GB of media and connect five or less MAP clients concurrently, you can install and operate MAP on a single server.

Table 3–1. MAPreview server Hardware Requirements

Component	Description
Processor	Dual Pentium® 4 or Xeon processors, 2.0 GHz or higher, with 512KB L2 cache
RAM	At least 2,000 MB (2 Gigabytes)
Disk Space	120 GB for media storage, 50 MB for MAP software
Ethernet	100 Mbps Ethernet
Sound	Sound card (must be present for production of Windows Media files) and playing audio in MAP Player
CD or DVD	4X or higher DVD+RW CD drive for archiving

A single-server system is designed to support all MAP services and optionally, IIS, with up to one medium resolution or two low resolution capture processes, and up to 5 client programs simultaneously logged on performing light- to moderate-duty tasks.

The server's CPU speed and drive capacity depends on the amount of media you plan to process and transcoding speed you require. Faster and bigger is better.

Likewise, the capture card and slot or port requirements for your installation depend on your media capture requirements.

## Software Requirements

The required operating systems for operating MAP services are Windows XP Professional or Windows Server 2003.

Table 3–2. MAP Services Required Software Components

Component	Description
Microsoft J# .NET Runtime	Version 1.1.4322 or later
Microsoft .NET Framework	Version 1.1.4322 or later
Windows Media Encoder 9	Required for Capture.MAP
Windows Media Player	Version 9.00.00.3008 or later or Version 10



Table 3–2. MAP Services Required Software Components

Component	Description
Windows service packs, hot fixes & other updates	Per Microsoft Windows Updates Service
Windows Internet Information Services (IIS)	Install the World Wide Web Service only

## Required Subsystems

When you install MAP services, the installer determines if J#.NET Runtime, Microsoft.NET Framework, Windows Media Player, QuickTime 6, or Windows Media Encoder 9 are missing or obsolete, and prompts you to install them as part of its installation process.

### Windows Media Player

If Windows Media Player is missing or obsolete, the installer prompts you to download the installer from the Microsoft Web site and install it.

**Install:** To download the Windows Media Player installer, go to [www.microsoft.com/windows/windowsmedia/10](http://www.microsoft.com/windows/windowsmedia/10) series.

Download and install Windows Media Player 10. (Windows Media Player 9 is no longer available for Windows XP, and Windows Media Player is pre-installed on Windows 2003.) Alternatively, you can use Windows Media Player 11 on Windows XP; it is not available for Windows Server 2003.

### QuickTime 6 (optional)

If QuickTime 6 is missing or obsolete, the installer prompts you to install it as part of its installation process if you require QuickTime. QuickTime 6 is an optional component and QuickTime 7 is *not* compatible with MAP.

### Windows XP Service Packs, Hot fixes, and Updates

**Audit:** Right-click on My Computer to display the Properties window. In the General tab, verify that Service Pack 1 (or later) is installed.

**Update.** In the Automatic Updates tab, Telestream recommends that you check Automatic Updates and install all recommended updates, or confirm that your operating system is current.



### Note

*If you install Service Pack 2, the Windows firewall is enabled by default. For MAP services to operate, disable the firewall. Open the Control Panel > Security Center window. Click on Windows Firewall, and in the general tab, select Off and click OK.*



## MAP Web Search

If you plan to use MAP Web Search (or use third-party Web clients or develop your own client using MAP SOAP services), the following software is required.

Table 3–3. MAP Web Search Required Software Components

Component	Description
Microsoft Visual J# .Redistributable Package	Version 2.0 or later
Microsoft .NET Framework	Version 3.5 or later
Windows Internet Information Services (IIS)	Install the World Wide Web Service only

IIS should be installed on the server before you install MAP services and .NET. IIS must be configured to use a port other than port 80 (MAP services use port 80). Telestream recommends using port 8000.



### Note

*The requirement to configure IIS to use a port other than port 80 does not apply when IIS is running on a server separate from the MAPreview server.*

**Audit:** To determine if IIS is activated on your server, open Control Panel > Add/Remove Programs. Click Add/Remove Windows Components in the toolbar to launch the Windows Components Wizard and see if the Internet Information Services (IIS) checkbox is already selected.

**Install:** To activate IIS, open the Control Panel and run Add/Remove Programs. Click the Add/Remove Windows Components icon in the toolbar on the left to launch the Windows Components Wizard.

Check the Internet Information Services (IIS) checkbox and click Next to activate IIS. Be sure to change the default port (80) to another number, suggested 8000. *Do not install SMTP or FTP.*

To validate that IIS is running, open Control Panel > Administrative Tools. Click on the Internet Services icon to launch the IIS console.



### Notes

*If you install MAP services before installing IIS, you need to re-register ASP.NET for use with IIS. See [Re-installing ASP.NET for IIS](#) on page 3-35.*

*If IIS is already installed for port 80, change the port in the IIS management console. Open the local computer, then open the Web Sites folder. Select Properties on the Default Web site, update the port number (suggested port: 8000) and click OK.*

*Restart IIS to take effect.*



## Windows OS and Network Configuration

For optimum performance and reliability, and to mitigate the change of network communications failures that prevent MAP services and clients from connection and interoperation, you should configure Windows on each MAPreview server, and configure network settings on each MAPreview server as recommended in this section.

**Create MAP Users.** Create two MAP users: one for MAP and IT administrators for administration, and one for MAP services to execute with.

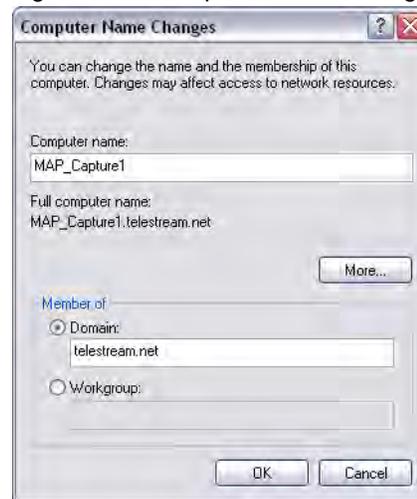
Create MAPUSER (or other name you choose) with administrative privileges. This user should be used for logging on to install and manage MAP or Windows.

Create MAPSERVICES (or other name you choose), also with administrative privileges. This user should be assigned to each MAP service to log in with when they run on the server.

If MAP is installed on a domain, the services should be logged in with a domain user account with sufficient local administration and network privileges. Usually, the IT group will create a MAP domain user with the necessary privileges.

**MAPreview server Identity.** In Computer Name Changes, set the Computer name to one that identifies this server as part of a MAP system (MAP\_Content, or MAP\_Factory1, MAP\_Factory2, MAP\_Capture, etc.). Set the Domain or Workgroup name as required. All MAPreview servers should be in the same domain/workgroup. To display Computer Name changes dialog, right-click My Computer. In System Properties > Computer name tab, click Change.

Figure 3–1. Computer Name Changes dialog



Telestream recommends placing multiple MAPreview servers on the same switch for optimal network communication, and recommends against the use of a hub.

**Assign Network Adapter Parameters.** Implement static IP addresses for each MAPreview server. Because MAPreview servers must maintain constant communication to interoperate, use static IP addresses to reduce the likelihood of inter-service communication failure. Do not use DHCP to provide an IP address that can change without notice and cause MAP system failure.

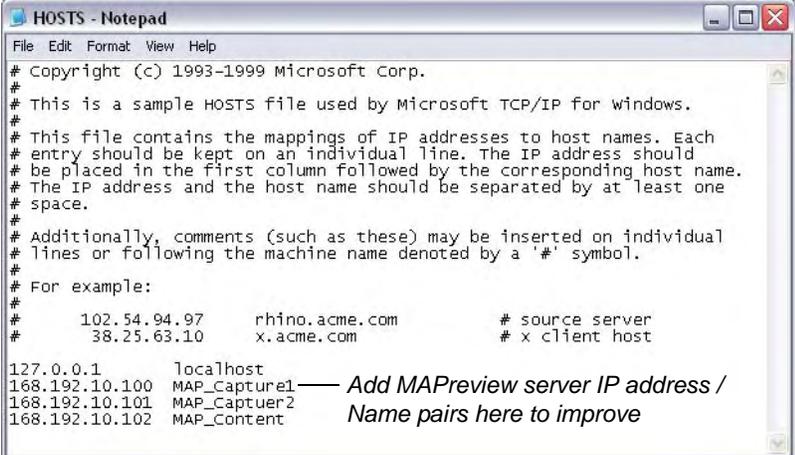
Also provide appropriate subnet mask values, default gateway, DNS entries.



Consult with your IT administrator for other NIC configuration requirements for your system.

**Add MAP Services to HOSTS File.** Add the server names and IP addresses of each MAPreview server to the HOSTS file on each MAPreview server to protect against the loss of MAPreview server name/address pairing.

Figure 3–2. Sample MAPreview server HOSTS file (with scrambled IP addresses)



```

HOSTS - Notepad
File Edit Format View Help
# Copyright (c) 1993-1999 Microsoft Corp.
#
# This is a sample HOSTS file used by Microsoft TCP/IP for Windows.
#
# This file contains the mappings of IP addresses to host names. Each
# entry should be kept on an individual line. The IP address should
# be placed in the first column followed by the corresponding host name.
# The IP address and the host name should be separated by at least one
# space.
#
# Additionally, comments (such as these) may be inserted on individual
# lines or following the machine name denoted by a '#' symbol.
#
# For example:
#
#       102.54.94.97       rhino.acme.com       # source server
#       38.25.63.10      x.acme.com           # x client host
127.0.0.1       localhost
168.192.10.100  MAP_Capture1
168.192.10.101  MAP_Capture2
168.192.10.102  MAP_Content
Add MAPreview server IP address /
Name pairs here to improve

```

The HOSTS file is at C:\WINDOWS\SYSTEM32\DRIVERS\ETC.

Windows loads the HOSTS file at startup and checks the entries before querying any DNS servers, thus ensuring that MAP services can communicate with each other even if DNS service has failed.



### Tip

*HOSTS file entries can also be used to block Internet access to unwanted Web sites, and prevent unwanted programs (spyware, adware and other unwelcome programs) from returning information to their host site if listed, thus increasing security of your servers.*

**Set MAPreview servers to NTP Time.** Configure all MAPreview server's Windows Time Service to use the same NTP (Network Time Protocol) server to assure accurate synchronization, or use another time sync method. You can use your own NTP server, or point to *time.nist.gov*.

**Disable Automatic Virus Scans on Capture Server.** Telestream recommends running virus scans manually or scheduling them to run when Capture service is not capturing segments. A virus scan impairs operation of your Capture server because it increases CPU utilization. If virus scanning is set to automatic, monitor CPU utilization to make sure it does not rise above 85%.

If you decide not to run virus software on your Capture server, consider isolating the Capture server from the corporate network or firewall the server from the Internet to reduce risk of virus infection.

**Disable Advanced Power Management.** Disable Windows (Control Panel > Power Options) and vendor-specific advanced power management options that



might cause the server to automatically sleep, hibernate, shut down, or log off during periods of inactivity, for example.

**Auto-start Indexing and Windows Image Acquisition Services.** Set Indexing Service and Windows Image Acquisition Services (right-click My Computer > Manage > Services and Applications > Services window) to start automatically when a MAPreview server starts or restarts. Both services are required for proper operation of MAP.

**Disable System Sounds.** Set Windows so that no Windows-generated sounds are allowed (Control Panel > Sounds and Audio Devices > Sounds tab). In the Sound tab, set Sounds scheme to *No Sounds*.

**Disable Windows Software Updates.** Telestream recommends disabling automatic updates (Control Panel > Automatic Updates), or scheduling updates when media recording is idle. File downloads that occur during software updates can push CPU utilization above the recommended 85% limit on Capture servers, and may cause an automatic system reboot or other unintended OS change that renders a MAP service inoperative and lead to media loss.



### Caution

**Making changes to MAPreview server IP address, computer names, or user's log in names or passwords assigned to MAP services can adversely affect MAP operation and client connections to media.**

## MAP Port Configuration

MAP services may be distributed across several servers on a LAN, and MAP clients may be LAN or WAN-based.

The following ports are required to be open between MAPreview servers and computers running certain MAP clients. These ports may be blocked by corporate firewalls, network firewalls, personal firewalls, or other applications.



### Note

*Assure that the following TCP ports are opened and unrestricted between servers and clients on your MAP System's network.*

Table 3–4. MAP Services and Applications Ports

MAP Service/Application	Port #
Content Service	8085
Capture Service	8086
Factory Service	8087
Archive Service	8088
Console Applet	8089



Table 3–4. MAP Services and Applications Ports

MAP Service/Application	Port #
Receive Service	8090
Launch clients	8091
IIS Web Client Access	8000

### WebDAV

MAP uses WebDAV for MAP clients: MAP Explorer, MAP Quick Review, and MAP Player.

The default port is 80 and should not be changed. If other services, such as an IIS Web Server, are using port 80, IIS should be set to another port.

### HyperLaunch

Telestream's HyperLaunch protocol uses UDP and defaults to port 69. This port can be changed to another port as required, based on the destination's UDP port – a MAP Content server or HyperLaunch Receive Server.

### Gateway

MAP Gateway uses TCP port 21 and 23 for FTP and email, respectively.

### EventReader

EventReader uses TCP 23 for communications with an email server to send email alerts when MAP errors or failures are selected.

## Client Access to Media Files

If a Web or media server will be used to stream media files, open the appropriate ports/protocols (HTTP, RTSP, MMS, UDP, TCP, etc.).

### Web Server

Web virtual directories use HTTP over TCP. Default port: 80.



### Note

*If your Web Server will be running on a server also running MAP Content service, it must be set to a port other than port 80.*

### Media Server Streaming Protocols

**RTSP (Real Time Stream Protocol).** TCP 554 (In/Out), UDP 5004 (out), UDP 5005 (In/Out)

**MMS (Microsoft Media Server).** TCP 1755 (In/Out), UDP 1755 (In/Out), UDP 1024-5000 (Out)

**HTTP.** TCP 80 (In/Out)



## MAP CLIENT PLATFORM OS REQUIREMENTS

The recommended operating system for computers running MAP client programs is Windows XP Professional, with current service packs and all other updates (per Microsoft Windows Update Service).

The following list details the other software that must be installed.

- .NET Framework Version 1.1 or later
- J# .NET Runtime Version 1.1
- Windows Media Player 9 or 10
- Windows Media Encoder (9 series)
- Service packs, other updates (Per Microsoft Windows Updates Service)

These components are available on the MAP Installer CD. Updated versions of these components may be available on the Microsoft Web site.

---

## MAP WEB CLIENT PLATFORM OS REQUIREMENTS

The recommended operating system for computers running MAP Search, a Web client program (or others written by you) is Windows XP Professional, with current service packs and all other updates (per Microsoft Windows Update Service) or Mac OS X.



## USING THE MAP INSTALLER CONSOLE

MAP installers are accessed via the MAP Installer Console, below.

When you insert the MAP Installer CD, the console starts automatically. (If the Installer doesn't start, open the CD and run startup.exe.)

Figure 3–3. MAP Installer console



The console is organized in three groups: Server installation, Clients installation, and Utilities installation. When you click on these buttons, the Console displays installation options for your selection.

### Server Installation

Click Server to display a list of installation choices.

Figure 3–4. MAPreview server installation options



Choose from these installations:

- [Installing MAP Services](#) (page 3-14)
- [Installing Gateway.MAP](#) (page 2-15)



## Clients Installation

Click Clients to display a list of installation choices.

Figure 3–5. MAP client installation options



Choose from these installations:

- [Installing MAP Explorer on page 3-25](#)
- [Installing MAP Quick Review on page 3-28](#)
- [Installing MAP Search on page 3-31](#)

## Utilities Installation

Click Utilities to display a list of installation choices.

Figure 3–6. MAP utilities installation options



Choose from these installations:

- [Installing HyperLaunch Receive Server](#). See [HyperLaunch Receive Server Installation, Configuration, and Management Guide](#) – click [User Guides](#).
- [Installing MAP Ratings Parser and Configurator on page 3-21](#)



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## INSTALLING MAP SERVICES

A MAP Services installation installs or updates the following software:

- Microsoft .NET Framework
- Microsoft J# .NET Runtime
- Microsoft Windows Media Player
- Microsoft Windows Media Encoder 9 Series
- Archive.MAP
- Capture.MAP service
- Content.MAP service
- Factory.MAP service
- Services Management Consoles
- Ratings Parser
- EventReader
- HyperLaunch Receive Server (as part of Content.MAP)
- MAP Player
- MAP Explorer
- MAP Quick Review
- Label Designer



### Note

*If you uninstall MAP services, you must restart your computer before performing re-installation. Also, make sure that the Services window (Control Panel > Administrative Tools > Services) is not open during installation because this prevents MAP services from being registered.*

---

To perform a complete MAP services installation on your MAPreview server, you should have the MAP Installer CD and a MAP USB dongle.

If you are planning to use MAP Web clients for your users, be sure that you have IIS installed and running before performing this installation.

Before performing a multi-system installation, develop your installation plan ([MAP System Planning Guide](#) on page 7-1).



### Note

*You can not install a single MAP service. After installation, you can disable services you do not plan to use (Capture.MAP for example) on this server. Right-click My Computer > Manage. In the Management window, open Services and Applications > Services. In Services, right-click the target service and select Properties. Set Startup Type to Disabled and click OK.*



### Caution

**Do not install MAP services on a server when the MAP dongle is in place. If you are updating MAP, remove the dongle before uninstalling and re-install it when the upgrade is complete.**

**If you are installing MAP services on a server for the first time, install the dongle after installation is complete.**

**Do not install MAP until your MAPreview server is in compliance with the hardware and operating system requirements.**

---

## Start the Installer

To begin installation, start the server and log on with a user ID that has administrative privileges. (The installer will not run if you log on with a user ID that does not have administrative privileges).

Before you start, make sure no programs are running, virus-checking software is off, and the dongle is disconnected from the server.

**Step 1** Insert the MAP Installer CD to start the MAP Installer Console.

Figure 3–7. MAP Installer main console



**Step 2** On the main console window, click the Services tab.

Figure 3–8. MAPreview server installer options



**Step 3** On the Server tab, click Install MAP Services to launch the MAP Setup Wizard and begin a complete MAP services installation.

If all of the supporting software is already installed, the MAP Setup Wizard will display the welcome panel (page 2-13) immediately.



### Tip

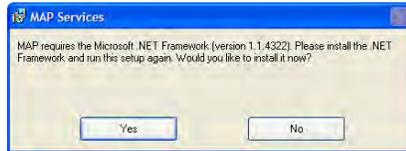
*If you are performing a multi-server installation or installing MAP clients on several computers, you can copy the installer to a server directory and launch it over the network.*



The Wizard checks for each required component, and if necessary, installs it for you. If the required component is already installed, it proceeds to the next component check without notification.

## Install Microsoft .NET Framework

The MAP Setup Wizard first determines if you need to install the current version of the .NET Framework and displays the following dialog:



**Step 4** Click Yes to install the .NET Framework and follow the installation instructions.

**Step 5** When the .NET Framework is installed, click Install MAP Services in the MAP Installer Console again to continue installation.

The MAP Setup Wizard next determines if you need to install the current version of the J# .NET Runtime component and displays the following dialog:

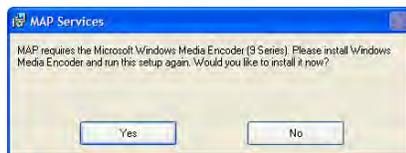


**Step 6** Click Yes to install the J# .NET Runtime and follow the installation instructions.

**Step 7** When installation of the J# .NET Redistributable Package is complete, click Install MAP Services again to continue installation.

## Install Windows Media Encoder (9 Series)

The MAP Setup Wizard determines if you need to install the current version of Microsoft Windows Media Encoder 9 Series and displays the following dialog:



**Step 8** Click Yes to install Windows Media 9 Encoder and follow the instructions.

**Step 9** When Windows Media 9 Encoder is installed, click Install MAP Services in the MAP Installer Console again to continue installation.

## Install Windows Media Player

If Windows Media Player is missing or obsolete, the Setup Wizard prompts you to download the installer from the Microsoft Web site and install it.

**Step 10** **Install:** When you click Yes, the Windows Media Player 9 page displays. Click the link to download and install Windows Media Player 10 on this page. (Windows Media Player 9 is no longer available for Windows XP, and Windows Media Player is pre-installed on Windows 2003.).

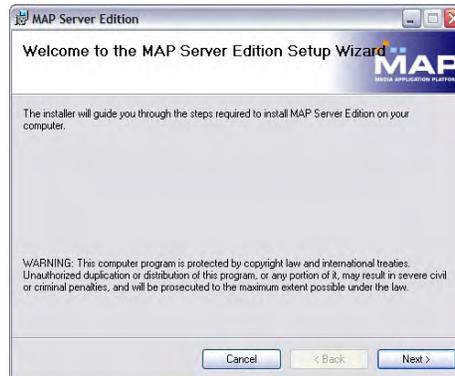
**Step 11** Click Install MAP Services in the MAP Installer Console again to continue.



## Install MAP Services, Consoles, and Clients

The MAP Setup Wizard displays the Welcome panel.

Figure 3–9. MAP Setup Wizard Welcome panel



- Step 12** Click Next to view the Telestream license agreement.
- Step 13** **Telestream License Agreement Panel.** After reading the terms of the agreement, click I Agree if you agree, and click Next to continue.  
The MAP Setup Wizard displays the Content Server Port panel.
- Step 14** **Content Server Port Panel.** Port 80 is the port that Content.MAP uses for inter-service communication. *Do not change it.* If you are using IIS to provide Web browser access to MAP, IIS must be configured with an IP port other than 80. Telestream recommends port 8000.
- Step 15** Click Next to continue. The MAP Setup Wizard displays the Select Installation Folder panel.
- Step 16** **Installation Folder and Security Options Panel.** Select the installation directory path and permissions using these options:
- Step 17** Browse to locate and select the folder where you want MAP services installed, or accept the default directory. See [MAP System Planning Guide](#) on page 7-1 for specific drive/partition requirements for Capture and Content services.
- Step 18** **Disk Cost.** Click to view details about available disks.  
Check Everyone (default) or Just Me to install MAP with proper permissions.



### Note

*Checking Everyone is recommended. To change this setting after installation, you must uninstall and re-install MAP.*

- Step 19** Click Next to continue to display the Confirm Installation panel.
- Step 20** **Install Confirmation Panel.** Click Next to install the software. Click Back to review settings.
- Step 21** When you click Next, the wizard installs the MAP services and client software, and provides a progress bar to note progress. (Click Cancel to immediately terminate installation.)
- Step 22** **Installation Progress Panel.** The MAP installer also installs a USB dongle driver, and displays a Driver Installation panel you can dismiss. When installation is complete, the wizard displays the Installation Complete panel.



## Install QuickTime 6

- If QuickTime is missing or obsolete, the Setup Wizard prompts you to install it.
- Step 23** If you click Yes, the QuickTime 6.5.1 installer runs. Follow the instructions (you can skip registration details).
- Step 24** When installation of QuickTime is complete, display the installer window where installation continues to completion.
- Step 25** **Installation Complete Panel.** Click Close to terminate the MAP Setup Wizard. Eject the MAP CD to perform installations on other computers, or store it in a safe place when installation is complete.
- Step 26** **Update Services Properties.** For each MAP service, display the properties dialog. In the Management window, open Services and Applications > Services. In Services, right-click the target service and select Properties.
- On the Log On Tab, check This account and assign the local or domain user account MAPSERVICES (or other name you created earlier) and the correct password as the user account for this service to log on.
- If this service is *not* going to run on this server (for example, this is a Capture server, you can disable Content and Factory services), click the General tab and set the Startup type to Disabled. Click OK to update and close.
- Click the Recovery tab and select Restart Services for first and second failures, and Restart Computer for subsequent failures.
- Step 27** Restart the computer to start MAP services, which are set to automatically start.



---

### Note

*After restarting your server, you should disable MAP services you do not intend to run on this server to improve performance. For example, if you are creating a Capture server, disable Content.MAP and Factory.MAP. Right-click My Computer > Manage. In the Management window, open Services and Applications > Services. In Services, right-click the target service and select Properties. Set Startup Type to Disabled and click OK.*

---



## INSTALLING GATEWAY.MAP

You can install Gateway on any MAP services server (even if all services are disabled). Gateway.MAP enables ClipMails to deliver media files to MAP, or to monitor local folders or network shares for ingesting media into MAP.

When Gateway.MAP is installed, an icon is placed in the tooltray. Before you can use Gateway.MAP to deliver media from a ClipMail appliance, you must create and configure an account on the ClipMail.



### Tip

*Configuring and monitoring Gateway.MAP is described in [Using the Gateway.MAP Console](#) on page 6-16.*

## Start the Installer

Start the server and log on with a user account with administrative privileges. Make sure no other programs are running, virus-checking software has been turned off, and you have the MAP Installer CD-ROM.

**Step 1** Insert the MAP Installer CD to start the MAP Installer Console.

Figure 3–10. MAP Installer console's main window



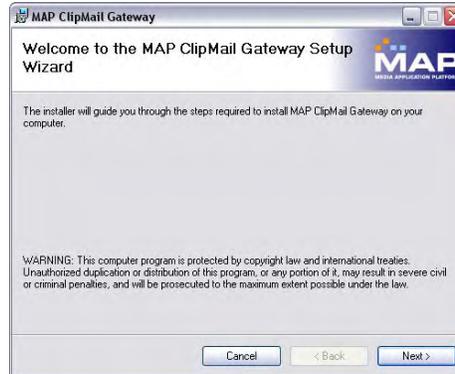
**Step 2** On the main console window, click the Server installation button.

Figure 3–11. MAPreview server installation options



- Step 3** On the Server window, click the Install Gateway button to run the Gateway.MAP Setup Wizard and display the Welcome panel:

Figure 3–12. Gateway.MAP Setup Wizard Welcome window



- Step 4** Click Next to view the Telestream MAP license agreement:
- Step 5** **Telestream License Agreement Panel.** After reading the terms of the agreement, click I Agree if you agree, and click Next to continue installation.
- Step 6** **Installation Folder Panel.** Select an installation folder. By default, Gateway.MAP is installed in the Program Files > Telestream > MAP directory.
- Step 7** To restrict use of Gateway.MAP to the user ID that performed the installation, click Just Me. Otherwise, click Everyone.

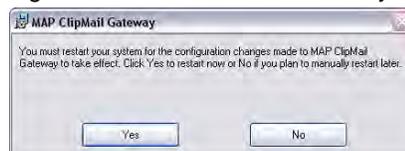


### Note

When Gateway.MAP is installed, an icon is placed in the toolbar. Use this icon to configure and monitor Gateway.MAP. See [Using the Gateway.MAP Console](#) on page 6-16.

- Step 8** **Disk Cost (optional).** Click to view details about available disks. Click Next to continue to display the Confirm Installation panel.
- Step 9** **Installation Confirmation Panel.** Click Next to install the software. Click Back to review settings.
- When you click Next the wizard installs the software, and provides a progress bar to note installation progress. (Click Cancel to terminate installation.)
- Step 10** **Installation Progress Panel.** As installation progresses, the wizard displays the Installation Progress panel. When installation is complete, the Wizard displays the Installation Complete panel.
- Step 11** **Installation Complete Panel.** Click Close to terminate Setup Wizard.
- You may need to restart the computer for Gateway.MAP to start and operate properly. If so, the Setup Wizard displays this dialog:

Figure 3–13. Click Yes to restart your server



- Step 12** Click Yes to restart your server. Gateway.MAP won't start until you reboot.



## INSTALLING MAP RATINGS PARSER AND CONFIGURATOR

You install the MAP Ratings Parser and Ratings Configurator to set up and process ratings obtained from a provider. The Ratings Parser generates XML files with ratings metadata based on configuration file generated by the Ratings Configurator, and are available for viewing in MAP Player and MAP Explorer.

MAP Ratings Parser is a Windows service, and may be installed on any MAPreview server – usually not the Capture service or Content service server. Consider installing the Ratings Parser on a MAP administrative server or workstation that is associated with the ratings spreadsheets, that runs continually.

When you run the ratings installer, both the Ratings Parser and the Ratings Configurator program are installed. Before you can use the Ratings Parser to process metadata, you must create and configure the ratings INI file and set up the channel to capture the ratings data.

### Run the Installer

To begin, start the computer and log on with a user ID that has administrative privileges. Make sure no other programs are running, virus-checking software has been turned off, and you have the MAP Installer CD-ROM.

#### Step 1

Insert the MAP Installer CD to start the MAP Installer Console.

Figure 3–14. MAP Installer console's main window



#### Step 2

On the main console window, click the Utilities button.

Figure 3–15. MAP Utilities installation options



- Step 3** Click the Install Ratings Parser button to launch the Ratings Setup Wizard and display the Welcome panel:

Figure 3–16. Ratings Setup Wizard Welcome window



- Step 4** Click Next to select the installation folder:
- Step 5** **Installation Folder Panel.** Select an installation folder. By default, Gateway.MAP is installed in the Program Files > Telestream > MAP directory.
- Step 6** To restrict use of Ratings Parser and Configurator to the user ID that performed the installation, click Just Me. Otherwise, click Everyone.
- Step 7** **Disk Cost (optional).** Click to view details about available disks. Click Next to continue to display the Confirm Installation panel.
- Step 8** **Confirm Installation Panel.** Click Next to install the software.  
When you click Next the wizard installs the software, and provides a progress bar to note installation progress. (Click Cancel to terminate installation.)
- Step 9** **Installation Progress Panel.** As installation progresses, the wizard displays a progress panel. When installation is complete, the Wizard displays the Installation Complete panel.
- Step 10** **Installation Complete Panel.** Click Close to terminate Setup Wizard.

## Configure the Service

When installation is complete, open the Services window (Control Panel > Administrative Tools > Services) and right-click the Ratings Parser service (RatingsParser.MAP) to display its properties.

**General Tab.** Set the startup type to Automatic.

**Log On Tab.** Select This account and select MAPSERVICES or other local or domain MAP user with administrative privileges.

**Recovery.** Set First and second failures to Restart the service; third and subsequent failures: set to Restart the computer.



## ATTACHING MAP USB DONGLES

Before you operate MAP in a production environment, you must attach a MAP dongle to a USB port of each server that hosts a MAP service – Content, Capture, and Factory.

If you install MAP services on a single platform, only one dongle is required. If you plan to operate services on separate platforms (e.g., Capture on one and Factory on another), you'll need to order a MAP dongle for each MAPPreview server when you obtain your license.

You always install MAP on servers before putting a dongle in place, and you don't need dongles on computers that are only running the MAP management console or MAP client programs.



### Note

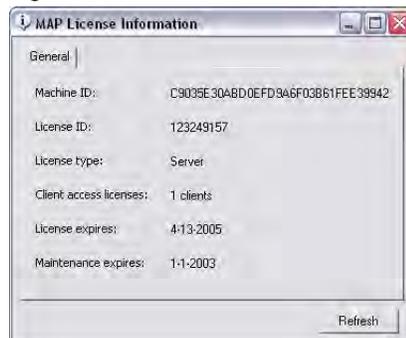
*MAP dongles are obtained from Telestream and are contained in the MAP product box. You may install and operate MAP in demonstration mode without a dongle, but you may not operate MAP in production without a dongle. If no dongle is present on a MAPPreview server, the Factory and Capture services watermark the media they capture or transcode. Content.MAP only allows a single concurrent client connection without a dongle.*

## VIEWING MACHINE ID AND LICENSE INFORMATION

To view license information stored in your dongle, or to display the machine ID for obtaining a license, run the License Info program.

In Windows Explorer, open Program Files > Telestream > MAP > License (or other location where MAP was installed) and run MAP.License.Info.

Figure 3–17. License Information dialog



When you run License Info, the machine ID is displayed with license details stored in the dongle. If no dongle is present on this computer, the phrase *No license found* is displayed in the License ID field.

When you are obtaining a license from Telestream, double-click to select the machine ID and copy and paste it into your license request document. If you



select the machine ID by clicking and dragging through the text to highlight it, you may miss some of the characters at the end of the string.

---

## UPDATING THE MAP DONGLE

To update the MAP dongle from license information provided, copy the dongle update file you received from Telestream (*MapDongleUpdate.tdu*) to the MAPreview server you want to update.

Next, run the Telestream Client Dongle Updater application.

In Windows Explorer, open Program Files > Telestream > MAP > License (or other location where MAP was installed) and run RemoteUpdateClient.

Figure 3–18. MAP dongle license data updater



Click Browse and navigate to the folder where the dongle update file (*MapDongleUpdate.tdu*) is stored and select it.

Click on the Perform Update button. When the Success message displays, your dongle has been updated and MAP is ready for use.

## INSTALLING MAP EXPLORER

To install MAP Explorer and MAP Player clients (and the necessary components), you should have the MAP Installer CD.

MAP Client installer installs or updates the following software:

- Microsoft J# .NET Runtime
- Microsoft .NET Framework
- Microsoft Windows Media Encoder (9 series)
- Microsoft Windows Media Player
- MAP Player
- MAP Explorer (including a Search Results icon on your desktop)

### Start the Installer

To begin, start the computer and log on with a user ID that has administrative privileges. Make sure no other programs are running, and virus-checking software has been turned off.

- Step 1** Insert the MAP Installer CD to start the MAP Installer Console.

Figure 3–19. MAP Installer console's main window



- Step 2** On the main console window, click the Clients tab.

Figure 3–20. MAP client installation options



- Step 3** Click Install MAP Explorer to run the MAP Setup Wizard. If all of the supporting software is already installed, the MAP Setup Wizard will display the welcome window ([Installing MAP Explorer](#) on page 3-25) immediately.

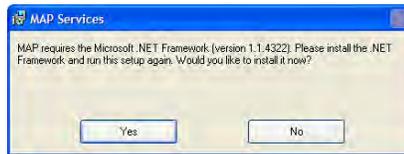


### Note

*If you are installing MAP clients on several computers, you may copy the installer to a server directory or make the MAP Installer CD network accessible and launch it over the network.*

## Install Microsoft .NET Framework

The MAP Setup Wizard determines if you need to install the current version of .NET Framework. If so, the wizard displays the following dialog.



- Step 4** Click Yes to install the .NET Framework and follow the installation instructions.

- Step 5** When .NET is installed, click Install MAP Explorer in the MAP Installer Console again to continue.

## Install Windows Media Encoder (9 Series)

The MAP Setup Wizard determines if you need to install the current version of Microsoft Windows Media Encoder 9 Series and displays the following dialog:



- Step 6** Click Yes to install Windows Media 9 Encoder and follow the instructions.

- Step 7** When Windows Media 9 Encoder is installed, click Install MAP Explorer in the MAP Installer Console again to continue installation.

## Install J# .NET Runtime

The MAP Setup Wizard determines if you need to install the current version of the J# .NET runtime. If required, the wizard displays the following dialog:



- Step 8** Click Yes to install the J# .NET runtime and follow the installation instructions.

- Step 9** When installation of J# .NET runtime is complete, click Install MAP Explorer on the MAP Installer Console again, to continue installation.

## Install Windows Media Player

If Windows Media Player is missing or obsolete, the Setup Wizard prompts you to download the installer from the Microsoft Web site and install it.



- Step 10** **Install:** When you click Yes, the Windows Media Player 9 page displays. Click the link to download and install Windows Media Player 10 on this page. (Windows Media Player 9 is no longer available for Windows XP, and Windows Media Player is pre-installed on Windows 2003.).
- Step 11** After installation, click Install MAP Services in the MAP Installer Console again to continue installation.

## Install MAP Explorer

The MAP Setup Wizard displays the Welcome panel:

Figure 3–21. MAP Setup Wizard Welcome panel



- Step 12** Click Next to view the Telestream MAP license agreement.
- Step 13** **Telestream License Agreement Panel.** After reading the terms of the agreement, click I Agree if you agree, and click Next to continue installation.
- Step 14** **Installation folder and Security Options Panel.** Select the installation directory path and permissions using these options:
- Step 15** Browse to identify and select the folder where you want the programs installed, or accept the default directory path.
- Step 16** Check Everyone (default) or Just Me to install software with proper permissions. If you check Just Me, only the user account performing the installation can run this program.
- Step 17** **Disk Cost (optional).** Click to view details about available disks. Click Next to display the Confirm Installation panel:
- Step 18** **Installation Confirmation Panel.** Click Next to install the software.
- Step 19** **Installation Progress Panel.** When you click Next the wizard installs the software, and provides a progress bar to note installation progress. When installation is complete, the wizard displays the Installation Complete panel.
- Step 20** **Installation Complete Panel.** Click Close to terminate the Wizard and restart your computer. Eject the MAP CD to perform other installations, or store it in a safe place when installation is complete.



## INSTALLING MAP QUICK REVIEW

To install the MAP Quick Review and MAP Player (and necessary components), you should have the MAP Installer CD.

The Quick Review installer installs or updates the following software:

- Microsoft J# .NET Runtime
- Microsoft .NET Framework
- Microsoft Windows Media Encoder (9 series)
- Microsoft Windows Media Player
- MAP Player
- MAP Quick Review Client

### Start the Installer

#### Step 1

To begin, start the computer and log on with a user ID that has administrative privileges. Make sure no other programs are running and virus-checking is off.

Insert the MAP Installer CD to start the MAP Installer Console.

Figure 3–22. MAP main installer console



#### Step 2

In the main console window, click the Clients tab.

Figure 3–23. MAP client installation options



#### Step 3

Click Install MAP.review to launch the MAP Setup Wizard.



If all of the supporting software is already installed, the welcome panel displays immediately ([Installing MAP Quick Review](#) on page 3-28).

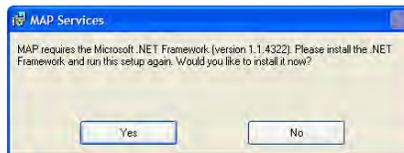


### Note

*If you are installing MAP clients on several computers, you may copy the installer to a server directory or make the MAP Installer CD network accessible and launch it over the network.*

## Install Microsoft .NET Framework

The MAP Setup Wizard determines if you need to install the current version of the .NET Framework. If required, the wizard displays the following dialog.

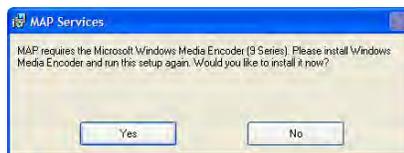


**Step 4** Click Yes to install the .NET Framework and follow the installation instructions.

**Step 5** When installation of .NET is complete, click Install MAP Quick Review on the MAP Installer Console again, to continue installation.

## Install Windows Media Encoder (9 Series)

The MAP Setup Wizard determines if you need to install the current version of Microsoft Windows Media Encoder 9 Series and displays the following dialog:



**Step 6** Click Yes to install Windows Media 9 Encoder and follow the instructions.

**Step 7** When Windows Media 9 Encoder is installed, click Install MAP Quick Review in the MAP Installer Console again to continue installation.

## Install J# .NET Runtime

The MAP Setup Wizard determines if you need to install the current J# .NET Runtime. If required, the wizard displays the following dialog:



**Step 8** Click Yes to install the J# .NET runtime and follow the installation instructions.

**Step 9** When installation of J# .NET runtime is complete, click Install MAP Quick Review on the MAP Installer Console again, to continue installation.

## Install Windows Media Player

If Windows Media Player is missing or obsolete, the Setup Wizard prompts you to download the installer from the Microsoft Web site and install it.

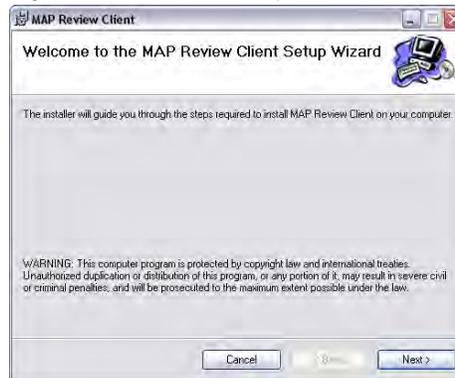


- Step 10** **Install:** When you click Yes, the Windows Media Player 9 page displays. Click the link to download and install Windows Media Player 10 on this page. (Windows Media Player 9 is no longer available for Windows XP, and Windows Media Player is pre-installed on Windows 2003.).
- Step 11** After installation, click Install MAP Services in the MAP Installer Console again to continue installation.

## Install MAP Quick Review

The MAP Setup Wizard displays the Welcome panel:

Figure 3–24. MAP Setup Wizard Welcome panel



- Step 12** Click Next to view the Telestream MAP license agreement.
- Step 13** **License Agreement Panel.** After reading the terms of the agreement, click I Agree if you agree, and click Next to continue installation.
- The MAP Setup Wizard displays the Select Installation Folder panel:
- Step 14** **Installation folder and Security Options Panel.** Select the installation directory path and permissions using these options:
- Browse to identify and select the folder where you want the programs installed, or accept the default directory path.
- Step 15** Check Everyone (default) or Just Me to install software with proper permissions. If you check Just Me, only the user account performing the installation can run this program.
- Step 16** **Disk Cost (optional).** Click to view details about available disks.
- Step 17** Click Next to display the Confirm Installation panel:
- Step 18** **Installation Confirm Panel.** Click Next to install the software.
- Step 19** **Installation Progress Panel.** When you click Next the wizard installs the software, and provides a progress bar to note installation progress. When installation is complete, the wizard displays the Installation Complete panel.
- Step 20** **Installation Complete Panel.** Click Close to terminate the Wizard and restart your computer. Eject the MAP CD to perform other installations, or store it in a safe place.



## INSTALLING MAP SEARCH

Install MAP Search on your MAPreview server to allow users to access MAP media via a Web browser. To install MAP Search, you should have the MAP Installer CD.



### Note

*You can not install Web Client on a server until IIS and MAP Services (or Content.MAP) have been installed, and the server has been restarted.*

The MAP Search installer installs a Web site in the Web Sites/Default Web Site path, called by default, *MAPClient*. The MAP Web site is contained in a MAP DLL. An XML file is also installed, which you use to configure MAP Search.

## Start the Installer

To begin, start the computer and log on with a user ID that has administrative privileges. Make sure no other programs are running, and virus-checking software has been turned off.

**Step 1** Insert the MAP Installer CD to start the MAP Installer Console.

Figure 3–25. MAP Installer console's main window



**Step 2** On the main console window, click the Utilities tab.

Figure 3–26. MAP utilities installation options

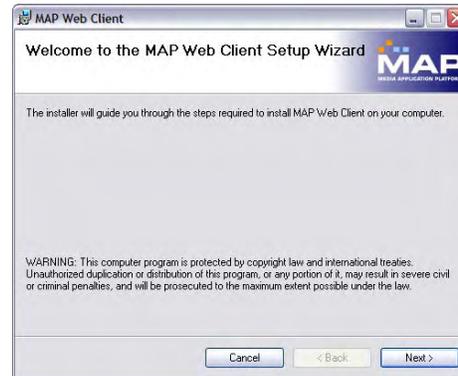


- Step 3** Click Install Web Client to launch the Wizard.

## Install MAP Search

The MAP Setup Wizard displays the Welcome panel:

Figure 3–27. MAP Web Search Setup Wizard Welcome panel



- Step 4** Click Next to view the Telestream MAP license agreement.
- Step 5** **Telestream License Agreement Panel.** After reading the terms of the agreement, click I Agree if you agree, and click Next to continue installation.
- Step 6** **Select Virtual Directory Panel.** Select the virtual directory and port. By default, MAP Web Client is installed in an IIS virtual directory on the local machine under Web Sites/Default Web Site/MAPClient.
- This directory is part of the URL you'll provide to anyone accessing your MAP content via a Web browser.



### Note

*The default port (80) must be changed to the port you specified when you installed and configured IIS (recommended: 8000).*

- Step 7** **Disk Cost (optional).** Click to view details about available disks. Click Next to continue.
- Step 8** **Confirm Installation Panel.** Click Next to install the software. Click Cancel to immediately terminate installation.
- Installation Progress Panel.** When you click Next the wizard installs the software, and provides a progress bar to note installation progress.
- When installation is complete, the wizard displays the Installation Complete panel.
- Step 9** **Installation Complete Panel.** Click Close to terminate the Wizard. Eject the MAP CD to perform other installations, or store it in a safe place when installation is complete.

## Configuring MAP Search

As part of initial configuration, you must prepare MAP Search for use by end users by performing the following tasks:

1. Provide a URL that users enter in Web browser to access MAP Search
2. Determine which features are available by configuring XML file
3. Configure an XML file that contains your MAPreview servers
4. Provide a list of live feeds, configured in an XML file



## Forming the MAP Search URL

The URL syntax is `HTTP://<MAPServerName>:<HTTPPort>/MAPClient/Search.aspx`. <MAPServerName> is the computer name where you installed MAP Web Search, and <HTTPPort> is the HTTP port you assigned to IIS; by default, 8000.

For Example: `http://MAPServer07:8000/MAPClient/Search.aspx`.

Provide this URL to your end users so that they can run MAP Search from their computer and access the MAPPreview server to search and play media.

## Configuring the Feature List for MAP Search

As part of initial configuration, you need to enable (or disable) features that you want end users to use in MAP Search, as specified in the web.config file, located at `C:\Inetpub\wwwroot\WebClientApplication`.

The default web.config file has the following elements:

```
<appSettings>
  <add key="PlayerEnabled" value="false" />
  <add key="LiveFeedsEnabled" value="true" />
</appSettings>
```

Open the file, find the appSettings element, and enter true or false in the value element for DeliveryEnabled, PlayerEnabled, and LiveFeedsEnabled.

Save the file after editing your settings.

If PlayerEnabled is true, end users can play media in MAP Player.

If LiveFeedsEnabled is true, then end users can display live feeds (as configured by you in the livefeeds.xml file) on the Live Feeds tab.

## Creating the MAPPreview server List

When users connect to a MAPPreview server, MAP Search displays the list of MAPPreview servers that are specified in the ContentServers.xml file, located at `C:\Inetpub\wwwroot\MAPClient\App_Data`.

The default XML file has the following elements:

```
<?xml version="1.0" encoding="utf-8" ?>
<contentservers>
  <server name="MAPPreview_Server" uri="MAPPreview_Server">
  </server>
  <server name="Local" uri="localhost">
  </server>
</contentservers>
```

This is an example file with 4 MAPPreview servers:

```
<?xml version="1.0" encoding="utf-8" ?>
<contentservers>
  <server name="MAP LIVE"> uri="map-prod"></server>
  <server name="MAP Test" uri="map-test"></server>
  <server name="MAP USA" uri="map-dom"></server>
  <server name="MAP Local" uri="localhost"></server>
</contentservers>
```

Open the file, create server elements for each MAPPreview server you want end users to access for MAP Web Search, and save the file.



When a user logs onto MAP Search, the MAPreview server list is populated with a list of these four MAPreview servers: MAP Production, MAP Test, MAP International, and MAP Local. As the user logs on to a given MAPreview server, the list of media folders is provided.

If you create a *localhost* entry, make sure your users know that they can not use it unless they are actually running the MAP Web Search app directly on that computer.

The *localhost* reserved machine name can be used anytime the machine name in the URL (where MAP Search is running under IIS) is the same as the MAP Content server you want to search on.

### Creating the Live Feeds List

If you offer live feeds (configured in the *web.config* file), you need to configure the live feeds XML file as well.

When users connect to a MAPreview server, MAP Search also displays the list of live feeds that are specified in the *LiveFeeds.xml* file, located at `C:\Inetpub\wwwroot\WebClientApplication\App_Data`.

The default XML file has the following elements:

```
<?xml version="1.0" encoding="utf-8" ?>
<livefeeds>
  <feed name="None" uri="None"></feed>
  <feed name="Channel1" uri="mms://MAPreview_Server/ch1/">
</feed>
  <feed name="Channel2" uri="mms://MAPreview_Server/ch2/">
</feed>
  <feed name="Channel3" uri="mms://MAPreview_Server/ch3/">
</feed>
  <feed name="Channel4" uri="mms://MAPreview_Server/ch4/">
</feed>
  <feed name="All" uri="All"></feed>
</livefeeds>
```

For each feed you provide, enter a friendly name in the name value field of the feed element, and enter the URL of the MAPreview server assigned to the card port. Save the file after editing, and test it for accuracy.

When a user logs onto MAP Web Search, the live feeds list in the Live Feeds tab is populated. Users can select one or more feeds to view and listen as they choose.



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## RE-INSTALLING ASP.NET FOR IIS

For Windows XP installations only, if you have installed .NET before activating IIS, .NET does not register ASP.NET for use with IIS. The symptom of this problem is that when you point to your browser to MAP Web Search, the home page doesn't display; instead, three lines of text display in the browser.

To re-register ASP.NET on Windows XP servers, follow these steps:

- Step 1** Click start > Run to open the Run window.
- Step 2** Type *cmd* and click OK to open the command window.
- Step 3** Run Windows Explorer and open the path *My Computer\Local Disk (C) \ WINDOWS \ Microsoft.NET \ Framework \ <latest version folder if more than one>* (for example, *V1.1.4322*). Verify that the program *aspnet\_regiis.exe* is located in this directory.
- Step 4** In the Command window, type '*cd*' (*cd* and a space) and then drag the *V1.1.4322* (or latest) folder into the command window and press enter to change directory to this folder.
- Step 5** Type *aspnet\_regiis -i* and press Enter to install ASP.NET for IIS.
- Step 6** Close the Command window.
- Step 7** Open your Web browser and enter the URL *http://localhost:8000/MAPClient/Search.aspx* (or substitute machine name for localhost when accessing it from another computer) to display MAP Web Search's Web page. If you selected a port other than 8000, use it in the URL. If you selected a virtual directory other than *MAPClient*, also use the new name in the URL.





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# MAP Services Configuration & Administration

Use this chapter to validate your MAP installation and perform basic up and running configuration and administration, including initial configuration of each MAP service. (*MAP services* is a general term that describes the three independent but inter-related services that work together in MAP – Capture, Content, and Factory.)

How you configure MAP in production is dependent on your server capacity, your media capture, production, and publication requirements, and how you plan to use MAP services.

## Topics

- [Configuring MAP Services](#) on page 4-2
- [Configuring System Alerts](#) on page 4-5
- [Configuring and Using MAP EventReader](#) on page 4-8
- [Using the MAP Management Console](#) on page 4-10
- [Content.MAP Administration](#) on page 4-11
- [Creating Media Folders](#) on page 4-12
- [Setting Media Folder Properties](#) on page 4-13
- [Capture.MAP Administration](#) on page 4-19
- [Accessing Captured Media in Content.MAP](#) on page 4-19
- [Creating Schedules](#) on page 4-24
- [Creating Segments](#) on page 4-25
- [Starting a Channel](#) on page 4-28
- [Factory.MAP Administration](#) on page 4-29
- [Distributed Factory.MAP Services](#) on page 4-29
- [Adding and Removing Factory.MAPPreview servers](#) on page 4-31
- [Managing Media Tasks](#) on page 4-32
- [Creating a Media Portal](#) on page 4-33
- [Codecs Properties](#) on page 4-37



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### Note

*Configuration tasks described in these topics is required before end users can take the tours in the MAP User's Guide.*

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## CONFIGURING MAP SERVICES

Content, Capture, and Factory.MAP services are configured by default to start automatically. On occasion, you may need to stop or start a MAP service, and you may also need to modify a specific service's property.



### Note

*You should disable MAP services you do not intend to run on this server to improve performance. For example, if you have a dedicated Capture server, disable Content.MAP and Factory.MAP. Right-click My Computer > Manage. In the Management window, open Services and Applications > Services. In Services, right-click the target service and select Properties. Set Startup Type to Disabled and click OK.*

You configure each MAP service via the service's Properties dialog. You can also use the Properties dialog to start and stop the service or you can start and stop the service directly in the Service window.



### Tip

*Configuration and connection details are available in the Online Help System for each MAP service in the MMC.*

## Displaying Services

To display the Services window, right-click My Computer and select Manage. In the Computer Management window, open Services and Applications > Services. Or, open Control Panel > Administrative Tools > Services.

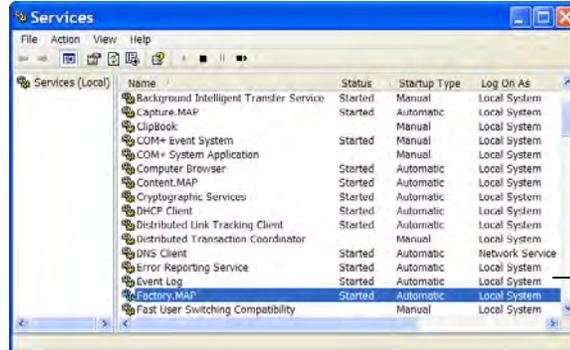
Figure 4–1. Administrative Tools window



*Double-click the Services icon to open the Services window and display all services on this server*

Double-click the Services icon to open the Services window.

Figure 4–2. Stop and start services in the Services window



*Capture, Content, and Factory MAP services operate as Windows Services.*

*Right-click a service to start or stop a service, or display the Properties dialog to adjust settings.*

The Services window displays the services currently registered on this system. Capture.MAP, Content.MAP, and Factory.MAP are displayed in the list. The status column indicates Started if the service is currently running. Startup Type is Automatic, Manual, or Disabled.

## Starting and Stopping a Service

The MAP installer installs all three MAP services. In a single MAPreview server installation, you may not be using Capture.MAP, so you should disable it. In a distributed MAP installation, be sure to disable services on each MAPreview server that are not being used. For example, on a Capture server, turn off Factory and Content, and on the Factory and Content server, you might disable Capture.MAP, based on your multi-server configuration plan.

To start or stop a service, right-click on it and select Start or Stop from the context menu. You can also start and stop a service in the Properties dialog (see [Setting Service Startup Type](#), below).

## Modifying Services Settings

To review or change a service's settings, display the Properties dialog. Make changes and click Apply to update the settings, then click OK. To display a service's Properties dialog, double-click its entry in the Services window.) The figures following refer to Capture.MAP, but the settings are the same for all three MAP services.)



## Setting Service Startup Type

Use the General tab (Figure 4–3) to change the service startup type, and start or stop the service.

Figure 4–3. Capture.MAP properties



Unless you have a specific startup requirement (especially on a single-server MAP system), leave the startup type as Automatic. In cases where a service is not needed, or in a multi-server MAP installation, set the startup type accordingly.

In a multi-server installation, you should disable the services that you are not going to operate on that server or uninstall them. For example, on a capture server, disable Factory and Content services. On the Content server, disable Capture service and Factory services.

**Automatic.** Select to start the service automatically when the server starts.

**Manual.** Select to prevent the service from running when the server starts, and you'll start the service when you need it or when a console is displayed.

**Disabled.** Select to prevent the service from being started by the system, a user, or a dependent system, such as a console.

## Stores Credentials

MAP services need to be modified to log on as a user that has read/write privileges to the stores where media is located and administrative privileges, either in a workgroup or domain environment.

On the Log On Tab, check This account and assign the local or domain user account MAPSERVICES (or other name you created earlier) and the correct password as the user account for this service to log on.

The default Local System account may be insufficient, because it may only provide authority to access directories and files on the local server.

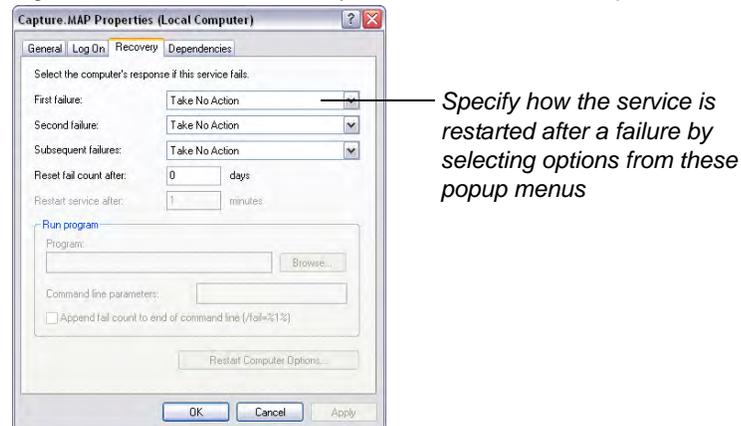
MAP user accounts should have permission to access all necessary MAPreview servers, and have read and write permissions for each directory or share where media is stored.



## Restart After Failure

Use the Recovery tab (Figure 4-4) to set up how Windows should control each MAP service after a failure.

Figure 4-4. Use the Recovery tab for service restart options



You can select options for first, second, and subsequent failures, and other settings as required. Telestream recommends setting the first and second failures to Restart Service, and subsequent failures to Restart Computer.

## CONFIGURING SYSTEM ALERTS

System Alerts are used to monitor and/or report error conditions that may arise on a MAP system. It is very important to configure System Alerts so that MAP administrators or IT personnel are informed immediately when MAP errors occur or when MAP requires immediate attention to solve an eminent problem, such as low disk space on a Capture server.

These examples can also be used to create and modify other alerts to meet MAP requirements in your installation.

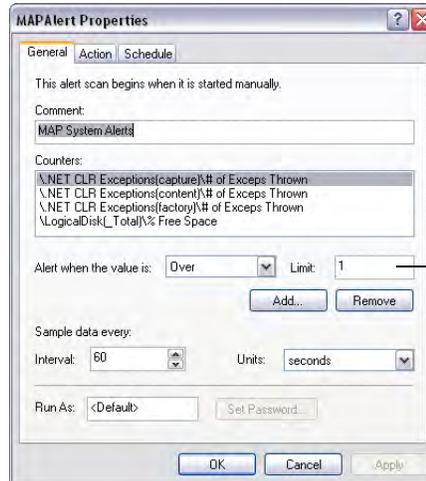
MAP provides a default set of system alerts that should be modified before implementing MAP in production. The following procedure illustrates how to modify the default MAPAlert:

- Step 1** Open Control Panel > Administrative Tools > Computer Management Window.
- Step 2** In the Computer Management window, expand Performance Logs and Alerts.



- Step 3** Select Alerts (left panel) and (in the right panel) right-click MAPAlert > Properties.

Figure 4–5. MAP default system alerts



Set Limit value to 0 for active MAP services on this server.

## Monitoring MAP Services

The MAPAlert system alert provides four error counters by default. These counters monitor for .NET exceptions thrown by the Capture, Factory and Content services respectively.

- Step 4** On the General tab, remove counters for services you have disabled on the target MAPreview server. Then change the alert limit on each active counter to zero, to generate an alert when a service exception is thrown.
- Step 5** On the Action tab, check the options to occurs when an alert is triggered.

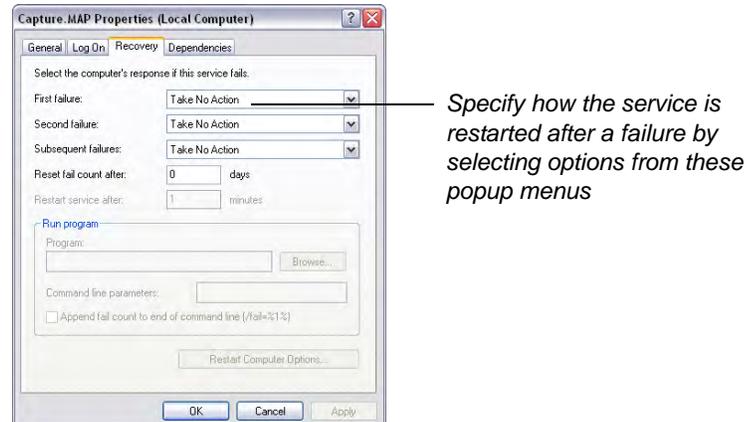
## Monitoring MAPreview server Storage Space

The fourth counter monitors the total storage space on the target (local) MAPreview server. By default it is set to issue an alert when the total available storage space is under 5%. Adjust this value to reflect the value limit you want to notified of, check the options to occurs when an alert is triggered.



Add additional counters, to monitor individual drives or partitions, or other options, such as CPU load.

Figure 4–6. Use the Recovery tab for service restart options



You can select options for first, second, and subsequent failures, and other settings as required. Telestream recommends setting the first and second failures to Restart Service, and subsequent failures to Restart Computer.

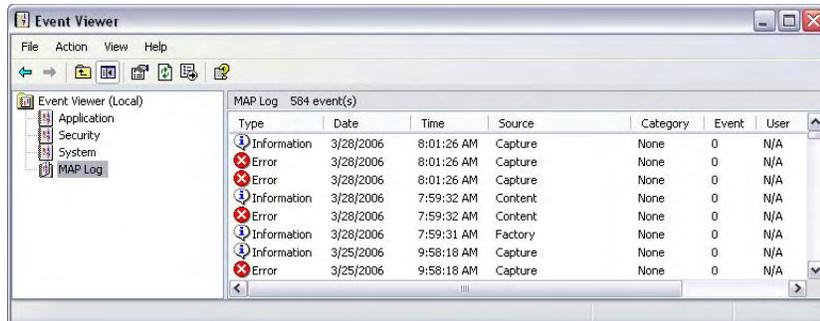


## CONFIGURING AND USING MAP EVENTREADER

EventReader provides email alerts when a MAP error occurs. To start EventReader, click Start > Programs > Telestream > MAP > EventReader.

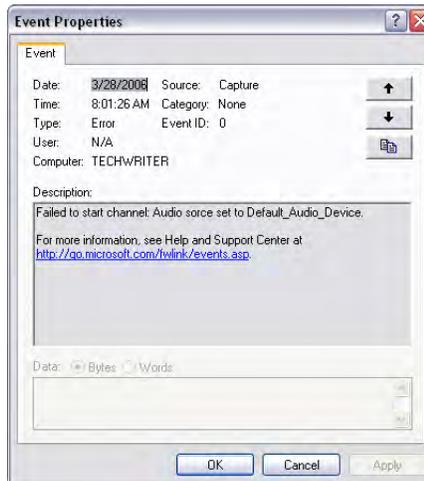
To view logs and their entries, in the system tray, right-click the EventReader icon and select Event Viewer.

Figure 4–7. Use the MAP event log to view MAP errors



For each event entry in the log, a line item displays details. Double-click any event to display the event's properties.

Figure 4–8. MAP errors generate events, which you can view



### Configuring EventReader

You can configure EventReader to monitor a specific log for an event type, and send an email when it is triggered.



**Step 1** In the system tray, right-click the EventReader icon and select Configure. By default the EventReader monitors the MAP (Event) Log for event errors.

Figure 4–9. Configure EventReader to send email when MAP errors occur



The screenshot shows the 'Event Monitor Configuration' dialog box. It has a title bar with the text 'Event Monitor Configuration'. Below the title bar is a section labeled 'Options'. Inside this section, there are several fields and controls: a dropdown menu for 'Select log to monitor:' with 'MAP Log' selected; a dropdown menu for 'Filter by these event types:' with 'Error' selected; a text input field for 'Email address to notify:'; a text input field for 'Mail Server:'; a text input field for 'From Address:'; a text input field for 'Authentication Account:'; and a text input field for 'Account Password:'. At the bottom of the 'Options' section, there are two checkboxes: 'Save Settings' (checked) and 'Run On Startup' (unchecked). Below the checkboxes are two buttons: 'Cancel' and 'Apply'.

**Step 2** Select an event log to monitor (default: MAP Log).

**Step 3** Select a type of error to filter from the dropdown list.

**Step 4** Provide an email address to be notified (a standard email address, an SMS email address, or a mobile phone email address).

**Step 5** Enter the Email server name or IP address.

**Step 6** Enter the address that will appear as the 'From' address.

**Step 7** Enter an authentication account if needed (include domain if needed).

**Step 8** Enter an account password if needed.

**Step 9** Check Run On Setup and click Apply.



## USING THE MAP MANAGEMENT CONSOLE

The MAP management console provides centralized control over the configuration and setup of each Capture, Content, and Factory service running in your MAP system.



### Note

Examples of using the management console for configuring MAP services are located in [Chapter 4, Guided Tours](#) on page 4-1. Details about using each MAP console are provided in [Online Help](#) – select the console icon (Capture, Factory, or Content) and click the Help icon in the toolbar.

## Starting the Management Console

Open the MAP management console ([Figure 4-10](#) on page 4-10):

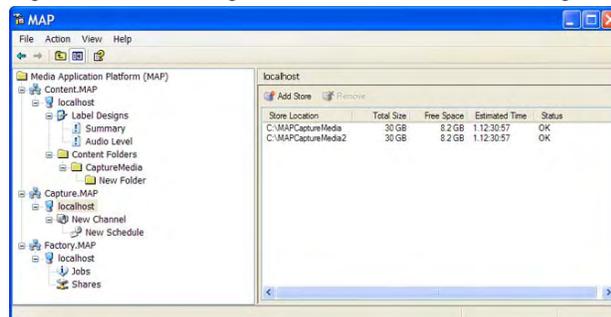
In MAP Explorer (Media Application Platform (MAP) icon under My Network Places highlighted) double-click the Manage services icon

–or–

Click start > All Programs > Telestream > MAP > MAP Management.

The management console displays each Content, Capture, and Factory.MAP service it is managing in the tree on the left.

Figure 4-10. Manage services in Windows management console



By default, the MAP services running on your local computer (in a single-server system) are automatically connected and identified as *localhost*. Open each service to display its contents. You can also connect distributed MAP services to this console ([Adding Distributed Services to the Console](#) on page 5-2).

---

## CONTENT.MAP ADMINISTRATION

Most Content.MAP administration can be performed by end users directly in MAP Explorer. However, the management console may also be used to perform many of the same tasks, and must be used when managing distributed Content.MAPreview servers. You can also use the console to add top-level media folders and establish their properties.



---

### Note

*Before end users can use MAP, at least one top-level media folder must be created in the media database. Media folders are directories in MAP for acquiring and storing media from three sources: Capture.MAP, media files added by end users via drag and drop, and media saved from media production and editing programs.*

*The media folders (which constitute the design of the media database) and their content (media, metadata, and associated data files) are all controlled and published by Content.MAP.*

---

Top-level media folders are published by Content.MAP for access by end users using MAP Explorer (a special MAP extension of Windows Explorer), and MAP-specific programs including MAP Player, MAP Quick Review, and third-party media programs.

A MAP media database with a single top-level folder is the simplest way to store media in MAP. A single top-level media folder provides end users access to all of the media in MAP through a single folder. On each media folder, you can right-click and select New > Folder to create multiple hierarchical folders for organizing media to meet your requirements.

If access to media in your MAP system should be restricted by a person's or organization's role, by organizational responsibility, or on a project-by-project basis, you can create several top-level folders for storing media. To restrict access, you use user and group IDs that have been established using Windows Users and Groups security to set up credentials and authentication requirements on each folder to limit access to content and also to control activities such as reading, changing, or deleting media or metadata files.



## Creating Media Folders



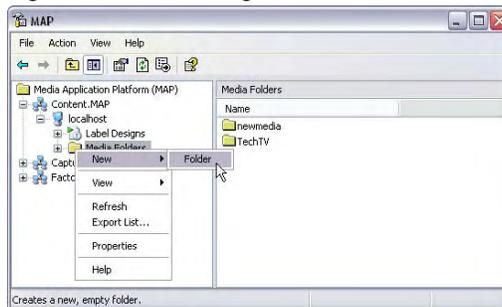
To create a top-level media folder, open the Content.MAPPreview server icon to display the Content.MAP service.

### Note

*You can also create media folders and set their properties directly in MAP Explorer by providing appropriate read, write, change, and delete privileges. Performing administrative tasks in MAP Explorer simplifies management of MAP services running on a local server.*

Open the service to display the Label Designs and Media Folders icons.

Figure 4–11. Creating new media folder



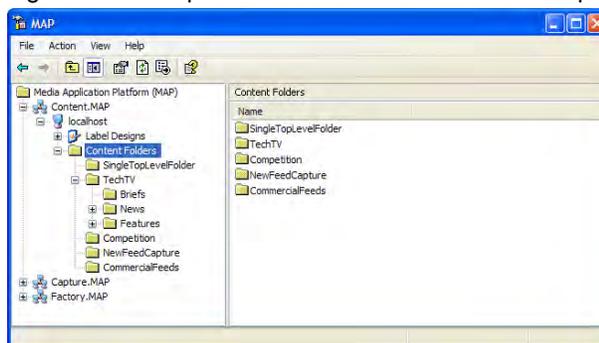
### Note

*When you install MAP, the services connect (by default) to the server as localhost (the same computer on which the console is running).*

To add a top-level media folder, right-click the Media Folders icon and select New > Folder. Content.MAP creates a new folder in the detail panel on the right, under Media Folders (when open) in the directory tree panel on the left.

Right-click the New Folder icon in either panel and select Rename to name this folder (the department or media project, for instance).

Figure 4–12. Top-level folders in the media folders panel



Media folders are organized to facilitate workflow in your environment. For example, in a media production environment like a TV station, you might set up a media folder for each news cast, and include media folders inside for raw, edits, review, and final.

## Setting Media Folder Properties

Media folder properties allow you to customize individual media folders or folder groups. Each media folder can be customized for specific functionality based on access, storage, expiration, versioning and metadata requirements.

For each media folder, you create a distinct set of properties which controls (among other things) how you access its media, where the folder actually stores media, when it expires, if other versions are created, and what kind of metadata is extracted. Media folders inherit properties from the parent folder by default, although you can override any property. In most cases, you'll inherit most properties, making it easy to set up a new media folder.

The Media Folders directory is the root folder in the media database, and provides default property settings for each media folder you create. If you want to change a property of all media folders in your MAP system, change the default properties of the (root) Media Folders folder. To display a media folder's properties, right-click on the folder and select Properties. Each folder has properties displayed in a different tab:

- General ([General Media Folder Properties](#) on page 4-13)
- Authentication ([Establish Media Folder Security](#) on page 4-14)
- Access ([Controlling User and Group Access](#) on page 4-14)
- Storage ([Establishing Storage Depots](#) on page 4-15)
- Expiration ([Setting Media Deleting Rules](#) on page 4-16)
- Notify ([Setting Media Deleting Rules](#) on page 4-16)
- Versions ([Creating New Versions](#) on page 4-17)
- Metadata ([Specifying Metadata](#) on page 4-18)



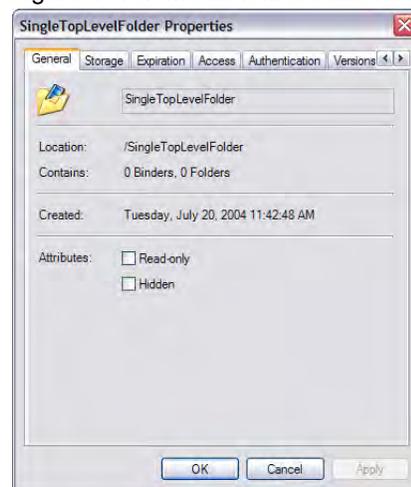
### Note

*For complete details about configuring each tab's properties, see the MAP User's Guide.*

## General Media Folder Properties

Use the General properties tab to create read-only or hidden media folders.

Figure 4-13. Media folder authentication properties



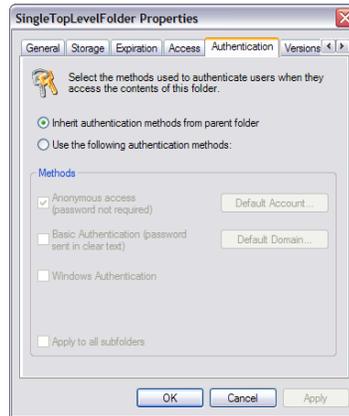
To make media in a specific folder viewable without allowing modifications to metadata for example, check Read Only. You may also have a media folder that you want to prevent clients from browsing – check Hidden.



## Establish Media Folder Security

The Authentication tab allows you to select an authentication method, and optionally, all enclosed sub-folders. By default, each media folder you create inherits the properties of its parent. In the case of a top-level folder, authentication is set to Anonymous access.

Figure 4–14. Media folder authentication properties



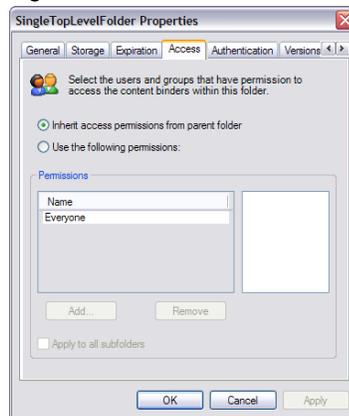
MAP uses Basic Web server authentication and allows administrators to select alternative methods of authentication. MAP supports Anonymous access, Basic Authentication in a Workgroup environment, and Windows Authentication (challenge/response) based on the user's current logged on credentials.

By default, Anonymous is checked. To change the authentication method, select Use the following permissions and select the authentication method to employ. Check Apply to subfolders to apply the authentication method to all sub folders.

## Controlling User and Group Access

Use the Access tab to specify which users and groups have access to media, and what type of access – Read, Write, Delete, and Change, or any combination.

Figure 4–15. Media folder Access properties



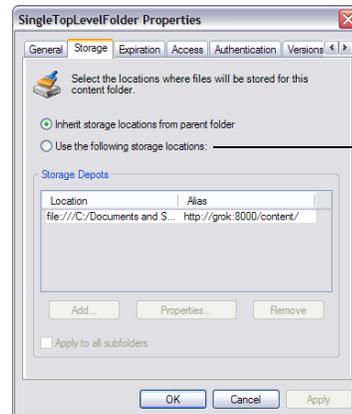
By default, anyone can access a folder's content via MAP Explorer or other client. To enforce security, select Use the following Permissions. Then, click Add and select each user or group to check the types of operation the entity is allowed. As always, click Apply to subfolders to apply this property to all media folders inside this media folder.

## Establishing Storage Depots

The Storage tab specifies the physical locations – *storage depots* – for content delivered through drag-n-drop or saved from a 3<sup>rd</sup> party media program, and for newly-created versions (performed automatically, based on Versions settings).

Storage for media should be established on the Content server by creating one or more folders, then specifying them as storage depots. Storage depots for captured media is established separately, using the Capture.MAP management console on the Capture server, and also referenced in this property dialog.

Figure 4–16. Media folder Storage properties



Click Use the following storage locations, then click Add to specify additional Content.MAP storage locations and Capture.MAP storage locations that should be accessible to Content.MAP.

For each storage depot, two identities may be supplied. The first identity (Location) is the physical location in fully-qualified form (*file:///C:/MediaFolder*) where the storage location is specified. By default, media is stored in Documents and Settings/All Users/Application Data/Content.MAP. You can add as many stores as required.

Storage depots are used in parallel; when MAP saves media, it is stored in the depot with the largest amount of free space.

Figure 4–17. Media folder Storage properties and Depot properties



Enter the physical storage location here.

If this storage location is used by Capture.MAP, check this box.

Enter an alias network location here.

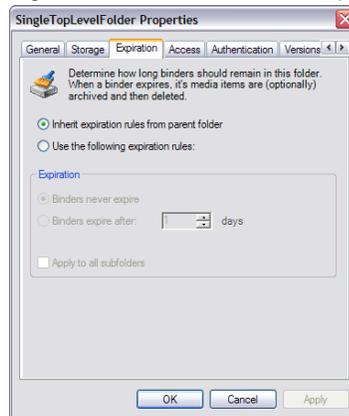
The second identity (Alias) is used to publish and provide access to media from external systems including IIS, media servers, or FTP servers, for example. For details about setting up an alias, see [Creating Aliases for Web Access](#), on page 6-8.



## Setting Media Deleting Rules

Use the Expiration tab to establish when (or if) media in this folder should be automatically deleted.

Figure 4–18. Media folder Expiration properties



By default, content never expires. If you configure a folder to expire media, Content.MAP notifies Archive.MAP when the media expires. Archive.MAP is responsible for copying the media onto DVD (or other storage medium) and notifying Content.MAP where it is stored for later retrieval. The archiving process allows you to automatically age media and move it off of primary storage as its value and utilization diminishes.

When you expire media, be sure to click the Versions tab, and check Create the following versions (even if the only version is the Master original) so that you can modify the Versions properties (Original, for example). Select the version and click Properties, then in the Version tab, check the options for actions you want performed when the binder expires.

To make changes to the target media folder's expiration rules (rather than inheriting the parent folder's expiration rules), check Use the following expiration rules; then set the expiration rules you want for this media folder (and optionally, its subfolders).



## Setting up Notification Rules

Use the Notify tab to set up emails that are automatically generated when new versions of media are created (using the Versions tab).

Figure 4–19. Media folder Expiration properties

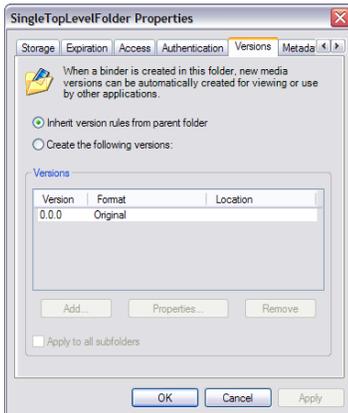


To send emails when new versions are created, check Use the following Notifiers, then click Add to create a notification.

## Creating New Versions

Use the Versions tab to automatically create new copies of media placed in this folder. Content.MAP sends transcoding jobs to Factory.MAP to produce new versions of the master file in this folder, whether it is dropped in manually, saved from a 3<sup>rd</sup> party media program, or created from Capture.MAP.

Figure 4–20. Media folder Versions properties



You can create one or more versions of media, and each new version may be stored in a different location. Versions can be created with QuickTime, Real, Windows Media, and MPEG1 System Stream encoders, for example.

Each version is displayed in the Versions list. Select a version and click Properties to display the Properties dialog where you specify individual codec parameters, encoders, and filters to be used during transcoding and whether the version will be created automatically or rendered upon the user's request. Details about codecs, encoders, and filter settings are located in Online Help.

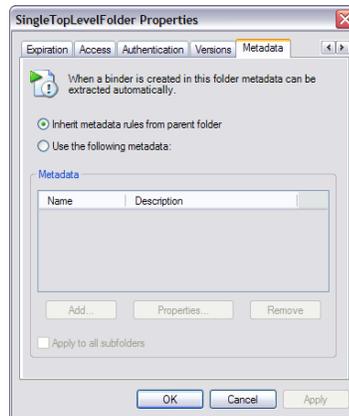


To create a version or set of versions that is different from this media folder's parent versions, check **Create the following versions**. Then, click **Add** to create the versions you want to be created for media ingested into this media folder (and optionally, subfolders).

## Specifying Metadata

Use the **Metadata** tab (Figure 4–21) to determine which metadata to attach to the media in this folder.

Figure 4–21. Media folder Metadata properties



Metadata includes track metadata such as closed caption, and keyframe, for example. You can also include general content information and add values or pass them through.

To create metadata that is different from this media folder's parent metadata, check **Use the following metadata**. Then, click **Add** to add metadata you want to be created for media ingested into this media folder (and optionally, subfolders).

---

## CAPTURE.MAP ADMINISTRATION

The MAP management console is used to administer Capture.MAP by setting up capture devices and channels to digitize and store live feeds based on a schedule.

Since the media you want to view (your competitor's newscast, for example) is broadcast live, you can configure your capture server with a capture card connected to an off-air feed, a satellite or cable network, and configure channels and schedules to digitize and store each newscast throughout the day.

A *channel* in MAP is an entity that identifies and controls a media capture device that encodes media on a schedule you set up, and stores it automatically.

### Accessing Captured Media in Content.MAP

If you are capturing live media in Capture.MAP, in addition to the required Capture.MAP setup tasks below, you need to reference the captured media in Content.MAP so that clients (MAP Explorer, MAP Player, etc.) can browse, manage and play the media. For example, you can create a media folder in the root media folder and name it Live, or Channel 7, etc. In its properties, check use the Following storage locations and reference the physical store (and optionally, an alias). For details, see ([Accessing Captured Media in Content.MAP](#)).

- Step 1** Install the capture device(s) and its software on the Capture.MAPreview server, according to the manufacturer's instructions.
- Step 2** Restart the server so that it recognizes the hardware. Perform any other configuration and set up recommended by the manufacturer.
- Step 3** Test the proper operation of the capture card or device, using Windows Media Encoder and Windows Media Player to insure proper functionality.
- Step 4** After a successful test of the capture device, create and configure a Capture.MAP channel to use the device.

### Add and Configure a Capture Card

To capture live media and save each segment as files in MAP, you need to configure the Capture server and set up a channel, including a schedule:

- Step 1** Identify a capture server.
- Step 2** Specify media stores.
- Step 3** Add and configure channels.
- Step 4** Create schedules.

When you've completed these steps, start the channel(s) so Capture.MAP will begin recording and saving segments according to the schedule.

### Launch the MAP Management Console

Open the MAP management console from start >Programs >Telestream > MAP > MAP Management, or when MAP Explorer is active (Windows Explorer with Media Application Platform (MAP) icon under My Network Places highlighted) double-click the Manage services icon.



## Add a Media Store

Before you can begin capturing media, you need a place to save the file as it is being recorded. When you install MAP, no capture store is identified. Stores for capturing media segments are specific to each server running Capture.MAP.

In most cases, you should specify the capture store or stores on hard disks residing directly on the Capture.MAPPreview server. This serves two purposes: First, it optimizes the capture of real-time media by writing files directly to a local disk. Secondly, it reduces the risk of storage access by eliminating a network connection that may fail or slow down due to other network traffic.

## Create, Share, and Specify a Store

To add a store, first create a folder to store captured media. On the drive where you wish to store the media, create a new folder and provide a folder name.



### Note

*In most cases you should specify the store as a UNC path, even though the store is local to the server. This makes the store as universally accessible as permitted in a network, and provides a common network path for access to the media by all users (local and remote) and preserves the application's ability to access the file in the most efficient manner.*

Next, right-click to select Sharing and Security.



### Caution

**Drive and folder sharing and its permissions is a complex topic, and affects the security of your media. Be sure to work with your security administrator to determine who to share directories with. These settings are for tour purposes only.**

In the Sharing Tab, click Share this folder. The Share name defaults to the folder name, which may be changed. For this tour, leave it the same.

Next, click Permissions, then select Everyone (or a specific set of users for more security), and check Allow Full Control.

Click OK to save the settings and dismiss the dialog. The icon for the selected folder should display with a hand, indicating sharing is turned on.



### Note

*Depending on your Windows configuration, sharing dialogs may vary.*

With the folder created and shared, click the Add Store icon in the Stores panel on the right. Capture.MAP displays the Browse for Folder dialog.

Figure 4–22. Browse For Folder dialog



Navigate to and select the folder (Figure 4–23) where you want media from this Capture server to be stored. It may be a local hard drive, network server, RAID, SAN, or other storage device.

To specify a UNC path for a local store, navigate through My Network Places > Entire Network > Microsoft Windows Network > MyCompanyDomain (or MyWorkgroup) > MyCaptureServer > MAPCaptureMedia, where *MyCompanyDomain*, *MyCaptureServer*, and *MyCaptureServer* are specific to your installation. UNC paths should always be used to eliminate ambiguity when accessing or storing media on network servers.

Figure 4–23. Locate and select the directory



Click OK to continue.

When you create a store, Capture.MAP interrogates the service to determine how much space is available on the volume, and reports other details as well. You can add as many stores as you need depending on your storage needs.

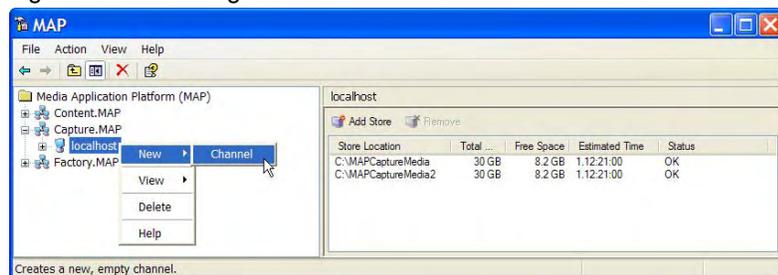
## Add and Configure a Channel

A channel in MAP is a logical definition of a specific capture device on a server, plus schedules that contain information about when segments are to be captured.

### Adding a Channel

To add a new channel, right-click on the icon of the server where the capture device is located, and select New > Channel (Figure 4–24). Capture.MAP adds a new channel under the server, named *New Channel*. Expand the server (if it is collapsed) to display channels you've defined on this capture server.

Figure 4–24. Adding a channel in MMC



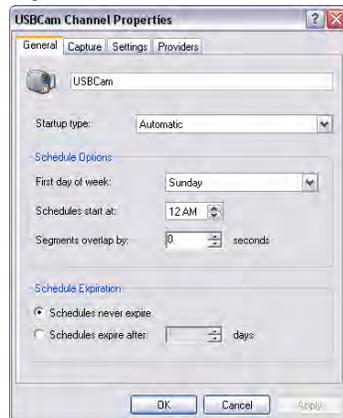
## Configuring a Channel

To configure the channel, right-click the channel icon and select Properties to display the Channel Properties dialog. When you select a channel, the channel details and a video monitor are displayed in the right frame of the console.

## Setting Schedule Options

Use the General tab (Figure 4–25) to name the channel and specify how it starts (Telestream recommends setting startup to Automatic).

Figure 4–25. Channel General properties window



You also specify basic information about when the schedule starts, which day the week begins (used by the scheduler), what hour the schedule begins (when recording a live feed from a different time zone, for example), segment overlap time (to insure no loss of media during segment transitions), and schedule expiration details.

## Specifying Encoder and Destination

Use the Capture tab (Figure 4–26) to select the encoder parameters and the media folder that will be used to store this media's information. The media folder is a folder you created in Content.MAP as the location for each segment created by Capture.MAP according to segments in the schedule.

When a media segment is created, Content.MAP automatically creates a sub-folder chain in the selected folder: *Folder Name\Channel Name\Schedule Name\Year\Month\Day\Segment File Name*.

Figure 4–26. Channel Capture properties



Capture.MAP uses the Windows Media 9 encoder exclusively. Click Modify to change the WM9 default encoder settings.

Next, select the channel's default media folder. This is the media folder that will contain all of the information gathered about the captured media. Under Media Folder, click Select and browse and select the top level folder. The media folder should be selected by navigating through My Network Places > Media Application Platform (MAP) so that a UNC path is created. Prior to selecting this media folder, you must connect to the target media folder using the Add a Media Folder wizard.

As the file for this capture segment is being captured, Capture.MAP will notify Content.MAP of the location where the physical media file is stored. Content.MAP will create a folder tree under the top level media folder in the following format:

```

TopLevelFolderName
  ChannelName
    Year
      Month
        Day
          SegmentName
  
```

## Audio and Video Settings

Use the Settings tab (Figure 4–27) to choose your input video and audio input devices and configure broadcast settings.

Figure 4–27. Channel Settings properties



Click in the right column of Audio source and select an audio device.

Click in the right column of Video Source; select a video capture device.

If the capture device has multiple video input types, set this to the appropriate type by expanding Video Source and adjusting the Input value.

Open Broadcast if collapsed, and select the Enabled property. Change its value to True so that Capture.MAP can stream the live captured media allowing the user to watch the media as it is captured.

If the live stream generated by the Capture.MAP encoder is intended for viewing by more than two clients, you should consider controlling the stream via a Windows Media Server publishing point. The publishing point is used as the



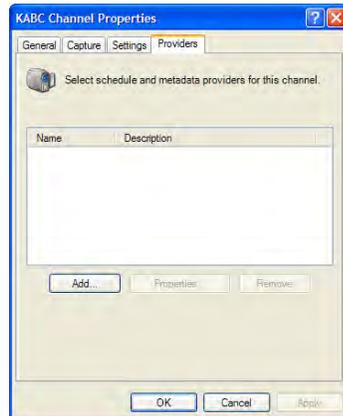
alias to the live stream. For example, you have a channel broadcasting the live stream on port 10000. The publishing point is `http://MAPCaptureServer or <IP Address>:10000`.

The encoder process on a MAP Capture server is limited to 5 concurrent connections, including any stream connections within MAP services. Managing connections to the live streams is best handled using Windows Media Services.

## Selecting an Automatic Scheduler

Use the Providers tab (Figure 4–28) to choose an automatic scheduler for this channel. You can also set up ratings data files and As Run automation logs.

Figure 4–28. Channel Providers properties



Click to select TV Schedule, and click Configure to select the channel for which you want a schedule automatically generated.

Click to select Ratings or As Run, and click Configure to enter the path where the ratings files or As Run logs are located.

Refer to [Tour 10] Creating Schedules in Capture.MAP in the Quick Start Guide, for a tour about creating schedules and using the Auto Scheduler.

Click OK to update the settings and close the Properties dialog.

## Creating Schedules

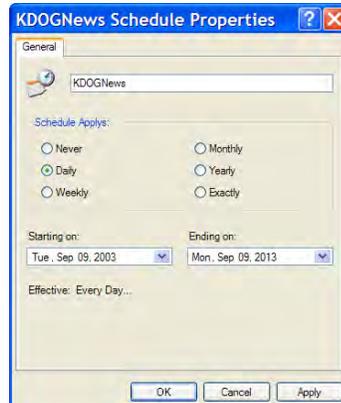
Right-click the new channel and select New > Schedule. The schedule properties dialog displays, where you provide an appropriate schedule name and set up schedule details.



## Schedule Properties

Schedule properties (Figure 4–29) consist only of the schedule name, the type (day, week, etc.), and the start and stop times.

Figure 4–29. Name the schedule, specify the type and time period

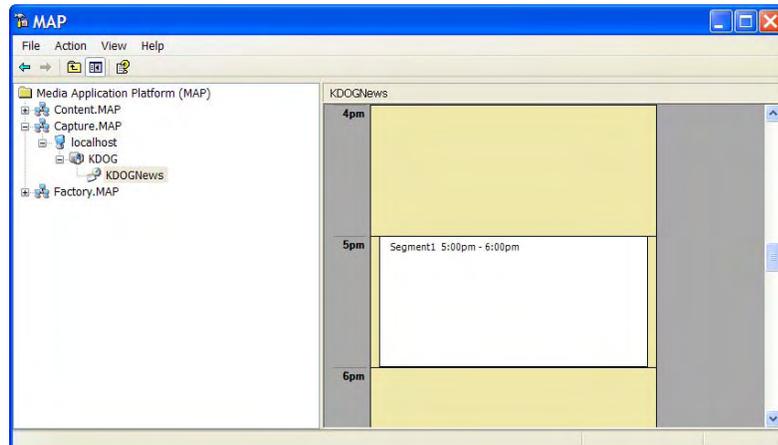


For this schedule, select Daily, and change the ending date to one year later than the beginning date. Click OK to save and close the dialog.

## Creating Segments

Next, click the schedule to display the schedule frame (Figure 4–30), where you create the segment by identifying the start and stop times.

Figure 4–30. Create a new segment in the schedule frame



To create a segment schedule, click and drag from 5 PM to 6 PM. It's OK to be approximate—once you create a segment, you can right-click to display the properties and adjust the time as appropriate.



### Note

*The scheduler permits segments as short as five minutes. Short segments can be difficult to manipulate or see in the default view. Use the zoom feature by right-clicking in the schedule frame to zoom in.*

## Segment Properties

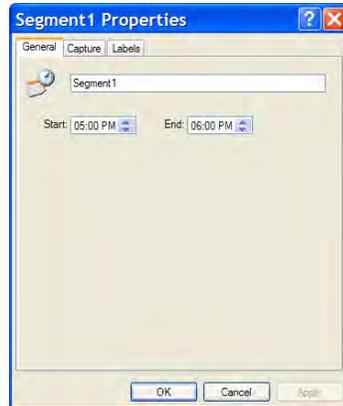
To display the Segment Properties dialog, right-click anywhere in a segment and select Properties. Segment properties include General, Capture, and Labels.



## Setting Segment Name and Times

Use the General tab (Figure 4–31) to name the segment – *5oclocknews*, for example. You can also adjust the start and end times.

Figure 4–31. Segment properties – General tab



## Specifying Encoder and Destination

Each segment inherits the encoder and media folder properties from the channel. However, a schedule segment can override inherited properties.

Figure 4–32. Segment properties – Capture tab

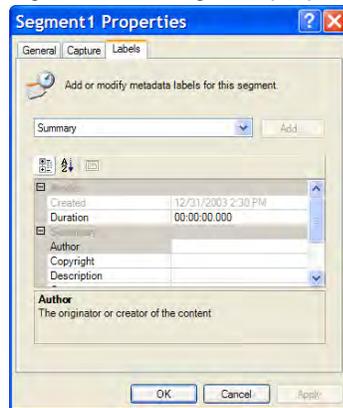


Modify these properties on a segment by segment basis if you want them to be different than the channel the segment belongs to.

## Setting up Metadata

Use the Labels tab (Figure 4–33) to add metadata labels, and to add or make changes to the values in each metadata label.

Figure 4–33. Segment properties – Labels tab



Click OK to save these settings and dismiss the Properties dialog.

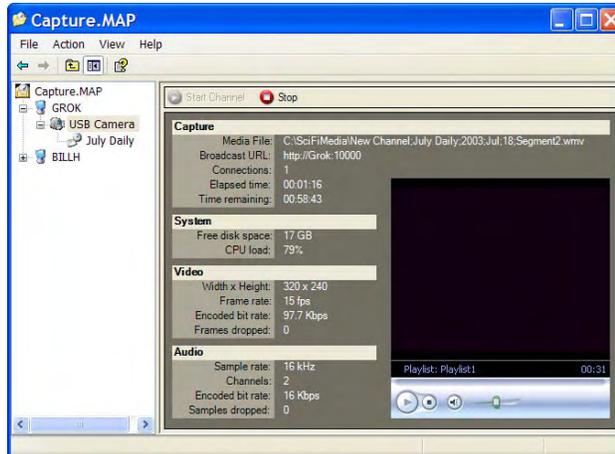


## Starting a Channel

With your capture device set up and the segment schedule created, click on the channel (Figure 4–34) to display the channel details. (The console reminds you if you have made changes to the schedule and haven't saved them yet—click Save to proceed.)

In the details frame, click Start Channel. Capture.MAP starts the channel and checks the schedule to begin recording at the correct time. Since your schedule indicates recording should start, you'll see it begin recording, and broadcasting the media if Broadcast > Enabled is set to True.

Figure 4–34. Capture.MAP channel details and video monitor



The channel details frame displays information about capture, system, video and audio. To the right is a player window with controls. If you enabled broadcast, the media can be displayed in the player window when the play button is clicked.

---

## FACTORY.MAP ADMINISTRATION

The MAP management console is used to administer Factory.MAP, which involves adding distributed Factory.MAP services (if you have any) to the console, and configuring distributed Factory services.

You also use the console to create and manage media portals and their tasks.

### Distributed Factory.MAP Services

MAP can be configured to utilize multiple, distributed Factory servers for transcoding or analyzing MAP media. The local MAP Content server distributes Factory tasks to connected Factory services based on the current *load factor* on each factory.

The load factor is a numeric value that each Factory server provides to Content.MAP when a job is being distributed. Each factory computes its load factor by dividing its maximum concurrent process setting (2 by default) by the number of jobs it is currently processing. This fractional value represents the load for the MAP Factory server.

Content.MAP service distributes the current job to the Factory server with the lowest load factor at the time of the query.




---

#### Note

*The multi-factory configuration is stored in the local MAP Content server database. Make sure that you are adding Factory services to the MAP Management Console locally, or directly, on the MAP Content Service that you want to distribute factory tasks.*

---

### Steps to Configure Multiple Factory Services

To configure Content.MAP for multiple Factory services, perform these tasks:

#### Step 1

Install and start Factory.MAP services.

Determine how many factory servers you need. Then, install each Factory service and restart the server. Make a list of the name of each Factory server.

For a specific Factory server to properly access and process media files directed to it by a Content server, the Factory service must be running under an account that has the requisite credentials to access the source media's physical storage location.

Telestream recommends that the account specified as the Log On identity for the MAP Content service (on the MAP Content server) is also used as the Log on Identity for the MAP Factory service on each Factory server you add to the Factory.MAP management console for processing tasks.

For example, if the Content service is running under the *MyDomain/MAPUser* account, each MAP Factory service on each MAP Factory server should be configured to run under the *MyDomain/MAPUser* account as well.

#### Step 2

Add each Factory to the management console.



For each Factory.MAP you've installed on another server, right-click the Factory.MAP icon and select Add Server from the popup menu. The console displays the Browse for Computer dialog. Locate the server or enter its name in the text field and click OK to connect it to this management console and update the local Content Server database.

When you add a Factory, it is displayed in the list under Factory.MAP.

**Step 3** Optionally, modify the maximum concurrent processes per factory.

## Modifying Maximum Concurrent Processes

A single server running Content and Factory services should be restricted to two concurrent Factory processes. If Content service is heavily utilized (more than ten clients are connected, large volumes of media is being ingested and analyzed, or there is a heavy transcoding load), it is recommended that the local MAP Factory service processes be set to zero and distributed Factory server be used to process all Content.MAP requests.

A server running Factory service exclusively can be set to process up to five Factory job processes concurrently.

To modify the number of concurrent MAP Factory job processes follow these steps on each MAP Factory server.

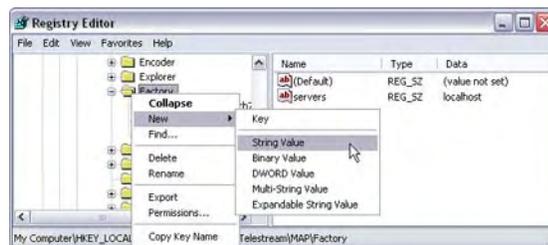


### Caution

**Editing the registry incorrectly may cause your MAP system to fail, or your server to stop operating correctly. Back up your registry so you can restore it if you make an error. If you are unsure of how to back up the registry or perform editing correctly, check with your system administrator.**

**Step 1** Open the Registry Editor (REGEDIT). Open the Run dialog (Start > Run). Enter `regedit` in the Open text field and click OK.

**Step 2** In the Registry Editor Navigate to this key:  
HKEY\_LOCAL\_MACHINE\Software\Telestream\MAP\Factory.



**Step 3** Right-click the Factory key and select New > String Value. Enter a new name: `limit`

**Step 4** Double-click the limit string to display an Edit String dialog.





**Step 5** Enter a numeric value that represents the maximum number of concurrent jobs for this Factory service. Click OK and close the Registry Editor.

**Step 6** Restart the service or reboot the server for changes to take effect.

To illustrate the effect of maximum concurrent processes on the load factor, note that a Factory with 8 maximum processes that is currently processing 3 tasks has a factor of  $3/8$ , while a Factory with the default 2 maximum processes running a single job has a factor of  $1/2$ . So, the factory running 1 job has a lower load factor than the Factory running 3.

## Adding and Removing Factory.MAP Preview servers

The management console maintains a list of Factory.MAP services to which it is connected and is currently monitoring. The management console automatically connects to the Factory.MAP service running on the same server, if any. If you have installed additional Factory.MAP services on other servers, you can connect to them and monitor them from a single console. You can also remove them at any time. Disconnecting a Factory.MAP service from a management console does not disable or uninstall it, or affect its operation in any way.

### Adding a Factory.MAP Preview server

To add a Factory.MAP service you've installed and is operating on another server, right-click the Factory.MAP icon and select Add Server from the popup menu. The console displays the Browse for Computer dialog. Locate the server or enter its name in the text field and click OK to connect it to this management console.

### Removing a Factory.MAP Preview server

To remove a Factory.MAP Preview server, click or open the Factory.MAP icon to display the list of servers. Right click on the server icon in the discovery tree panel or the details panel and select Delete. The console displays a Confirm Server Disconnect dialog. Click Yes to delete it, or No to cancel.



## Managing Media Tasks

Click the Media Tasks icon to display a list of tasks operating on media (or other files) in binders, plus details about the task. These tasks include rendering new media for storage in media folders, and for analyzing and extracting metadata, or for indexing text in associated files, for example.

Table 4–1. Media Tasks Table

Column	Description
Name	The name of the binder the task is being performed on.
Task	Specific type of task being performed - Analysis, or Render, for example.
Done	Displays the approximate percent of completion for this task.
Rate	Displays the approximate transmission speed for delivery tasks.
Remaining	Displays the approximate time remaining until completion of this task.
Date	Displays the date and time stamp that indicates when this task was completed.
Status	Provides information that may help you determine why the transcoding request failed. Some failures may be due to circumstances external to Factory.MAP. For example, there may be an authority or authentication problem when accessing the share, or there may be insufficient disk space on the volume. In these cases, you may be able to rectify the problem, and retry the request. Other times, the failure may be due to content in the media file, a missing encoder, an encoder assigned to a misnamed file suffix (an MPEG file named .wmv, for example) or other media-related problem. You can optionally delete the request, rectify the problem, and resubmit the request manually. To submit a request manually, select the media file in the binder in Content.MAP, right click and select the request option from the render menu.

### Resume

Select a task from the list and click Resume to re-start a task that had previously been paused, which you are ready to start processing again.

### Pause

Select a task from the list and click Pause to temporarily halt a tasks that is currently being processed.

### Retry

Select a task from the list and click Retry to re-submit the task that had previously failed, which you are ready to process again.



## Delete

Select a task from the list and click Delete to delete the task from the task queue.



### Note

*When a task is created (or fails), Factory.MAP displays a balloon directly above the Factory.MAP icon in the tooltray to alert you of information about the task. You can click the balloon to open the operator console.*

## Creating a Media Portal

You create a media portal when you want to transcode and deliver media to external media system by dragging and dropping media files onto a media portal in MAP Explorer.

To create a new media portal, display the management console or the Factory.MAP operator console.

In the management console, click the New icon in the Factory.MAP service where you want to create the portal.

In the operator console, display the Media Portal tab and click the New icon in the toolbar at the bottom.

Factory.MAP displays the Create a Media Portal window. Select an encoder for this portal or select Copy to reproduce the original file in the same format. Click Next to continue.

Factory.MAP displays the Portal Properties dialog for the new portal. When you're done reviewing and updating settings and values in each of the tabs, click OK to create the media portal.



### Note

*If you click Cancel, Factory.MAP creates the media portal for you with default values. You can edit the media portal values by selecting it and clicking Properties, or you can delete it by clicking Disconnect if you did not intend to create it.*

## Using the Network Location Wizard

When you're creating a media portal, click Browse on the media portal's Properties dialog, General tab to run the Network Location Wizard. The purpose of the wizard is to help you correctly format the fully qualified connection scheme for the type of device you're targeting as a destination. The wizard has several windows, which vary depending on the type of server you select.

### Welcome Window

Select the type of server you're targeting from the dropdown list.

[FTP Server](#)

[HyperLaunch Receive Server](#)

[Local Drives or Network File Shares](#)

[Network File Share \(Different User Name and Password\)](#)

[Secure HyperLaunch Receive Server](#)



Click Next to continue. Click the server type you selected from the topics above to continue.

### FTP Server

Use this server type to connect to a server via FTP.

**Name or IP Address.** Enter the name or IP address (for example, acmeftp.com, or 192.168.10.12). If local, you can click Browse. *localhost* is specified automatically.

Click Next to continue.

**Credentials.** Enter the user name and password (unless anonymous is selected). Check anonymous login for anonymous access and provide your email address in the user name by convention. Check passive mode if required for firewall compatibility.

Click Next to continue.

**Directory.** The wizard connects to the server and displays a list of directories. Drill down to the target directory and click Finish. Icons in the toolbar permit you to (from right to left) go up one level, create a new folder, refresh the list, display other views, and go.

The network address is filled in automatically. For example, ftp://joeuser:qwerty@acmemedia.com/media.

Click Next to finish the wizard and return to the Media Portal Properties dialog.

### HyperLaunch Receive Server

Use this server type to connect to a HyperLaunch Receive Server.

**Name or IP Address.** Use the Network Location Wizard to supply the domain name or IP address and assigned port number (default 69 – may be different).

Click Next to continue.

**Credentials.** Enter the user name and password. Make sure that the user name and password are properly formed for the type of authentication you're using on the Windows server hosting the HyperLaunch Receive server.

In many cases it may be necessary to prepend your domain or workgroup name to your user name, separated by a single back slash. For example, *MyDomain\myusername*. The user name and password are authenticated when you set up a HyperLaunch Receive portal, and during periodic connection checks.

Click Next to continue.

**Directory.** The wizard connects to the server and displays a list of directories. Drill down to the target directory and click Finish. Icons in the toolbar permit you to (from right to left) go up one level, create a new folder, refresh the list, display other views, and go.

The network address is filled in automatically.

For example, pmp://acmemedia.com:69/media.

Click Next to finish the wizard and return to the Media Portal Properties dialog.



## Local Drives or Network File Shares

Select this type of server when you want to connect to a local directory or network-accessible file server directory using Content.MAP service's user name and password. By default, MAP services run under Local System Account. If you are targeting a file server, you should change the Content.MAP service properties to run under a user name and password that has access to the target file server and restart the service.

**Name or IP Address.** Enter the name or IP address (for example, acmeftp.com, or 192.168.10.12) and specify the port number. If local, you can click Browse. localhost is specified automatically.

Click Next to continue.

**Windows computer name or file server.** Enter the name of the server in the format \\ServerName (for example, \\MediaServer. To view the servers available to you, open Windows Explorer. Right-click My Network Places and select Open. In the Task panel, click Entire Network.

To view your local computer, check Browse the drives on this computer.

Click Next to continue.

Browse for a file or folder on this server. The wizard connects to the server (or your local computer) and displays a list of directories. Drill down to the target directory and click Finish. Icons in the toolbar permit you to (from right to left) go up one level, create a new folder, refresh the list, display other views, and go.

The network address is filled in automatically. When connecting to a network server, the scheme is: file://netmediasvr/mediadir, for example. When connecting to a local directory, the scheme is: *file:///C:/ADestination*, for example.

Click Next to finish the wizard and return to the Media Portal Properties dialog.

## Network File Share (Different User Name and Password)

Select this type of server when you want to connect to a network-accessible file server directory using a specific user name and password. By default, MAP services run under Local System Account. If you do not want to change the Content.MAP service user name and password, you can enter credentials for this media portal to use when connecting.

**Name or IP Address.** Enter the name or IP address (for example, acmeftp.com, or 192.168.10.12).

Click Next to continue.

**Credentials.** Enter the user name and password required to access this network server and directory.

Click Next to continue.

**Directory.** The wizard connects to the server and displays a list of directories. Drill down to the target directory and click Finish. Icons in the toolbar permit you to (from right to left) go up one level, create a new folder, refresh the list, display other views, and go.

The network address is filled in automatically. For example, *cifs://ACMEMEDIA%5cjoeuser:med799guy@mediasvr7/media*.

Click Next to finish the wizard and return to the Media Portal Properties dialog.



## Secure HyperLaunch Receive Server

Use this server type to connect to a secure HyperLaunch Receive Server.

**Name or IP Address.** Enter the name or IP address (for example, hyperlaunch.acme.com, or 192.168.10.12:69). The default port (69) may be changed – validate the port number before sending. The RSA public key is obtained automatically.

Click Next to continue.

**Credentials.** Enter the user name and password. Make sure that the user name and password are properly formed for the type of authentication you're using on the Windows server where HyperLaunch Receive server is installed.

Click Next to continue.

**Directory.** The wizard connects to the server and displays a list of directories. Drill down to the target directory and click Finish. Icons in the toolbar permit you to (from right to left) go up one level, create a new folder, refresh the list, display other views, and go.

The network address is filled in automatically.

For example, pmps://acmemedia.com:69/media.

Click Next to finish the wizard and return to the Media Portal Properties dialog.

## General Properties

To view and update a portal's general properties, click the selected portal and click the Properties icon. Click the General tab to display the following settings.

Table 4–2. General Properties

Item	Description
Name	The user name that identifies this portal. When you run the Add a media portal wizard in MAP Explorer, this is the name displayed in the list of available media portals.
Network Address	The URL of the destination. You can enter the URL manually, or click Browse to allow the Network Location Wizard create one for you automatically as you locate the destination.

## Encoder Properties

To view and update a portal's encoder properties, click on the selected portal and click the Properties icon. Click on the Encoder tab to display the following settings:

Table 4–3. Encoder Properties

Item	Description
Extension	Select the file extension you want to add to the media file when it is created.



---

## CODECS PROPERTIES

To view and update a portal's codec properties, click on the selected portal and click the Properties icon. Click on the Codecs tab to display these settings.

Table 4–4. Codecs Properties

Item	Description
Codecs	<p>In the top list, select one of the audio and/or video codecs you want to be employed when this media file is created. Do not select more than one audio or video codec from the list.</p> <p>To actually change the selection of the codec, click it once to highlight it. Click it again to turn the checkbox on or off.</p>
Codec Settings	<p>First, click the codec whose settings you want to set or view in the top codec list. The settings for this codec are displayed in the properties panel directly below. If the settings are inactive (gray and non-editable), it is because this codec is unchecked in the list above.</p> <p>To change settings, click in the right column for each parameter, and enter the value or select it from the popup list.</p> <p>For details on Codec settings, refer to the MAP Planning, Installation, and Configuration Guide, Appendix C, Media Formats.</p>



## Filters Properties

To view and update a portal's filter(s) properties, click on the selected portal and click the Properties icon. Click on the Filters tab to display the following settings:

Table 4–5. Filters Properties

Item	Description
Filters	In the top list, select the filters you want to be employed when this media file is created. To actually change the selection of the codec, click it once to highlight it. Click it again to turn the checkbox on or off.
Filter Settings	First, click the filter whose settings you want to set or view in the top filter list. The settings for this filter are displayed in the properties panel directly below. If the settings are inactive (gray and non-editable), it is because this filter is unchecked in the list above. To change settings, click in the right column for each parameter, and enter the value or select it from the popup list. For details on Filter settings, refer to the MAP Planning, Installation, and Configuration Guide, Appendix D, Pre-processing Filter Formats.

## Supported Protocols

Factory.MAP provides several schemes you can use to connect to different types of shares where you want media delivered. Each scheme has its own format, including optional user name and passwords.

Each scheme follows a general layout: Scheme Name://Authority or Name/Fully Qualified Path and Directory or address

The following table describes each protocol and its format.

Table 4–6. Supported Protocols

Protocol	Description and Parameters
File	Use the File scheme to connect to a local directory or network server standard Windows file transfer. Example: File:///C:/DestinationFolder.
CIFS	Use the CIFS scheme to connect to a server via CIFS, typically used when requiring a specific user name and password. Example: cifs:// ACMEDIGMEDIA%5cMAPUser@dev/ MediaStorage
FTP	Use the FTP scheme to connect to a server via FTP. Example: ftp:// mediauser:userpswd@168.192.81.40/antfarm or ftp://mediauser:userpswd@mediasvr7/antfarm.
HTTP	Use the HTTP scheme to connect to a server HTTP. Example: http://mediaserver/mediafolder.







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# MAP Administration

This chapter provides MAP administrators step-by-step instructions for accomplishing configuration and other administrative tasks.

## Topics

### *General MAP Administration*

- [MAP Software Versions](#) on page 5-2
- [Adding Distributed Services to the Console](#) on page 5-2
- [Selecting the MAP Service To Manage](#) on page 5-3
- [Creating MAP Services Alerts](#) on page 5-3
- [Synchronizing MAPreview servers](#) on page 5-7

### *Capture.MAP Administration*

- [Capture Service Regular Maintenance](#) on page 5-10
- [Add a Capture Card](#) on page 5-13
- [Create and Configure a Channel](#) on page 5-14
- [Create and Configure a Schedule](#) on page 5-15
- [Establishing Multiple Schedules](#) on page 5-16
- [View Live Streams During Capture](#) on page 5-17
- [Capturing Ratings Provider Metadata](#) on page 5-18
- [Setting up As Run Logs](#) on page 5-22
- [Setting Up a TV Schedule Provider](#) on page 5-23
- [Converting Speech to Text](#) on page 5-24
- [Enabling Speech Recognition](#) on page 5-25
- [Burning in Time Code](#) on page 5-25

### *Content.MAP Administration*

- [Add a Top-Level Distributed Media Folder](#) on page 5-27
- [Configuring Media Folder Properties](#) on page 5-28
- [Create a New Version of Master Media Files](#) on page 5-29
- [Saving a New Version on External Systems](#) on page 5-29

### *Factory.MAP Administration*

- [Concurrent Transcoding Jobs](#) on page 5-31
- [Monitoring and Resubmitting Transcoding Jobs](#) on page 5-32

### *Using Archive.MAP*

- [Archiving Expired Media](#) on page 5-33
- [Restoring Archived Media](#) on page 5-33



## GENERAL MAP ADMINISTRATION

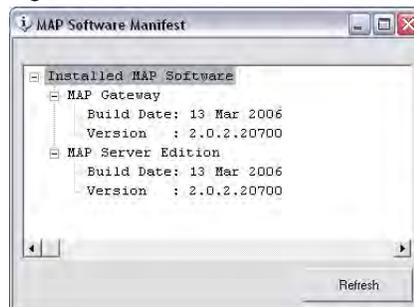
Many configuration tasks may be accomplished directly in MAP Explorer, as well as in the MAP management console (often referred to simply as *MMC*), especially when you are configuring a local MAP service.

Administration and configuration of distributed MAP services is performed using the MAP management console.

## MAP SOFTWARE VERSIONS

To determine which MAP software is installed on a given server, go to start > All Programs > Telestream > MAP > Version Information.

Figure 5–1. Add a distributed service to the MAP console



The MAP Software Manifest application displays a list of all MAPPreview server software installed, and details about the version.

## ADDING DISTRIBUTED SERVICES TO THE CONSOLE

The purpose of the MAP management console (often referred to as *MMC*) is to provide the MAP administrator centralized control over the configuration and setup of each Capture, Content, and Factory service running in your MAP system, no matter where they are on the network.

MAP services that are running on the same server as the console (*localhost*) are automatically connected and ready for administration. In a multi-server environment, you can connect distributed MAP services to a single MAP management console for administration, or you may connect some services to one console, and other services to another console.

For example, you have installed two Factory.MAP services, two Content.MAP services, and four Capture.MAP services, for a total of eight servers.

In one scenario, you connect all of the MAP services to a single MAP management console for unified access by a single administrator. In another scenario, you connect the Factory.MAP and Content.MAP services to one console, and the Capture.MAP services to a separate console on two different servers.



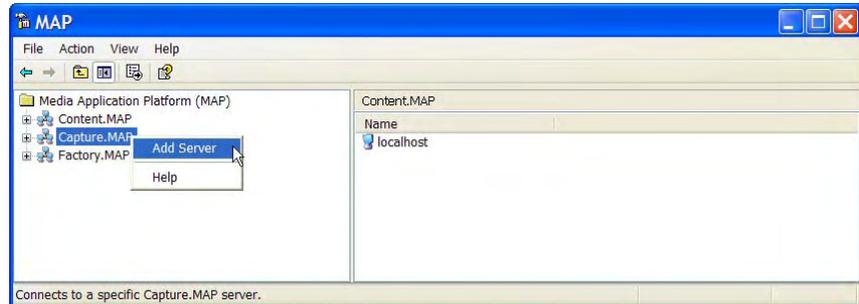
If you are administering Capture.MAP (or other service) from a computer that is different from the server that the service is running on you need to add the service to the console.

To connect all of your services to a single console, follow these steps:

**Step 1** First, identify each Capture, Content, and Factory.MAP service you've installed.

**Step 2** Next, identify the server you want to perform MAP management from.

Figure 5–2. Add a distributed service to the MAP console



**Step 3** Right-click on Capture.MAP and select Add Server to display the Browse for Computer window.

**Step 4** Next navigate to the server that is running the Capture, Content, or Factory.MAP service you want to add. You can add as many services as you wish. In this way you can control and configure all of your services from one MAP management console. Click OK to add it. (Local services are connected by default, and named *localhost*.)

---

## SELECTING THE MAP SERVICE TO MANAGE

When all of your MAP services are connected to a single Management Console, you can open the console, open a specific service type (Capture, for instance), view a list of all Capture services, and select the one you want to manage.

---

## CREATING MAP SERVICES ALERTS

You can create alerts in Windows to monitor and report on error conditions that may arise with MAP services. You can also create alerts to monitor performance of each MAP service – Content, Factory, and Capture.MAP, and HyperLaunch services as well.



Use this section to set up alerts to quickly and efficiently notify operations personnel of potential problems or failures in MAP services, and for all automatic recovery from failures.



### Note

*Alerts are processed by the Messenger service. By default, the Messenger service is disabled in Windows XP. To enable Messenger, open Control Panel > Administrative Tools > Services. Right-click Messenger in the services list and select Properties. On the General tab, change Startup type to Automatic and click Apply. Next, click Start to start the Messenger service. When it starts, close the dialog.*

You can create alerts that monitor a wide range of metrics, including runtime errors, disk space, and others. For example, you can create an alert that monitors Capture.MAP and notifies you via email that disk space on the capture server is running low.



### Note

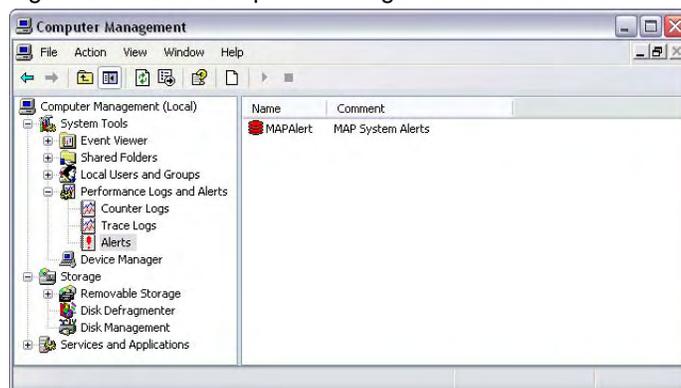
*Details about creating alerts is available directly from the Microsoft Web site at [www.microsoft.com](http://www.microsoft.com).*

## Network Message Alert Action

To create a network message alert action when .NET exception occur, follow these steps (Windows Messaging Service must be enabled):

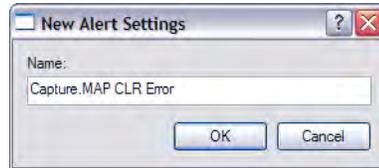
- Step 1** Display the Computer Management console: open Control Panel > Administrative Tools > Computer Management.
- Step 2** In the Computer Management console (left panel), expand System Tools > Performance Logs and Alerts.

Figure 5–3. Use Computer Management to create alerts



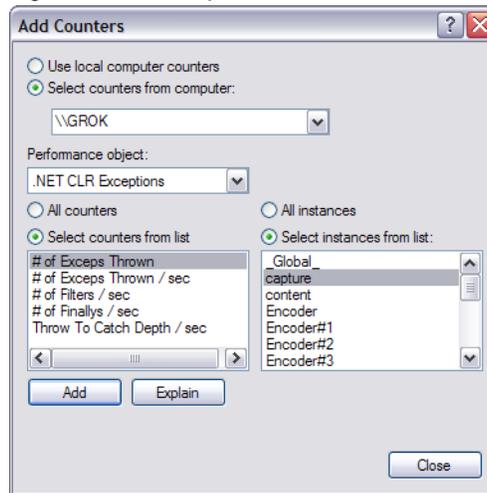
- Step 3** Right-click the Alerts icon and select New Alert Settings to name the alert you're about to create. Enter the name for the alert and click OK.

Figure 5–4. Name the new alert



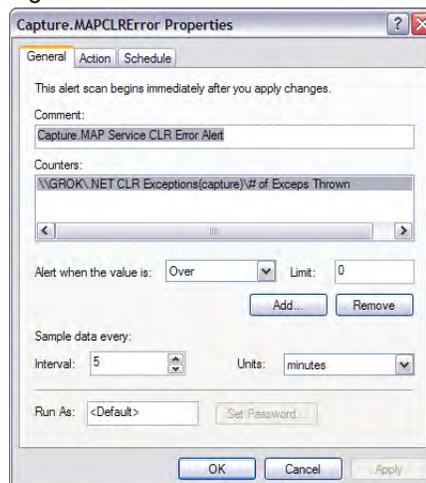
- Step 4** The console displays the property dialog for the new alert. Click Add to display the Add Counters window.

Figure 5–5. Set up the alert counters



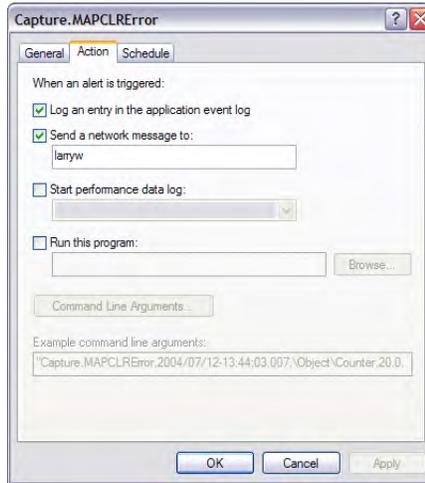
- Step 5** Complete this window by selecting where the counters are located, which counters to use, and which instance (service) to monitor. Click Add to close the window and add the counter.

Figure 5–6. Provide a comment for the alert



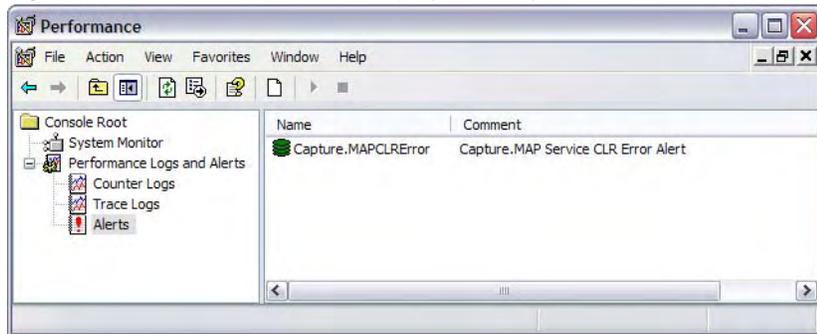
- Step 6** Enter a comment, and specify the threshold for the alert to operate – in this example, when a CLR (Common Language Runtime) error occurs (value is over 0), tested every 5 minutes for the Capture service.
- Step 7** Click Action to display the Action tab.

Figure 5–7. Use the Action tab to specify what action to take



- Step 8** Check the options to occur when an alert is triggered. For example, you can check Send a network message and enter the computer name (or multiple computer names, separated by a semicolon). When you’ve configured the alert, click Apply or OK to implement the alert. The alert is displayed in the details panel on the right.

Figure 5–8. Performance MMC displays alerts you’ve created



Right-click the alert to view or modify its properties.

## Enabling an Email Alert Action

Telestream has provided a sample email alert script, designed to deliver an email when an Alert is triggered. To use it, first create an alert, under the General tab of the MAPAlert properties dialog. Next, update the email script and update the Action tab to specify the email script.

- Step 1** Click the following link and download the EMAIL script files into your \Program Files\Telestream\MAP folder:  
[http://www.telestream.net/products/map\\_alerts/AlertEmail.zip](http://www.telestream.net/products/map_alerts/AlertEmail.zip)



Open the zip file and put the CMD and WSF file in the Program Files\Telestream\map folder.

- Step 2** Modify these lines of the sendemail.wsf file with your email parameters:
- Flds(cdoSMTPServer) = "MAIL.SERVER.NET" – enter your mail server's fully qualified URL or IP address.
- Flds(cdoSendUserName) = "USER\_Domain\USER\_Name" – enter user name.
- Flds(cdoSendPassword) = "Password" – enter your password.
- To = "mail\_recipient@your\_mail\_domain.net" – enter the "To" email address
- .From = "map\_alert@your\_mail\_domain.net" – enter the "From" email address.
- Subject = "MAP System Performance Alert" – enter the subject text.

- Step 3** Click the Action tab of the MAPAlert properties dialog.

Figure 5–9. Update the Action tab to execute the send alert command



- Step 4** Check Run this program, then point to the send alert command:  
*C:\Program Files\Telestream\map\sendalert.cmd.*

There are no command line arguments for this program. Notice that this alert also logs an entry in the event log, and sends a network message to a workstation.

## Setting the Alert Schedule

To set the schedule, click the Schedule tab and click At in the Start scan section to start the Alert immediately. In Stop Scan, select After, with default 1 day. Check Start a new scan, to repeat the schedule after each scan.

## SYNCHRONIZING MAPREVIEW SERVERS

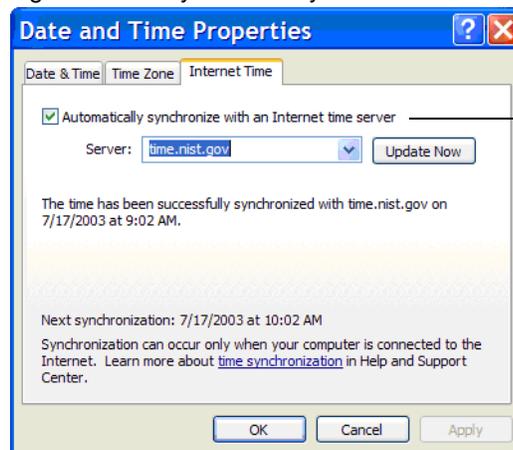
There are several ways of providing accurate time coding or to synchronize time code on multiple concurrent capture channels (on the same or different Capture.MAPreview servers). If permitted, you can enable Internet time synchronization on each Capture.MAPreview server. You should also enable time synchronization on your other MAPreview servers (Content, Factory, and Archive) to accurately date and time stamp all of the files as they are created in



your MAP system. If your domain or user profile prohibits using an Internet Time server, the Internet Time tab does not display in the Date and Time properties – see your network administrator for assistance.

To enable Internet time synchronization, right-click on the time in the tool tray and select Adjust Date/Time. Windows displays the Date and Time Properties window.

Figure 5–10. Synchronize your server with an Internet time server



*Check here to synchronize your MAPreview server with an Internet Time Server.*

*Select a Time Server from the Server popup.*

Click the Internet Time tab, and check automatically synchronize with an Internet time server. Select a server from the Server popup list. Click OK to save the settings and close the window.

This feature operates only when the computer is connected to the Internet.



## CAPTURE.MAP ADMINISTRATION

Administration of Capture.MAP involves installing capture cards, adding or modifying channels that control each capture card in a server, and other tasks. It also involves configuring each channel by setting up schedules and segments within a schedule, or using the Automatic Scheduler.

A MAP Capture server is capable of capturing a maximum of four simultaneous feeds with a maximum frame size of 320x240, up to approximately 750Kbps with sufficient CPU overhead. Encoding is primarily performed in software and utilizes a great deal of the overall CPU with four concurrent capture sessions consuming greater than 50% of the overall CPU.

Capturing at bit rates higher than 750kbps, using frame sizes larger than 320x240, or applying the MAP Capture overlap\* feature on all four (4) channels may push CPU utilization to or over 100%. In these situations the operating system will likely become unstable, increasing the risk of a server failure.

Excessive CPU utilization may cause timer-sensitive, low-level operations to fail. Three factors influence how much CPU load your server will experience during capture: the frame size, bit rate and number of concurrent captures.

To avoid CPU overload when capturing four live feeds with segment overlap:

- Minimize the overlap period to 3 seconds and use staggered segmented schedules where only one channel is in an overlap period at any one time (All channels will always start and end on day transitions)
- Use smaller frame sizes such as 160 X 120
- Reduce the number of live feeds being captured to less than four (4).

You must specify one (or more) store locations where captured media is saved. When MAP saves media, it is stored in the depot with the largest amount of free space among the specified stores.

Administration is performed in the management console. Display the console and open the service to display the servers. Select a service to display the stores.

The frame on the left is used to display capture servers (computers that have capture devices you're obtaining media from), and channels (logical media feeds from the physical capture devices).

The right frame is the Stores frame. It is used to display the physical storage location (a folder on a local drive) that you have identified as a valid location for media being captured from this server.

Before you select and set up a server and a channel to capture media, you should determine where you want to store the media files once they are captured.



### Note

*Capture.MAP should run on correctly-configured servers ([Windows OS and Network Configuration](#) on page 3-7). If Capture.MAP is on a dedicated server, disable Factory and Content.MAP services.*

\* Enabling overlap recording (using Simulstream) will affect MAP's ability to capture four simultaneous live feeds without reaching critical CPU levels.



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## CAPTURE SERVICE REGULAR MAINTENANCE

Several factors affect optimum performance of Capture.MAP. Performing regular maintenance ensures that media capture continues uninterrupted, even during heavy CPU utilization.

During the normal course of operation, performance of the Capture server is likely to degrade over time and become more likely to fail, primarily due to RAM usage, disk fragmentation, virus scans and software updates that can disrupt operations. Establishing a regular, periodic maintenance schedule and planning virus scans and Windows updates under your control increases the likelihood of trouble-free operation.



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### Note

*You should never access the MAP Capture server via Windows Remote Desktop Connection. Doing so causes the Osprey audio driver to bind to the remote session and cause the Capture service encoder to fail.*

---

### Restart Your Server Regularly

You should stop all capture activity and restart your MAP Capture server at least once every 3 months. Restarting the Capture server not only restarts Capture.MAP, it restarts Windows. Over time, software components may allow low-level memory leaks, leading the component to consume increasingly large amounts of memory either in Windows or on your capture card operating system, reducing available memory and potentially destabilizing the Capture server.

Rebooting the server frees unnecessary memory allocations, and improves capture card and platform stability, reducing risk of failure.

**Restart Schedule.** If your capture server is operating under a light operational load (it is operating with a single capture card, or less than a full day of recording), you may reboot the server every six weeks. However, as you increase work load by adding more capture cards or you increase segment recording up to 24 hours per day, you should consider rebooting on a more frequent basis, as frequently as every 2 weeks.

After you've established a regular restart schedule, if your Capture server becomes inoperative between restarts, consider shortening the time between restarts to increase server stability.

### Defragment Server Hard Drives

You should defragment your hard drive periodically, and you should not allow drive utilization to exceed 80%. How often you defragment depends on how heavily you utilize your Capture server. Defragmentation is performed using the Windows Disk Defragmentation utility.

**Analyze Disk Fragmentation.** You should always defragment your hard drive when fragmentation is greater than 70% or when you plan to restart the server, once per quarter, for example. You can determine the percent of fragmentation by running Analyze in the Windows Disk Defragmenter.

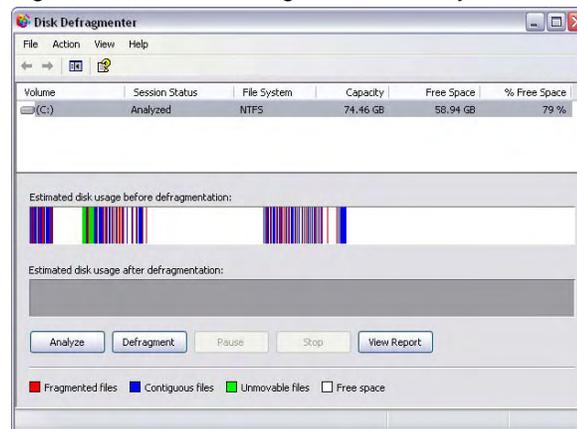
To run the Disk Defragmenter, right-click start > Explore to display the Windows Explorer.



Open My Computer, and right-click the drive you're checking for fragmentation. Select Properties, and click on the Tools tab.

Click Defragment Now to display the Disk Defragmenter window.

Figure 5–11. Disk Defragmentation utility



Click **Analyze** to determine how fragmented the files on your drive are.

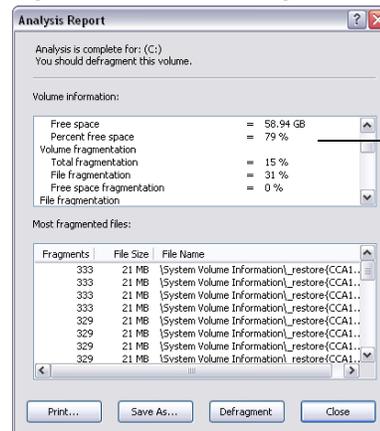
Click **View Report** to display the results after the Analyze utility has been run.

Click **Defragment** to defragment your drive.

To analyze your drive, click **Analyze** (or click **Action > Analyze**).

After the analysis is complete, click **View Report** to display the results.

Figure 5–12. Disk defragmentation report



Scroll down to display **Volume fragmentation**.

If the value displayed for **File fragmentation** exceeds 40%, you should defragment the drive

In the Volume Information text box, scroll down to display Volume fragmentation. If the value displayed for File fragmentation exceeds 40%, you should defragment the drive by clicking **Defragment** directly on the Analysis Report or Disk Defragmenter window.

The time required for defragmentation depends primarily on the amount of data on the drive, and is typically about 1 minute per gigabyte (GB) of data. For example, defragmenting 60 GB of data will take about an hour to complete.

Defragmentation can be performed during capture, but it may push CPU utilization beyond the recommended 85% limit. CPU utilization during defragmentation is about 10-15%, but often exceeds 60% during certain operations. If you can't maintain CPU utilization to a safe level, take the Capture server offline and record your media on a backup Capture server or other system until defragmentation is complete and your Capture server is running again.



## Virus Scans and Software Updates

Virus scans and Windows software updates may also impair normal operation of your Capture server.

**Virus Scans.** Running virus scans increases CPU utilization. If you are using virus protection on your Capture server, make sure that if scans run during segment capture, CPU utilization does not increase above 85%. Alternatively, schedule the virus scan to run during a time when the Capture server is not recording segments.

If you decide not to run virus software on your Capture server, you should consider isolating the Capture server from the corporate network on its own network, or completely firewall the server from the Internet to reduce risk of virus infection.

**Windows Software Updates.** Telestream recommends disabling automatic updates, or scheduling updates at a time when media recording is idle. File downloads that occur during software updates can push CPU utilization above the recommended 85% limit, and can also cause an automatic system reboot or other unintended change in Windows that may render some component of your Capture server inoperative, leading to potential media loss.

To display your Automatic Updates window, open the Control Panel > Security Center and click Automatic Updates to display the Automatic Updates window.

Figure 5–13. Automatic updates recommended settings



*Telestream recommends configuring automatic updates to notify you of updates without downloading or installing them, or disabling updates and performing updates when no capture is taking place.*

If your Capture server is connected to the Internet, Telestream recommends configuring automatic updates to notify you of updates without downloading or installing them. This setting provides notice of updates, while permitting you to schedule the updates to fit the segment recording schedule you've set up.

If your Capture server is not connected to the Internet, Telestream recommends turning off automatic updates, and periodically performing updates according to your own IT policy.

## Backup System Alternatives During Maintenance

If your operational requirements require continuous recording, consider the following alternatives as backup systems during the time your Capture server is offline for periodic maintenance.

**Backup MAP Capture Server.** Install a second, identically-configured MAP Capture server. When you plan to perform scheduled maintenance on your MAP Capture server, switch your media feeds to the backup capture server and begin



recording segments on it during the time your capture server is offline for maintenance.



### Note

*A backup Capture server typically stores media directly on a local drive. In this case, the server must always remain online even though Capture.MAP has been disabled after performing backup capture services, because media is now stored on this server.*

**Backup VCR Capture System.** Install a VCR for each channel you require recording. When you plan to perform scheduled maintenance on your MAP Capture server, switch your media feeds to VCR and record segments on it during the time your capture server is offline for maintenance.

This method works well when you are restarting your server, updating Windows, performing virus scans or other operations that have a short duration. For defragmenting operations, this VCR capture method may be inadequate. After restarting and bringing the Capture server online, digitize the media segments (using Windows media encoder and an Osprey card, for example) you captured on VHS tape. Next, add the segments to the MAP media database, storing them in the channel/year/month/day folder where the segment gap is located. MAP will extract metadata as usual.

## ADD A CAPTURE CARD

To capture live media and save each segment as files in MAP, you need to install a capture card and set up a channel for the card, including a schedule.

Here are the steps to follow:

- Step 1** Install a capture card (one or more).
- Step 2** Add a store (one or more).
- Step 3** Create and configure channels – maximum 4 simultaneous channels.
- Step 4** Create schedules.

When you've completed these steps, start the channel and Capture.MAP will begin recording and saving segments according to the schedule.

Installing, configuring, and verifying the proper functioning of a capture device is a pre-requisite for capturing live media in Capture.MAP.

## Install & Configure Capture Card

Set up a capture card with these steps:

- Step 1** Install the capture device(s) and its drivers and other required software on the Capture.MAPPreview server, according to the manufacturer's instructions.
- Step 2** Restart the server so that it recognizes the hardware. Perform any other configuration and set up recommended by the manufacturer.



- Step 3** Connect the capture card to the video and audio sources using highest quality cables.
- Step 4** Test the proper operation of the capture card or device, using Windows Media Encoder and Windows Media Player to insure proper functionality.
- Step 5** Install Simulstream drivers, if applicable, and modify the Simulstream properties as required.
- Step 6** After successfully testing the capture device, create and configure a Capture.MAP channel to use the device.

## Add a Store

To add a store, follow these steps:

- Step 1** In MAP management console, open the Capture.MAP icon.
- Step 2** Select the Capture.MAP service you're configuring with the new card.
- Step 3** Click Add Store (in the toolbar above the detail frame on the right).
- Step 4** Select a storage location – it may local or on a network server (which may require proper authentication for this user account).  
When you've selected it, Capture.MAP tests access and displays it in the list of stores. Status should display OK (far right column).

---

## CREATE AND CONFIGURE A CHANNEL

To create and configure a channel, follow these steps:

- Step 1** Right-click the Capture.MAP service and select New > Channel.
- Step 2** Right-click the New Channel icon and display the Properties dialog.



---

### Note

*Channel Properties details are located in Online Help, by clicking the Help icon in the MAP management console toolbar.*

---

- Step 3** In the General tab, change the name of the channel to an appropriate name: *KABC*, for example.
- Step 4** Establish the startup type (usually Automatic) and other schedule details.
- Step 5** In the Capture tab, click Modify (under Media Encoder) to display the Encoder Properties dialog where you configure codecs and filters. Click the Codecs tab and then select the codec to display its property sheet directly below. Make changes as required and click OK. Set up filters in the same manner.
- Step 6** Create a URL folder path where the media binders are created and stored as the media is captured. If Content.MAP is on a separate server, you first need to make a connect to the target (usually root) media folder, then connect to the target in My Network Places > Media Access Platform (MAP).



- Step 7** Click Browse (under Media Folder) to specify which media folder the media binders are to be stored in. Typically you'll select the store you just created for this Capture.MAP.
- Step 8** In the Settings tab, specify video and audio sources (capture cards) installed in the server and set Broadcast to true to view it in the channel monitor window.
- Step 9** In the Providers tab, select an automatic schedule and configure it if you have the optional Internet-based schedule subscription service. You may leave this blank and create your own schedule. (For information about Telestream's subscription service, contact your Telestream sales representative or your Telestream dealer.)  
The Automatic Scheduler automatically generate 24x7 capture schedules via Internet programming services by region and station.
- Step 10** Click OK to update and close the Channel Properties dialog.

---

## CREATE AND CONFIGURE A SCHEDULE

To create and configure a schedule (in MAP management console, selected capture server and channel), follow these steps:

- Step 1** Right-click the channel you're configuring and select New > Schedule.
- Step 2** Open the channel and select the schedule to display schedule details.
- Step 3** Click and drag vertically through the time frame to create a new segment.
- Step 4** Right-click in the new segment and select Properties to display the Segment Properties dialog.



### Note

*Segment properties are inherited from the parent channel, unless specifically modified in the Segment Properties dialog. Schedule and Segment Properties details are located in Online Help, by clicking the Help icon in the MAP management console toolbar.*

- Step 5** In the General tab, name the segment to an appropriate name: *AMNews*, for example.
- Step 6** Adjust the start and end times as necessary.
- Step 7** In the Capture tab, under Media Encoder, select Inherit encoder from channel or select Specify an Encoder for this Segment and then set up the encoder parameters (see steps you used when you configured the channel, previously).  
Also, you can inherit the media folder (where the media is to be stored) or you can specify a different media folder for this segment.
- Step 8** In the Labels tab, add the metadata labels you want for this segment. Select each one and set up the values.
- Step 9** Click OK to update these segment properties and close the dialog.



Now you can click on the channel you've configured and click Start Channel to begin recording segments according to the media specifications you've established and the schedule you've created.

---

## ESTABLISHING MULTIPLE SCHEDULES

You can create multiple schedules on a single channel. When you create multiple schedules, they follow a specific order based on type. They are listed here in order of priority (high to low):

- Exactly
- Yearly
- Monthly
- Weekly
- Daily

If you create two schedules that have overlapping (conflicting) segments, then the higher order schedule will prevail.

For example, you've created a daily schedule and a monthly schedule, with a conflicting capture segment. The segment in the monthly schedule will get recorded, the daily one will not.

### Schedule Types

MAP allows you to create different types of schedules, to make capturing segments easy. Each schedule type has certain operating characteristics, and also has an order of other schedules it overrides when there is a segment conflict.

You can create multiple schedules of various types to record everything you want to record automatically. In a typical recording environment, you might have a combination of daily schedules, along with a weekly schedule for recording special Sunday and Saturday programs, and then a monthly schedule for special first day of the month programs.

You might also add a yearly schedule for New Years day, or alternatively, one or more Exactly schedules for capturing holiday and other special day events.

### Daily Schedule

Create a schedule of type daily when you want it to run each 24-hour day and record the segments you've specified. Typically, you'll set up daily schedules and select a long period of time—an entire year, or perhaps a decade or more to run permanently from a practical perspective.

You might create a daily schedule when you use automatic schedules as a backup schedule. In case the automatic schedule (exactly) is not created because the Internet service is temporarily unavailable, the daily schedule will run in its place.

### Weekly Schedule

Create a weekly schedule and select the day of the week by selecting the date from the calendar. For example, you may select a weekly schedule to start on Sunday and end on Sunday, for capturing special Sunday programming segments.



If you create a daily schedule and a Weekly schedule with Sunday as the only day in the weekly schedule, the Sunday segments will record instead of the daily segments only on Sunday.

## Monthly Schedule

Create a monthly schedule and select the days. For example, you can select the first day of the month as a start and end day for special segments.

## Yearly Schedule

You might create a yearly schedule for Thanksgiving, to capture special programming on that day. It will override daily, weekly and monthly schedules if there is a segment conflict.

## Exactly Schedule

You can create a one time schedule that will override any other schedules you have. For example, there might be a rocket launch, or a presidential State of the Union speech that you want to record in a few days.

Automatic schedules are exactly schedules, and are created at the end of the day immediately preceding the current schedule day.

## Never Schedule

If you have created a schedule but want to suspend it, just click Never. You can turn it back on later by returning it to the type you originally specified.

---

## VIEW LIVE STREAMS DURING CAPTURE

You can only view media in MAP management console when an actual segment is recording.

To view live streams that you're capturing, follow these steps:

- Step 1** Launch MAP management console.
- Step 2** Open the channel that you're recording (the channel must be started).
- Step 3** Right-click the channel and select Properties.
- Step 4** In the Properties dialog, click the Settings tab.
- Step 5** Open the broadcast property and set Enabled to True.
- Step 6** Click OK to update and save the properties.
- Step 7** In the Channel details frame on the right, click the play button in the media controller.

You can only view media in MAP management console when an actual segment is recording.

To view each channel, launch multiple copies of MAP management console and select the channel you want to view. Now you can arrange each MAP management console on your desktop to show all capture card media simultaneously.



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## CAPTURING RATINGS PROVIDER METADATA

The ratings provider is channel-specific, and identifies the folder where Ratings XML files are stored. To incorporate ratings metadata with captured media, you create a ratings configuration file (.ini) (using the Ratings Configurator or manually – [Configuring Ratings INI Files](#), following). The INI file you create specifies the source ratings spreadsheet folder and file, and specifies each channel for which ratings should be extracted, and finally, each XML file that should be generated by demographic criteria you specify (males 18-29, for example), and the server and directory where the generated ratings XML files should be saved.

The MAP Ratings service generates the specified XML files by channel and demographic. When the Ratings service identifies new ratings spreadsheets that have been placed in its monitored folder (up to 7 days old), it generates the specified ratings XML files. When Capture.MAP identifies the new ratings XML files generated by the Ratings service, it processes them by updating the binders of media it captured earlier (usually the previous day, or last business day and weekend days if the ratings spreadsheets were not processed over the weekend) to update the track data for each binder where there is a match. For details on installing and configuring the MAP Ratings service, see [Installing MAP Ratings Parser and Configurator](#) on page 3-21.

After media is captured by Capture.MAP, the Ratings Parser reviews each new media binder and matches it with ratings in each XML file by time, date, and channel. When the ratings data from each XML file that matches media has been updated in the ratings metadata tracks on a binder, MAP users can view ratings information in Player.MAP or in Explorer.MAP. The entire process may take a few hours to complete after the ratings XML files have been generated by the Ratings Parser.

### Configuring Ratings INI Files

Before you can extract metadata from the source ratings file for metadata creation, you need to configure the ratings INI file (see sample, [Sample Ratings INI File](#) on page 5-21). You can configure the file with the Ratings Configurator, or edit the file manually using a text editor.

When you're done, click Finished to update and close the INI file.

Move the configuration file to the Capture.MAPPreview server, and identify it to the Ratings property in the channel you want to capture (see Capture.MAP online help in the MMC).

### Using the Ratings Configurator

Use the Ratings Configurator to set up your INI file to correctly identify details about where data exists in the ratings spreadsheet you use for input, and where input and output files are located.

When you create demographics and channels (stations), you are setting up a two-dimensional matrix that the Ratings parser will use to create XML ratings files. For example, if you create two demographic tabs – Households and Persons 25-54 – and create two channels (stations) – Fox News and CNN – the Ratings Parser will generate four XML files for each day media is captured:

- Households, FOX



- Households, CNN
- Persons 25-54 FOX
- Persons 25-54 CNN.

Figure 5–14. Using the Ratings Configurator to set up an INI file

The screenshot shows a 'Ratings Configuration' dialog box. The title bar says 'Ratings Configuration'. The main title is 'Ratings spreadsheet file information'. There are three input fields with labels and descriptions: 'File Date Location: Z1 The cell information from the first spreadsheet tab used', 'Data Start Location: 6 The cell number where the data starts (usually 6)', and 'Data End Location: 101 The cell number where the data ends (usually 101)'. Below these is a section for 'Ratings File Location' with two options: 'File location/name: [text box] Browse' and 'Monitor this folder: C:\test1 Browse'. At the bottom are three buttons: 'Configure Demographics', 'Configure Channels', and 'Finished'.

On the main window, provide details in each field, then configure the demographics and channels (stations), then click Finished.

**File Date Location.** Specify the cell (Z1, for example) on the *first* worksheet in the spreadsheet which specifies the date for which the ratings are valid. The Ratings Parser uses this information to correctly match the ratings to the captured media file.

**Data Start Location.** Specify the row number(6, for example) where the first repetitive ratings data displays, under the station column headings.

**Data End Location.** Specify the row number(101, for example) where the last repetitive ratings data displays, under the station column headings

**File location/name.** Use this field only if the spreadsheet is named the same every day. Provide the fully-qualified UNC path to the directory where the input spreadsheet is dropped.

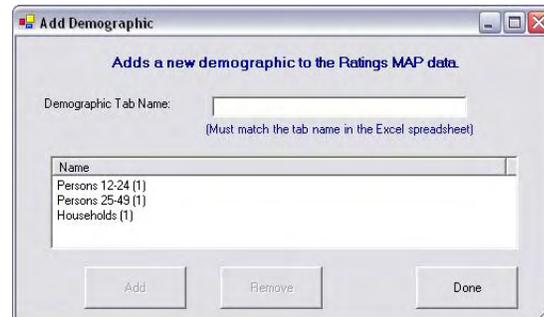
**Monitor this folder.** Use this field when you want the Ratings Parser to monitor this directory automatically process the spreadsheet when it is dropped in the directory each day, and the name of the spreadsheet changes. Browse to the server and directory and select it. The path must be in UNC format, and the Ratings Parser service must have correct credentials and access to this directory.



## Configure Demographics

Click Configure Demographics on the main window to display the Add demographic window.

Figure 5–15. Setting up demographics in Ratings Configurator



Use this window to create demographic tabs for each worksheet you want to extract ratings from.

**Demographic Tab Name.** Enter the name of the worksheet displayed in the tab at the bottom of the spreadsheet. The name *must match exactly*.

**Add.** Click Add to add a new demographic tab (from text currently displayed in the Demographic Tab Name field) to the INI file.

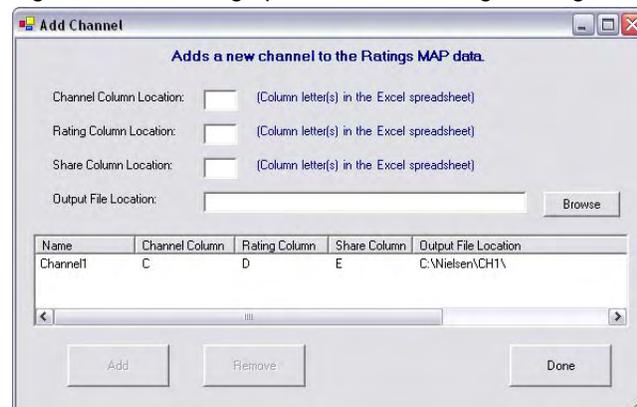
**Remove.** Select a demographic tab and click Remove to permanently remove it from the INI file.

Click Done when complete to return to the main window.

## Configure Channels (Stations)

Click Configure Channels on the main window to display the Add Channel window.

Figure 5–16. Setting up channels in Ratings Configurator



Use this window to create channels (stations) for each station you want to extract ratings metadata. In most cases, the columns are sequential in groups of 3 (C, D, E, and F, G, H, for example).

**Channel Column Location.** Enter the column ID (C, for example) that contains the channel/station name.



**Rating Column Location.** Enter the column ID (D, for example) that contains the rating value.

**Share Column Location.** Enter the column ID (E, for example) that contains the share percent.

**Output File Location.** Click Browse to locate and select the server, volume and path to the directory where you want the output XML ratings files stored. For example: \\MAP-capture1\ratings\FOX.

After you have correctly entered the data for this channel, you can add it.

**Add.** Click Add to add a new channel (from text currently displayed in the fields above) to the INI file.

**Remove.** Select a channel tab and click Remove to permanently remove it from the INI file.

Click Done when complete to return to the main window.

## Sample Ratings INI File

This sample INI file provides information about correct formatting for the Ratings Parser. This sample is located at Program Files > Telestream > MAP > Ratings > RatingsConfig.ini.

```
;Tab names as they appear in the spreadsheet.
[Tabs]
Tab1=Persons 12-24 (1)
Tab2=Persons 25-49 (1)
Tab3=Households (1)
;The column letter for each channel.
[Channels]
Channel1=C
;The column letter for each rating.
[Ratings]
Rating1=D
;The column letter for each share.
[Shares]
Share1=E
;Cell number where ratings data starts. (Usually 6)
[Datastart]
Cell=6
;Cell number where ratings data ends. (Usually 101)
[DataEnd]
Cell=101
;Fully qualified path of ratings spreadsheet.
[Inputfile]
Location=
;Directories for each channels output data (must end
with a "\").
[OutputFile]
Channel1=\\MAP-Capture1\ratings\FOX\
;Row & column containing file date from first tab.
[Filedate]
Location=X1
[Monitor]
Location=\\MAP-Admin\ratings_ss\
Configuring Ratings Properties
```



## Configuring Capture.MAP for Ratings Metadata

To configure a Ratings provider's properties on a channel, follow these steps.

- Step 1** Right-click the channel and select Properties.
- Step 2** Click the Providers Tab. Click Ratings in the table and click Properties and open the Ratings node if not already open.



- Step 3** Complete these fields:

**Folder.** Enter the local folder or network path that contains the ratings XML files generated by the Ratings Parser in UNC path format.

To specify a UNC path, navigate to the ratings XML files folder using Windows Explorer. Go to My Network Places > Entire Network > Microsoft Windows Network > MyCompanyDomain, where *MyCompanyDomain*. Drill down to the folder where your ratings XML files are located. Open the directory, and then copy the UNC path from the Address field in Windows Explorer and paste it into the Folder field.

**Format.** Default: Ratings (no other choices are available).

---

## SETTING UP AS RUN LOGS

You can provide the data in as run logs for MAP users when they are viewing captured media in Player.MAP and MAP Explorer.

You can provide as run logs in Harris, Omnibus, or other proprietary formats.



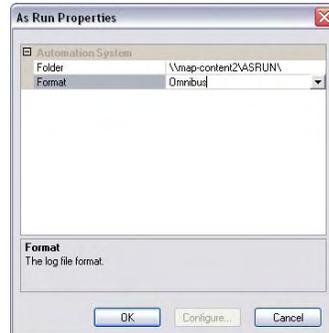
### Note

*The Omnibus As-Run provider defaults to North American month-date-year date coding (MM/DD/YY). To support international date coding (DD/MM/YY) a registry entry must be added. Add a string value and name it 'DateFormat' under the HKEY\_LOCAL\_MACHINE\SOFTWARE\Telestream\MAP\Capture\Provider key. Set the value to 'dd/MM/yy'.*

*To display the As Run provider properties, right-click the channel and select Properties. Click the Providers Tab. Click As Run in the table and click Properties. Open the Ratings node if not already open.*



- Step 1** Right-click the channel and select Properties.
- Step 2** Click the Providers Tab. Click As Run in the table and click Properties and open the Ratings node if not already open.



- Step 3** Complete these fields:
- Folder.** Enter the local folder or network path of the directory where the as run logs are located, in UNC format.
- To specify a UNC path, navigate to the As Run logs folder using Windows Explorer. Go to My Network Places > Entire Network > Microsoft Windows Network > MyCompanyDomain, where *MyCompanyDomain*. Drill down to the folder where the As Run files are located. Open the directory, and then copy the UNC path from the Address field in Windows Explorer and paste it into the Folder field.
- Format.** To specify the format of as run logs, select Harris or Omnibus.

## SETTING UP A TV SCHEDULE PROVIDER

Instead of manually creating a capture schedule, you can use an Electronic Programming Guide (EPG) from Tribune to automatically populate your Today schedule. The benefit of using an EPG is that the schedule requires no manual configuration, it provides accurate recording times and related metadata.



### Note

*If you have not purchased an EPG, the EPG data provided in the TV Schedule Provider Wizard is for demo purposes only and may not include your region. MAP supports daily downloads of EPG schedules for most North American channels direct from Tribune Media services. To enable this service contact Telestream Sales.*

- Step 1** To display the TV Schedule provider properties, right-click the channel and select Properties.
- Step 2** Click the Providers Tab. Click TV Schedule in the table and click Properties. Open the TV Station node if not already open.





- Step 3** Complete these fields:
- Call Sign.** Enter the call sign of the station you're capturing.
- Location.** Default: United States. Select the location of the station from the list.
- Step 4** Click Configure to display the TV Schedule Provider wizard welcome window, and click Next to start.
- Step 5** Select the country where the TV station is located and click Next,.
- Step 6** In TV station list, select the station whose schedule you want to use for this channel and click Finish.
- Capture.MAP will retrieve programming information for this station from the scheduling service and automatically create a 24-hour Exact schedule for this channel, and will continually make a new schedule near the end of each day for the next day's programming.

---

## CONVERTING SPEECH TO TEXT

You can use Microsoft speech recognition to process the audio channel of media and save the resulting text as temporal metadata. This feature is useful when closed captioning is not provided in-stream, and you need to have temporal text metadata generated from the audio signal directly.



### Note

*Text extraction from speech requires Microsoft Recognition Engine. See [Enabling Speech Recognition](#), on page 5-25.*

To enable MAP to perform speech-to-text conversion of new media as it is captured, follow these steps:

- Step 1** Display the properties dialog of the target media folder.
- Step 2** In the Metadata tab, click Add. (If inactive, click Use the following metadata to override the parent folder's metadata list.)
- Step 3** Select Speech Recognition from the Select Metadata Design window and click OK.



- Step 4** In the Speech Recognition Properties window, set Enable Speech Recognition to True and click OK. Optionally check Apply to all sub-folders. Click OK to close the Properties window.
- Step 5** If you want to extract speech from media, right-click the media and select Analyze. After Factory.MAP performs the analysis, you can display the resulting text metadata in MAP Explorer by selecting the media and selecting text from the context menu in the temporal metadata frame at the bottom of the window.

---

## ENABLING SPEECH RECOGNITION

When you assign a Speech Recognition metadata label to a media folder, MAP utilizes the Microsoft Speech Recognition engine to convert audio to speech and save it as text.

To enable speech recognition text extraction, the Microsoft Speech Recognition Engine must be installed and enabled.

- Step 1** Determine if the engine is installed. Open Control Panel > Add or Remove Programs. Look for Microsoft Speech Recognition Engine, version 5 or later. If it is not listed, download and install it from the Microsoft Web site and proceed.
- Step 2** Open the Control Panel and display the Speech control panel. In the Speech Recognition tab, ensure that Microsoft English Recognizer is selected from the Language dropdown menu.

---

## BURNING IN TIME CODE

When you capture media, you can set up the Capture Overlay filter to burn in the time code with an option date stamp as the media is digitized.



### Note

*If you have upgraded MAP from a previous version, you can not enable the Capture Overlay filter on existing channels.*

*Create a new channel with identical settings, then delete the old one. Follow these steps to enable the Capture Overlay filter.*

---

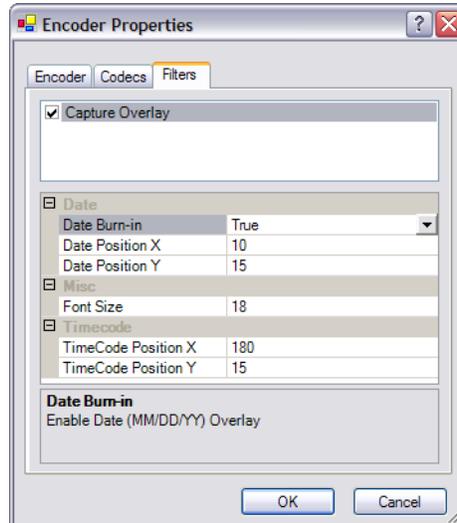
To enable the Capture Overlay filter, follow these steps:

- Step 1** Open the management console and select the channel on which you want to burn in the time code.
- Step 2** Right-click on the selected channel to display the Properties window.



- Step 3** Display the Capture tab and click the Modify button to display the Encoder Properties window.

Figure 5–17. Use Filters tab to burn in time code



- Step 4** On the Filters tab, select optional date burn-in, select a point size for the font, and adjust the position of both time code and date.
- Step 5** Click OK to update the channel, and close all of the windows.

## CONTENT.MAP ADMINISTRATION

Content.MAP administration is performed in the MAP management console, and involves setting up media folders in the MAP media database, based on your capture and usage requirements.

The configuration and administration of Content.MAP is critical to the operation of MAP. The heart of MAP is the MAP Content database. The Content database is controlled through the Content.MAP service and is responsible for the behavior of MAP media folders. The MAP content database is a hierarchical organization of media folders.

Behavior is controlled by folder properties MAP administrators or users set, that apply rules and actions whenever media assets are ingested or when an action is requested through a MAP client. Content.MAP tracks media, metadata and other files associated with each MAP media asset in a virtual hierarchal folder structure. Media folders contain properties governing their behavior. These properties consist of authentication rules, user access rules, storage depot locations, metadata rules, notification rules and binder expiration rules. These properties may be inherited from parent folders, or they may vary from folder to folder allowing for different behavior based on organizational needs.

Within a media folder an associated group of data (parent media asset, transcoded child media assets, track and label metadata, documents files and their respective network locations) are collectively known as a MAP binder. MAP binders are indexed to provide searching for any element that is associated with its Parent asset. Content.MAP creates new media folders and binders, and provides client access to existing ones.

The Content service requires access to the all local and network storage locations containing media that is associated with a MAP binder, whether they are established through the Capture service or Content service.

It is important that all MAPreview servers and clients have proper access to all shared media locations, physical and/or virtual. It is also important to have all communications ports and protocols are opened and enabled in order to allow MAP services and clients to communicate properly. Work with your local IT staff to determine the level of authentication needed to access shared storage locations and to assure that all communications ports and methods are opened across your network.



### Note

*You can also perform many local Content.MAP functions directly—and more conveniently—in MAP Explorer, including creating and deleting media folders and setting their properties.*

---

## ADD A TOP-LEVEL DISTRIBUTED MEDIA FOLDER

Creating a top-level media folder on a distributed Content.MAPreview server can only be performed in the management console.



To add a new top-level media folder, follow these steps:

- Step 1** Launch MAP management console and open the Content.MAP icon.
- Step 2** Open the Content.MAP service where you want to add a top-level folder.
- Step 3** Open the Media Folders icon to display the existing media folder structure.
- Step 4** Right-click and select New > Folder. Content.MAP creates the folder and displays it directly under the Media Folders icon in alphabetic order. Rename the folder as appropriate.

Each media folder you create (regardless of the level) inherits its parent folder's properties by default. A top-level media folder inherits the properties of the root media folder (always shown as Media Folders in Content.MAP management console).

To view or change properties on a selected folder (and its children, optionally), right-click and select Properties on the media folder in the management console or MAP Explorer.

## CONFIGURING MEDIA FOLDER PROPERTIES

In either the Content.MAP management console or in MAP Explorer, right-click the media folder you're configuring and select Properties.



### Note

*Media Folder Properties details are located in Online Help, by clicking the Help icon in the MAP management console toolbar or clicking Help in MAP Explorer.*

- Step 1** In the Authentication tab, determine if you want to inherit authentication method from the parent media folder or specify unique methods for this (and optionally, all sub-folders) media folder.
- Step 2** In the Access tab, determine if you want to inherit access permissions from the parent folder or specify special permissions for this (and optionally, all sub folders) folder.
- Step 3** In the Storage tab, determine if you want to use the storage locations from the parent folder or specify another storage location for this (and optionally, all sub folders) folder.
- Step 4** In the Expiration tab, determine if you want to inherit expiration rules from the parent folder or specify when media expires for this (and optionally, all sub folders) folder. When media expires, it is moved to off-server archive locations, for later retrieval as necessary. Expiration rules are very dependent on your media production—ongoing, or project-oriented.
- Step 5** In the Version tab, determine if you want to inherit new version rules from the parent folder or specify specific versions for this (and optionally, sub-folders)



folder. A *version* is a new media file and associated metadata, based on how you configure transcoding.

- Step 6** In the Metadata tab, determine if you want to inherit metadata rules from the parent folder or specify unique metadata for this (and optionally, all sub folders) folder.

---

## CREATE A NEW VERSION OF MASTER MEDIA FILES

To create a new version of media when you drop in (or save in) MAP, follow these steps:

- Step 1** Run MAP management console and open the Content.MAP icon to display one or more Content.MAP services you're managing.
- Step 2** Open the selected Content.MAP service and open the media folders until you locate the folder you want to modify.
- Step 3** Right-click the media folder to display the Versions properties dialog.



---

### Note

*Version Properties details are available in Online Help, by clicking the Help icon in the MAP management console toolbar.*

---

- Step 4** Click Create the following versions.
- Step 5** Click Add and follow the instructions to select an encoder and then set up its properties.
- Step 6** In the Version tab, determine where to save the new version of the media, and details about when to create it, where or not it displays in Explorer, and whether you want the media to expire.
- Step 7** In the Encoder, Codecs, and Filter tabs, set up all of your transcoding information.
- Step 8** Click OK to update the MAP system and close the dialog.

---

## SAVING A NEW VERSION ON EXTERNAL SYSTEMS

To save a new version of media that Factory.MAP has transcoded onto a system outside of MAP (FTP server, on-air server, or a Windows server via HyperLaunch, for example), follow these steps:

- Step 1** Display the properties dialog of the media folder where the original media is to be stored.



- Step 2** Click the Version tab and select the version you want to save on the external system. (If you can't select a version, it is because Inherit from parent folder is enabled, and the versions listed—if any—are owned by the parent.)
- Step 3** Click Properties to display the selected version's Properties window. In the Version tab, select Deliver to this media portal and enter the location in a fully-formed format. (See [Appendix C, Destinations](#) on page C-1).
- It is best to use the Browse button, which displays the Network Location wizard and creates a properly-formed location automatically as you select the type of server and navigate to the destination (see [\[Tour 17\] Creating a Media Portal](#), on page 5-31).

---

## EXPORTING BINDERS TO ANOTHER MAP SYSTEMS

You can copy a media binder from one MAPreview server directly to another MAPreview server via HyperLaunch directly in MAP Explorer, provided that the target MAPreview server has HyperLaunch Receive Server operating (see [Configuring HyperLaunch Receive Server](#) on page 6-12).

To copy a media binder from one MAP system to another, use these steps:

- Step 1** Open the media folder where the media binder is located.
- Step 2** Right-click the binder and select Export > Browse from the context menu.
- Step 3** MAP displays the MAP Network Location Wizard. (See [Using the Network Location Wizard](#) on page 5-33 for details.)
- Step 4** In the Welcome window, select HyperLaunch Receive Server and click Next. (Other servers are not enabled in this version of MAP and will cause an error.)
- Step 5** In the HyperLaunch Receive server window, enter the name or the IP address of the HyperLaunch Receive server on the target MAP system, and click Next.
- Step 6** In the Account window, enter the user name and password and click Next.
- Step 7** MAP connects to the HyperLaunch Receive Server and displays the directory. Browse to and select the destination media folder on this MAPreview server, and click Finish to transfer the binder.



## FACTORY.MAP ADMINISTRATION

Factory.MAP usually performs its tasks of extracting metadata and transcoding media transparently to media producers or end users. As a MAP administrator, you can monitor Factory.MAP jobs using the Factory.MAP operator console.

### CONCURRENT TRANSCODING JOBS

Each Factory.MAP service by default can process two transcoding job simultaneously. Telestream recommends setting the transcoding limit to match the number of processors on the server, then experimenting with performance.

If you set the limit too high, you may cause inefficiencies by adding unnecessary context-swapping overhead. A higher number may be appropriate for many small jobs; a lower number is indicated when you have fewer, larger jobs (involving input clips that are a few minutes in duration or longer).

To change the number of simultaneous transcoding jobs, follow these instructions:



#### Caution

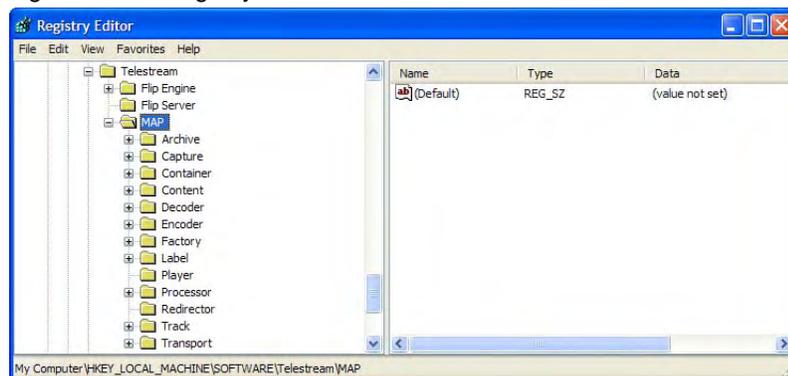
**Editing the Windows registry incorrectly may cause Factory.MAP to fail, or your server to stop operating. Make a backup of your registry to ensure that you can restore it if you make an error. If you are unsure of how to back up the registry, or perform editing correctly, check with your systems administrator.**

**As an added precaution, Telestream recommends creating a restore point in case you need to recover your system. To manually create a restore point, click start > All Programs > Accessories > System Tools > System Restore. In the System Restore dialog, click Create a Restore point and click Next. Enter a name and click Create.**

**Step 1** Click Start > Run to display the Run window.

**Step 2** Type `regedit` and click OK to display the Registry Editor window.

Figure 5–18. Registry Editor Window in Windows



The directory is displayed in the left frame; the entries for the selected folder are displayed in the right editor frame.

**Step 3**

To create an entry, right-click in the editor frame to display the New menu. Select the type of entry to create from the dropdown menu.

To edit an entry, double-click the entry. Use the editor window to name it and provide the appropriate value for your system.

For more information on using the Registry Editor, see your operating system manual.

**Note**

*All MAP registry entries are stored in the path HKEY\_LOCAL\_MACHINE\SOFTWARE\Telestream\MAP. Each time you make changes to the MAP registry entries, you must stop and restart the affected service for the changes to take effect. In this case, restart Factory.MAP.*

---

## MONITORING AND RESUBMITTING TRANSCODING JOBS

Use the Factory.MAP operator console to monitor transcoding jobs. To display the console, right-click on the Factory.MAP icon (a red wrench) in the tooltray and select Show or just double-click the icon.

The Factory.MAP console has two tabs: Active and Failed. The Active tab displays a list of transcoding jobs it is currently processing, along with details about each job. You can click any job in progress to pause it, resume it, or delete it. If you have more than one Factory.MAP service running in your MAP installation, select the Factory.MAPPreview server from the popup list at the bottom left corner to monitor it.

The Failed tab displays jobs that did not complete normally. For jobs that have failed select Retry or Delete, after you've reviewed and fixed the failure reason.



## USING ARCHIVE.MAP

Archive.MAP is an application which provides support for archiving media stored in your MAP media database, including associated metadata and the media files. Archival is an ongoing process based on the rules set up within media folders via the Expiration tab in the Properties folder. The default device for MAP archive is DVD. Additional archive methods are available based on Microsoft's Removable Storage Manager.

Two tours in the Quick Start Guide describe how to archive and restore media.

---

## ARCHIVING EXPIRED MEDIA

Archive.MAP will advise you via a popup from the tooltray that media is ready to archive and you should insert a disk (DVD or CD).

- Step 1** In your toolbar, right-click on the Archive.MAP icon (disk icon) and select Show to display the Archive.MAP operator console.
- The Archive Requests tab displays a list of all binders that are ready for archiving. Binders are processed serially in a First-In, First-Out (FIFO) fashion. The Drives tab (below) lists each drive that can be used to archive media.
- Step 2** Select the drive that is to be used for archive (if using CD-W or DVD insert a writable CD-ROM or DVD making sure your CD/DVD device can write the appropriate volume. If the disk is not formatted for ISO 9660, make sure you do so before beginning the archive).
- Step 3** With the drive highlighted select Start Archive.
- Archiving will continue and will archive media to the selected drive until Stop is selected. If you leave the Archive service on, all archive requests will be automatically archived.

---

## RESTORING ARCHIVED MEDIA

Over time, your MAP system will have media stored in its default store and media stored on archive volumes, which is only available for access when it has been placed back on the default store.

When a MAP consumer selects archived media and attempts to update metadata or play the media, Content.MAP sends a Restore message to Archive.MAP and advises the end user that the message has been sent.

Archive.MAP then notifies the MAP administrator via a popup to insert the appropriate archive volume. When you receive the notification, follow these steps to restore the requested media:

- Step 1** Right-click Archive.MAP in the tooltray and select Show to display the console.





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# Web Access, HyperLaunch Receive Server, Gateway

This chapter provides MAP administrators step-by-step instructions for configuring MAP for publishing MAP media via IIS, Windows Media Server and SharePoint, and for configuring and managing HyperLaunch Receive Server and Gateway.MAP.

## Topics

### *Configuring MAP for Web Access*

- [Configure Window Media Service and Virtual Directories](#) (page 6-2)
- [Configure Window Media Service and Virtual Directories](#) (page 6-2)
- [Install MAP Web Search on IIS Server](#) (page 6-5)
- [Configuring Content.MAP for IIS Access](#) (page 6-6)
- [Creating Aliases for Web Access](#) (page 6-8)
- [Configuring MAP for Access via Web Browser](#) (page 6-10)

### *Using HyperLaunch Receive Server*

- [Configuring HyperLaunch Receive Server](#) (page 6-12)
- [Monitoring a HyperLaunch Receive Server](#) (page 6-14)

### *Configuring and Using Gateway.MAP*

- [Using the Gateway.MAP Console](#) (page 6-16)
- [Creating a ClipMail Account](#) (page 6-18)
- [Setting up a ClipMail Address for Sending Media via Gateway.MAP](#) (page 6-20)



## CONFIGURING MAP FOR WEB ACCESS

You can use IIS, WMS, and other Web-based publishing systems to publish MAP media. Installing and configuring Web and media server systems is beyond the scope of this guide. If you plan to use IIS, you should install and configure Microsoft IIS before proceeding. If you plan to use WMS, install and configure Windows Media Service before proceeding.

To provide Web browsers access to media in MAP media folders, you must perform these tasks:

- Set up virtual directories in IIS or publishing points in WMS
- Install MAP Web Search
- Configure Content.MAP for Web access to media
- Configure Capture.MAP (if using it) for Web access to media.

---

## CONFIGURE WINDOW MEDIA SERVICE AND VIRTUAL DIRECTORIES

To permit Web browsers to view media from MAP using Windows Media Service, you create publishing points in WMS that identify the Content.MAP and Capture.MAP media folders you want published. Then, you configure each storage depot assigned to media folders with an alias, so that WMS can deliver the actual media when it is played.

On a single MAP system with capturing enabled, you may be using the same physical store for both manually saved media and captured media. However, you may set up different storage depots – or series of storage depots – one series for manually saved media, and another series for captured media.

For each storage depot you've created, you provide a separate publishing point in WMS. For example, if you provide three storage depots in series to allow for growth of media in Content.MAP or Capture.MAP, you must provide a separate publishing point for each one.

### Create a WMS Publishing Point

To create a publishing point in WMS, follow these steps.

- Step 1** Open Control Panel > Administrative Tools > Computer Management.
- Step 2** In the Computer Management Window, expand Services and Applications > Windows Media Services > [YourWindowsMediaServerName].
- Step 3** Right-click Publishing Points and select Add Publishing Point (Wizard) to run the Publishing Point Wizard.
- Step 4** When the Welcome window displays, click Next to continue.
- Step 5** **Publishing Point Name.** Enter the display name for this publishing point. Typically, you should name the publishing point in a descriptive manner. For example, *Capture1Media*. Click Next to continue.



- Step 6**     **Content Type.** Select the type of media you're publishing – check Files, and click Next to continue.
- Step 7**     **Publishing Point Type.** Check On Demand Publishing Point and click Next.
- Step 8**     **Directory Location.** Browse to the physical folder of the storage depot if the media is local.  
If the storage depot is on a server, use Windows Explorer to navigate to the location. Then, copy and paste the UNC path into this field.
- Step 9**     **Content Playback.** Leave both options unchecked and click Next.
- Step 10**    **Unicast Logging.** Check this option if you want to enable logging. Click Next.
- Step 11**    **Publishing Point Summary.** Review your settings, make changes as necessary, and click Next to create the publishing point.
- Step 12**    Uncheck After the Wizard finishes and click Finish to create the publishing point.
- Step 13**    Next, test a media file in the publishing point you just created. Select the publishing point, click the Source tab and play a media file or playlist to make sure that you can access and play the media.

---

## CONFIGURE IIS AND VIRTUAL DIRECTORIES

If you're running MAP and IIS on the same server, Telestream recommends you install IIS before installing MAP.



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### Note

*On Windows XP only, if you install MAP services before installing IIS, you need to re-register ASP.NET for use with IIS. See [Re-installing ASP.NET for IIS](#) on page 3-35.*

*If IIS is already installed for port 80, change the port by running the IIS management console. Open the local computer, and the Web Sites folder. Select Properties on the Default Web site and update the port number (suggested 8000) and click OK. You can not use port 80 with MAP, because MAP services use port 80 to interoperate. Restart IIS to take effect.*

*On Windows 2003, when you install IIS, you must check ASP.NET or it will not be installed. In Add/Remove Programs, open Add/Remove Windows Components. In Windows Components Wizard, select Application Server then click Details and check ASP.NET and continue to install.*

---

Make sure that the port you assign to IIS is the same port you use when you install MAP Web Search.

Next, create virtual folders in IIS that identify the Content.MAP, Factory.MAP, and Capture.MAP media folders you want published, and then configure each storage depot assigned to media folders with an alias, so that IIS can deliver the actual media when it is played.



On a single MAP system with capturing enabled, you may be using the same physical store for both manually saved media and captured media. However, you may set up different storage depots – or series of storage depots – one series for manually saved media, and another series for captured media.

For each storage depot you've created, you provide an alias in IIS. For example, if you provide three storage depots in series to allow for growth of media in Content.MAP or Capture.MAP, you must provide a separate virtual directory for each one.

The virtual directories are used as alias locations for MAP media. After you create a virtual directory in IIS, connect the virtual directory's alias path to the MAP storage depot, as described in [Creating Aliases for Web Access](#) on page 6-8.

## Create a Virtual Directory in IIS

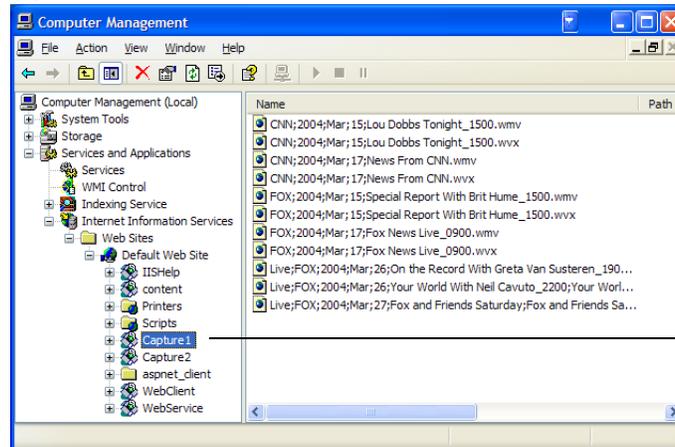
To create a virtual directory in IIS, follow these steps.

- Step 1** Click start > Administrative Tools > Internet Information Services to launch the IIS management console.
- Step 2** On the MAPreview server, open Web Sites and Default Web Site (or other Web site as appropriate).
- Step 3** Right-click the Default Web Site icon and select New > Virtual Directory to run the Virtual Directory Creation Wizard.
- Step 4** Click Next to continue.
- Step 5** Enter the name of the alias. Telestream recommends naming virtual directories the same as the storage depot where the media is stored. If there is more than one Content.MAP storage depot, you might name them *content1*, *content2*, and *content3*, for example. For storage depots used in Capture.MAP, you might name them *capture1*, *capture2*, and *capture3*.
- Step 6** Click Next to display the Web Site Content Directory frame.
- Step 7** Browse to the physical folder of the storage depot, where the media is located.
- Step 8** Click Next to display Access Permissions frame. Don't change these settings.



**Step 9** Click Next and click Finish to create the virtual directory.

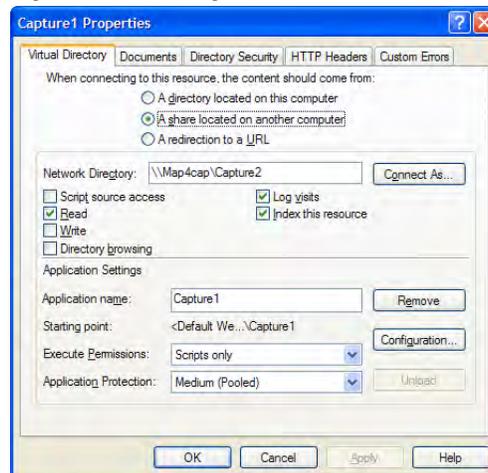
Figure 6–1. IIS virtual directories correspond to MAP stores



*Add virtual directories for each storage depot in Content & Capture.MAP.*

These virtual directories are used as aliases in Content.MAP to connect IIS to the actual media store via the alias.

Figure 6–2. Configure virtual directories with a UNC path



Make sure that the Network Directory is a UNC path to the physical media. The Application name is the virtual directory.

For Capture.MAP stores, make sure they are read-only. Check Read directly under Network Directory.

## INSTALL MAP WEB SEARCH ON IIS SERVER

After installing and configuring IIS, install MAP Web Search on the MAPreview server. For installation instructions, see [Installing MAP Search](#) on page 3-31.



## CONFIGURING CONTENT.MAP FOR IIS ACCESS

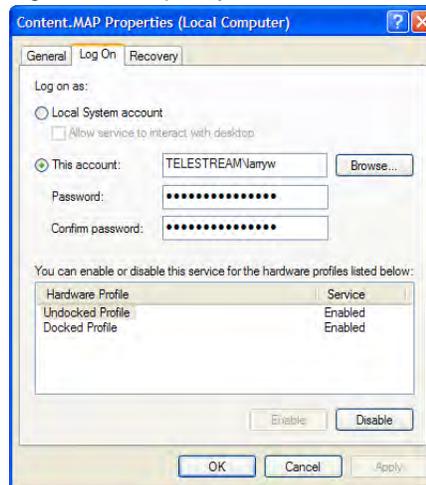
To provide IIS access to MAP media, you configure the Content.MAP service that owns the media.

### Provide Credentials

If the media is stored physically on network servers other than the Content.MAPPreview server, the service must log in with proper credentials to access the target media.

To display the service properties, open Control Panel > Administrative Tools > Services. Right-click Content.MAP and Select properties.

Figure 6–3. Specify an account for media access credentials



On the Log On Tab, click This Account and provide an account and password with proper credentials to access the media. For more details, see your network administrator. See [Stores Credentials](#) on page 4-4.

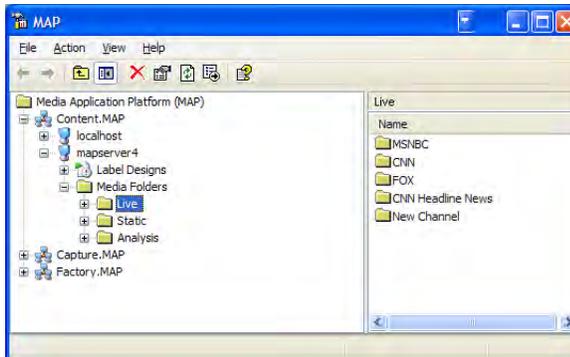
### Referencing Media Folder Stores

Content.MAP must also reference the storage depots as a UNC path (regardless of whether the media is local or on a network server) to provide an unambiguous identity for IIS.



Run the MAP management console and open Content.MAP. Select the target Content.MAP service if more than one is installed.

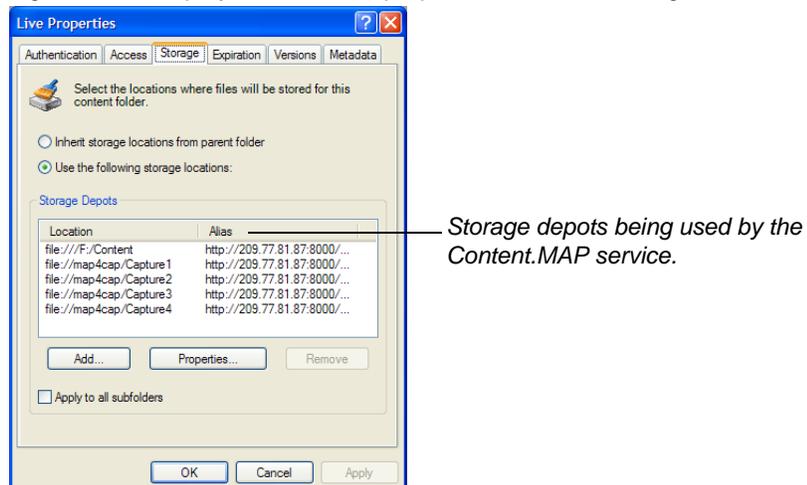
Figure 6–4. Select the media folder in the management console



For each media folder you're providing Web access to:

Right-click to display the properties dialog, display the Storage tab and select the storage location for media that Content.MAP will use.

Figure 6–5. Display media folder properties and click Storage



## Specifying Capture Stores as UNC Paths

Capture.MAP must also reference the storage depots as a UNC path (regardless of whether the media is local or on a network server) to provide an unambiguous identity for IIS. If you have already added one or more network capture stores for this media folder, verify that the store location is specified in UNC path format (`\\map4cap\Capture`, for example). Verify that the stores listed are in UNC path format, and their status is OK.

For each network store is not in UNC path format, note the server and directory. Then, delete the store and click Add Store. Browse to My Network Places, then locate the server and navigate to the target directory and click OK. The store is now referenced in UNC path format.



## Adding a Store in UNC Path Format

To add a network capture store in UNC path format, click Add. Browse to My Network Places, then locate the server and navigate to the target directory and click OK. The store is now referenced in UNC path format

## CREATING ALIASES FOR WEB ACCESS

When you have enabled Web access (by enabling IIS and installing MAP Web Search) to your MAP system, you must supply an alias to the media so it can be played.

To provide media access via a Web browser, you must supply an alias so IIS can locate it. If you only have media that has been dropped in or saved from 3<sup>rd</sup> party programs, or if you are capturing media and storing it in the same physical store as dropped in/saved media, then you only have to create one virtual directory in IIS to provide Web access.

However, if you have a separate storage depot for dropped in/saved media, and another for captured media, you must create two virtual directories in IIS, and add the captured media store to the list of storage depots in Content.MAP, and supply the proper alias.

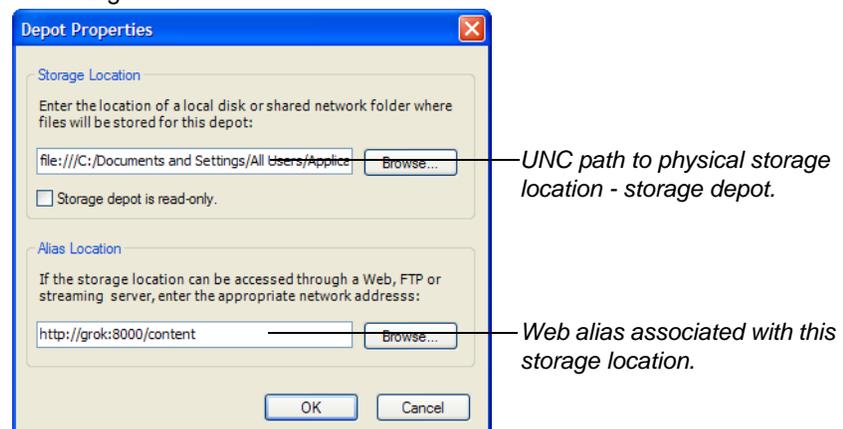


### Note

*When creating an alias for manually saved media, do not check Storage depot is read-only. However, when creating an alias for captured media, you **should** check Storage depot is read-only.*

To supply an alias to a storage depot, select the depot after creating it and click Properties.

Figure 6–6. Use Depot Properties to permit access via a Web browser or streaming server



In the alias location field, enter the URL of the virtual directory you created in the IIS management console to point to the same directory. The form is `http://<MAPServerName | localhost: <IIS Port Number> / VirtualDirectory`. For example, `http://mapserver4:8000/content1`.



Alternately, click **Browse** to run the Network Location Wizard, locate the virtual directory and generate the path for you.

Figure 6–7. The Network Location wizard finds destinations



Select the type of location from the popup – in this case, a **Web Server** because you’re attaching to the virtual directory in IIS.

Click **Next** to identify the server.

Figure 6–8. Identify the server destination and port



Enter the name or IP address of the Web server—it is the same MAPreview server where your Content.MAP service is running. If you’re running locally, you can enter *localhost*. Next, enter the IP address of the IIS server (default 8000).



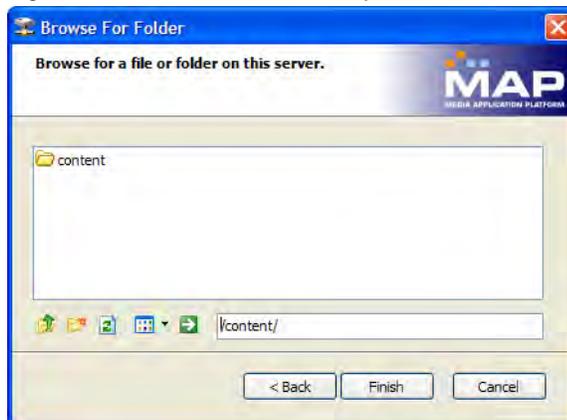
Click Next to continue.

Figure 6–9. Enter user info or check Use anonymous access



Enter the user name and password and domain of the user used to run IIS, if you're not using anonymous access. Click Next.

Figure 6–10. Select the directory for media delivery



IIS does not report virtual folders. You can identify the Web server and port, then manually enter the folder (/content/, for example—be sure to supply leading and trailing slash marks. Click the green GO button or press enter, and IIS will display the actual directory to indicate your path is correct. Click Finish to insert the path you just created.

Click OK to update and dismiss the window.

## CONFIGURING MAP FOR ACCESS VIA WEB BROWSER

To use a Web browser for MAP access, you should have activated and configured IIS and installed MAP Web Search ([Installing MAP Search](#) on page 3-31). You also need to configure MAP to allow IIS access to the media ([Create a WMS Publishing Point](#) on page 6-2).

To access your MAP system from the Web browser, you need to know the following information:



- Your MAPreview server name or IP address, or *localhost* when connecting on same computer.
- The port your IIS Web server is listening on (recommended port is 8000)
- The name of the virtual MAP Web folder in IIS (default: WebClient)

The form of the URL for accessing MAP is:

`http://<MAPServer Name | IP Address> : <Port Number> / <MAP Web Folder>`

For example, to access the MAP system using a browser running directly on the MAPreview server, you'd enter this URL:

*http://localhost:8000/WebClient*

To access the MAP system from another computer in the network:

`http://MAPServer:8000/WebClient.`

---



### Note

*If 2 or 3 lines of text display when you log in, the administrator may not have installed ASP.NET correctly. See [Re-installing ASP.NET for IIS](#) on page 3-35.*

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If the URL is not found, make sure the IIS system is running and retry.



## USING HYPERLAUNCH RECEIVE SERVER

HyperLaunch is Telestream's patent-pending high-performance, fault-tolerant protocol for guaranteed, secure delivery of digital media and associated documents anywhere in the world from remote or portable locations.

HyperLaunch Receive Server improves Internet delivery of media by automatically recovering from network interruptions and failures, relocation of mobile MAPreview servers, and enhancing throughput.

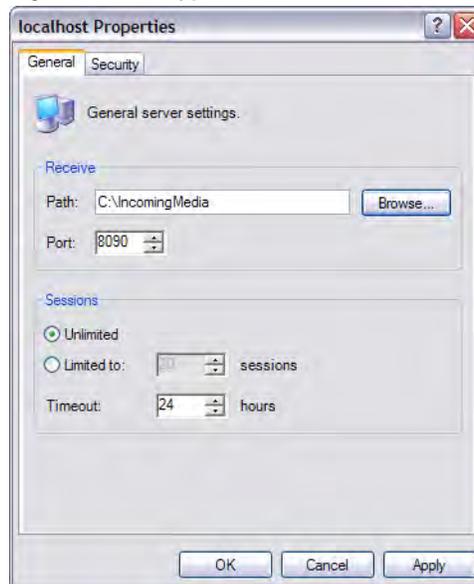
HyperLaunch builds on IP and TCP to establish logical sessions between communicating applications and accomplish high-performance, guaranteed, secure media delivery.

## CONFIGURING HYPERLAUNCH RECEIVE SERVER

Before you can send media files or MAP binders to a HyperLaunch Receive Server you need to configure it, following these steps.

- Step 1** If the HyperLaunch Receive Server console isn't open from the previous task, open it now.
- Step 2** Open Receive.MAP and right-click on *localhost*; select Properties to display the properties window.

Figure 6–11. HyperLaunch Receive Server properties



Set up the following values:

### Receive Settings

**Receive Path.** Click Browse to select the fully-qualified path where incoming media or binders are to be saved.



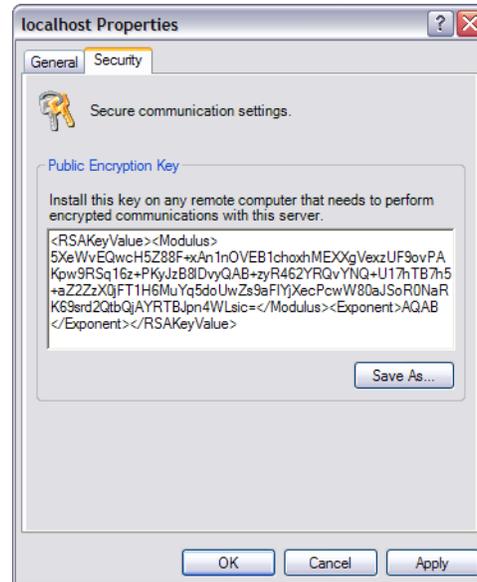
**Port.** The UDP port default value is 8090. May be changed — be sure to advise users if you change this value.

## Sessions Settings

**Maximum Concurrent Sessions.** Select Unlimited, or select Limited to, and limit the maximum number of sessions to a specific amount (usually based on file size, typical usage, and bandwidth).

**Time-out.** Specify the number of hours that a session can be kept alive.

Figure 6–12. Use the Security tab to save the security key



When your server is started, Windows creates an RSA public/private security key. The public portion of the key is displayed in the Security tab. Each time the machine is started, the keys are regenerated, but remain the same as long as the machine name does not change.



### Note

*A component of the key is based on the server's name. If you change the name of the server, previously distributed keys will be obsolete.*

Click Save to save the key as an XML file (required only in HyperLaunch Receive Server versions older than Version 1.1) so that you can provide it to MAP users to gain access to the HyperLaunch Receive Server.



### Caution

*Distribution of the public key — and storage of it on your MAPreview servers — is completely external to MAP. You must ensure the safety of the key during transmission and storage on both the sending and receiving computers to guarantee the integrity of your server via HyperLaunch.*



## MONITORING A HYPERLAUNCH RECEIVE SERVER

HyperLaunch (and Secure HyperLaunch) is an optional durable, secure, high-performance digital media transport protocol integrated into MAP and FlipFactory. To deliver media and related documents to a Windows server via HyperLaunch, HyperLaunch Receive Server must be installed and configured on a Windows server ([Installing Gateway.MAP](#) on page 3-19).

After installing HyperLaunch Receive Server, you can monitor its status and current connections.

### Launch the Management Console

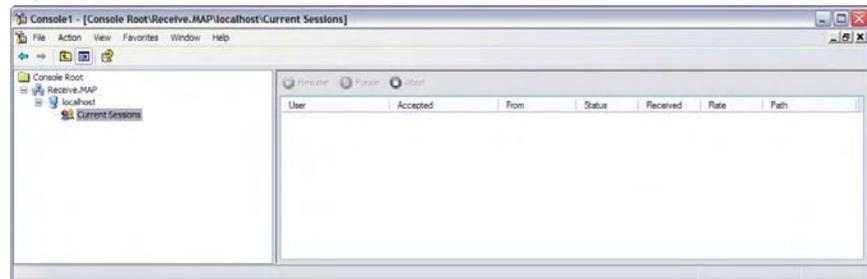
If you added HyperLaunch Receive Server to an existing console, open it. If you saved it as a separate console in its default location, click **start > All Programs > Administrative Tools > HyperLaunch Receive Server**.

Open the Receive.MAP icon. If the *localhost* entry does not display (unavailable) the service is running. If *localhost* displays (unavailable), open the Windows services window (**Control Panel > Administrative Tools > Services**) and start the HyperLaunch Receive service.

### Monitor Current Sessions

Open localhost to display current sessions.

Figure 6-13. Use the console to monitor sessions



### Start HyperLaunch Receive Server

By default, HyperLaunch Receive Server is set to automatically start each time the server starts. To start it immediately after installation:

Restart the server

–or–

Open **Control Panel > Administrative Tools > Services** to display the Services window. Right-click on HyperLaunch Receive Server, select **Start** and close the windows after HyperLaunch has started.

### Add HyperLaunch Receive Server to MMC

To configure and monitor HyperLaunch Receive Server, Telestream provides a Microsoft Management Console (MMC) snap-in, like MAP services. You can install the snap-in in a new console or add it to an existing console.

To add the snap-in to a console, follow these steps.

#### Step 1

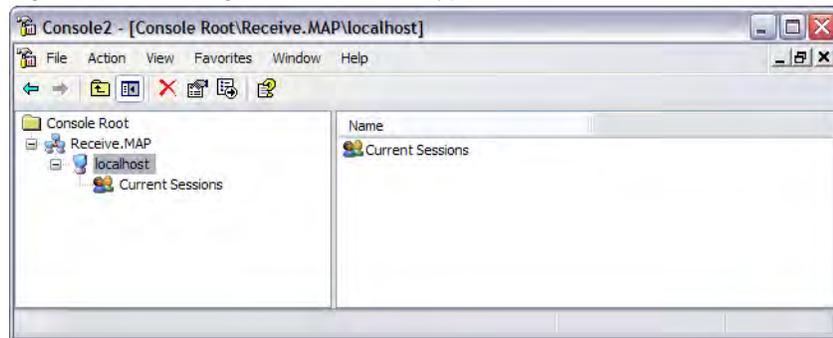
Click **start > Run...** and enter *mmc* in the Open dropdown menu in the Run window.



- Step 2** Click OK to start Microsoft Management Console.
- Step 3** To add a snap-in to an existing console (your MAP console for example), click File > Open and select the console. (The MAP console is located at C:\Program Files\Telestream\MAP\MAP.msc if you are installing on a MAPreview server.)
- Step 4** To create a new console, click File > New.
- Step 5** With the console window displayed, click File > Add/Remove Snap-in and click Add. From the list of snap-ins, select HyperLaunch Receive Server and click Add. When the snap-in has been added, click Close.
- Step 6** Click OK to close the Add/Remove Snap-in window.

When the snap-in has been installed, the console displays HyperLaunch Receive Service, with one server—*localhost*. If the service is not running, localhost displays an error message in parentheses: (unavailable).

Figure 6–14. Configure and monitor HyperLaunch Receive Server in MMC



Save the console (File > Save). If the console is new, provide the console a name — *HyperLaunch*, for example. By default, consoles (with the .msc suffix) are stored with Windows's other administrative tools.

## Run the HyperLaunch Receive Server Console

To use the console you just created, click Start > All Programs > Administrative Tools > HyperLaunch Receive Server.



## CONFIGURING AND USING GATEWAY.MAP

Gateway.MAP allows media to be remotely delivered into a MAP Content database from Telestream ClipMail appliances, and monitored network or local folders. When you install Gateway.MAP on a server in your environment and configure it with accounts associated with a specific media folder, remote users can deliver media directly to a MAP media folder via network or local folders, ClipMail, or FTP from anywhere in the world.

Gateway.MAP is used to ingest media from a remote ClipMail, an FTP folder, and network or local folders. Third-party encoder products (hardware or software) can deliver their encoded files to a Gateway.MAP monitored folder for ingest directly into MAP.

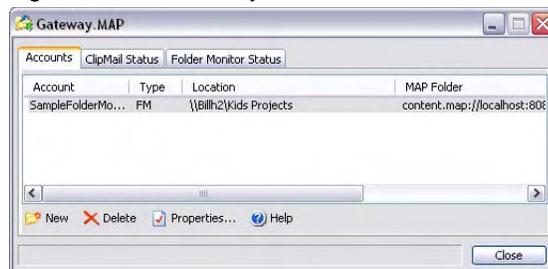
## USING THE GATEWAY.MAP CONSOLE



The Gateway.MAP console is accessed by double-clicking the minimized console in the task bar, or by right-clicking the Gateway.MAP icon in the toolbar and selecting show, or just by double-clicking the icon.

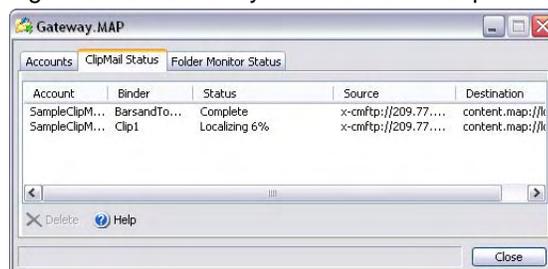
The Gateway.MAP console has three tabs: Accounts, ClipMail Status, and Folder Monitor Status.

Figure 6–15. Gateway.MAP console – Accounts tab



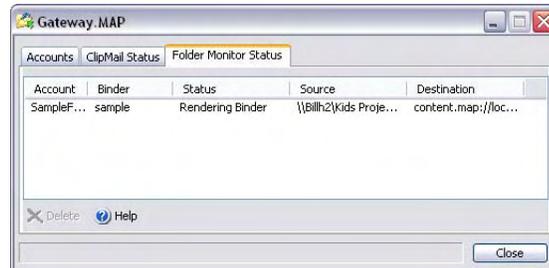
The Accounts tab displays your current Gateway.MAP accounts and the media folder they represent. Click New to create a new account, or select an existing account to display its properties, or to delete it.

Figure 6–16. Gateway.MAP console – ClipMail Status tab



The ClipMail Status tab lists file transfer tasks in order of processing, plus details about the task. When files are being ingested from a ClipMail the respective task is displayed with its current status. Select a task to delete it.

Figure 6–17. Gateway.MAP console – Folder Monitor Status tab



The Folder Monitor Status tabs lists file transfer tasks in order of processing, plus details about the task. When files are being ingested from a monitored folder the respective task is displayed with its current status. Select a task to delete it.

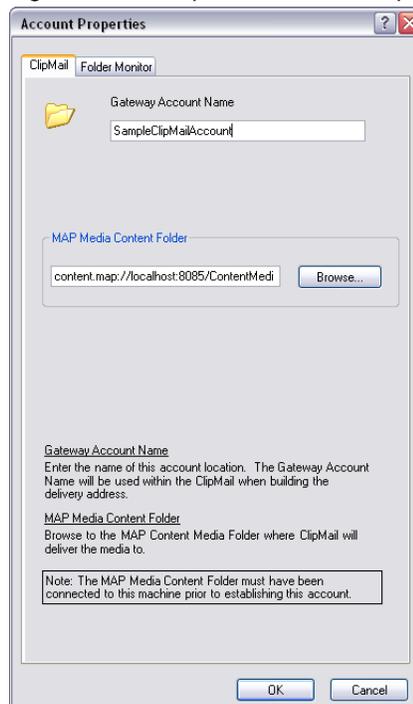


## CREATING A CLIPMAIL ACCOUNT

To create a new account to receive media from ClipMail, follow these steps:

- Step 1** Display the Gateway.MAP console and display the Accounts tab.
- Step 2** Click the New icon at the bottom to display the Account Properties dialog.
- Step 3** Select the ClipMail tab.

Figure 6–18. ClipMail Account Properties dialog



- Step 4** In the Gateway Account Name field, enter an appropriate name. This is the name that is displayed in the list, and provided to the ClipMail user for creating a ClipMail address.
- Step 5** Click Browse and navigate to the MAP media folder you want to select as the destination folder and click OK.
- Step 6** Document the Gateway account name for use by your ClipMail users ([Creating a ClipMail Account](#) on page 6-18).
- Step 7** Close the dialog.

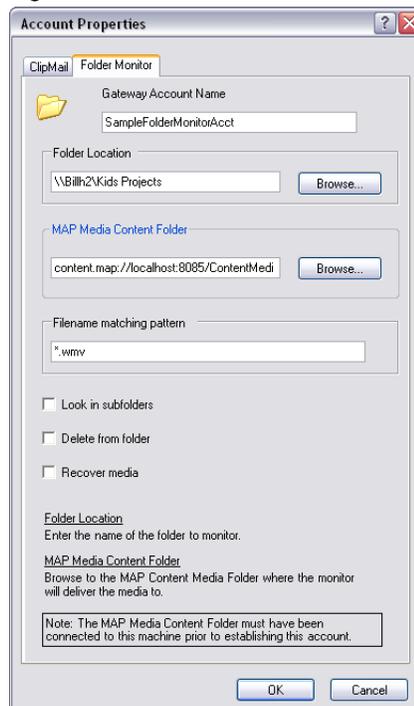


## CREATING A FOLDER MONITOR ACCOUNT

To create a new account to monitor a network or local folder, follow these steps:

- Step 1** Display the Gateway.MAP console and display the Accounts tab.
- Step 2** Click the New icon at the bottom to display the Account Properties dialog.
- Step 3** Select the Folder Monitor tab.

Figure 6–19. Folder Monitor Account Properties dialog



- Step 4** Click Browse and navigate to the local or network folder you want to select as the source (monitored) folder and click OK.
- Step 5** Click Browse and navigate to the MAP media folder you want to select as the destination folder and click OK.
- Step 6** Select the appropriate action (file match patterns, look in subfolders, delete from folder and recover media) to take in this folder when media arrives.
- Step 7** Click OK to close the dialog.

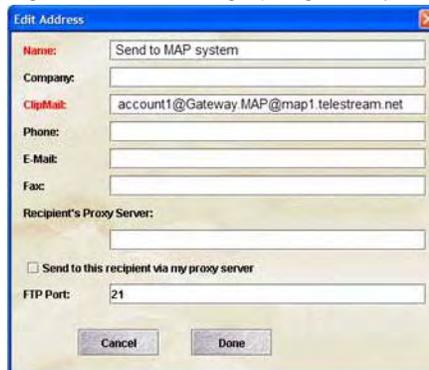


## SETTING UP A CLIPMAIL ADDRESS FOR SENDING MEDIA VIA GATEWAY.MAP

To create a ClipMail address for a MAP media folder, follow these steps:

- Step 1** On the ClipMail appliance click Set Up on the Address Tab, or click the Send To button to display the Edit Address screen.

Figure 6–20. Setting up a gateway address in ClipMail



- Step 2** In the ClipMail field, enter this string:  
<accountname>@Gateway.MAP@<MAPPreview server DNS name or IP Address>.

For example, *GatewayAcct@Gateway.MAP@map.grokmedia.com*, or *GatewayAcct@Gateway.MAP@192.168.127.100*

where *accountname* is the name you provided for the Gateway.MAP account (the name in ClipMail is case-sensitive), *@Gateway.MAP* is a constant which must be in each address, and *@DNS name or IP address* is the MAPPreview server's fully-qualified DNS name or IP address.

- Step 3** Click Done to save the address.



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# MAP System Planning Guide

This chapter provides the information you need to plan, implement, and configure a MAP installation. In this chapter, you'll also review the hardware and software platform requirements for MAP services and client programs, so that you can audit your systems and upgrade or purchase systems configured to meet your specific MAP system requirements.



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## Note

*If you plan to capture one or two channels, store 200GB (or less) of media in MAP and have five or less MAP clients connected concurrently, consider installing MAP on a single computer (and skip this chapter).*

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## SYSTEM PLANNING

Configuring a multi-server MAP or MAPreview system is a straightforward process. To determine how to configure a system you'll need to determine:

- Number of live channels you plan to capture
- Desired bit rate, frame size, and frame rate for the captured material
- Length of time the capture segments are required to be online
- Storage requirements for captured media, manually or automatic file ingest and transcoded media files
- Transcoding and analysis needs (may require additional Factory server)
- How many concurrent clients will be accessing the system
- How to configure MAP for your network.

With these specifications and plans, you'll be able to provide Telestream the information we will need to configure a system that will meet your needs or configure your own MAP system.

### Single Server Drive & Partition Requirements

You should configure a MAPreview server that is intended to run all MAP services with at least 2 hard drives, or with a single hard drive or RAID with 2 or more partitions. The OS and MAP drive/partition should be at least 50GB and allocated exclusively to MAP services and related MAP software, and the MAP database.

The other drives or partitions should be sized according to media capture requirements and exclusively allocated to captured media.



## MAP Capture Server Requirements

You should configure each Capture server with at least 2 hard drives, or with a single hard drive or RAID with 2 or more partitions. The OS and MAP drive/partition should be at least 20GB so that you can install Windows, and also install MAP services on the OS/MAP drive.

The other drives or partitions should be sized according to media capture requirements and exclusively allocated to captured media.

A MAP Capture server is capable of capturing four simultaneous feeds, frame size of 320 x 240 up to approximately 1Mbps with sufficient CPU overhead. Encoding is primarily done in software and utilizes a great deal of the overall CPU with four concurrent capture sessions consuming greater than 50% of the CPU.

Capturing at bit rates higher than 1Mbps, using frame sizes larger than 320 x 240 or applying the MAP Capture overlap feature (using Simulstream) on all four channels may push the CPU utilization to or over 100%. In these situations the OS may become unstable, increasing the risk of an encoder failure. This situation could cause timer-sensitive, low-level operations to fail and should be avoided.

Three factors influence how much CPU load your server will experience during capture: the frame size, bit rate and number of concurrent captures.

Standard MAP Capture servers are equipped with Dual 3.0Ghz Xeon CPUs, 800Mhz FSB, 1GB RAM and 500GB internal RAID-5 storage.

To avoid CPU overload when capturing four (4) live feeds and segment overlap you can:

- Minimize the overlap period to  $\leq 3$  seconds and use staggered segmented schedules where only one channel is in an overlap period at any one time (All channels will always start and end on day transitions)
- Use smaller frame sizes such as 160 X 120
- Reduce the number of live feeds being captured to less than four (4).

To determine platform requirements for live feed captures, you will need to determine the number of live feeds (channels) you plan to capture concurrently and their respective frame size/bit rate.

As a general rule, each Capture server can handle up to four (4) CIF, 30fps, up to 1Mbps encodes or two (2) full frame, 30fps, up to 4Mbps encodes.

## Media Storage Requirements

When you capture live media, flip into other media formats or acquire existing media files from media applications or systems, MAPreview stores them in the MAP media database, under control of the Content service. The physical locations for these files can be a local to the Capture or Content server or can be any other network accessible storage location(s).

Three factors determine how much storage space your daily media capture or acquisition requires:

- the number of channels you capture or pre-existing media files you acquire
- the bit rate of the captured media files (directly related to the size)
- the length of time that these files will need to remain in online storage prior to archive or automatic deletion.

When specifying stores for Capture servers, you should store the captured media files locally on the server. A Capture server from Telestream has 500GB of media storage space (larger storage capacity is available as optional upgrades).



For each Capture server, determine the storage requirements by multiplying the number of live feeds that will be captured times the value representing the daily storage requirements (see chart below) for any given bit rate times the desired length of time the media needs to be online.



### Note

*Telestream has made it easy to calculate storage needs. Go to <http://www.telestream.net/calculator/mapcalculator.htm> and plug in your numbers.*

If you plan on transcoding the captured media files to other formats or adding media to the MAP Content media database via other means, take this into account when determining the required amount of storage. Generally, files added to the media database by means other than a Capture server are stored in a separate storage location – a local drive or server.

To estimate your ongoing disk space requirements, multiply the total volume requirements for additional media file category by the number of days you plan to keep the media online in the MAP media database. These files generally are stored in local storage on the MAP Content server but can be stored anywhere within your network. Determine where these media files will be stored and take this into account when determining your storage needs.

Table 7–1. Daily Media Capture Space Requirements

Low Res (200 kbps)	Medium Res (500 kbps)	Med. Hi Res (750 kbps)	Hi Res (1 mbps)
2.2 GB	5.4 GB	8.1 GB	10.8 GB



### Note

*When calculating storage requirements for a capture server, be sure to take into account the repeated writing and deleting of media files in storage depots, leading to disk fragmentation. The negative effects of fragmentation are multiplied as the disk is filled to 70% capacity or more. Effects include degraded OS performance and if left unchecked, can render the OS unresponsive. It is considered good practice to maintain 50% available storage. Multiply your net storage requirements by 1.5 to determine gross storage requirements.*

## MAP Content and Factory Server Requirements

You should configure a MAPreview server that is intended to run all MAP services with at least 2 hard drives, or with a single hard drive or RAID with 2 or more partitions. The OS and MAP drive/partition should be at least 50GB and allocated exclusively to MAP services and related MAP software, and the MAP database.



The other drives or partitions should be sized according to media capture requirements and exclusively allocated to captured media.

CPU usage on your MAP Content server is generally a function of concurrent client connections (searches for media content) and the Factory service analyzing/transcoding media files. During peak usage you may encounter times when the Content service is using significant CPU resources (during searches, for example) and the Factory service is consuming significant CPU resources analyzing and/or transcoding jobs.

As a general rule of thumb, a server running both the Content and Factory service can operate efficiently with 10 concurrent clients and with up to 8 channels being concurrently analyzed. Use the following guidelines to determine your requirements.

Additional Factory servers can be utilized to process a greater number of captured channels and/or additional transcoding needs.

- Systems with 8 or fewer live capture feeds, 10 or fewer concurrent clients licenses and little or no transcoding can safely run both the Content and Factory services on a single server [Dual Xeon 3.0Ghz (or higher), 2GB RAM (or more)]
- Systems with greater than 8 and less than 21 live feeds, between 10 and 20 concurrent client licenses and up to medium transcoding needs should separate the Content service and Factory service on separate servers [Dual Xeon 3.0Ghz (or higher), 2GB RAM (or more)]
- Systems requiring additional transcoding and/or more than 20 live feeds will need to add Content and Factory servers where appropriate.



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# Upgrading, Repairing, and Uninstalling MAP

Use this chapter to upgrade, repair, or uninstall MAP services, utility, and client applications.

## Topics

- [Upgrading a MAP System](#) on page 8-2
- [Repairing a MAP System](#) on page 8-2
- [Uninstalling MAP Services](#) on page 8-3
- [Uninstalling MAP Player, Explorer, and Quick Review](#) on page 8-3
- [Uninstalling Gateway.MAP](#) on page 8-3
- [Uninstalling MAP Web Search](#) on page 8-3
- [Uninstalling HyperLaunch Receive Server](#) on page 8-3



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## UPGRADING A MAP SYSTEM

To upgrade MAP services from a previous version, follow these steps.

- Step 1** Notify each MAP Explorer user to document their connected media folders and media portals.
- Step 2** When you upgrade to a new MAP version, the connections to media folders and media portals are removed.



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### Note

*When you upgrade MAP, all of the media folder connections displayed under My Network Places > Media Application Platform are removed. Review the connections before installing and make a list so that you can re-create them after upgrading.*

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- Step 3** Close any applications that are accessing MAP services including MAP Explorer, MAP Quick Review, and MAP Player, plus third party media applications and Web clients that may be connected.
- Step 4** Perform a backup to archive all user data, including the MAP Content database and any media directories.
- Step 5** If you're upgrading from any MAP version less than 2.0.1, remove USB dongles from your MAPreview servers during the upgrade. If you don't, Windows may notify you of a device conflict. If you are upgrading from version 2.0.1 or later, you do not need to remove the dongles.
- Step 6** Uninstall all MAP services you plan to upgrade.
- Step 7** Restart your server.
- Step 8** Perform an installation of the new version of MAP following the instructions found in [Installing MAP Services](#) on page 3-14.
- Step 9** Replace the dongles on your MAPreview servers and restart your server.

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## REPAIRING A MAP SYSTEM

To repair a MAP system, uninstall and re-install the software, following the directions in [Installing MAP Services, Clients, & Utilities](#) on page 3-1.



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### Note

*Do not use the Repair button on the MAP installer – it is inoperative.*

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## UNINSTALLING MAP SERVICES

To uninstall MAP services, follow these steps:

Open Control Panel > Add or Remove Programs and click MAP.

Windows removes all MAP components—you can not uninstall a portion of MAP. All MAP services are uninstalled, and MAP Explorer, MAP Quick Review, MAP Player, and Archive and Factory operator consoles are uninstalled.

If you have uninstalled MAP Services, you should uninstall Gateway.MAP if it is on the same server before restarting the server, because MAP Services components are required for Gateway.MAP.

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## UNINSTALLING MAP PLAYER, EXPLORER, AND QUICK REVIEW

When you uninstall MAP Explorer or Quick Review, MAP Player is also uninstalled. MAP Explorer and Quick Review both use MAP Player.

Therefore, you should not remove either MAP Explorer or Quick Review individually, without removing the other client. If you are using either MAP Explorer or Quick Review on a computer and the other client is also installed but unneeded, leave it installed.

To uninstall MAP Explorer, open Control Panel > Add/Remove Programs and select MAP Explorer.

To uninstall MAP Quick Review, open Control Panel > Add or Remove Programs and select MAP Quick Review.

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## UNINSTALLING GATEWAY.MAP

To uninstall Gateway.MAP, open Control Panel > Add or Remove Programs and select Gateway.MAP.

If you uninstalled MAP Services, you should uninstall Gateway.MAP before restarting the server, because Gateway.MAP requires MAP Services components.

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## UNINSTALLING MAP WEB SEARCH

To uninstall MAP Web Search, open Control Panel > Add or Remove Programs and select MAP Web Search.

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## UNINSTALLING HYPERLAUNCH RECEIVE SERVER

To uninstall HyperLaunch Receive Server, open Control Panel > Add or Remove Programs and select HyperLaunch Receive Server.





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# Troubleshooting MAP

Use this appendix to identify the symptom you're experiencing with MAP. Follow the suggestions in the Action section to identify and solve the potential problem. If you are not able to solve the problem using these suggestions, contact Telestream Technical Support for assistance ([Support and Information](#) on page About-1).

## Topics

- [Content.MAP Issues](#) (page A-1)
- [Capture.MAP Issues](#) (page A-2)
- [MAP Player Issues](#) (page A-3)
- [General MAP Services Issues](#) (page A-4)
- [MAP Explorer Issues](#) (page A-5)
- [Web Browser Issues](#) (page A-6)

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## CONTENT.MAP ISSUES

**Symptom.** When I try to save a media file from a media editing program, or save a business document from a personal productivity program (MS Word, for example), I can't open the Media Application Platform entity in the Save or Save As dialog. What's happening?

**Action.** Content.MAP only communicates with media applications on port 80. If the Content.MAP service was installed to use another port (port 8000, for example) in order to enable use of MAP with Web browsers via IIS, users must save their media in a Windows directory and then drag and drop (or copy and paste) the media in manually, via MAP Explorer.

Also, users must save their business documents in a Windows directory and then drag and drop (or copy and paste) the files in manually, via MAP Explorer.

**Symptom.** I have enabled Speech Recognition metadata (using the Metadata tab in a media folder's property window). However, new media (or analyzed existing media) does not produce the text. Why not?

**Action.** The Speech Recognition Engine from Microsoft is not installed, or is not enabled on your server. See [Enabling Speech Recognition](#) on page 5-25.



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## CAPTURE.MAP ISSUES

**Symptom.** Media I've captured is watermarked with "demo produced by Telestream, Inc."

**Action.** The Capture server that captured the media does not have a Telestream dongle. Obtain the license dongle from Telestream or plug it in to the server and restart the Capture.MAP service (or just restart the server) to continue. See [Attaching MAP USB Dongles](#) on page 3-23.

**Action.** The Telestream dongle is plugged in and the red light is lit, but the license may have expired. Run the License Info program to determine if the license is expired. Contact Telestream to update the license. See [Viewing Machine ID and License Information](#) on page 3-23. With the new license file from Telestream, update the dongle ([Updating the MAP Dongle](#) on page 3-23) and restart the server.

**Symptom.** The Capture Service is not capturing media, even though the schedule appears to be set correctly.

**Action.** Make sure that the assigned stores have ample disk space available.

Verify that the Capture service is running.

Verify the service authentication settings.

Make sure you've defined the Capture.MAP storage depot and content location correctly. (see [Add a Media Store](#) on page 4-20).

**Symptom.** The capture bit rate is always 100 kbps.

**Action.** The default encoder is Windows Media at 100 kbps. Display Channel properties Capture tab. Click Modify > Codecs and modify the Windows Media V9 CBR codec to reflect the desired capture bit rate.

**Symptom.** The channel I've configured for a capture card won't start.

**Action.** Make sure you have specified a storage location. Use the MAP management console to perform this task (see [Add a Media Store](#) on page 4-20).

You may not have a valid schedule. Review the schedule and make sure it includes the present time, or the time you plan it to start and stop.

The channel may be set to Disabled. Open the channel properties dialog and check the Startup type setting in the General tab.

If Broadcast is set to True, you must have a network connection to view the live capture.

**Symptom.** I can't see any video in the Channel Details frame of the MAP management console.

**Action.** Broadcast is set to False in Channel Properties. Open the properties window for the channel in question, and click the Settings tab. Change the Broadcast: Enabled tag to True.

Click the Play button in the control frame below the video frame.



A video source may not be present, or it may not be selected. Verify that media is present on the physical connection to the capture card.

Verify proper operation of the capture card using Windows Media Encoder.

If Broadcast is set to True, you must have a network connection to view the live capture.

**Symptom.** I can't see metadata on a segment I've just captured.

**Action.** Verify that the media folder where the segment is stored includes metadata in the folder properties. Label metadata is passed through and saved in the media binder immediately when the segment starts, so that you can actually search on it while encoding takes place. Track metadata is automatically extracted and also saved in the binder. Track metadata is available at the conclusion of the encoding of the segment.

The input video may not have VITC for close caption extraction.

**Symptom.** I can't hear audio when I am capturing a segment.

**Action.** Verify that input audio is present and being produced by playing the same media input source through Windows Media Encoder.

Use a different media source to verify that the speakers are working properly.

Check the input source against a monitor, without running it through the capture card.

Make sure your PC has a sound card and playback audio device and it is operating correctly.

---

## MAP PLAYER ISSUES

**Symptom.** I can't launch MAP Player.

**Action.** In MAP Explorer, highlight a binder in a media folder. Then, right-click to select MAP Player.

**Symptom.** MAP Player doesn't display any video frames when I click the Play icon in the video controller.

**Symptom.** MAP Player doesn't play in reverse or I can't single-step backwards in the media.

**Action.** See the release notes document on the installation CD.

Turn off hardware acceleration on the video card and retry.



With a media file open, right-click in the video panel and select Options. On the Performance tab, click Advanced. Deselect Use video mixing renderer under Video Acceleration, and try again.



### Note

*Disabling Use video mixing renderer may prevent you from using the single frame back feature and playing media in reverse. However, disabling the video mixing renderer may also cause video display to fail entirely, in which case you should enable the video mixing renderer. Right-click in the media panel and select Options to display the Options dialog. Display the Performance tab and click Advanced. In the Video Accelerator Settings window, under the video acceleration section check Use video mixing renderer, and Use overlays directly below. Click OK.*

**Symptom.** I can't trim media in MAP Player.

**Action.** Only WM9 file formats support mark in / mark out, and Save as to another file features.

Verify the playback format.

**Symptom.** I can't hear audio when playing media in MAP Player.

**Action.** Verify that input audio is present and being produced by playing the same media input source through Windows Media Encoder.

Use a different media source to verify that your speakers are working properly.

Make sure your PC has a sound card and playback audio device and it is operating correctly.

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## GENERAL MAP SERVICES ISSUES

**Symptom.** I'm trying to manage a MAP service in MAP management console, but when I open the service, the components display the *Unavailable* message.

**Action.** The service you're attempting to monitor or update is not running. The service has been stopped. Restart the service (open Control Panel > Administrative Tools > Services) and check the settings in the services properties (see Modifying MAP Services Settings on page 47). Normally, services are set to start automatically when the server restarts.

The server where the service is located is not accessible (there may be a network problem). See your network administrator.

Restart the service that is unavailable, then close and re-open MAP management console.

**Symptom.** MAP Services show as "Unavailable" in the Management Console.

**Action.** Stop and restart the service.

Reboot the server.

Double check your service authentication settings and make sure you're logged in correctly.



**Symptom.** MAP Services are not accessible.

**Action.** Install MAP Services and indicate they can be used by “Everyone” as recommended.

If you have installed MAP Services and specified the Just Me option, make sure you’re logged in with the same user ID that was logged in when installation was performed.

**Symptom.** MAP Management Console won’t launch.

**Action.** Check the operating system—you may have installed a service on a Windows 2000 platform. Telestream recommends you run MAP services on Windows XP Professional or Windows Server 2003, and does not support other operating systems.

---

## MAP EXPLORER ISSUES

**Symptom.** I am searching the MAP media folders and I can’t find anything.

**Action.** Broaden your search by moving higher up in the media folder organization.

Make sure you are connected to the top level media folder that contains the media you’re searching for in its folder, or a folder inside the top level folder.

If you are searching close caption metadata, don’t select Is Exactly in the search criteria.

Browse the media folder in MAP Explorer to make sure the media you’re searching for exists in the location you’re searching.

**Symptom.** I captured a media segment, but I can’t find it.

**Action.** Run Windows Explorer. Open Media Application Platform under My Network Places and run the Add Content.MAP Network Place Wizard. Browse to the folder where Capture.MAP stored the segment and connect to it.

**Symptom.** I can’t see the media in my media folders.

**Action.** You may be viewing the media folders using the MAP management console, which does *not* display media. To view media, use MAP Explorer or other MAP client application.

**Symptom.** The capture device is not working in Capture.MAP.

**Action.** Before assigning a capture device to a channel in Capture.MAP, verify that the device works in Windows Media Encoder using the proper software from the manufacturer. If it does not work, you must solve the problem outside of MAP.

**Symptom.** I am conducting a search in MAP Explorer. I click Search, but the Search Results window doesn’t display.

**Action.** You probably conducted a previous search, and if you have several windows open on your desktop, the Search window is open, but obscured by



other windows. Look for the window yourself, or click on the Windows Explorer tab in the toolbar and select Search Results to bring it to the front.

**Symptom.** I am conducting a fragment search in MAP Explorer. I'm sure the file with this criteria exists, but it doesn't get listed in results.

**Action.** If the term or fragment you're searching for is not at the beginning, use an asterisk as the leading search character. For example, *\*ech* finds all files that have the string 'ech' in it.

---

## WEB BROWSER ISSUES

**Symptom.** I am using a Web browser to search for media. The resulting media is represented by the universal No Access icon and I can't play it.

**Action.** Your MAP administrator has not supplied an alias to the media you found, or the credential supplied do not provide proper authentication. In the Content.MAP management console or MAP Explorer, select the media folder that you want to provide Web access to (or the single top-level folder, called Media Folders, to provide Web access to all media) and display Properties.

In the Storage tab, select each storage depot where the media is located and click Properties to add an alias for the IIS Web server (see [Creating Aliases for Web Access](#) on page 6-8). The alias is a URL, in the form `http://domain | IP address:PortNo` if not 80/IISVirtualDirectoryName; for example: `http://mapserver4:8000/content1`.

**Symptom.** I am using a Web browser to access my MAP system. When I try to log on to my MAP site (`http://MAPServerMachineName:8000/WebClient`) (where MAPPreview server is the actual name, 8000 is the actual port IIS is set to, and *WebClient* is the actual name of the virtual MAP directory, I get about 3 rows of text information—no Web page is displayed.

**Action.** Your ASP.NET is not properly registered with IIS, because .NET was installed before IIS was activated. To solve the problem, re-register ASP.NET with IIS by following the steps outlined in Re-installing ASP.NET for IIS, on page 44.

**Symptom.** I am attempting to use Content.MAP management console (Media folder Properties > Storage) to provide an alias to my MAP content so that it can be played via a Web browser. However, when I click Browse to find the Alias location, no folder displays.

**Action.** The folder you need to supply is a Virtual Folder in IIS. However, IIS does not report virtual folders. You can identify the Web server and port, then manually enter the folder (`/content/`, for example—be sure to supply leading and trailing slash marks. Click the green GO button or press Enter, and IIS will display the actual directory to indicate your path is correct. The form for alias location is

`http://<IISServerName>:<PortNumber>/<VirtualFolderName>`. For example, `http://grok:8000/content`.



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## Media Formats

This appendix provides movie, video, and audio codec specifications provided in each media format. The media formats are organized alphabetically within each technology group.

MAP provides codes that allow you to transcode media into the following media formats:

### Miscellaneous Formats

- [Copy—Duplicate Original Format](#) (page B-2)

### Streaming Media Formats

- [QuickTime Media Format](#) (page B-2)
- [Real Networks Media Format](#) (page B-8)
- [Windows Media Format](#) (page B-11)

### Professional Video Media Formats

- [AVI Media Format](#) (page B-14)
- [MPEG1 System Stream Media Format](#) (page B-17)
- [MPEG2 Program Stream Media Format](#) (page B-18)



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### Note

*When Generate Timecode Track is available and enabled, the time code may be supplied via a time code metadata label).*

*For example, if the Vertical Blanking Process/Analyze filter is enabled, the time code is extracted from the video file and placed in the time code metadata label. The time code metadata is then used to populate the time code track.*

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## COPY—DUPLICATE ORIGINAL FORMAT

This media format entry duplicates the original file in its original media format, copying it to the location specified. Copy is used to preserve the original file for further processing, often after metadata has been generated on a previous transcode and for archiving purposes.

There are no parameters for the Copy format.

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## QUICKTIME MEDIA FORMAT

MAP uses the Basic Sorenson codec by default. If the Sorenson codec is to be used for professional work, Telestream recommends that you replace this codec with the Sorenson Professional codec. The Professional codec may be obtained directly from Sorenson at [www.sorenson.com](http://www.sorenson.com).



### Note

*Some optional codecs are only available when installed on the Factory.MAPreview server by you, the customer, including FMA, FlexVideo and QDesigns Pro Audio.*

## Movie Codecs

Table B-1. DV Standard Definition NTSC

Value	Specification
Frame Size	Width: 720 pixels Height: 480 pixels
Video Frame Rate (fps)	29.97
Audio Channel	2 Channel 16 bit Stereo at 44.1Khz
Audio Sample Rate	44.1   48 KHz
Audio Sample Size	16 bits
Fast Start	Check to enable FastStart switch for progressive download
Generate Timecode Track	Check to populate with a time code value (may be supplied via time code metadata label).



**Table B–2. DV Standard Definition PAL Codec**

Value	Specification
Frame Size	Width: 720 pixels Height: 576 pixels
Video Frame Rate (fps)	25
Audio Channel	2 (stereo)
Audio Sample Rate	44.1   48 KHz
Audio Sample Size	16 bits
Fast Start	Check to enable FastStart switch for progressive download
Generate Timecode Track	Check to populate with a time code value (may be supplied via time code metadata label).

## Video Codecs

**Table B–3. Avid (ABVB, NuVista, Meridien Interlaced/Progressive) Codec**

Value	Specification
Codec Profile	AVR1 through AVR 5; AVR1e through AVR6e; AVR25, AVR26, AVR27
Video Profile	NTSC   PAL
Frame Size	NTSC: 720 X 480 pixels PAL: 720 X 576 pixels
Frame Rate (fps)	NTSC: 29.97 fps PAL: 25 fps
Fast Start	Check to enable FastStart switch for progressive download
Generate Timecode Track	Check to populate with a time code value (may be supplied via time code metadata label).

**Table B–4. Cinewave 8Bit YUV Codec**

Value	Specification
Video Profile	NTSC   PAL
Frame Size	NTSC: 720 X 480 pixels PAL: 720 X 576 pixels



**Table B–4. Cinewave 8Bit YUV Codec**

Value	Specification
Frame Rate	NTSC: 29.97 fps PAL: 25 fps
Generate Timecode Track	Check to populate with a time code value (may be supplied via time code metadata label).

**Table B–5. FlexVideo Codec (installed by customer)**

Value	Specification
Frame Size	Width: 32 to 2,048 pixels Height: 32 to 2,048 pixels
Quality	1 to 100 percent
Frame Rate (fps)	5 to 30 fps, selectable: 5   8   10   12   15   24   25   29.97   30
Fast Start	Check to enable FastStart switch for progressive download
Generate Timecode Track	Check to populate with a time code value (may be supplied via time code metadata label).

**Table B–6. FMA Movie Codec (installed by customer)**

Value	Specification
Frame Size	Width: 32 to 2,048 pixels Height: 32 to 2,048 pixels
Frame Rate (fps)	5 to 30 fps, selectable: 5   8   10   12   15   24   25   29.97   30
Quality	1 to 100 percent
Storage Profile	Standard   QualityFirst   FramerateFirst   TextBrowse   SmallView   Original
Fast Start	Check to enable FastStart switch for progressive download
Generate Timecode Track	Check to populate with a time code value (may be supplied via time code metadata label).



**Table B–7. Motion JPEG B Codec**

<b>Value</b>	<b>Specification</b>
Frame Size	Width: 80 to 720 pixels Height: 60 to 576 pixels
Frame Rate (fps)	5 to 30 fps, selectable: 5   8   10   12   15   24   25   29.97   30
Quality	1 to 100 percent
Number of Fields	1   2
Field Dominance	Check to set field dominance to even
Fast Start	Check to enable FastStart switch for progressive download
Generate Timecode Track	Check to populate with a time code value (may be supplied via time code metadata label).

\* QuickTime Motion JPEG B format is used when delivering to a Media 100 non-linear editor.

**Table B–8. QuickTime Movie Codec**

<b>Value</b>	<b>Specification</b>
Frame Size	Width: 80 to 720 pixels Height: 60 to 576 pixels
Frame Rate (fps)	5 to 30 fps, selectable: 5   8   10   12   15   24   25   29.97   30
Quality	1 to 100 percent
Fast Start	Check to enable FastStart switch for progressive download
Generate Timecode Track	Check to populate with a time code value (may be supplied via time code metadata label).

**Table B–9. Photo-JPEG Codec**

<b>Value</b>	<b>Specification</b>
Frame Size	Width: 80 to 720 pixels Height: 60 to 576 pixels
Frame Rate (fps)	5 to 30 fps, selectable: 5   8   10   12   15   24   25   29.97   30
Quality	1 to 100 percent



**Table B–9. Photo-JPEG Codec**

Value	Specification
Fast Start	Check to enable FastStart switch for progressive download
Generate Timecode Track	Check to populate with a time code value (may be supplied via time code metadata label).

**Table B–10. Radius Cinepak Codec**

Value	Specification
Video Bit Rate (bps)	10240 to 1,024,000
Frame Size	Width: 80 to 640 pixels Height: 60 to 480 pixels
Video Frame Rate	5 to 30 fps, selectable: 5   8   10   12   15   24   25   29.97   30
Keyframe Spacing	1 to 300 frames
Fast Start	Check to enable FastStart switch for progressive download
Generate Timecode Track	Check to populate with a time code value (may be supplied via time code metadata label).

**Table B–11. Sorenson Video 2 (Basic and Pro) Codec**

Value	Specification
Video Bit Rate (bps)	10,240 to 3,456,000
Frame Size	Width: 80 to 720 pixels Height: 60 to 576 pixels
Video Frame Rate (fps)	5 to 30 fps, selectable: 5   8   10   12   15   24   25   29.97   30
Keyframe Spacing	1 to 300 frames
Fast Start	Check to enable FastStart switch for progressive download
Generate Timecode Track	Check to populate with a time code value (may be supplied via time code metadata label).



**Table B–12.Sorenson Video 3 (Basic and Pro) Codec**

Value	Specification
Video Bit Rate (bps)	16,384 to 3,457,024 (in 4,096 (4K) increments)
Frame Size	Width: 80 to 720 pixels Height: 60 to 576 pixels
Video Frame Rate (fps)	5 to 30 fps, selectable: 5   8   10   12   15   24   25   29.97   30
Keyframe Spacing	1 to 300 frames
Bi-directional Frames	Check to enable difference frames, based on previous and next frame.
Quick Compress	Check to cause the codec to speed compression by about 20%, sacrificing little quality. Otherwise, the codec compresses in real time, at the rate of 1.2/1 (1.2 seconds of compress time per 1 second of video).
Automatic Keyframes	Check to detect the difference between frames (Automatic Key Frames). When the difference reaches the specified frequency threshold (1 to 100), a new keyframe is inserted.
Single Pass VBR	Check to enable VBR encoding in a single pass
Media Key	Check to use a media key. Media Keys are a QuickTime feature that allows you to lock movies—viewers must enter the media key (password) in their QuickTime Settings control frame before the protected video is displayed
Video Depth	Millions of Colors (24 bit)   Millions of Colors+ (32 bit)
Fast Start	Check to allow the QuickTime Plug-in to play media as it downloads in the viewer's browser.
Generate Timecode Track	Check to populate with a time code value (may be supplied via time code metadata label).

## Audio Codecs

**Table B–13.Raw PCM Audio Codec**

Value	Specification
Audio Channels	1 (Mono)   2 (Stereo)
Audio Sample Rate (Hz)	8000   11025   16000   22050   24000   32000   44100   48000
Audio Sample Size	8 bit   16bit



**Table B–14.QDesign Music 2 Audio (Basic and Pro) Codec**

Value	Specification
Audio Bit Rate (bps)	Basic: 8000 to 48000 bps, selectable: 8000   10000   12000   16000   20000   24000   32000   40000   48000 Pro: 8000 to 128000 bps, selectable: 8000   10000   12000   16000   20000   24000   32000   40000   48000   56000   64000   80000   96000   112000   128000
Audio Channels	1 (Mono)   2 (Stereo)
Audio Sample Rate (Hz)	8000   11025   16000   22050   24000   32000   44100   48000
Audio Sample Size	8 bit   16bit

## REAL NETWORKS MEDIA FORMAT

### Movie Codecs

**Table B–15.Single Bit Rate (HTTP or download) Codec**

Value	Specification
Frame Size	Width: 80 to 640 pixels Height: 60 to 480 pixels
Video Codecs RealVideo (V5) RealVideo G2 (V6) RealVideo G2 w/SVT (V7) RealVideo 8.0 RealVideo 9.0	Video Bit Rate: 1,000 to 5,000,000 bps Maximum Frame Rate: 1 to 30 fps Keyframe Spacing: 1,000 to 30,000 VBR Encoding: Check to enable VBR encoding. When enabled, select latency from 1,000 msec to 30,000 msec. Loss Protection: Check to make media more resilient to lossy environments.
Audio Codec	RealAudio   RealAudio V8   Sony ATRAC3 (see below)
Video Quality	<b>Normal.</b> Recommended for mixed content clips to balance video motion and image clarity. <b>Sharp image.</b> Recommended for high action clips to enhance overall image clarity. <b>Slideshow.</b> With this option, video appears as a series of still photos and provides best overall image clarity. <b>Smooth motion.</b> Recommended for clips that contain limited action (newscasts or interviews) to enhance video motion.



**Table B–15. Single Bit Rate (HTTP or download) Codec**

Value	Specification
Audio Content	Stereo music Voice only Voice with background music Music
Mobile Play	Check to allow media to be downloaded by mobile players.
RealPlayer Record	Check RealPlayer Record to allow users to record the playback of your RealMedia clip onto their computer. When this clip is played, the user may click the Record button to save the clip. Deselect to disable the Record button.
Audio Codec: RealAudio RealAudio V8 Sony ATRAC3	RealAudio: Voice: 5 Kbps, 8 kHz   6.5 Kbps, 8 kHz   8.5 Kbps, 8 kHz   16 Kbps, 16 kHz   32 Kbps, 22 kHz   64 Kbps, 44 kHz Mono: 6 Kbps, 8 kHz   8 Kbps, 8 kHz   1 Kbps, 11 kHz   16 Kbps 16 kHz   20 Kbps, 22 kHz   20 Kbps, 44 kHz (High Response)   32 Kbps, 44 kHz   32 Kbps, 44 kHz (High Response)   44 Kbps, 44 kHz   64 Kbps, 44 kHz Stereo: 20 Kbps, 11 kHz   32 Kbps, 22 kHz   44 Kbps, 22 kHz   64 Kbps, 44 kHz   96 Kbps, 44 kHz RealAudio V8 Stereo: 12 Kbps   16 Kbps   20 Kbps   20 Kbps (High Response)   32 Kbps   32 Kbps (High Response)   44 Kbps   44 Kbps (High Response)

**Table B–16. SureStream (Real Server) Codec**

Value	Specification
Frame Size	Width: 80 to 640 pixels Height: 60 to 480 pixels
Standard Profiles (Click arrow to display details and edit)	28K Modems   56K Modems   Single ISDN   Dual ISDN   DSL/Cable Modem   Corporate LAN   DSL/Cable Modem 1   DSL/Cable Modem 2   DSL/Cable Modem 3



**Table B–16.SureStream (Real Server) Codec**

Value	Specification
Video Codecs RealVideo G2 (V6) RealVideo G2 with SVT (V7) RealVideo 8.0 RealVideo 9.0	Video Bit Rate: 1,000 to 5,000,000 bps Maximum Frame Rate: 1 to 30 fps Keyframe Spacing: 1,000 to 30,000 VBR Encoding: Check to enable VBR encoding. When enabled, select latency from 1,000 msec to 30,000 msec. Loss Protection: Check to make this video more resilient to lossy environments.
Audio Codec: RealAudio RealAudio V8 Sony ATRAC3	RealAudio: Voice: 5 Kbps, 8 kHz   6.5 Kbps, 8 kHz   8.5 Kbps, 8 kHz   16 Kbps, 16 kHz   32 Kbps, 22 kHz   64 Kbps, 44 kHz Mono: 6 Kbps, 8 kHz   8 Kbps, 8 kHz   11 Kbps, 11 kHz   16 Kbps, 16 kHz   20 Kbps, 22 kHz   20 Kbps, 44 kHz (High Response)   32 Kbps, 44 kHz   32 Kbps, 44 kHz (High Response)   44 Kbps, 44 kHz   64 Kbps, 44 kHz   Stereo: 20 Kbps, 11 kHz   32 Kbps, 22 kHz   44 Kbps, 22 kHz   64 Kbps, 44 kHz   96 Kbps, 44 kHz RealAudio V8 Stereo: 12 Kbps   16 Kbps   20 Kbps   20 Kbps (High Response)   32 Kbps   32 Kbps (High Response)   44 Kbps   44 Kbps (High Response)
Video Quality	<p><b>Normal.</b> Recommended for mixed content clips to balance video motion and image clarity.</p> <p><b>Sharp image.</b> Recommended for high action clips to enhance overall image clarity.</p> <p><b>Slideshow.</b> With this option, video appears as a series of still photos and provides best overall image clarity.</p> <p><b>Smooth motion.</b> Recommended for clips that contain limited action (newscasts or interviews) to enhance video motion.</p>
Audio Content	Stereo music Voice only Voice with background music Music

**Table B–16.SureStream (Real Server) Codec**

Value	Specification
Audio Codec	Voice: 5 Kbps, 8 kHz   6.5 Kbps, 8 kHz   8.5 Kbps, 8 kHz   16 Kbps, 16 kHz   32 Kbps, 22 kHz   64 Kbps, 44 kHz   Mono: 6 Kbps, 8 kHz   8 Kbps, 8 kHz   11 Kbps, 11 kHz   16 Kbps 16 kHz   20 Kbps, 22 kHz   20 Kbps, 44 kHz 9High Response   32 Kbps, 44 kHz   32 Kbps, 44 kHz (High Response)   44 Kbps, 44 kHz   64 Kbps, 44 kHz   Stereo: 20 Kbps, 11 kHz   32 Kbps, 22 kHz   44 Kbps, 22 kHz   64 Kbps, 44 kHz   96 Kbps, 44 kHz
Mobile Play	Check to allow media to be downloaded by mobile players
RealPlayer Record	Check RealPlayer Record to allow users to record the playback of your RealMedia clip onto their computer. When this clip is played, the user may click the Record button to save the clip. Deselect to disable the Record button.

## WINDOWS MEDIA FORMAT

### Movie Codecs

**Table B–17.Single Rate (HTTP or Download) Codec**

Value	Specification
Frame size	Width: 16 to 720 pixels Height: 16 to 608 pixels
Video Codecs: Windows Media Video V9 Windows Media Video V8 Windows Media Video V7 Microsoft MPEG-4 V3 ISO MPEG-4 V1	Video Bit Rate: 1,000 to 5,000,000 bps Maximum Frame Rate: 1 to 30 fps Keyframe Spacing: 1 to 300 frames Video Quality: 0 (smoother motion) to 100 (sharper image)
Audio Codecs:	
ACELP	Mono: 5 Kbps, 8 KHz   6.5 Kbps, 8 KHz   8.5 Kbps, 8 KHz   16 Kbps, 16 KHz



**Table B–17.Single Rate (HTTP or Download) Codec**

Value	Specification
Windows Media Audio V9, V8, V7	<p>Mono:            5 Kbps, 8 KHz   6 Kbps, 8 KHz   8 Kbps, 8 KHz   8 Kbps, 11 KHz              10 Kbps, 11 KHz   10 Kbps, 16 KHz   12 Kbps, 16 KHz              16 Kbps, 16 KHz   16 Kbps, 22 KHz   20 Kbps, 22 KHz              20 Kbps, 32 KHz   32 Kbps, 44 KHz  </p> <p>Stereo:            12 Kbps, 8 KHz   16 Kbps, 16 KHz   20 Kbps, 16 KHz              20 Kbps, 22 KHz   22 Kbps, 22 KHz   32 Kbps, 22 KHz              32 Kbps, 32 KHz   40 Kbps, 32 KHz   48 Kbps, 32 KHz              64 Kbps, 44 KHz   80 Kbps, 44 KHz   96 Kbps, 44 KHz              128 Kbps, 44 KHz   160 Kbps, 44 KHz   192 Kbps, 44 KHz              128 Kbps, 48 KHz   160 Kbps, 48 KHz</p>
Windows Media Audio V9 Professional	<p>Stereo:            128 Kbps, 44 KHz   192 Kbps, 44 KHz   256 Kbps, 44 kHz              384 Kbps, 44 kHz   440 Kbps, 44 kHz   128 Kbps, 48 KHz              160 Kbps, 48 KHz   256 Kbps, 48 kHz   384 Kbps, 48 kHz              440 Kbps, 48 kHz</p>

**Table B–18.Multiple Rate (Windows Media Server) Codec**

Value	Specification
Frame size	<p>Width: 16 to 720 pixels            Height: 16 to 608 pixels</p>
Video Streams	1 through 5
Video Codecs: Windows Media Video V9 Windows Media Video V8 Windows Media Video V7 Microsoft MPEG-4 V3 ISO MPEG-4 V1	<p>Video Bit Rate: 1,000 to 5,000,000 bps            Maximum Frame Rate: 1 to 30 fps            Keyframe Spacing: 1 to 300 frames            Video Quality: 0 (smoother motion) to 100 (sharper image)</p>
Audio Codecs	
ACELP	<p>Mono:            5 Kbps, 8 KHz   6.5 Kbps, 8 KHz   8.5 Kbps, 8 KHz              16 Kbps, 16 KHz</p>



**Table B–18. Multiple Rate (Windows Media Server) Codec**

Value	Specification
Windows Media Audio V9, V8, V7	<p>Mono:            5 Kbps, 8 KHz   6 Kbps, 8 KHz   8 Kbps, 8 KHz   8 Kbps, 11 KHz              10 Kbps, 11 KHz   10 Kbps, 16 KHz   12 Kbps, 16 KHz              16 Kbps, 16 KHz   16 Kbps, 22 KHz   20 Kbps, 22 KHz              20 Kbps, 32 KHz   32 Kbps, 44 KHz  </p> <p>Stereo:            12 Kbps, 8 KHz   16 Kbps, 16 KHz   20 Kbps, 16 KHz              20 Kbps, 22 KHz   22 Kbps, 22 KHz   32 Kbps, 22 KHz              32 Kbps, 32 KHz   40 Kbps, 32 KHz   48 Kbps, 32 KHz              64 Kbps, 44 KHz   80 Kbps, 44 KHz   96 Kbps, 44 KHz              128 Kbps, 44 KHz   160 Kbps, 44 KHz   192 Kbps, 44 KHz              128 Kbps, 48 KHz   160 Kbps, 48 KHz</p>
Windows Media Audio V9 Professional	<p>Stereo:            128 Kbps, 44 KHz   192 Kbps, 44 KHz   256 Kbps, 44 kHz              384 Kbps, 44 kHz   440 Kbps, 44 kHz   128 Kbps, 48 KHz              160 Kbps, 48 KHz   256 Kbps, 48 kHz   384 Kbps, 48 kHz              440 Kbps, 48 kHz</p>

**Table B–19. Single Rate Quality VBR Codec**

Value	Specification
Frame size	<p>Width: 16 to 720 pixels            Height: 16 to 608 pixels</p>
Video Streams	1 through 5
Video Codecs: Windows Media Video V9 Windows Media Video V8 Windows Media Video V7	<p>Video Bit Rate: 4,000 to 20,000,000 bps            Maximum Frame Rate: 1 to 72 fps            Keyframe Spacing: 1 to 300 frames            Video Quality: 0 (smoother motion) to 100 (sharper image)</p>
Audio Codecs	



**Table B–19.Single Rate Quality VBR Codec**

Value	Specification
Windows Media Audio V9, V8, V7	<p>Mono:            5 Kbps, 8 KHz   6 Kbps, 8 KHz   8 Kbps, 8 KHz   8 Kbps, 11 KHz Mono   10 Kbps, 11 KHz   10 Kbps, 16 KHz   12 Kbps, 16 KHz   16 Kbps, 16 KHz   16 Kbps, 22 KHz   20 Kbps, 22 KHz   20 Kbps, 32 KHz   32 Kbps, 44 KHz  </p> <p>Stereo:            12 Kbps, 8 KHz   16 Kbps, 16 KHz   20 Kbps, 16 KHz   20 Kbps, 22 KHz   22 Kbps, 22 KHz   32 Kbps, 22 KHz   32 Kbps, 32 KHz   40 Kbps, 32 KHz   48 Kbps, 32 KHz   64 Kbps, 44 KHz   80 Kbps, 44 KHz   96 Kbps, 44 KHz   128 Kbps, 44 KHz   160 Kbps, 44 KHz   192 Kbps, 44 KHz   128 Kbps, 48 KHz   160 Kbps, 48 KHz</p>
Windows Media Audio V9 Professional	<p>Stereo:            128 Kbps, 44 KHz   192 Kbps, 44 KHz   256 Kbps, 44 kHz   384 Kbps, 44 kHz   440 Kbps, 44 kHz   128 Kbps, 48 KHz   160 Kbps, 48 KHz   256 Kbps, 48 kHz   384 Kbps, 48 kHz   440 Kbps, 48 kHz</p>

## AVI MEDIA FORMAT

### Video Codecs

**DivX Pro Codec (Version 5.x):** This is a user-installable MPEG4 codec. When installed and selected (specifications and download from [www.divx.com](http://www.divx.com)), it allows you to check supported bit rates.

**Table B–20.DivX Pro Codec**

Value	Specification
Frame Size	<p>Width: Max. 1920 pixels            Height: Max. 1088 pixels</p>

**Table B–21.Uncompressed AVI Video Stream Codec**

Value	Specification
Frame Size	<p>Width: 80 to 720 pixels            Height: 60 to 480 pixels</p>
Video Frame Rate (fps)	1 to 30 selectable: 1   3   5   8   10   12   15   24   25   29.97   30



**Table B–22. Microsoft Video 1 Codec**

<b>Value</b>	<b>Specification</b>
Frame Size	Width: 80 to 720 pixels Height: 60 to 480 pixels
Video Frame Rate (fps)	1 to 30 selectable: 1   3   5   8   10   12   15   24   25   29.97   30
Quality	1 to 10,000

**Table B–23. Cinepak by Radius Codec**

<b>Value</b>	<b>Specification</b>
Frame Size	Width: 80 to 720 pixels Height: 60 to 480 pixels
Video Frame Rate (fps)	1 to 30 selectable: 1   3   5   8   10   12   15   24   25   29.97   30
Quality	1 to 10,000

**Table B–24. Intel Indeo Video 4.5 Codec**

<b>Value</b>	<b>Specification</b>
Frame Size	Width: 80 to 720 pixels Height: 60 to 480 pixels
Video Frame Rate (fps)	1 to 30 selectable: 1   3   5   8   10   12   15   24   25   29.97   30
Quality	1 to 10,000

**Table B–25. Indeo Video 5.10 Codec**

<b>Value</b>	<b>Specification</b>
Frame Size	Width: 80 to 720 pixels Height: 60 to 480 pixels
Video Frame Rate (fps)	1 to 30 selectable: 1   3   5   8   10   12   15   24   25   29.97   30
Quality	1 to 10,000



## Audio Codecs

**Table B–26.Uncompressed AVI Audio Stream Codec**

Value	Specification
Audio Channels	1 (mono)   2 (stereo)
Audio Sample Rate (Hz)	8,000   11,025   16,000   22,050   32,000   44,100   48,000

**Table B–27.Microsoft IMA ADPCM Codec**

Value	Specification
Sample Rate	44.1 kHz, 4 bit stereo

**Table B–28.Microsoft ADPCM Codec**

Value	Specification
Sample Rate	44.1 kHz, 4 bit stereo

**Table B–29.Microsoft CCITT G.711 A-law and u-law Codec**

Value	Specification
Sample Rate	44.1 kHz, 8 bit, Stereo

**Table B–30.Voxware Audio Codec**

Value	Specification
Audio Profile (check to enable)	<p>Mono:  AC06V2, 6.0 kbps, 8 kHz   AC08V1, 8.0 kbps, 8 kHz    AC10V1, 10.0 kbps, 11 kHz   AC16V1, 16.0 kbps, 16 kHz    AC24V1, 24.0 kbps, 22 kHz, Non-File Only    AC24V1, 24.0 kbps, 22 kHz   AC32V2, 32.0 kbps, 44 kHz    AC40V2, 40.1 kbps, 44 kHz   AC48V2, 48.1 kbps, 44 kHz</p> <p>Stereo:  ACS12V2, 12.0 kbps, 8 kHz   ACS16V2, 16.0 kbps, 8 kHz    ACS20V2, 20.0 kbps, 11 kHz   ACS32V2, 32.0 kbps, 16 kHz    ACS48V2, 48.1 kbps, 22 kHz   ACS64V2, 64.1.0 kbps, 44 kHz    ACS80V2, 80.3 kbps, 44 kHz   ACS96V2, 96.1 kbps, 44 kHz</p>



**Table B–31.Fraunhofer IIS MPEG Layer-3 (advanced) Codec**

Value	Specification
Audio Profile (check to enable)	Mono: 24 kBit, 22,050 Hz   20 kBit, 11,025 Hz   18 kBit, 11,025 Hz   16 kBit, 11,025 Hz   8 kBit, 11,025 Hz Stereo: 56 kBit, 22,050 Hz   48 kBit, 22,050 Hz   40 kBit, 22,050 Hz   32 kBit, 11,025 Hz   24 kBit, 11,025 Hz   20 kBit, 11,025 Hz   18 kBit, 11,025 Hz   32 kBit, 22,050 Hz

## MPEG1 SYSTEM STREAM MEDIA FORMAT

If time code information has been inserted in a metadata label and decoded from the input file, the time code is inserted in the first GOP header so the time code is passed through from the input into the output file.

### Video Codecs

**Table B–32.MPEG1 Constrained Parameters (CPB) Codec**

Value	Specification
Video Bit Rate	192 Kbps to 6 Mbps
File Extension	mpg   mpe   mp1 Default: mpg.
GOP Structure	Select from available GOP structure frames
Video Profiles:	NTSC (352 x 240 x 29.97 fps) NTSC (320 x 240 x 29.97 fps) NTSC (176 x 120 x 29.97 fps) NTSC 16:9 (320 x 176 x 29.97 fps) PAL (352 x 288 x 25 fps) PAL (384 x 288 x 25 fps) PAL (176 x 144 x 25 fps) PAL 16:9 (320 x 176 x 25 fps)
Enable GOP Timecode	Check to enable. If time code information has been inserted in a metadata label and decoded from the input file, the time code is inserted in the GOP header of the output file.
Motion Estimation Factor	Select 1 to 100: 1—Lowest Quality/Faster Encode 100—Highest Quality/Slower Encode



**Table B–33.MPEG1 Variable Bit rate (VBR) Codec**

Value	Specification
Video Bit Rate	192 Kbps to 5.9996 Mbps
GOP Structure	Select from available GOP structure frames
File Extension	mpg   mpe   mp1
Video Profiles:	NTSC(352 x 240 x 29.97 fps) NTSC(320 x 240 x 29.97 fps) NTSC(176 x 120 x 29.97 fps) NTSC 16:9(320 x 176 x 29.97 fps) PAL (352 x 288 x 25 fps) PAL (384 x 288 x 25 fps) PAL (176 x 144 x 25 fps) PAL 16:9 (320 x 176 x 25 fps)
Enable GOP Timecode	Check to enable. If time code information has been inserted in a metadata label and decoded from the input file, the time code is inserted in the GOP header of the output file.
Motion Estimation Factor	1 to 100: 1—Low Quality/Faster Encode 100—High Quality/Slower Encode

## Audio Codec

**Table B–34.MPEG1 Layer 2 Codec**

Value	Specification
Audio Sample Rate (kbps)	44.1   48
Audio Profiles (Audio Bit Rate & Audio Channels)	Mono (Kbps): 32   48   56   64   80   96   112   128   160   192 Stereo (Kbps): 64   96   112   128   160   192   224   256   320   384

## MPEG2 PROGRAM STREAM MEDIA FORMAT

If time code information has been inserted in a metadata label and decoded from the input file, the time code is inserted in the first GOP header so the time code is passed through from the input into the output file.



## Video Codecs

**Table B–35.MPEG2 4:2:0 ML@MP Constant Bit Rate (CBR) Codec**

Value	Specification
Video Bit Rate	400 Kbps to 15 Mbps
File Extension	Default: mpg
GOP Structure	Select from available GOP structure frames
Video Profiles:	NTSC (352 x 480 x 29.97 fps) NTSC (544 x 480 x 29.97 fps) NTSC (704 x 480 x 29.97 fps) NTSC (720 x 480 x 29.97 fps) PAL (352 x 576 x 25 fps) PAL (544 x 576 x 25 fps) PAL (704 x 576 x 25 fps) PAL (720 x 576 x 25 fps)
Motion Estimation Factor	Select 1 to 100 (default: 80): 1—Lowest Quality/Faster Encode 100—Highest Quality/Slower Encode

## Audio Codec

**Table B–36.MPEG1 Layer 2 Codec**

Value	Specification
Audio Sample Rate (kbps)	44.1   48
Channels	2 (stereo)
Audio Profiles	Mono (Kbps): 32   48   56   64   80   96   112   128   160   192   Stereo (Kbps): 64   96   112   128   160   192   224   256   320   384





---

## Destinations

MAP uses destinations to deliver new versions of media it has created as a result of a master media file being saved in a media folder where versions are specified.

### Destinations

- [FTP Server](#) (page C-2)
- [HyperLaunch Receive Server](#) (page C-3)
- [HyperLaunch Receive Server \(Secure\)](#) (page C-3)
- [Local Drive or Network Share](#) (page C-4)
- [Network File Share \(Specific User Name\)](#) (page C-4)



---

### Note

*Use the Network Location Wizard to easily create the fully-qualified path to a destination. See [Using the Network Location Wizard](#) on page 5-33.*

---



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## FTP SERVER

Specify the FTP Server destination to send media files via FTP to the server you identify.

**Table C-1. FTP Server Destination Parameters**

Parameter	Description
Server Identity	The DNS or IP address of the FTP server
User Name	A valid user name permitted connection to the server
Password	The password required to connect to the server
Anonymous Login	Check to enable anonymous login, if permitted on this server
Passive Mode	Check to enable for firewall compatibility.

TCP/IP Port. The port number used to connect to the server. Default 21.  
After you connect, you can browse to and select the default path to the destination folder.



---

## HYPERLAUNCH RECEIVE SERVER

Specify the HyperLaunch Receive Server destination to send media files via HyperLaunch to the server you identify.

**Table C–2. HyperLaunch Server Destination Parameters**

Parameter	Description
Server Identity	DNS name or IP address
Browse	When checked, sets server identity to <i>localhost</i> .
UDP Port	Default: 69, settable by server administrator
User Name	A valid user name permitted connection to the server
Password	The password required to connect to the server

---

## HYPERLAUNCH RECEIVE SERVER (SECURE)

Specify the secure HyperLaunch Receive Server destination to send media files via Secure HyperLaunch to the server you identify.

**Table C–3. Secure HyperLaunch Server Destination Parameters**

Parameter	Description
Server Identity	DNS name or IP address
Browse	When checked, sets server identity to <i>localhost</i> .
UDP Port	Default: 69, settable by user
User Name	A valid user name permitted connection to the server
Password	The password required to connect to the server
Public Security Key	Paste in the public security key for this server, provided to you by the server administrator.
User Name	User name that provides proper authentication for access to this server
Password	Associated password to authenticate the user name



## LOCAL DRIVE OR NETWORK SHARE

The Local Folder or Network Share destination delivers the media to a folder on the local MAPreview server or a network share accessible by MAP services with user name and password.

**Table C–4. Local Drive or Network Share Destination Parameters**

Parameter	Description
Windows Computer Name	<i>localhost</i> for local drive, or Windows computer name for network share.
Browse	When checked, sets server identity to <i>localhost</i>

Browse to the desired destination folder.



### Note

*The service must be running under an account that has sufficient privileges to access the target server on the local network. The Network Share destination uses Windows networking.*

## NETWORK FILE SHARE (SPECIFIC USER NAME)

The Network File Share destination delivers the output media file to a shared folder on your network that requires a specific user name and password, distinct from the user name and password used by Factory.MAP service.

The Network Share destination uses Windows networking.

**Table C–5. Network File Share (Specific User Name) Destination Parameters**

Parameter	Description
Windows Computer Name	<i>localhost</i> for local drive, or Windows computer name for network share
User Name	A valid user name permitted connection to the server
Password	The password required to connect to the server



## Symbols

- .NET Framework
  - installing MAP services 3-14
  - required on MAP client computers 3-11
  - required subsystems 3-5
  - version required 3-4, 3-6

## Numerics

- 1755, port for MMS 1-7
- 21, port used by Gateway.MAP 1-5
- 23, port used by EventReader 1-5
- 23, port used by Gateway.MAP 1-5
- 5004, port for RTSP 1-7
- 554, port for RTSP 1-7
- 69, port used by HyperLaunch 1-5
- 80, port for HTTP 1-8
- 80, port used by WebDAV 1-5
- 8000, port for IIS Web client access 1-5
- 8000, port recommended for IIS 3-6
- 8085, port for Content.MAP services 1-5
- 8086, port for Capture.MAP services 1-5
- 8087, port for Factory.MAP services 1-5
- 8088, port for Archive.MAP 1-5
- 8089, port for Factory Console 1-5
- 8090, port for HyperLaunch 1-5
- 8091, port for Launch client applications 1-5

## A

- Access properties
  - of media folder 4-14
- alias
  - name used in virtual directory 6-4
  - required for Web browser access A-6
  - when to check Read only 6-8
- architecture of MAP, generally 1-3

## Archive.MAP

- archives expired media 4-16
- generally 1-12
- using to archive media 5-33
- using to restore media 5-33
- using, generally 5-33

## As Run logs, setting up 5-22

## ASP.NET

- must be checked to install on Windows 2003 6-3
- not properly registered A-6
- re-installing A-6
- re-installing for IIS 3-35

## audio

- can't hear during capture A-3
- codecs, supported B-1
- input, setting in Capture Settings 4-23

## audio codecs

- specifications B-1

## Authentication properties

- of media folder 4-14

## automatic scheduler, setting for a channel 4-24

## AVI

- audio stream codec B-16
- video stream codec B-14

## AVI Media

- specifications B-14

## C

- capture card, Osprey 440 1-11
- capture cards, supported 1-11
- Capture properties
  - of segment 4-26
- Capture tab 4-22, 4-26, 5-14, 5-15, 5-26, A-2
- Capture.MAP
  - adding to console 5-3
  - administering 4-19



- generally 1-11
- volume partitioning requirements 3-3
- channel
  - adding and configuring 4-21
  - automatic schedule for 4-24
  - General properties of 4-22
  - problem starting A-2
  - schedule for 4-22
  - setting up metadata for 4-27
  - starting 4-28
- CIFS protocol 4-38
- clients, accessing media 1-5
- ClipMail
  - creating Gateway.MAP account for 6-18
- ClipMail address
  - setting up to send media into MAP via Gateway.MAP 6-20
- Codecs properties 4-37
- Content.MAP
  - administering 4-11, 5-27
  - configuring for IIS 6-6
  - disabling on Capture servers 4-2
  - generally 1-11
  - volume partitioning requirements 3-4
- ContentServers.xml, listing MAP servers in 3-33
- Copy or Duplicate Original
  - specifications B-2

**D**

- destinations, generally C-1
- distributed Factory.MAP services, configuring 4-29
- DivX
  - Pro codec B-14
- dongle
  - lack of causes watermark A-2
  - removing during uninstall 8-2
  - updating 3-24
- dongle, installing before MAP 3-2
- dongles
  - installing 3-23
- DVD, default device for Archive.MAP 5-33

**E**

- Electronic Programming Guide (EPG) 5-23
- encode formats, supported 1-12
- Encoder properties 4-36
- environmental operating requirements 2-2

- Ethernet 2-2
- EventReader
  - configuring 4-8
  - generally 1-12
- Expiration properties
  - of media folder 4-16
- expired media, archiving 5-33
- external systems
  - sending media to 5-29

**F**

- Factory.MAP
  - adding and removing 4-31
  - administering 4-29
  - disabling on Capture servers 4-2
  - distributed services, configuring 4-29
  - generally 1-12
  - managing in MMC 4-10
  - operator console for 1-12
  - send jobs by Content.MAP for transcoding 4-17
- File protocol 4-38
- Filters properties 4-38
- folder
  - creating account to monitor with Gateway.MAP 6-19
- FTP 6-16
  - used by Gateway.MAP 1-5
- FTP protocol 4-38
- FTP server
  - configuring as destination 4-34
  - saving new versions on 5-29
- FTP Server destination C-2
- FTP Server, configuring 4-34, 4-36
- FTP servers
  - publishing media from 4-15

**G**

- Gateway.MAP
  - configuring and using, generally 6-16
  - console, using 6-16
  - creating account to monitor ClipMail 6-18
  - creating folder/share monitor account 6-19
  - generally 1-13
  - installing 3-19
  - operator console for 1-13
  - uses FTP 1-5
  - uses port 21, 23 1-5
- General properties



- of channel 4-22
  - of media folder 4-13
  - of media portal 4-36
  - of segment 4-26
- H**
- Harris, as run logs, using 5-22
  - Helix 1-8
  - HOSTS file 3-8
  - HTTP protocol 4-38
  - HTTP WebDAV Redirector 1-5
  - HyperLaunch
    - uses port 69 1-5
  - HyperLaunch Receive Server
    - configuring for use with MAP 6-12
    - destination C-3
    - generally 1-13
  - HyperLaunch Receive Server, Secure
    - destination C-3
  - HyperMAP Server (Secure) destination C-3
- I**
- IIS A-6
    - configuring with virtual directories 6-3
    - creating virtual folders in 6-3
    - port problem with A-1
    - port requirements for 3-6
    - re-installing 3-35
    - re-installing required 3-6
    - required with Web Client Service 3-6
    - requires alias to media storage depot 6-8
    - requires virtual directories 6-8
    - using with Content.MAP 6-6
  - INI files for ratings 5-18
  - installing 2-3
    - cautions 3-1
    - dongle, before MAP 3-2
    - dongles 3-23
    - Gateway.MAP 3-19
    - IIS 3-6
    - MAP Explorer 3-25
    - MAP installer console 3-12
    - MAP Quick Review 3-28
    - MAP Search 3-31
    - MAP services and clients 3-14
    - MAP, hardware requirements 3-4
    - MAP, software requirements 3-4
    - overview of 2-2, 3-2
    - Internet schedule subscription service 5-15
- J**
- J# .NET Runtime 3-5
    - version required 3-4, 3-6
- L**
- Label Designer
    - generally 1-18
  - Labels properties
    - of segment 4-26
  - Launch
    - generally 1-17
  - License Info program 3-23
  - license information 3-23
  - Lightfoot, Bill 5-3
  - live feeds, configuring for MAP Search 3-34
  - live media
    - viewing during capture 5-17
  - LiveFeeds.xml, using to display live feeds in MAP
    - Search 3-34
  - Local Drives or Network File Shares, configuring 4-35
  - Local Folder
    - destination C-4
- M**
- machine ID, for obtaining license 3-23
  - MAP
    - architecture and inter-operation 1-3
    - basic configuration tasks 4-1
    - components of, generally 1-10
    - configuring for Web access 6-10
    - dongle, updating 3-24
    - hardware requirements 3-3
    - installation. See installing. 2-2, 3-2
    - ports used 1-4
    - restart settings 4-5
    - roles in 1-2
    - service alerts, creating 5-3
    - software requirements 3-4
    - software versions, determining 5-2
    - supporting software 3-5
    - system alerts, configuring 4-5
    - using HyperLaunch Receive Server with 6-12
    - Web Client Service, requires IIS 3-6
  - MAP dongle, required for operating MAP 2-3



- MAP Explorer
    - generally 1-14
    - installing 3-25
  - MAP management console
    - using 4-10
  - MAP Quick Review
    - installing 3-28
  - MAP Seach
    - configuring for live feeds 3-34
  - MAP Search
    - default URL 1-16
    - enabling features 3-33
    - generally 1-16
    - installing 3-31
    - listing servers in 3-33
    - URL required for access 3-33
  - MAP services
    - connecting to management console 5-3
    - volume partitioning requirements 2-1, 3-1
  - MAP services, managing 4-2
  - MAPreview
    - multi-server planning 7-1
    - repairing 8-2
    - uninstalling 8-3
    - upgrading 8-2
  - MAPreview server
    - unpacking, locating, installing 2-2
  - MAPreview, pre-installed, configuring, generally 2-1
  - media
    - archiving 5-33
    - automatically creating different versions 5-29
    - restoring 5-33
    - restoring with Archive.MAP 5-33
    - watermarked, no dongle A-1
  - Media 100 NLE
    - QuickTime Motion JPEG B use when delivering to B-5
  - media folder
    - access properties 4-14
    - Access properties of 4-14
    - accessing from Web browser 6-10
    - authentication properties 4-14
    - Authentication properties of 4-14
    - creating 4-12
    - expiration properties 4-16
    - Expiration properties of 4-16
    - General properties of 4-13
    - metadata properties 4-18
    - Metadata properties of 4-18
    - Notify properties of 4-17
    - properties, configuring 5-28
    - properties, generally 4-13
    - storage properties 4-15
    - Storage properties of 4-15
    - versions properties 4-17
    - Versions properties of 4-17
  - media formats
    - supported in MAP B-1
  - Media Player
    - version 9 or 10 compatible 3-4
  - media portal
    - General properties of 4-36
  - media portal, creating 4-33
  - media portals
    - defined 1-12
  - media versions, creating new 4-17
  - media, accessing by clients 1-5
  - metadata
    - can't view after capture A-3
  - Metadata properties
    - of media folder 4-18
  - metadata, setting up for channel 4-27
  - Microsoft Recognition Engine 5-24
  - monitor accounts, in Gateway.MAP 6-19
  - movie codecs
    - specifications B-1
  - MPEG1 System Stream Media
    - specifications B-17
  - MPEG2 Program Stream Media
    - specifications B-18
- N**
- network configuration, tasks when installing 3-7
  - Network File Share
    - destination C-4
  - Network file share (different user name and password), configuring 4-35
  - Network Location Wizard 4-33, 6-9
  - Notify properties
    - of media folder 4-17
- O**
- Omnibus, As Run logs, using 5-22
  - operating temperatures 2-2
  - Osprey 440, supported by MAP 1-11



Osprey audio driver, binds on remote sessions 5-10

## P

physical stores

accessing media via 1-6

Pipeline

adding to LAN 2-3, 2-4

Pipeline SC

locating for operation 2-2

Player.MAP

generally 1-14

playlists 1-10

ports used in MAP 1-4

protocols, supported 4-38

publishing point

playlist for 1-10

publishing point, creating for WMS 6-2

## Q

Quick Review

generally 1-15

QuickTime B-5

fast start option B-7

installing 3-5, 3-18

media key feature utilized B-7

Motion JPEG B format used with Media 100 B-5

movie Codec specifications B-5

QuickTime 7, not compatible with MAP 3-5

QuickTime Media

specifications B-2

## R

ratings

capturing metadata, generally 5-18

configuring Capture.MAP to extract 5-22

INI files for 5-18

Ratings Configurator, using 5-18

Ratings Parser

generally 1-12

Real Networks Media

specifications B-8

Registry Editor, using to update entries 5-31

RemoteUpdateClient, using to update dongle 3-24

restart, settings recommended for MAP services 4-5

roles in MAP 1-2

RSA key, using with HyperLaunch Receive Server 6-13

## S

schedule

creating and configuring 5-15

daily 5-16

exactly 5-17

monthly 5-17

never 5-17

types of 5-16

weekly 5-16

yearly 5-17

schedule, setting for channel 4-22

Secure HyperLaunch Receive Server

destination C-3

segment

Capture properties of 4-26

General properties of 4-26

Labels properties of 4-26

server side playlists 1-10

service

marked unavailable A-4

not accessible A-5

service alerts, creating 5-3

Services window

using to start and stop MAP services 4-3

Settings tab A-2

speech recognition, enabling 5-25

startup type, setting for MAP services 4-4

storage depot

creating 4-20

physical and alias locations, generally 1-8

Storage properties

of media folder 4-15

store

adding to Capture.MAP 5-14

streaming media 1-6

streaming media server 1-8

support 1-1

surge protector, recommended 2-3

system alerts, configuring 4-5

## T

technical support 1-1

Telestream

contacting 1-1

International 1-1

Web site 1-1

temperature, operating requirements for 2-2



time code, burning in 5-25  
transcoding 1-11  
transcoding jobs  
    resubmitting 5-32  
transcoding, maximum concurrent setting 5-31  
troubleshooting  
    generally A-1  
TV schedule provider, setting up 5-23

## U

user accounts, required for MAP 3-7

## V

Versions properties  
    of media folder 4-17  
versions, of MAP, determining 5-2  
video  
    can't view during capture A-2  
    codecs supported B-1  
    input, setting in Capture Settings 4-23  
video codecs  
    specification B-1  
virtual directories, configuring for IIS 6-3  
virtual store  
    accessing media via 1-6

## W

watermark  
    in media A-2  
watermark, placed on media if no dongle present 3-23  
Web access  
    creating aliases for 6-8  
Web browser  
    using to access MAP 6-10  
Web Client Service  
    requires IIS 3-6  
Web Server (IIS), considerations 1-8  
web site, Telestream 1-1  
web.config file, configuring features with 3-33  
WebDAV, generally in MAP 1-5  
Window Media Service, configuring for MAP 6-2  
Windows Media  
    specifications B-11  
Windows Media 9 3-11  
    installing 3-5  
Windows Media Encoder A-3, A-4, A-5  
    use to verify capture card A-3

Windows media Encoder 9 Series 3-5  
Windows registry  
    cautions when editing 5-31  
Windows Remote Desktop Connection, do not use with  
    Capture.MAP servers 5-10  
WMS 1-8

## X

XML  
    ratings files 5-18

