

WAM!NET® Content StudioSM

Service Description

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INTRODUCTION

The Content Studio Service enables customers to store digital files in a globally accessible near-line, off-site Archive. Content can be stored with descriptive attributes and previews in the Archive and may be shared with authorized users as desired by the Archive Administrator.

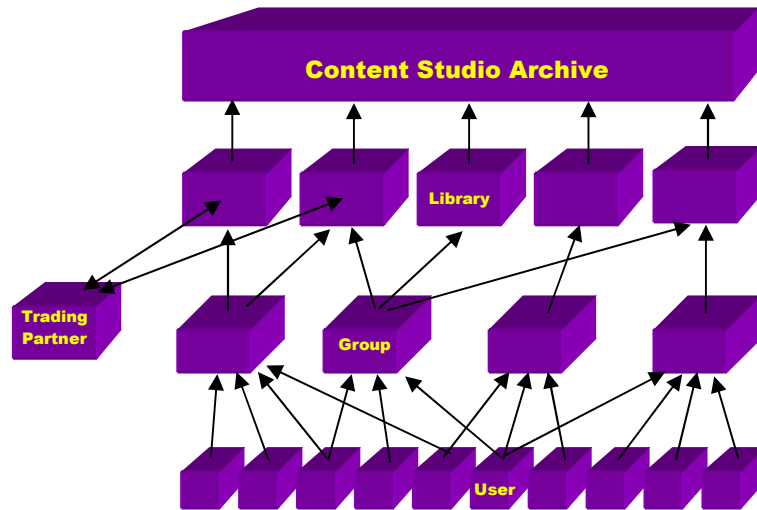
Access to and delivery from the Archive is provided by SAVVIS's private managed network or the public Internet. Customers can browse their libraries or search for files using descriptive attributes that may be stored with the files. Each library within a customer's Archive can be configured with different permissions for file uploading, file downloading, modification or deletion. Access control is managed by the Archive Administrators who can create users, assign users to groups and manage group access to specific libraries. Additionally, Content Studio is capable of acting as an origin server for the SAVVIS Content Distribution Network (CDN), allowing archived content to be quickly and efficiently delivered world wide.

The Content Studio Service offers customers the infrastructure, connectivity and applications needed to deploy a global shared Archive on a "pay as you go" basis.

SAVVIS ensures high availability to stored data by replicating assets in two geographically distinct locations. Should one of the data centers be temporarily disabled, the second data center is available to provide service on an indefinite basis or until the off line data center is restored to normal operation.

ARCHIVES

SAVVIS uses the term Archive to refer to any number of libraries that are billed to a single customer. Customers will be billed on a monthly basis for the combined usage of all libraries assigned to that Archive. An Archive Administrator is created for each Archive with the ability to configure and manage libraries, groups, users, and trading partners for the Archive.



Archive: A Billing Entity created by SAVVIS for customers to manage one or many Libraries.

Library: A unit of control for access to an organization of specific assets. Libraries are created for customers by SAVVIS and controlled by the Archive Administrator.

Groups: One or many users who are assigned distinct permissions to access and potentially modify the contents of one or more libraries. Groups may be created and controlled by the Archive Administrator.

Users: Individual users whose activities can be tracked and who may be assigned to one or several groups for access to libraries. Users may be created and controlled by the Archive Administrator.

Trading Partners: Addresses on the SAVVIS Content Exchange that are authorized to send files to and/or receive files from a library. Trading partners may be requested and authorized by the Archive Administrator.

LIBRARIES

CREATING LIBRARIES

Customers may ask SAVVIS to create as many libraries as they like within their Archive at any time. New libraries must be specified using the Content Studio New Library Request form. A nominal fee will apply for the creation of more than three libraries within a customer Archive.

MANAGING LIBRARIES

Customers can manage their libraries using WAM!NET® Info CenterSM available at infocenter.com. Info Center is an on-line service management tool that allows customers to:

- Configure their libraries
- Create groups and modify group access to one or more libraries
- Create user accounts and assign users to groups
- Set up trading permissions for moving data into and out of libraries
- Track files that have been sent from a library

LIBRARY CONFIGURATION OPTIONS

The following options may be independently selected for each library in an Archive by the Archive Administrator who has privileges to manage the library. For each option listed, one of the following behaviours applies:

1. Configuration changes made in Info Center are implemented immediately.
2. Configuration changes must be performed by SAVVIS. The current setting is displayed in Info Center for informational purposes only. Changes must be requested through Technical Support and the entire library may be re-indexed to ensure homogeneous treatment of all assets.
3. Configuration changes will not affect any assets currently stored in the library, but will be applied to all new library additions. SAVVIS can be requested to re-index the library to harmonize the assets.
4. Configurations will not affect any assets currently stored in the library, but will apply to all new library additions. SAVVIS cannot re-index an existing library to apply these changes retroactively.
5. A nominal charge will be levied for any change that requires a re-indexing of the library.

Library Configuration Flags

Accessibility

Make Library accessible to authorized users from the Internet

Force Secure Internet Access

Download Video & Audio Proxies

Allow Browser Downloads

Make the Library Accessible to Authorized Users from the Software Developers Kit (SDK)

Stream Video & Audio Proxies

Duplicates

Preserve the file name extension in the 'Asset Name' field when storing files

Overwrite existing files when storing files with duplicate asset names

Allow files with duplicate Asset Names to be stored

Duplicate Assets Inherit Metadata

File Storage

Generate thumbnails when storing supported file types

Generate super thumbnails that are 400 by 400 pixels in dimension when storing supported file types

Generate super thumbnails that retain actual dimensions when storing supported filetypes

Extract supported document metadata (IPTC and XMP) from Assets when they are stored

Generate super thumbnails that are 300 by 300 pixels in dimension when storing supported file types

Generate super thumbnails that are 500 by 500 pixels in dimension when storing supported file types

Extract and index text based content when storing supported file types

Generate storyboards when storing supported file types

File Storage - Video

Generate Video Preview

QuickTime 300 Kbit/sec VBR 240 x 180

Generate Second Video Preview

QuickTime 300 Kbit/sec VBR 240 x 180

Generate Third Video Preview

QuickTime 300 Kbit/sec VBR 240 x 180

File Storage - Audio

Generate Audio Preview

MP3 128 Kbit/sec

Generate Second Audio Preview

Windows Media 8 128 Kbit/sec

Other

Insert the contents of the 'Asset Name' field into the 'Job ID' field of the job ticket during outbound file shipments

Enable Transcoding for Shipping

Accessibility

- Make the Library Accessible to Authorized Groups from the Internet (1) - enables a library to be accessible by authorized group members through the public Internet. Customers may log into their libraries from the public Internet at

contentstudio.wamnet.com.

- Force Secure Internet Access (1) - enables secure access over the Internet. The user will not be presented with a choice of Secure or Standard during the login process.
- Download Video & Audio Proxies (1) - enables users to view or download proxy representations through their browser.

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- Stream Video & Audio Proxies (1) - enables users to play a video or audio stream through their browser.
- Make the Library Accessible to Authorized Users from the Software Developers Kit (SDK) (1) - enables a Customer to access libraries via a custom interface using XML over HTTP.
- Allow Browser Downloads (1) - enables assets within a library to be downloaded directly to the Customer's browser.

Duplicates

- Preserve the file name extension in the "Asset Name" field when storing files (1) - will prevent the file name extension from being dropped when files are stored in the library.
- Allow Duplicate Asset Names (4) - will allow an unlimited number of files to be stored in a library with the same file name. If this option is not enabled a submitted file will be rejected and the uploading site will be notified by e-mail. If a customer changes this option it only affects new files being stored in the customer's library.
- Overwrite Files with Duplicate Asset Names (1) - this setting is only available if the "Allow Duplicate Asset Names" option has been selected. In this case, assets sent to the library will automatically overwrite any existing assets of the same name.
- Duplicate Assets Inherit Metadata (4) - Allows subsequently stored assets to inherit the metadata of a previously stored asset of same name. If new metadata is supplied in the Notes, Keywords, and Description fields, the old metadata is appended to the new metadata. If metadata is supplied for other fields, the new metadata will prevail; otherwise the old metadata will be inherited. If the "E-mail Notification of Asset Store Process Anomalies" is checked, an email notice will be generated should one or more metadata fields fail to inherit due to field length overflow.

File Storage

- Extract supported document metadata (IPTC and XMP) from Assets when they are stored -

IPTC - extracts a subset of the International Press Telecommunications Council (IPTC) header from supported file types stored in the library. Specific IPTC fields will be mapped to specific Content Studio metadata fields in the library. This information can be subsequently used for asset searches and identification. The following Macintosh and Windows file types are supported:

- TIFF - PhotoshopCD (PCD) - PhotoShop PDF
- JPEG - Encapsulated PostScript - PhotoShop PSD
- DCS2 - Adobe Illustrator (AI)

IPTC Field Mapping

Content Studio Fields	Photo Shop IPTC Fields	Caption Writer IPTC Fields
Description	HEADLINE	HEADLINE
	CAPTION_ABSTRACT	CAPTION_ABSTRACT
Keywords	CATEGORY	CATEGORY
	SUPPLEMENTAL_CATEGORY	SUPPLEMENTAL_CATEGORY
	KEYWORDS	KEYWORDS

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	BY-LINE	BY-LINE
	BY-LINE_TITLE	
Notes	SOURCE	SOURCE
	OBJECT_NAME	OBJECT_NAME
	URGENCY	URGENCY (PRIORITY)
	SPECIAL_INSTRUCTIONS	SPECIAL_INSTRUCTIONS
	DATE_CREATED	DATE_CREATED (DATE)
	PROVINCE_STATE	PROVINCE_STATE
	COUNTRY_PRIMARY_LOCATION_NAME	COUNTRY_PRIMARY_LOCATION_NAME
	ORIGINAL_TRANSMISSION_REFERENCE	ORIGINAL_TRANSMISSION_REFERENCE
	CREDIT	CREDIT
	WRITER_EDITOR	WRITER_EDITOR
	COPYRIGHT_NOTICE	

Adobe® XMP – extracts a subset of the Adobe's Extensible Metadata Platform (XMP) from supported file types stored in the library. A small subset of the standard Description Panel fields will be mapped into similar Content Studio metadata fields in the library. XMP metadata generated by the following Macintosh and Windows Adobe applications are supported:

- Adobe Acrobat
- Adobe Bridge
- Adobe PhotoShop
- Adobe FrameMaker
- Adobe GoLive
- Adobe Illustrator
- Adobe InCopy
- Adobe InDesign
- Adobe Document Server
- Adobe Graphics Server
- Adobe Cue

XMP Field Mapping

Content Studio Fields	XMP Fields
Description	Description
Keywords	Keywords
Producer	Author
Title	Title

- **Generate Thumbnails (3)** – enables the creation a thumbnail or super thumbnail of an asset. If a customer changes this option it only affects new assets being stored in the customers library. The following file types are supported for thumbnail generation:

- EPS (CYMK)
- Encapsulated PostScript
- Windows Bitmap
- TIFF (CYMK)
- EPS with .SMP or .AI extension
- Mac PICT/PICT2
- DCS 2.0
- Iris CT
- MPEG-1/MPEG-2
- JPEG/JFIF (RGB)
- Scitex CT (RGB and CYMK)
- Quick Time (MOV)
- Adobe Illustrator AI, EPS
- PhotoCD
- DV
- Adobe Acrobat PDF
- Portable Networks Graphics PNG
- Adobe Photoshop PSD
- GIF

- **Super Thumbnail Size (3)** – allows the customer to choose between one of four possible sizes for Super Thumbnails at 72dpi resolution. Storage used in creating the larger sizes is added to the customer's total monthly storage volumes. *NOTE: MPEG content generates a super thumbnail with dimensions of 320 x 240 rather than using the library flag setting.*

300 x 300 pixels 400 x 400 pixels 500 x 500 pixels Actual Size

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- Preserve the File Name Extension in Asset Name Field (2) – enables the Windows file type extension to be stored as a part of the Asset Name field. This setting does not affect the actual File Name stored.
- Generate Storyboard (3) – creates a storyboard representation of MPEG-1, MPEG-2 and Quick Time video files.
See the transcoding section later in this document for details on support for specific source profiles.
- Index File Content (3) – extracts and indexes the textual content from supported file types that are stored in the library. Storage used in indexing file content is added to the customer's total monthly storage volumes. The following file types are supported:

- Text
- Rich Text Format
- HTML
- PDF
- MS PowerPoint
- MS Excel
- MS Word
- MS Word Template

- Generate Video Proxies (3) - creates up to 3 video proxy representations from MPEG-1, MPEG-2 and Quick Time video files in any one of the following formats:

Windows Media 9 340Kbps 320x240
Windows Media 9 548Kbps 320x240
Windows Media 8 300 Kbps 320x240
Quick Time (.mov) 300 Kbps VBR 240x180 *
Quick Time (.mov) 300 Kbps VBR 320x240 *
Quick Time (.mov) 500 Kbps VBR 320x240 *
* Sorenson 3 Video Compressor, Millions of colors, 15 fps
RealVideo 10 (.rm) 300 Kbps 320x240 15 fps
RealVideo 10 (.rm) 500 Kbps 320x240 15 fps
RealVideo 8 (.rm) 90 Kbps 240x180 15 fps
RealVideo 8 (.rm) 275 Kbps 320x240 15 fps
MPEG-1 (NTSC) 1.5 Mbps 352x240 29.97 fps

See the transcoding section later in this document for details on support for specific source profiles.

- Generate Audio Proxies (3) - creates up to 3 audio proxy representations from WAV and AIF files in any one of the following formats:

Windows Media 9 Audio (.wma) 128 Kbps
Windows Media 8 Audio (.wma) 128 Kbps
MP3 Audio (.mp3) 128 Kbps

See the transcoding section later in this document for details on support for specific source profiles.

Other

- Use Filename as Job ID (1) – populates the Job ID field with the Asset Name on a job ticket during the shipping process. The file name will be appended to any information that exists in the field.

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- Enable Transcoding for Shipping (2) – Transcodes supported video and audio files to a user selected format prior to completion of the ship process.

CONTENT STUDIO GROUPS

The Content Studio Service uses groups to apply common library access permissions across one or many users. Permissions are easily granted to (or withdrawn from) users by adding (or deleting) them to the appropriate group. Users may be assigned to more than one group. When a user is assigned to multiple groups that have access rights to the same library, the user is granted the sum of all permissions granted in each group.

CREATE OR MODIFY GROUPS

Archive Administrators may create and modify groups as required within Info Center.

- **Group Name** – Each new group must have a unique name across all Content Studio customers.
- **Group Description** – An optional description field may be used to store notes about the group.
- **Group Status** – Groups may be disabled by the Archive Administrator, which will prohibit all access to libraries through that group's permissions. Users may still gain access to libraries if they are assigned to other groups with suitable permissions.
- **Group Membership** – Archive Administrators may assign any users they have created to any group they create in Info Center. On request SAVVIS will add third-party users created by other customers to one or more groups as designated by the Archive Administrator on the Third Party User Request form. The third-party user must agree to this inclusion. Third party users are identified by an "*" next to their name when listed in one of the groups in Info Center.

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LIBRARY ACCESS PERMISSIONS FOR GROUPS

The Archive Administrator may set library access permissions for any of the groups created within their Archive. Access permissions for a specific group can be configured differently for each library that group accesses. Available library access permissions for groups include:

- Browse – allows group members to search and view assets within a library. If this permission is not granted, group members will not be able to use the library.
- Internet Access – enables group members to see an Internet accessible library via the public Internet at contentstudio.wamnet.com. This option must be enabled in both the library and the group before group members will be able to see the library.
- Ship – allows group members to ship files from a library to any of the library's established trading partners.
- Transcoding - allows group members to transcode video and audio files during the Ship process.

Video

The following source video formats can be transcoded:

- AVI
- MPEG-1
- MPEG-2
- Quick Time
- Windows Media Video

Video files in these formats can exist with a variety of profile settings. With each release of Content Studio we validate transcoding support for the following specific profiles of these supported video formats:

General profile attributes:

- Video Standard: NTSC (frame size of 720x480) & PAL (720x576)
- Video Encoding: CBR/VBR
- Aspect Ratio: 4:3, 16:9
- Pixel Aspect Ratio: 1:1, 4:3
- Audio Channel: Stereo
- Audio Sample Rate: 48 kHz

AVI – *supported w/ transcode-on-ship but not proxies*

- Video Format: Interlaced
- Video Codec: XVID, DV
- Audio Codec: PCM, MPEG1 Layer 3

MPEG-1

- Video Format: progressive scan
- Video Codec: MPEG1
- Audio Codec: MPEG1 Layer 2

MPEG-2

- Video format: interlaced
- Video Codec: MPEG-2
- Chroma Settings: 4:2:0, 4:2:2
- Audio Codec: MPEG-1 Layer 2, PCM, AAC

Quick Time

- Version: 7

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- Video Format: Interlaced
- Video Codec: DV, DVCPPro, H.264, MPEG-4 Video, Sorenson 3
- Chroma Settings: 4:2:0, 4:2:2
- Audio Codec: AAC, Apple Lossless, QDesign Music 2

Windows Media Video – *supported w/ transcode-on-ship but not proxies*

- Version: 9
- Video Format: Progressive Scan
- Video Codec: Windows Media 9
- Audio Codec: Windows Media 9

If your source video files use different profile settings than those which we validate, then we highly recommend that you test the transcoding of a sample set of source files in Content Studio before storing large quantities of them.

The supported source video files noted above can be transcoded to any one of the following video profiles:

- Quick Time (.mov) 300 Kbps VBR 240x180 *
- Quick Time (.mov) 300 Kbps VBR 320x240 *
- Quick Time (.mov) 500 Kbps VBR 320x240 *
- * Sorenson Video Compressor, Millions of colors, 15 fps
- RealVideo 10 (.rm) 300 Kbps 320x240 15 fps
- RealVideo 10 (.rm) 500 Kbps 320x240 15 fps
- RealVideo 8 (.rm) 90 Kbps 240x180 15 fps
- RealVideo 8 (.rm) 275 Kbps 320x240 15 fps
- Windows Media 9 340Kbps 320x240
- Windows Media 9 548Kbps 320x240
- Windows Media 9 764kbps 480x270
- Windows Media 9 1128Kbps 720x480
- Windows Media 8 (.wmv) 80 Kbps 240x180 15 fps
- Windows Media 8 (.wmv) 385 Kbps 320x240 15 fps
- Flash Video 7 (.flv) 300 Kbps 320x240 15 fps
- Flash Video 7 (.flv) 500 Kbps 320x240 15 fps
- MPEG-1 (NTSC) 1.5 Mbps 352x240 29.97 fps
- MPEG-1 (PAL) 1.5 Mbps 252x288 25 fps
- MPEG-2 (NTSC) 1.5 Mbps 352x240 29.97 fps
- MPEG-2 (PAL) 1.5 Mbps 252x288 25 fps

Audio

The following source audio formats can be transcoded:

- AIF
- WAV
- Windows Media Audio

Audio files in these formats can exist with a variety of profile settings. With each release of Content Studio we validate transcoding support for the following specific profiles of these supported audio formats:

AIF

- Channels: Stereo
- Sample Rate: 44.1 kHz
- Bit Depth: 16 bits
- Codec: Uncompressed

WAV

- Channels: Stereo
- Sample Rate: 44.1 kHz

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- Bit Depth: 16 bits
- Codec: Uncompressed

Windows Media Audio – supported w/ transcode-on-ship but not proxies

- Channels: Stereo
- Sample Rate: 44.1 kHz
- Bit Depth: 8 bits, 16 bits
- Codec: Windows Media 9

If your source audio files use different profile settings than those which we validate, then we highly recommend that you test the transcoding of a sample set of source files in Content Studio before storing large quantities of them.

The supported source audio files noted above can be transcoded to any one of the following audio profiles:

Windows Media 9 Audio (.wma) 128 Kbps
Windows Media 9 Audio (.wma) 320 Kbps
MP3 Audio (.mp3) 128 Kbps
MP3 Audio (.mp3) 256 Kbps
RealAudio 8 32 Kbit/sec

- **Modify** – enables group members to modify library asset metadata as well as create, modify and delete annotations for video and audio files.
- **Delete** - allows group members to mark an asset for deletion. A user that is part of a group with Library Administration permission must confirm the asset for deletion.
- **Librarian** - allows group members access to administrative functions. See **Group Permissions and Functionality** table below. *Note: Batch Metadata Upload requires Group Librarian and Modify functions.*
- **SDK Accessible** - enables group members to access libraries via a custom interface using XML over HTTP.
- **Browser Downloads** - enables group members to download assets directly from the library to the browser.
- **Filter Trading Partners** – enables a group to filter out trading partners; thereby, eliminating the display of unnecessary ship to destinations.

Group Permissions and Functionality

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GROUP PERMISSIONS AND FUNCTIONALITY	SEARCH	VIEW VIDEO/AUDIO PROXY	INTERNET ACCESS	FILTER TRADING PARTNERS	SDK ACCESSIBLE	MODIFY METADATA	ANNOTATIONS	BROWSER DOWNLOAD FILE	SHIP FILES	TRANSCODE VIDEO FILES	REPORT ON FILES STORED	REPORT ON USER TRANSACTIONS	REPORT ON ALL TRANSACTIONS	METADATA REPORT	LIBRARY REPORTS	IMPORT METADATA	REMOVE FROM LOCAL CACHE*	DELETE ASSETS	PURGE OR RESTORE ASSETS
Browse	X	X									X	X		X					
Internet Accessible			X																
Ship Files									X										
Transcoding										X									
Modify						X	X												
Remove Local Copy																	X		
Delete																		X	
Librarian	X	X									X	X	X	X	X	X	X		X
SDK Accessible					X														
Browser Downloads								X											
Filter Trading Partners				X															

* Local Caching is currently not implemented, but is considered a candidate for future releases of Content Studio.

CONTENT STUDIO USERS

Customers are given access to Content Studio and other SAVVIS Content Exchange services through a Service Login. Service Logins may be created by Administrators using the Info Center application. Please see the Info Center On-Line Help for a complete overview of the capabilities of Info Center. Once created, Archive Administrators may assign the following Content Studio relevant information to a user:

- **Bill-to Site ID** – Defines the site responsible for the shipping activities of this Service Login when sending files from Content Studio. Administrators may select from any site that resides under their customer number. SAVVIS can insert third parties in this list on written request from the Administrator and with the approval of the third party.
- **Initiator Site ID** – Tells recipients who sent them a package. The Default setting is “none” which will cause recipients to see the library as the sender of the package. Again, Administrators may select from any site that resides under their customer number. SAVVIS can insert third parties in this list on written request from the Administrator and with the approval of the third party.
- **Account Status** – Administrators may disable a customer’s access to all Content Studio libraries by disabling their account.
- **Group Membership** –Administrators can assign users to (or remove users from) any of the groups created within the Archive.

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TRADING PERMISSIONS

A Content Studio library is a distinct resource that can send or receive packages from other resources within the SAVVIS Content Exchange managed environment. This includes:

- WAM!NET® Internet GatewaySM
- WAM!NET® Direct! ServiceSM
- WAM!NET® WorkSpaceSM
- WAM!NET® ProofSM
- Other Content Studio Libraries

STORING ASSETS AND METADATA IN CONTENT STUDIO

A customer may store assets and metadata in a library with any of the following services:

- SAVVIS Content Distribution Services – Files are packaged by the sending site and sent to the library. Metadata may be sent with the files using an appropriate Job Ticket. If multiple files are included in a single package, each file will be assigned the same metadata.
- WAM!NET® Software Development KitSM (SDK) – The SDK is a programming interface provided by SAVVIS to enable developers to integrate SAVVIS Content Exchange Services with other client and web-based applications. The SDK is available for license to those customers who have a need for custom software or integrating an existing application with SAVVIS Content Exchange Services to store and retrieve assets. For a detailed specification, please contact us at sales.wamnet.com.
- Content Studio Archive Collection Station (ACS). SAVVIS can provide customers with an on-site server for the collection of files to be added to the archive. The ACS is Suitable for bulk ingestion of quantities of data which would be impractical to upload via a Wide Area Network (WAN) connection.

Storing Assets in Content Studio is exempt from any SAVVIS Content Distribution services charges.

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METADATA

In addition to managing files and protecting them from disaster or loss, Content Studio provides a robust mechanism for organizing information about the files themselves. This information is called metadata, or “data about data.” Metadata may be associated with assets in one of three ways. Metadata may be:

- System - File Generated is based on the content of the file
- System - Archive Generated is based on the use of the file in the library
- Customer Input provided by customers during or after upload to Archive

The tables below list the different types of metadata used in Content Studio, details how it is assigned and indicates whether a customer can search or modify a specific field. Table 1 lists System generated metadata. Table 2 lists metadata provided by customer.

Table 1. System Generated Metadata

FIELD NAME	TYPE	LENGTH	GENERATION	SEARCH	MODIFY
Asset Locator	Alphanumeric	80 Characters	System - Archive	Y*	N
Asset Name	Alphanumeric	80 Characters	System - File	Y*	N
Asset Status	Text	“ToIndex”	System - Archive	Y*	N
Bit Rate	Numeric	None Specified	System - File	N	N
Chroma	None	None Specified	System - File	N	N
Date Modified	Date	10 Characters: mm/dd/yyyy	System - Archive	Y*	N
Date Stored	Date	10 Characters: mm/dd/yyyy	System - Archive	Y*	N
Deleted By	None	30	System - Archive	N	N
Duration	Alphanumeric		System - File	N	N
File Content	Text	Unlimited	System - File	Y	N
File Encoding	None	MacBin or .NOT. MacBin	System - File	N	N
File Name	Alphanumeric	255 Characters	System - File	Y*	N
File Size	Integer	8 Characters	System - File	N	N
File Type	Text	4 Characters	System - File	Y*	N
Frame Rate	Numeric	None Specified	System - File	N	N
HasThumbnail	None	"Yes" or "No"	System - Archive	N	N
HasSuperThumbnail	None	"Yes" or "No"	System - Archive	N	N
HasSource	None	"Yes" or "No"	System - Archive	N	N
HasText	None	"Yes" or "No"	System - Archive	N	N
HasPreview	None	"Yes" or "No"	System - Archive	N	N
HasPreview2	None	“Yes” or “No”	System – Archive	N	N
HasPreview3	None	“Yes” or “No”	System – Archive	N	N
HasStoryboard	None	"Yes" or "No"	System - Archive	N	N
Height	Numeric	None Specified	System - File	N	N
Image Mode	Alphanumeric		System - File	Y*	N
Last Modified By	Alphanumeric	80 Characters	System - Archive	Y*	N
Last Shipped	Date	10 Characters: mm/dd/yyyy	System - Archive	Y*	N
Library Name	Alphanumeric	80 Characters	System - Archive	Y*	N
Proxy	Video/Audio	N/A	System - File	N	N
Representation Type	None	None Specified	System - File	N	N
Resolution	None	None Specified	System - File	N	N
Ship Count	Integer	8 Characters	System - Archive	Y*	N

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Source File Path	Alphanumeric	255 Characters	System - File	Y*	N
Source Location	Alphanumeric	80 Characters	System - Archive	Y	N
Start Time Code	Alphanumeric		System - File	N	N
Storage Status	Text	“Replicated” or	System - Archive	Y	N
Stored By	Alphanumeric	80 Characters	System - Archive	Y	N
Story Board	Graphic	150 x 150 Pixels per 2 sec	System - File	N	N
Super Thumbnail	Graphic	300, 400 or 500 Pixels Square	System - File	N	N
Thumbnail	Graphic	150 x 150 Pixels	System - File	N	N
Version	Integer	8 Characters	System - Archive	Y*	N
Width	Numeric	None Specified	System - File	N	N

* User may limit search to this specific field.

Table 2. Customer Provided Metadata

FIELD NAME	TYPE	LENGTH	GENERATION	SEARCH	MODIFY
Air Date	Date	10 Characters: mm/dd/yyyy	Customer Input	Y	Y
Annotations	Alphanumeric	255 Characters	Customer Input	Y	Y
Approved	Text	“Yes” , “No” or null	Customer Input	Y*	Y
Client Id	Alphanumeric	80 Characters	Customer Input	Y*	Y
Closed Captioned	Text	“Yes” , “No” or null	Customer Input	Y*	Y
Copyright	Alphanumeric	30 Characters	Customer Input	Y	Y
Description	Alphanumeric	2,048 Characters	Customer Input	Y*	Y
Job Id	Alphanumeric	80 Characters	Customer Input	Y*	Y
Keywords	Alphanumeric	2,048 Characters	Customer Input	Y*	Y
Notes	Alphanumeric	2,048 Characters	Customer Input	Y*	Y
Producer	Alphanumeric	30 Characters	Customer Input	Y	Y
Production Date	Date	10 Characters: mm/dd/yyyy	Customer Input	Y*	Y
Products	Alphanumeric	255 Characters	Customer Input	Y*	Y
Scene	Alphanumeric	20 Characters	Customer Input	Y*	Y
Take	Alphanumeric	8 Characters	Customer Input	Y*	Y
Title	Alphanumeric	80 Characters	Customer Input	Y*	Y

* User may limit search to this specific field.

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APPLYING METADATA DURING THE STORE PROCESS

Job Tickets - To apply metadata during the store process requires the use of Job Tickets. Job tickets are pre-defined and are identical across the entire file transport service, thereby ensuring data communication continuity. Customized job tickets are a chargeable service which is available upon request from SAVVIS.

The Content Studio specific Job Ticket provides all of the metadata fields available for Customer input.

- | | | |
|--------------------|---------------|-------------------|
| - Air Date | - Description | - Products |
| - Approved | - Job ID | - Production Date |
| - Client ID | - Keywords | - Scene |
| - Closed Captioned | - Notes | - Title |
| - Copyright | - Producer | - Take |

Metadata Extraction – During the store process, Content Studio can extract IPTC header and XMP metadata information contained in a supported file and map it to specific metadata fields.

Text Extraction - During the store process, Content Studio can extract text from supported document files and make that text searchable. The extracted text is viewable in the search results detail window, but not modifiable.

WAM!NET® Content StudioSM Service Description

APPLYING METADATA AFTER THE STORE PROCESS

Using the Content Studio Modify MetaData Function - A user may modify, append or replace metadata for any single asset stored in Content Studio via the Modify Metadata function. Simply locate the desired asset using one of the Content Studio Search functions, select detail view and modify the metadata.

Batch MetaData Upload - A user may use this function for quickly updating metadata for groups of assets or an entire library of assets already stored within Content Studio. Just create a simple text file using a text editor or a spreadsheet program and import it to a selected library via the MetaData Upload function of Content Studio. A detailed specification is available in the Content Studio Online Help Guide.

The following Content Studio metadata fields are supported:

FIELD NAME	LENGTH	RESTRICTIONS
AirDate	10	Must be formatted as mm/dd/yyyy
Approved	3	Limited to YES or NO
ASL		Key used to retrieve asset for metadata application
AssetName		Key used to retrieve asset for metadata application when ASL is not provided
AssetTitle	80	None
ClientID	80	None
ClosedCaptioned	3	Limited to YES or NO
Copyright	30	None
Description	2048	None
JobID	80	None
Keywords	2048	None
Notes	2048	None
Producer	30	None
ProductionDate	10	Must be formatted as mm/dd/yyyy
Products	255	None
Scene	20	None
Take	8	None

Annotations to Video and Audio Files - A user may create any number of annotations to video and audio files stored in Content Studio. Annotations are keyed to the time code of a frame or segment of the file. Each annotation may be up to 255 characters in length and may be modified or deleted by a user with Group Modify permissions. Annotation contents are indexed and may be searched in the All Fields box of the Basic and Advanced Search screens.

WAM!NET® Content StudioSM Service Description

SHIPPING FILES

A Content Studio library is a distinct resource that can ship files to any other resource(s) within the SAVVIS Content Exchange managed environment. This includes:

- WAM!NET® Internet GatewaySM
- WAM!NET® Direct!SM
- WAM!NET® WorkSpaceSM
- WAM!NET® ProofSM
- Other Content Studio Libraries

A user may also ship files directly to their workstation from a library via the Browser Download function of Content Studio.

REPORTS

Content Studio provides three report types:

- Library Size
- Transaction
- Metadata

LIBRARY SIZE REPORT

The Library Size report provides status on Storage Usage in MegaBytes and the Number of Assets Stored for each library under a Customer. The report is Browser output only.

TRANSACTION REPORTS

- **Files Stored Report** - This report will return a list of assets stored or uploaded to a library.
- **Files Purged Report** - This report will return a list of all assets purged from a library by the Library Administrator.
- **Files Shipped Report** - This report will return a list of all assets shipped from a library.
- **Files Transcoded** - This report will return a list of video and audio files transcoded.
- **Files Streamed** – This report will return a list of all assets that have been viewed as a video or audio stream.
- **Asset Activity** - This report will return a list of assets by stores, ships, and download operations.

Filters and Results - Transaction Reports may be filtered by the following criteria and the results sent to the Browser for viewing or saved as a Comma Separated File (CSV).

- Asset Locator
- From Date
- To Date
- Library
- Tracker ID
- User ID

WAM!NET® Content StudioSM Service Description

The following table indicates which metadata fields will be included in a specific report:

METADATA FIELDS	FILES STORED	FILES PURGED	FILES SHIPPED	FILES TRANSCODED	FILES STREAMED	ACTIVITY
Asset Locator	x	x	x	x	x	x
Asset Name	x	x	x	x	x	x
Date/Time				x	x	x
File Name	x	x	x	x		x
Library	x	x	x	x	x	x
Purged		x				
Replicated	x					
Ship			x			
Size (Bytes)	x	x	x			
Store	x					
Tracker ID*	x		x	x		x
Transaction Type						x
Transcode File Type				x		
Transcode Size				x		
User		x	x	x		x

* If applicable, the Tracker ID will be displayed as a link to Info Center package tracking.

METADATA REPORT

Filters and Results- Transaction Reports may be filtered by the following criteria and the results sent to the Browser for viewing or saved as a Comma Separated File (CSV).

- Asset Locator
- Job ID
- Asset Name
- Last Mod User ID
- Asset Status
- Library
- Client ID
- To Date Stored
- From Date Stored

The following table indicates which metadata fields will be included in the Metadata Report:

- Air Date
- Date Modified
- Library
- Start Time Code
- Approved
- Date Stored
- Notes
- Take
- Asset Locator
- Description
- Producer
- Title
- Asset Name
- Duration
- Production Date
- Version
- Asset Status
- Job ID
- Products
- Client ID
- Key Words
- Scene
- Copyright
- Last Modified By
- Ship Count
- Closed Caption
- Last Shipped
- Source File

WAM!NET® Content StudioSM Service Description

HOW TO SUBSCRIBE

Contact your Regional SAVVIS Sales Office and request a Storage Service Agreement.

Term Commitment - Customer must agree to a One-Year term or longer.

Minimum and Maximum Storage Commitment - A customer's minimum storage capacity is 5 gigabytes. There is no limit on the maximum storage capacity.

CUSTOMER REQUIREMENTS

- Any computer workstation with a screen resolution of 800x600 or higher.
- The ability to connect with secure Internet sites via SSL.
- Accurate Date, Time, and Time Zone settings.
- SAVVIS Content Distribution Service or WAM!NET® Review StudioSM feature pack to upload assets.
- A Web Browser is required for accessing Content Studio Library functions. Information on supported platforms and browsers can be found on the WAM!NET® Service PortalSM.
- RealPlayer or QuickTime Player for viewing some video proxies generated by Content Studio.

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SAVVIS, Inc., 1 SAVVIS Parkway, St. Louis, MO 63017, 800.SAVVIS.1

v. 11.18.06