Version 6.1.0

MessageWay MWAWSS3 User's Guide and Reference

ipswitch

MessageWay

Document History

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MW610-575	Same as above	12/2020

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MessageWay MWAWSS3 User's Guide and Reference

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Introduction

Overview of MessageWay AWS S3 Adapter

Amazon Web Services (AWS) Simple Storage Service (S3) is cloud storage for the Internet.   It provides for storing and retrieving any amount of data at any time to/from anywhere on the web.   To use AWS S3, an AWS account is required from Amazon.

The MessageWay AWS S3 (MWAWSS3) Adapter provides the interface between MessageWay and an AWS S3 remote host.   It allows uploading and downloading of messages between MessageWay and AWS S3 using the HTTPS protocol.

Purpose and Scope

This document covers the configuration procedures for MessageWay AWS S3 Adapter.

For installation instructions for the MessageWay AWS S3 Adapter, refer to the readme (mwawss3-6.1.0-win32_readme.html) which was provided as part of this installation.

Audience

This document is intended for users who want to configure and use the MessageWay AWS S3 Adapter in a MessageWay application server.

Whoever configures MessageWay AWS S3 Adapter should be familiar with AWS S3.

Technical Support

The MessageWay Technical Support hub is an information and diagnostic center available for customers to:

- Obtain advice on proper product installation, configuration, and operation
- Report any product problems and receive timely resolutions
- Request a software enhancement
- Request software updates
- Inquire about software release contents and status
- View publications
- See how to contact Technical Support
- See hours of availability for Technical Support

To visit the MessageWay Technical Support hub, please follow the below link:

https://www.progress.com/support/messageway

The Technical Support Web site is available 24/7, portions of which require a valid Progress ID. If you have not already done so, you can follow the instructions in the following URL to obtain a valid Progress ID:

https://knowledgebase.progress.com/articles/Article/how-to-create-a-progress-id

Installing the MWAWSS3 Adapter

Refer to the readme (mwawss3-6.1.0-win32_readme.html) which was provided as part of this installation for instructions regarding installing the MWAWSS3 Adapter.

Licensing Requirements for the MWAWSS3 Adapter

The MessageWay AWS S3 Adapter is a purchasable option which requires a licenses from Ipswitch, Inc. For more information, contact MessageWay Technical Support.

IMPORTANT: You must have a license before you can start the MessageWay AWS S3 adapter.

Prerequisites for the MWAWSS3 Adapter

The MessageWay AWS S3 adapter has been developed with and requires MessageWay version 6.1 MR07 or later to function properly.

Memory Requirements for the MWAWSS3 Adapter

To support large file transfers (1 GB or larger) using the MessageWay AWS S3 adapter, we recommend a minimum of 16 GB of memory.   Each multi-gig file can take up to 50 MG of memory to transfer, and files can be transferred in parallel.

Configuring the MWAWSS3 Adapter

The MessageWay AWS S3 adapter is an AWS S3 enabled client.   The **AWSS3** page of the Adapter Properties window provides some basic default settings.   Users may change the setting for the adapter to poll for input messages, as well as the settings for default AWS key ids, AWS regions and AWS buckets for both inbound and outbound sites, and the default output mask and default output content type for messages uploaded to AWS S3.   Refer to **Reference** section, topic *(MWAWSS3 Adapter Properties) AWSS3 Page* for specific configuration settings.

In one cycle, the adapter polls all locations configured for AWS S3 input. It does not poll a location when its schedule is closed or when the location is on hold.

Schedules determine when locations configured for AWS S3 output send messages to AWS S3.

IMPORTANT: To make changes in adapter or service configurations take effect, you must stop and restart the adapter or service. To assure that all message traffic has been sent before the adapter or service is stopped, you should first select **Suspend**, and then after all traffic has cleared, select **Stop**.

Start the MWAWSS3 Adapter

Refer to the topic, *MessageWay Startup and Shutdown for Windows* within the *MessageWay User's Guide and Reference* or the Manager online help.

Configuring Trace Parameters

CAUTION: The trace process may have a significant impact on performance, especially when you use the asterisk * to trace everything. Tracing starts as soon as you enter your trace options and click **Apply** or **OK**. When you have finished debugging, clear the field of all text to turn off the trace.

This option specifies the type of activity to log to the MessageWay database for the adapter or service. Then you can filter and view the information in the MessageWay Manager using **Find Trace Logs** feature, or send it to a file using the mwtrace utility. Enter a list of types, separated by commas, that you want to use to appear in the trace log. You may also type an asterisk (*) to trace activity. You can limit the log information further by location, message ID, user and/or IP address.

The trace utility, **mwtrace**, allows you to view trace information, online or from a disk file, and to delete trace records from the database. For information about how to use the trace utility, in the **Troubleshooting** section of the *MessageWay User's Guide and Reference*, refer to the topic, *Reviewing and maintaining Trace Information*.

The syntax of the trace option is as follows:

trace-type-list [**:** [*location-list*] [**:** [*msgid-list*] [**:** [*user-list*] [**:** *ip-list*]]]]

Where the following rules apply:

- Trace-type is mandatory
- Each list must be separated from other lists by a colon (**:**)
- Each list may contain one or more items, separated by commas
- Trace-type-list only may use the asterisk (*****) in place of a list of types (not recommended)

Trace Component	Description
trace-type	One of the predefined types in the following table, for example, awss3, error, debug, etc.
location	Name of a MessageWay location
msgid	MessageWay message ID
user	Name of a MessageWay user

The following table shows which trace types are useful for MessageWay AWS S3 adapter.

Trace Type	mwawss3
awss3	OK
progress	OK
fatal	OK
error	OK
warn	OK
info	OK
debug	OK
trace	OK

NOTE: Trace types 'fatal' thru 'trace' are ascending trace options, meaning if 'info' is used; then trace options 'fatal','error' and 'warn' are automatically included and so on. Also, these trace options are explicit trace options; meaning that asterisk (*) will not include all trace options.

	The trace option can impact performance. Only use it to debug a problem, such as when customer support asks for a trace. Use the minimum amount of tracing required. To turn off tracing, remove the tokens from the field. Use the utility, **mwtrace**, to delete the trace records from the database.
Best Practice	

Configuring a MWAWSS3 Site

The MWAWSS3 site configuration has two additional pages where users configure how this site is to be used. To access all the pages, use the arrow keys at the top of the Site Properties window.
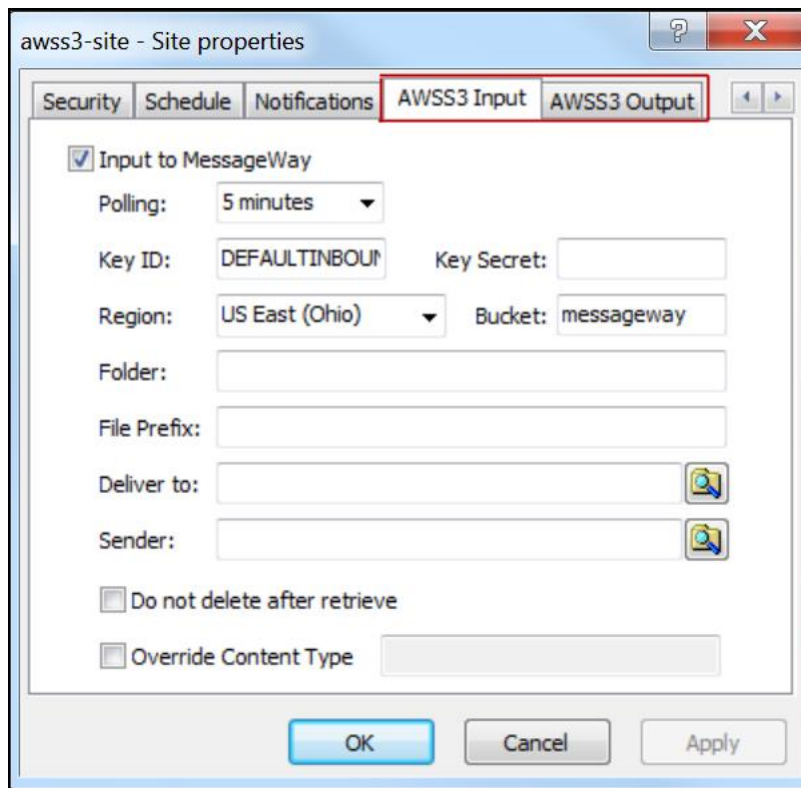
Users may configure the pages as follows:

AWSS3 Input   Use this tab to configure the site to download messages from an AWS S3 site, based on polling intervals.

AWSS3 Output   Use this tab to configure the site to send messages to an AWS S3 site, based on schedules.

You may configure a site for input, output or both.

MWAWSS3 Input Options

To retrieve messages from an AWS S3 site and send them into MessageWay, specify options on the **AWSS3 Input** tab. For specific information about the fields, refer to **Reference** section, topic *(MWAWSS3 Site Properties) AWSS3 Input Page*.

MWAWSS3 Output Options

To send messages from MessageWay to an AWS S3 site, specify options on the **AWSS3 Output** tab. For specific information about the fields, refer to **Reference** section, topic *(MWAWSS3 Site Properties) AWSS3 Output Page*.

Reference

This section provides reference information for all fields in all windows associated with the MessageWay AWS S3 adapter.

(MWAWSS3 Adapter Properties) AWSS3 Page

The **AWSS3** page of the Adapter Properties window contains the configuration information required for the inbound polling service of the adapter, the default key ids, regions and buckets for both inbound and outbound sites, as well as default output mask and default output content type. Location schedules determine whether the adapter polls for files for individual locations, and the schedule for a location must be open to allow polling.

IMPORTANT: To make changes in adapter or service configurations take effect, you must stop and restart the adapter or service. To assure that all message traffic has been sent before the adapter or service is stopped, you should first select **Suspend**, and then after all traffic has cleared, select **Stop**.
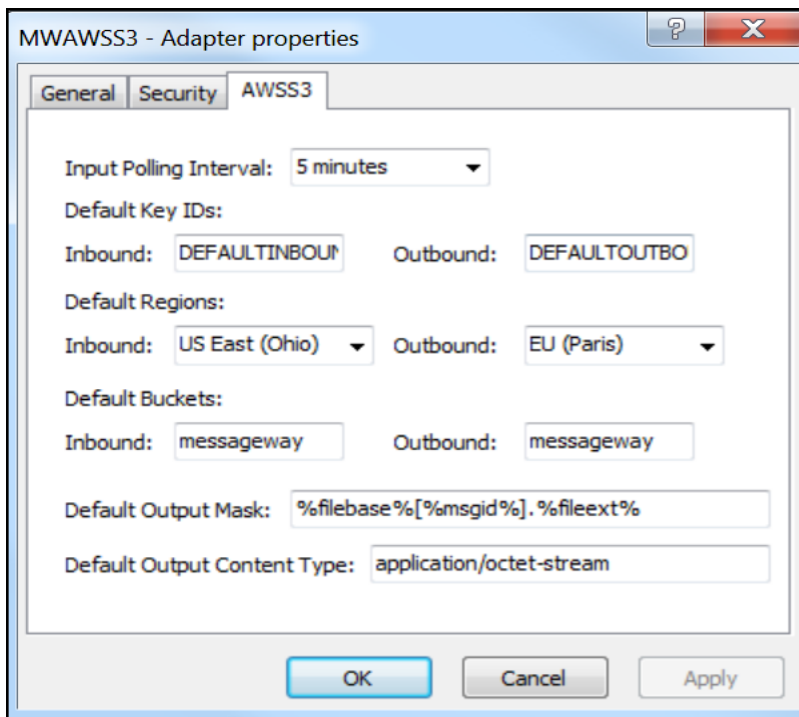
AWSS3 Page (Adapter Properties Window)

Input Polling Interval

The input polling interval is used for the transfer of messages from an AWSS3 bucket into MessageWay. This is the amount of time that the AWSS3 client will wait before checking the bucket for files to transfer to the site. Location schedules determine whether the adapter polls for messages for individual locations. The schedule for a location must be open to allow polling.

Select an interval from the list or type the number of hours, minutes or seconds between polling cycles. The option **Never** stops polling for this adapter. Polling is based on the hour of the system time after the adapter has started. For example, when the polling interval is set to every 15 minutes, the adapter will poll on the hour and at 15, 30 and 45 minutes past the hour. If the adapter starts at 2:10, the first polling cycle will be at 2:15.

CAUTION: Polling causes a LIST request to be sent to AWS. Since there is a charge in AWS for a LIST request, setting a lower polling interval can cause excessive charges to be incurred. For example, if there are several hundred AWS S3 inbound locations all configured to poll at 5 second intervals, excessive charges may be incurred. When possible, set polling to hours or minutes, not seconds.

The **Schedule** option requires that the schedule type be *Trigger (Input or Execute Now)*, which polls at the time specified. You identify the schedule on the **Schedule** tab, and from there you can drill down to create or edit a schedule item.

You may also enter a number followed by an optional unit of time: **s** for seconds, **m** for minutes, and **h** for hours. A space between the number and unit of time is optional. The default unit of time is seconds.

5 or 5s   means 5 seconds

30m   means 30 minutes

2 h   means 2 hours

(Default Key IDs) Inbound

Enter your AWS Identity and Access Management (IAM) access key id value for inbound transfers here. This key, along with your AWS IAM secret access key (not configurable on adapter, only location), allow you to control and secure your AWS S3 account.   Key ID can be found on your AWS S3 IAM account by selecting **My Security Credentials**, then choosing **Get Started with IAM Users**, then clicking on User name followed by **Security Credentials**.   This key is equivalent to user id in some applications.

(Default Key IDs) Outbound

Enter your AWS Identity and Access Management (IAM) access key id value for outbound transfers here. This key, along with your AWS IAM secret access key (not configurable on adapter, only location), allow you to control and secure your AWS S3 account. Key ID can be found on your AWS S3 IAM account by selecting **My Security Credentials**, then choosing **Get Started with IAM Users**, then clicking on User name followed by **Security Credentials**. This key is equivalent to user id in some applications.

(Default Regions) Inbound

Click the down arrow to the right of the **Inbound** field and select the appropriate AWS region name for inbound transfers. To reduce data latency in your applications, AWS offers multiple independent world-wide regional endpoints to make your upload requests from. Typically you would select a region closes to your physical location. A region is equivalent to a server in some applications.

(Default Regions) Outbound

Click the down arrow to the right of the **Outbound** field and select the appropriate AWS region name for outbound transfers. To reduce data latency in your applications, AWS offers multiple independent world-wide regional endpoints to make your download requests to. Typically you would select a region closes to your physical location. A region is equivalent to a server in some applications.

For your reference, following is a list of valid AWS regions:

Region Name	Region
US East (Ohio)	us-east-2
US East (N. Virginia)	us-east-1
US West (N. California)	us-west-1
US West (Oregon)	us-west-2
Asia Pacific (Tokyo)	ap-northeast-1
Asia Pacific (Seoul)	ap-northeast-2
Asia Pacific (Osaka-Local)	ap-northeast-3
Asia Pacific (Mumbai)	ap-south-1
Asia Pacific (Singapore)	ap-southeast-1
Asia Pacific (Sydney)	ap-southeast-2
Canada (Central)	ca-central-1
China (Beijing)	cn-north-1
China (Ningxia)	cn-northwest-1
EU (Frankfurt)	eu-central-1

Region Name	Region
EU (Ireland)	eu-west-1
EU (London)	eu-west-2
EU (Paris)	eu-west-3
South America (São Paulo)	sa-east-1

(Default Buckets) Inbound

Enter your AWS bucket value for inbound transfers here. Bucket values are case-sensitive. Buckets in AWS are used to store objects, which consist of data and any metadata that describes the data. A bucket is equivalent to a disk drive in some applications.

(Default Buckets) Outbound

Enter your AWS bucket value for outbound transfers here. Bucket values are case-sensitive. Buckets in AWS are used to store objects, which consist of data and any metadata that describes the data. A bucket is equivalent to a disk drive in some applications.

Default Output Mask

CAUTION: Make sure you have a value in the **Default Output Mask** field. The install process provides a value, but if a user subsequently clears the field, messages may fail delivery attempts.

This is a template to create a file name or object name for outbound transfers. Use any combination of constants and MessageWay tokens. For new installations, the default mask is **%filebase%[%msgid%].%fileext%**. To avoid delivery errors because of duplicate file names, make sure you use a default mask here that will assure a unique file name, for example, **MW%msgid%.txt**.

Use two percent (%) signs to enclose the tokens. MessageWay replaces the tokens with appropriate values. Add constants outside of these signs as required.

CAUTION: When a file of the same name already exists, it will be overlaid by default. Note that file names are case-sensitive.

The valid tokens are:

Token	Description
applid	Counting from the left, the first eight characters up to a period (.) that will be displayed in the Filename property of a message.
classid	By default, the classid value is extracted from the input message. Users may also assign a class ID. To do this, simply use literals for the class ID, for example: To assign a class ID to an output message, type: **MyClassID@MyLocationName** To assign a class ID to a mask for a file name, type: **MyClassID%yyyymmdd%.txt**
contenttype	Content type associated with a message. The content type uses the MIME type/subtype notation and values typically used with SMTP, POP3 and HTTP. If a content type is not provided with a new message, MessageWay determines the type from the first 250 bytes of data. An unrecognized content type is set to blank and assumed to be application/octet-stream.
ddd	Julian date to specify numeric day within a year. Padded on the left with zero (0) for a width of 3 (001-366).
dd	Day of month. Padded on the left with zero (0) for a width of 2 (01–31).
d	Day of month without padding (1-31).
filebase	All characters to left of the last decimal mark in a filename. When not found, no value is returned.
fileext	All characters to right of the last decimal mark in a filename. When not found, the filename value will be returned.
filename	Name of file up to 128 characters, which may include a base value, a decimal mark and a file extension.
gmt:	When followed by date/time tokens, this will be the current GMT time.
gmttimei:	When followed by date/time tokens, this will be the Inbound Start Time in GMT.
gmttimec:	When followed by date/time tokens, this will be the current GMT time.
gmttimeo:	When followed by date/time tokens, this will be the current Outbound Start Time in GMT.
hh	Hour of day. Padded on the left with zero (0) for a width of 2 (00-23).
h	Hour of day without padding (0-23).
inputmsgid	Input Message Id of the message.
inputname	Input Name.

Token	Description
location	The MessageWay location where the message resides. Replaces *mailbox*.
msgid	The Message Id of the message. Replaces *msg*.
ms	Milliseconds (000-999). **NOTE:** The Manager shows milliseconds on Message Properties.
mmmm	Full month name (January, February, March)
mmm	Abbreviated month name (Jan,Feb,Mar)
mm	Month number. Padded on the left with zero (0) for width of 2 (01-12).
m	Month number (1-12).
nn	Minutes. Padded on the left with zero (0) for a width of 2 (00-59).
n	Minutes (0-59).
outputname	Output Name
recipient	Message Recipient
sender	Message Sender
ss	Seconds. Padded on the left with zero (0) for a width of 2 (00-59).
s	Seconds (0-59).
timei:	When followed by date/time tokens, this will be the Inbound Start Time.
timec:	When followed by date/time tokens, this will be the current time.
timeo:	When followed by date/time tokens, this will be the Outbound Start Time.
yyyy	Four digit year.
yy	Two digit year.
#!	Non-persistent counter (1-999999999). When the adapter or service is restarted, this number reinitializes to 1.
#	Persistent counter (1-999999999).
#@name	Persistent named counter.
#@classid	Persistent counter specific to classid
#@classloc	Persistent counter specific to classid and location
#@inputname	Persistent counter specific to input name
#@outputname	Persistent counter specific to output name
#@sender	Persistent counter specific to sender name
#@recipient	Persistent counter specific to recipient name
#@location	Persistent counter specific to location

Here are some examples:

> MW%msgid%.txt

> TR%yyyymmddhhnnss#%.txt

To pad or truncate values that replace tokens, you can use :n after the token. The following table describes a couple of specialized examples:

Token	Description
%#:n%	System generated sequence of fixed width n, where n = 0-9. The number of names are guaranteed to be unique within a one-minute period shown in the following examples: To allow 9 unique names per minute, n=1 (1-9) To allow 99 unique names per minute, n=2 (01-99) To allow 999 unique names per minute, n=3 (001-999)
%#!:n%	System generated sequence of fixed width n, where n = 0-9. The number of names are guaranteed to be unique within a one-minute period shown in the following examples: To allow 9 unique names per minute, n=1 (1-9) To allow 99 unique names per minute, n=2 (01-99) To allow 999 unique names per minute, n=3 (001-999) When the MessageWay server is restarted, this number reinitializes to 1.

Here are some examples:

> %#@classloc:4%
> %applid:8%
> X%ddhhnn#:3%.xml

TIP: On systems that allow file names longer than 8 characters, use the *msgid* token to easily relate the output message with the message in MessageWay. The message ID is unique. Use the *filename* token if you want a persistent name that is applied to the message throughout its life cycle, unless it is changed by a rules profile setting. A filename does not have to be unique in MessageWay.

Default Output Content Type

Enter the content type value that you want to associate with a file or object created in AWS S3 here. Although this value can be any characters that you choose, following is a list of typical content types that MessageWay supports:

Type	Content Type	File Extension
ZIP	application/zip	zip
GZIP	application/gzip	gz

Type	Content Type	File Extension
PDF	application/pdf	pdf
BMP	image/bmp	bmp
JPEG	image/jpeg	jpeg
PNG	image/png	png
TIFF	image/tiff	tiff
GIF	image/gif	gif
X12	application/edi-x12	x12
EDIFACT	application/edifact	edf
TEXT	text/plain	txt
XML	application/xml	xml
MPEG	video/mpeg	mpeg
Lotus 123	application/vnd.lotus-1-2-3	wk4
MS Powerpoint	application/vnd.ms-powerpoint	ppt
MS Excel	application/vnd.ms-excel	xls
Real Media	application/vnd.realmedia	rm
Real Audio	audio/vnd.rn-realaudio	ra
Sun audio files	audio/basic	au
MS WMV, WMA, ASFfiles	video/x-ms-wmv	wmv
Photoshop files	image/x-psd	psd
BZIP	application/x-bzip	bz2
Shockwave flash	application/x-shockwave-flash	swf
AIFF	audio/x-aiff	aiff
MP3	audio/mpeg	mp3
HP Laser printer-compatible file (Printer Control Language)	application/vnd.hp-pcl	pcl
AVI	video/x-msvideo	avi
WAV	audio/x-wav	wav
Quicktime	video/quicktime	mov

(MWAWSS3 Site Properties) AWSS3 Input Page

The **AWSS3 Input** tab of the Site Properties window allows users to specify how to transfer messages from an AWSS3 site into MessageWay.

AWSS3 Input Page (Site Properties Window)

Input to MessageWay

Check this box to allow the adapter associated with this site to transfer messages from the specified AWSS3 site into MessageWay. The MWAWSS3 adapter only polls for input messages when the schedule for the site is open.

Polling

This value overrides the polling value set for the MWAWSS3 adapter.

The polling interval is used for the transfer of messages from an AWSS3 bucket into MessageWay. This is the amount of time that the AWSS3 client will wait before checking the bucket for files to transfer to the site. Location schedules determine whether the adapter polls for messages for individual locations. The schedule for a location must be open to allow polling.

Select an interval from the list or type the number of hours, minutes or seconds between polling cycles.

The option **Never** stops polling for this adapter. Polling is based on the hour of the system time after the adapter has started. For example, when the polling interval is set to every 15 minutes, the adapter will poll on the hour and at 15, 30 and 45 minutes past the hour. If the adapter starts at 2:10, the first polling cycle will be at 2:15.

CAUTION: Polling causes a LIST request to be sent to AWS. Since there is a charge in AWS for a LIST request, setting a lower polling interval can cause excessive charges to be incurred. For example, if there are several hundred AWS S3 inbound locations all configured to poll at 5 second intervals, excessive charges may be incurred. When possible, set polling to hours or minutes, not seconds.

The **Schedule** option requires that the schedule type be *Trigger (Input or Execute Now)*, which polls at the time specified. You identify the schedule on the **Schedule** tab, and from there you can drill down to create or edit a schedule item.

You may also enter a number followed by an optional unit of time: **s** for seconds, **m** for minutes, and **h** for hours. A space between the number and unit of time is optional. The default unit of time is seconds.

5 or 5s   means 5 seconds

30m   means 30 minutes

2 h   means 2 hours

Limit Rate

For systems with low number of CPU's (2), transferring multiple large files in parallel can result in high CPU utilization. To reduce CPU utilization, select a value in MB per second. For example, 5MB will reduce the transfer rate to 5MB per second. Select a value, monitor your CPU utilization and adjust accordingly. Note that entering a value will reduce transfer performance in exchange for lower CPU utilization. No value entered will result in higher CPU utilization and maximum transfer performance.

Key ID

This value overrides the key id value set for the MWAWSS3 adapter.

Enter your AWS Identity and Access Management (IAM) access key id value here. This key, along with your AWS IAM secret access key, allow you to control and secure your AWS S3 account. Key ID can be found on your AWS S3 IAM account by selecting **My Security Credentials**, then choosing **Get Started with IAM Users**, then clicking on User name followed by **Security Credentials**. These keys are equivalent to user id and password in some applications.

Key Secret

Enter your AWS Identity and Access Management (IAM) secret access key value here. This key, along with your AWS IAM access key id, allow you to control and secure your AWS S3 account. Key Secret is only available when it is initially created, so make sure it is saved accordingly. These keys are equivalent to user id and password in some applications.

CAUTION: When the key secret is created using your AWS S3 IAM account, this is the only time that you will be able to see what the actual value is, so make sure you **Download Key File** when prompted by AWS and store the resulting file in a secure place for future reference.

Region

This value overrides the region (Default Regions/Inbound) value set for the MWAWSS3 adapter.

Click the down arrow to the right of the **Region** field and select the appropriate AWS region name for inbound transfers. To reduce data latency in your applications, AWS offers multiple independent world-wide regional endpoints to make your upload/download requests to/from. Typically you would select a region closes to your physical location. A region is equivalent to a server in some applications.

Bucket

This value overrides the bucket (Default Buckets/Inbound) value set for the MWAWSS3 adapter.

Enter your AWS bucket value here. Bucket values are case-sensitive. Buckets in AWS are used to store objects, which consist of data and any metadata that describes the data. A bucket is equivalent to a disk drive in some applications.

Folder

Enter your AWS folder value here. Folder values are case-sensitive. Folders in AWS are used to further partition objects within buckets, and can be considered nothing more that empty objects or files. Typical wildcards like * and ? are supported here, or this field can be left blank. A folder is equivalent to a directory in some applications.

NOTE: Entering any value, including a wildcard (*), in the folder field will cause files in the root (files not in any folder) to not be downloaded. To download files from the root, leave the folder field blank.

File Prefix

Enter a file prefix that matches the objects that you want to download from your AWS account. File names are case-sensitive. Typical wildcards like * and ? are supported here, and this field cannot be left blank. An object is equivalent to a file in some applications.

NOTE: To download all files from a bucket (including all files in folders as well as all files in root), put a wildcard (*) in the file prefix field and leave folder field blank. To download all files from folders only (no root files will be downloaded), put a wildcard (*) in both file prefix field and folder field.

Deliver To

Type or select a location to which the adapter associated with this site will transfer the messages. This may be a site for auto-delivery, a service location, such as MWTranslator, or a pickup mailbox. When the location does not exist, the message is sent to the system mailbox, {Unknown}.

To enter a dynamic distribution list, multiple destinations entered on a single line and separated by commas, press **CTRL** and select the locations. The locations appear separated by commas.

To enter multiple destinations where the message is piped sequentially to various service locations and where the output of one is the input to the next, press **SHIFT** and select the locations. The locations appear separated by colons.

CAUTION: Do not mix piping and broadcasting syntax, colons and commas, because the order of precedence when mixing is undefined.

Sender

Select or type a location to represent the sender of the message. This overrides the sender that may or may not have been passed by the AWSS3 server. This feature is useful for testing, where the input site is already defined, but currently inaccessible, such as at a customer site whose connection is unavailable. You can use a test location that has a different name, but when you put the name of the original customer location here, the message will be marked as if it were from the customer location.

Do Not Delete after Retrieve

Check this box to leave the input file on the source AWSS3 site after successful retrieval. When a file has been retrieved from an AWSS3 site into MessageWay, the default behavior is to delete the file from the source AWSS3 site.

Override Content Type Check Box

Check this box to override the content type specified for the input message.

Override Content Type

Enter the content type here. The content type uses the MIME type/subtype notation and values typically used with SMTP, POP3 and HTTP. If a content type is not provided with a new message, MessageWay determines the type from the first 250 bytes of data. An unrecognized content type is set to blank and assumed to be application/octet-stream.

The following table shows the content types that MessageWay supports.

Type	Content Type	File Extension
ZIP	application/zip	zip
GZIP	application/gzip	gz
PDF	application/pdf	pdf

Type	Content Type	File Extension
BMP	image/bmp	bmp
JPEG	image/jpeg	jpeg
PNG	image/png	png
TIFF	image/tiff	tiff
GIF	image/gif	gif
X12	application/edi-x12	x12
EDIFACT	application/edifact	edf
TEXT	text/plain	txt
XML	application/xml	xml
MPEG	video/mpeg	mpeg
Lotus 123	application/vnd.lotus-1-2-3	wk4
MS Powerpoint	application/vnd.ms-powerpoint	ppt
MS Excel	application/vnd.ms-excel	xls
Real Media	application/vnd.realmedia	rm
Real Audio	audio/vnd.rn-realaudio	ra
Sun audio files	audio/basic	au
MS WMV, WMA, ASFfiles	video/x-ms-wmv	wmv
Photoshop files	image/x-psd	psd
BZIP	application/x-bzip	bz2
Shockwave flash	application/x-shockwave-flash	swf
AIFF	audio/x-aiff	aiff
MP3	audio/mpeg	mp3
HP Laser printer-compatible file (Printer Control Language)	application/vnd.hp-pcl	pcl
AVI	video/x-msvideo	avi
WAV	audio/x-wav	wav
Quicktime	video/quicktime	mov

(MWAWSS3 Site Properties) AWSS3 Output Page

The **AWSS3 Output** tab of the Site Properties window allows users to specify how to transfer messages from MessageWay to an AWSS3 site.

AWSS3 Output Page (Site Properties Window)

Output from MessageWay

Check this box to allow the adapter associated with this location to transfer messages from MessageWay to the specified AWSS3 site. The AWSS3 adapter will deliver messages only when the schedule for this site is open.

Key ID

This value overrides the key id value set for the MWAWSS3 adapter.

Enter your AWS Identity and Access Management (IAM) access key id value here. This key, along with your AWS IAM secret access key, allow you to control and secure your AWS S3 account. Key ID can be

found on your AWS S3 IAM account by selecting **My Security Credentials**, then choosing **Get Started with IAM Users**, then clicking on User name followed by **Security Credentials**. These keys are equivalent to user id and password in some applications.

Key Secret

Enter your AWS Identity and Access Management (IAM) secret access key value here. This key, along with your AWS IAM access key id, allow you to control and secure your AWS S3 account. Key Secret is only available when it is initially created, so make sure it is saved accordingly. These keys are equivalent to user id and password in some applications.

CAUTION: When the key secret is created using your AWS S3 IAM account, this is the only time that you will be able to see what the actual value is, so make sure you **Download Key File** when prompted by AWS and store the resulting file in a secure place for future reference.

Limit Rate

For systems with low number of CPU's (2), transferring multiple large files in parallel can result in high CPU utilization. To reduce CPU utilization, select a value in MB per second. For example, 5MB will reduce the transfer rate to 5MB per second. Select a value, monitor your CPU utilization and adjust accordingly. Note that entering a value will reduce transfer performance in exchange for lower CPU utilization. No value entered will result in higher CPU utilization and maximum transfer performance.

ACL Required

When this box is checked, bucket-owner-full-control (ACL) permissions will be set and a single-part upload will occur. This will resolve large file upload issues resulting from AWS S3 not supporting multi-part uploads when bucket-owner-full-control is required. This check box should only be used when bucket-owner-full-control permissions are required for files being uploaded by a particular MWAWSS3 output location.

Region

This value overrides the region (Default Regions/Outbound) value set for the MWAWSS3 adapter.

Click the down arrow to the right of the **Region** field and select the appropriate AWS region name for outbound transfers. To reduce data latency in your applications, AWS offers multiple independent world-wide regional endpoints to make your upload/download requests to/from. Typically you would select a region closes to your physical location. A region is equivalent to a server in some applications.

Bucket

This value overrides the bucket (Default Buckets/Outbound) value set for the MWAWSS3 adapter.

Enter your AWS bucket value here. Bucket values are case-sensitive. Buckets in AWS are used to store objects, which consist of data and any metadata that describes the data. A bucket is equivalent to a disk drive in some applications.

Folder

Enter your AWS folder value here. Folder values are case-sensitive. Folders in AWS are used to further partition objects within buckets, and can be considered nothing more that empty objects or files. This field can be left blank. A folder is equivalent to a directory in some applications.

File Mask

This value overrides the Default Output Mask value set for the MWAWSS3 adapter.

This is a template to create a file name or object name for outbound transfers. Use any combination of constants and MessageWay tokens. For new installations, the default mask is **%filebase%[%msgid%].%fileext%**. To avoid delivery errors because of duplicate file names, make sure you use a default mask here that will assure a unique file name, for example, **MW%msgid%.txt**.

Use two percent (%) signs to enclose the tokens. MessageWay replaces the tokens with appropriate values. Add constants outside of these signs as required.

CAUTION: When a file of the same name already exists, it will be overlaid by default. Note that file names are case-sensitive.

TIP: The file mask can also be used to create or write to folder names using tokens. The folder name and file name must be separated with a "/". For example, %yyyymmdd%/Testfile.txt will create or write to a folder name of today's date and write the file named Testfile.txt into the folder.

The valid tokens are:

Token	Description
applid	Counting from the left, the first eight characters up to a period (.) that will be displayed in the Filename property of a message.
classid	By default, the classid value is extracted from the input message. Users may also assign a class ID. To do this, simply use literals for the class ID, for example: To assign a class ID to an output message, type: **MyClassID@MyLocationName** To assign a class ID to a mask for a file name, type: **MyClassID%yyyymmdd%.txt**

Token	Description
contenttype	Content type associated with a message. The content type uses the MIME type/subtype notation and values typically used with SMTP, POP3 and HTTP. If a content type is not provided with a new message, MessageWay determines the type from the first 250 bytes of data. An unrecognized content type is set to blank and assumed to be application/octet-stream.
ddd	Julian date to specify numeric day within a year. Padded on the left with zero (0) for a width of 3 (001-366).
dd	Day of month. Padded on the left with zero (0) for a width of 2 (01–31).
d	Day of month without padding (1-31).
filebase	All characters to left of the last decimal mark in a filename. When not found, no value is returned.
fileext	All characters to right of the last decimal mark in a filename. When not found, the filename value will be returned.
filename	Name of file up to 128 characters, which may include a base value, a decimal mark and a file extension.
gmt:	When followed by date/time tokens, this will be the current GMT time.
gmttimei:	When followed by date/time tokens, this will be the Inbound Start Time in GMT.
gmttimec:	When followed by date/time tokens, this will be the current GMT time.
gmttimeo:	When followed by date/time tokens, this will be the current Outbound Start Time in GMT.
hh	Hour of day. Padded on the left with zero (0) for a width of 2 (00-23).
h	Hour of day without padding (0-23).
inputmsgid	Input Message Id of the message.
inputname	Input Name.
location	The MessageWay location where the message resides. Replaces *mailbox*.
msgid	The Message Id of the message. Replaces *msg*.
ms	Milliseconds (000-999). **NOTE:** The Manager shows milliseconds on Message Properties.
mmmm	Full month name (January, February, March)
mmm	Abbreviated month name (Jan,Feb,Mar)
mm	Month number. Padded on the left with zero (0) for width of 2 (01-12).
m	Month number (1-12).

Token	Description
nn	Minutes. Padded on the left with zero (0) for a width of 2 (00-59).
n	Minutes (0-59).
outputname	Output Name
recipient	Message Recipient
sender	Message Sender
ss	Seconds. Padded on the left with zero (0) for a width of 2 (00-59).
s	Seconds (0-59).
timei:	When followed by date/time tokens, this will be the Inbound Start Time.
timec:	When followed by date/time tokens, this will be the current time.
timeo:	When followed by date/time tokens, this will be the Outbound Start Time.
yyyy	Four digit year.
yy	Two digit year.
#!	Non-persistent counter (1-999999999). When the adapter or service is restarted, this number reinitializes to 1.
#	Persistent counter (1-999999999).
#@name	Persistent named counter.
#@classid	Persistent counter specific to classid
#@classloc	Persistent counter specific to classid and location
#@inputname	Persistent counter specific to input name
#@outputname	Persistent counter specific to output name
#@sender	Persistent counter specific to sender name
#@recipient	Persistent counter specific to recipient name
#@location	Persistent counter specific to location

Here are some examples:

    MW%msgid%.txt

    TR%yyyymmddhhnnss#%.txt

To pad or truncate values that replace tokens, you can use :n after the token. The following table describes a couple of specialized examples:

Token	Description
%#:n%	System generated sequence of fixed width n, where n = 0-9. The number of names are guaranteed to be unique within a one-minute period shown in the following examples: To allow 9 unique names per minute, n=1 (1-9) To allow 99 unique names per minute, n=2 (01-99) To allow 999 unique names per minute, n=3 (001-999)
%#!:n%	System generated sequence of fixed width n, where n = 0-9. The number of names are guaranteed to be unique within a one-minute period shown in the following examples: To allow 9 unique names per minute, n=1 (1-9) To allow 99 unique names per minute, n=2 (01-99) To allow 999 unique names per minute, n=3 (001-999) When the MessageWay server is restarted, this number reinitializes to 1.

Here are some examples:

```
%#@classloc:4%
%applid:8%
X%ddhhnn#:3%.xml
```

TIP: On systems that allow file names longer than 8 characters, use the *msgid* token to easily relate the output message with the message in MessageWay. The message ID is unique. Use the *filename* token if you want a persistent name that is applied to the message throughout its life cycle, unless it is changed by a rules profile setting. A filename does not have to be unique in MessageWay.

Content Type

This value overrides the Default Output Content Type value set for the MWAWSS3 adapter.

Enter the content type value that you want to associate with the file or object created in AWS S3 here. Although this value can be any characters that you choose, following is a list of typical content types that MessageWay supports:

Type	Content Type	File Extension
ZIP	application/zip	zip
GZIP	application/gzip	gz
PDF	application/pdf	pdf
BMP	image/bmp	bmp
JPEG	image/jpeg	jpeg
PNG	image/png	png
TIFF	image/tiff	tiff

Type	Content Type	File Extension
GIF	image/gif	gif
X12	application/edi-x12	x12
EDIFACT	application/edifact	edf
TEXT	text/plain	txt
XML	application/xml	xml
MPEG	video/mpeg	mpeg
Lotus 123	application/vnd.lotus-1-2-3	wk4
MS Powerpoint	application/vnd.ms-powerpoint	ppt
MS Excel	application/vnd.ms-excel	xls
Real Media	application/vnd.realmedia	rm
Real Audio	audio/vnd.rn-realaudio	ra
Sun audio files	audio/basic	au
MS WMV, WMA, ASFfiles	video/x-ms-wmv	wmv
Photoshop files	image/x-psd	psd
BZIP	application/x-bzip	bz2
Shockwave flash	application/x-shockwave-flash	swf
AIFF	audio/x-aiff	aiff
MP3	audio/mpeg	mp3
HP Laser printer-compatible file (Printer Control Language)	application/vnd.hp-pcl	pcl
AVI	video/x-msvideo	avi
WAV	audio/x-wav	wav
Quicktime	video/quicktime	mov