PLAYOUT

User Guide for Media Owners

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Introduction

Welcome to Playout

What is Playout?

Playout is a platform which centralises playout data across media owners into a single connection point for buyers to access.

It is part of a wider ecosystem of industry-supported platforms and standards in OOH including SPACE, Route, and the OpenDirect and OpenRTB extensions for OOH.

Adwanted UK were commissioned by Outsmart to develop and manage Playout. Adwanted UK is the UK media industry's number one destination for media data, planning tools, market insight, news, and conferences. Find out more about <u>Adwanted UK's other services.</u>

Security

The Playout security model ensures that only authenticated users have visibility of data for which the user is either:

- a) the Media Owner who provided the data, or
- b) has been identified as the buyer of the playout, by the media owner.

Access to the Playout Redshift database is restricted to validated users' IP addresses. To find the IP address to send to the Playout admin team, please click <u>here</u>. If you are not on a static IP address, you will need to send us your new IP each time for it to be listed against your company. IP ranges can also be added.

Getting Started

The <u>Playout website</u> can be used to monitor usage, set cost controls, and manage notification preferences.

To access the Playout website, you will need a username and password.

Username: Your company email address.

Password: Generated by the Playout admin team at Adwanted UK. Note that users cannot reset their own passwords.

If you need a password reset, please contact the Playout helpdesk:

Phone: 0207 420 3252 (opt. 5)

Email: playout@uk.adwanted.com

To upload Playout files, you need access to the Amazon AWS S3 bucket created for your company.

To report on your Playout data, you will need an ODBC or JDBC connection.

If you require access to either upload files or report on data, please email playout@uk.adwanted.com to be set up with the relevant credentials.

Playout File Format

The Playout File Formats were agreed upon through consultation with the OOH Industry, ensuring that both buy-side and sell-side requirements are represented. All files ingested by Playout are required to meet this standard. Please click on the link below for guidance on the file formats for classic and digital, file specifications, field validation and error codes.

https://github.com/Outsmart-OOH/PlayoutReportingStandard/tree/main/Playout

Uploading process

Media Owners will provide CSV files to Playout one or more times a day.

Each Media Owner will be given the following AWS S3 details, providing access to an S3 bucket into which Playout ingest files should be dropped:

- S3 bucket name and folder name (e.g. s3://playout-uat-ingest/media-owner=xxx/)
- AWS Access Key ID and Secret Access Key

Playout imposes no rules on input file size, row ordering, or cross-file ordering. Please refer to the <u>GitHub documentation</u> for Playout's field validation rules.

There is a small overhead per file processed. The AWS fee for data uploads is estimated at \$2.50 per 1 million rows (excluding VAT). For example, if a Media Owner uploads 40 million rows in a month, the AWS fees would amount to £100 (excluding VAT). See <u>Cost Management</u> for more information.

File processing

The process is as follows:

1. The Media Owner will upload a file (named with a .csv extension) to their S3 folder. The file should adhere to the Playout <u>File Format specification</u>:

2. As processing begins, an empty control file is created. It is named the same as the ingested CSV but with a '. processing' suffix.

3. When processing completes, that '. processing' file will be removed and replaced with an empty control file with a '.processed' suffix.

4. If validation failures occur, a file with the same name but a '.error' suffix will be generated.

5. A notification will be sent to the Media Owner confirming the number of accepted and

rejected rows and other details.

If errors occur, the Media Owner should correct them (either to adhere to the file format specification, the data itself, or by updating necessary records in SPACE.

Playout Field Validation

For an overview of the validation rules that apply to both digital and classic plays, please refer to the <u>GitHub documentation</u>.

Notifications

Each Media Owner should subscribe to notifications that are sent upon completion of each file's processing by Playout.

The Playout website allows Media Owners to administer their Notification settings for Production.

The notification emails will contain these details:

Job ID: *playout-guid* Filename: s3://*bucket*/media-owner=*id*/*file*.csv Accepted: *nnn* Rejected: *nnn* Warnings: *nnn* Ignored duplicates: *nnn* File upload time: *yyyy-mm-dd*Thh:mm:ss.sssZ File processing start time: *yyyy-mm-dd*Thh:mm:ss.sssZ File processing end time: *yyyy-mm-dd*Thh:mm:ss.sssZ File processing end time: *yyyy-mm-dd*Thh:mm:ss.sssZ Failure report: s3://*bucket*/media-owner=*id*/*file*.csv.error

Web notifications

In addition to email notifications, Playout can also make a web call to confirm the status of an upload. This uses AWS Simple Notification Service (SNS).

To support these web calls, you must create an HTTP endpoint. The URL of that endpoint should be entered into the Playout website.

All requests to that endpoint will have an **X-Amz-Sns-Message-Type** HTTP header, which will have one of these values:

- SubscriptionConfirmation
- Notification

When you first provide your endpoint to the Playout website, the endpoint will receive the former. The body will include a URL which must be called to confirm the subscription. Full details of how to handle both types of messages are documented here in Step 1 and Step 3:

<u>https://docs.aws.amazon.com/sns/latest/dg/sns-subscribe-https-s-endpoints-to-topic.html</u> (You can ignore the other steps in this document as they are handled by the Playout Admin Suite and Playout itself.)

Failure report

This is a reference to a file which is only created if any records were rejected due to failing validation. This error file is a UTF-8 CSV with one row for each record which was rejected. The first field is the Media Owner-supplied "mediaownerplayoutref" for the rejected record. There then follows one or more error codes (three-digit integers). For example:

bbe7e859-36f1-98dc-b7cf-640c56208a06,101 bbe7e859-36f1-98dc-b7cf-640c56208a06,104

The error codes and a description of each code can be found here.

Playout Reporting

Playout provides spot information from the data warehouse through two approaches:

- 1. Direct warehouse access via JDBC/ODBC.
- 2. Scheduled exports of data to CSV files in S3.

Direct warehouse access

Playout uses the Amazon Redshift data warehouse to manage data provided by Media Owners. The Playout system validates data reaching the data warehouse.

Usage: The data warehouse contains a large volume of data. Users are advised to use the Direct Access approach cautiously to manage costs associated with processing and data transfer. For bulk interrogation of the data warehouse, we recommend using the alternative Scheduled Exports approach (described below) to extract data from the warehouse.

Connection: Amazon Redshift provides drivers for JDBC and ODBC. Details of these drivers can be found here.

https://docs.aws.amazon.com/redshift/latest/mgmt/configuring-connections.html

Adwanted will issue credentials to Media Owners and buy-side users of the platform for authentication via JDBC/ODBC.

Scheduled Exports

Playout has the facility to export data from the data warehouse to compressed CSV files stored in S3. These files will be generated on a regular schedule for each company user, according to an agreed schedule.

Exported files are retained in S3 for ten days from their creation date. Access to the S3 bucket can be provided through IAM user access credentials in the Playout AWS Account, or by Adwanted UK establishing cross-account access if you have your own AWS account.

Each generated file will contain all spots added to Playout since the previous file was created, allowing users to build a complete sequential record of all spots. If no new spots are available to be exported, no new files will be generated (and no folder will be created).

The precise time of a file's availability for download cannot be guaranteed as it is affected by factors such as data quantity, networking, and system load.

File specification

For information on file specifications, please click <u>here</u> for Digital, and <u>here</u> for Classic.

Folder structure and file naming

Each scheduled export will create files in this folder:

s3://playout-ENV-exports/client-CCC

where:

- *ENV* represents the Playout environment (either UAT or prod)
- CCC is the SPACE client ID for the Playout user

Within this folder, clients can choose between a "flat" approach (in which the folder is populated with gzip-compressed files) or a "media-owner partitioned" approach (in which data is partitioned into additional folders – one for each media-owner). These are described overleaf. *Flat approach* Within the client folder, one or more gzip-compressed files will be created for each export. These will be named according to this scheme:

playout_YYYYMMDDHHMM-PPP.csv.gz

where:

- *YYYYMMDDHHMM* is the time that the current export began.
- *PPP* is a "part number". The first part will be 000. If exports are large, multiple files will be generated for each export run. (Each file will be a maximum of 6.2GB.) If a second file is generated, the part will be 001 and so on.

So for example, you will end up with:

```
s3://playout-uat-exports/client-123/playout_202411170900-000.csv.gz
s3://playout-uat-exports/client-123/playout_202411170900-001.csv.gz
s3://playout-uat-exports/client-123/playout_202411171000-000.csv.gz
s3://playout-uat-exports/client-123/playout_202411171000-001.csv.gz
```

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Media Owner partitioned approach

Within the client folder, there will be a folder for each export:

playout_YYYYMMDDHHMM

where *YYYYMMDDHHMM* is the time that the current export began. Within that folder, there will be folders for each media owner who supplied the data. This folder's name will be: space_media_owner_id=MMM where *MMM* is the SPACE id for that media owner.

Within these media owner folders, one or more gzip-compressed files will be created for each export. These will be named according to this scheme:

PPP.csv.gz

where *PPP* is a "part number". The first part will be 000. If exports are large, multiple files will be generated for each export run. (Each file will be a maximum of 6.2GB.) If a second file is generated, the part will be 001 and so on. So, for example, you will end up with:

```
s3://playout-uat-exports/client-123/playout_202411170900/space_media_owner_id=123/000.csv.gz
s3://playout-uat-exports/client-123/playout_202411170900/space_media_owner_id=123/001.csv.gz
s3://playout-uat-exports/client-123/playout_202411170900/space_media_owner_id=234/001.csv.gz
s3://playout-uat-exports/client-123/playout_2024111710900/space_media_owner_id=234/001.csv.gz
s3://playout-uat-exports/client-123/playout_202411171000/space_media_owner_id=123/000.csv.gz
s3://playout-uat-exports/client-123/playout_202411171000/space_media_owner_id=123/001.csv.gz
s3://playout-uat-exports/client-123/playout_202411171000/space_media_owner_id=234/001.csv.gz
s3://playout-uat-exports/client-123/playout_202411171000/space_media_owner_id=234/001.csv.gz
s3://playout-uat-exports/client-123/playout_202411171000/space_media_owner_id=234/001.csv.gz
```

SPACE Data

Data within Playout files will be cross-referenced with SPACE to ensure only existing live frames belonging to the correct Media Owner are being reported on. If a FrameID does not exist in

SPACE or is marked as out of charge (closed), but is present within a playout file, this row will <u>not</u> pass validation and be rejected. A frame does not have to be on Route.

Digital or classic frames will need to correspond with their SPACE classification.

It is essential to Playout that frames being transferred from one media owner to another are performed as accurately and timely as possible in SPACE, to ensure rows will not be rejected, and ultimately excluded, from Playout. This also applies to SPACE frame statuses regarding being open or closed (out of charge). Records must be maintained as close to real-time as possible.

Brands

Playout validates Brand IDs that are either pending or already exist in the SPACE dataset. Existing brands can be retrieved via the website <u>here</u> or via the GET client-brand API call. If a space_brand_id is referenced in playout files but does not exist in the SPACE dataset, this row will not pass validation and will be rejected.

If a brand is not provided at the point of trade and therefore cannot be validated against SPACE Brand ID, a placeholder ID can be used in playout files. If your company does not have one set up already, please submit this via the 'Add new' button <u>here</u>, using the following format:

Advertiser: [Company name as appears in Companies House]

Brand: 'Brand not provided at point of trade'.

Agencies

Playout validates Agencies that are either pending or already exist in the SPACE dataset. Existing Agencies can be retrieved via the website <u>here</u> or via the GET Agency API call. If a space_agency_id is referenced in playout files but does not exist in the SPACE dataset, this row will not pass validation and will be rejected.

To submit a new agency please do so either via the 'Add new' option in SPACE <u>here</u>, or via the POST Agency call via the API.

Usage dashboard

A dashboard where cloud processing AWS costs and usage are displayed is available on the 'Usage Dashboard' page within the Playout website.

Count of your rows in Playout month to date:	4,864,846	
Percentage split month to date:	4.3%	
Data downloaded month to date:	OGB	
Estimated cost this month:	\$0 / £0 Excluding VAT (Based on today's exchange rate of \$1 = £0.81 and the total AWS costs of Play	out to date this month)
		Download data
Month to date daily breakdown		^
Day		%age Share
01/01		4.3
Usage history		Download data
Monthly (Rolling year)		%age Share
December 2024		5.2
November 2024		4.0
October 2024		4.0
September 2024		3.2

The percentage share can be displayed as a current month total to date, a month-to-date daily breakdown, or a monthly breakdown for the current year. AWS charges are in USD. Due to exchange rate fluctuations, GBP figures with an asterisk are unconfirmed until the AWS monthly bill is received as they are based on the exchange rate on the day they were processed.

Cost Alerts

You can set and enable alerts to be notified when your specified percentage share thresholds have been exceeded via the Cost Alerts page. By enabling alerts, you will be notified daily via email if your share goes above the set value.



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Cost Alerts

Media Owner costs are split based on percentage share of rows in Playout per month.

Complete the details below to be alerted to increases in your Share %.

Enable alerts 🗌		
Share % alert		
0	96	
Email:		
Save Cancel		

Playout process overview



Support

Within the Support section of the <u>Playout website</u> you will find FAQ's, guides, and support updates. If you have any queries, please don't hesitate to contact the Playout helpdesk at 0207 420 3252 (opt. 5) or email us at <u>playout@uk.adwanted.com</u>.

Resources

Playout website - https://oohplayout.com

FAQs - https://oohplayout.com/faqs/

Exports and database schema - <u>https://oohplayout.com/wp-content/uploads/2024/11/Schema-combined.pdf</u>

Guides - https://oohplayout.com/guides/

Playout File Format (classic) - <u>https://github.com/Outsmart-</u> <u>OOH/PlayoutReportingStandard/blob/main/Playout/playout-classic-file-format.md</u>

Playout File Format (digital) - <u>https://github.com/Outsmart-</u> <u>OOH/PlayoutReportingStandard/blob/main/Playout/playout-digital-file-format.md</u>