

Avalon Ingest API

A lightweight API for indexing metadata and links to existing derivatives into Avalon.

Version	Date	Description
0.1	13 October 2015	Initial Draft
0.2	16 December 2015	API as implemented
0.3 (Avalon 7.0)	3 January 2020	Authorization scheme enhanced status_code, percent_complete, percent_succeeded, and percent_failed fields removed from Media Object parameters
0.4 (Avalon 7.1)	26 March 2020	MediaObject - add masterfile ids, derivative ids are actual ids instead of track ids now, structure can be inlined with query param Collection items are proper JSON instead of JSON strings

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Access Control

All API methods are protected by token authentication. A specified token is passed through http header '**Avalon-API-Key**'. A matching token must be configured in in Avalon's database. Creating and viewing tokens can be done via rake tasks. Every token is associated with an Avalon user. User sessions authenticated against an API token will assume the same authorization rights as the associated user. (NOTE: In pre-7.0 versions of Avalon, API token logins were granted admin user rights.)

```
$ rake avalon:token:generate username=archivist email=archivist1@example.com
37ebd7d86d406e925ba2da4315903440b2439f671dc58c2a36dc827e454d263fcdcf0bf8ad5cea7f5dce5516f2ffe63ee02defb6881b7b46
6a8600d321b0a01c

$ rake avalon:token:list
37ebd7d86d406e925ba2da4315903440b2439f671dc58c2a36dc827e454d263fcdcf0bf8ad5cea7f5dce5516f2ffe63ee02defb6881b7b46
6a8600d321b0a01c|archivist

$ rake avalon:token:revoke username=archivist
Token
`37ebd7d86d406e925ba2da4315903440b2439f671dc58c2a36dc827e454d263fcdcf0bf8ad5cea7f5dce5516f2ffe63ee02defb6881b7b4
66a8600d321b0a01c` (archivist) revoked.
```

Media Objects

GET /media_objects/:id.json

Retrieves a subset of the mods for the specified media object (parameter :include_structure specifies if structure should be included in response)

GET /media_objects.json

Retrieves a paged list of media_objects (parameters :page and :per_page specify page number and number per page for pagination)

POST /media_objects.json

Creates an media object

PUT /media_objects/:id.json

Updates an media object

Parameters for POST and PUTS:

collection_id: id of owning admin collection,

fields: mods converted to JSON hash. Required fields: title, date_issued

title (* required),
date_issued (* required),
creator (multiple),
alternative_title (multiple),
translated_title (multiple),
uniform_title (multiple),
statement_of_responsibility,
date_created,
copyright_date,
abstract,
note (multiple): requires note_type from controlled vocabulary to be present also,
format,
resource_type (multiple),
contributor (multiple),
publisher (multiple),
genre (multiple),
subject (multiple),
related_item_url (multiple): requires related_item_label to be present also,
geographic_subject (multiple),
temporal_subject (multiple),
topical_subject (multiple),
bibliographic_id,
language (multiple),
terms_of_use,
table_of_contents (multiple),
physical_description,
other_identifier (multiple): requires other_identifier_type from controlled vocabulary to be present also,
comment (multiple)

files: an array of masterfile hashes. Optional: label, structure, and captions.

label (optional),
id,
title,
file_location,
file_checksum,
file_size,
duration,
display_aspect_ratio,
original_frame_size,
file_format,
poster_offset,
thumbnail_offset,
date_digitized,
structure (optional): structure xml as a string,
captions(optional): captions text from vtt or srt file as a string,
captions_type (optional): required if captions are present,
other_identifier (multiple),
comment (multiple),
workflow_name,
date_digitized,
files: an array of derivative hashes

label,
id,
url,
hls_url,
duration,
mime_type,
audio_bitrate,
audio_codec,
video_bitrate,
video_codec,
width,
height

import_bib_record (optional boolean):

If true, fields must include value for :bibliographic_id and may include value from controlled vocabulary for :bibliographic_id_label)

Bib import failure will result in a JSON response: `{errors: ['Bib import failed', e.message]}`, `status: 422`

replace_masterfiles (optional boolean):

Relevant only if the media object already exists and it has masterfiles. If true, existing masterfiles will be replaced by those sent. If false, sent masterfiles will be appended to existing list.

publish (optional boolean):

If true, mediaobject will automatically enter a published state with avalon_publisher='REST API'

Example Requests

GET /media_objects/:id.json

```
curl -H 'Avalon-Api-Key:abcdef123456' https://mallorn.dlib.indiana.edu/media_objects/lg05fb83r
```

Example Response

```
{
  "id": "lg05fb83r",
  "title": "Test",
  "collection": "7.0 testing",
  "unit": "Default Unit",
  "main_contributors": [],
  "publication_date": null,
  "published_by": null,
  "published": false,
  "summary": null,
  "visibility": "private",
  "read_groups": [],
  "files": [
    {
      id: "1c18df984",
      "workflow_name": "avalon",
      "percent_complete": "100.0",
      "status_code": "COMPLETED",
      "structure": null,
      "label": "",
      "thumbnail_offset": 2000,
      "poster_offset": 2000,
      "physical_description": null,
      "file_location": "/srv/avalon/Archiver_spool/avalon/1c18df984-SampleVideo.mp4",
      "file_size": "1055736",
      "duration": "5312",
      "date_digitized": "2019-12-10T18:33:41Z",
      "file_checksum": null,
      "file_format": "Moving image",
      "other_identifier": [],
      "captions": null,
      "captions_type": null,
      "comment": [],
      "display_aspect_ratio": "1.7777777777777777",
      "original_frame_size": "1280x720",
      "width": 1280,
      "height": 720,
      "files": [
        {
          "label": "quality-medium",
          "id": "26d00aef-44b9-4306-a310-158b3e39a7c5",
          "url": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:ececa279-0217-45b4-92fb-daf49d552f33/outputs/SampleVideo-medium",
          "hls_url": "https://mallorn.dlib.indiana.edu:8980/avalon/ececa279-0217-45b4-92fb-daf49d552f33/outputs/SampleVideo-medium.mp4/index.m3u8",
          "duration": 5336,
          "mime_type": null,

```

```

        "audio_bitrate": 128078,
        "audio_codec": "mp4a-40-2",
        "video_bitrate": 1500000,
        "video_codec": "avc1",
        "width": "1280.0",
        "height": "720.0",
        "location": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:ececa279-0217-45b4-92fb-daf49d552f33
/outputs/SampleVideo-medium",
        "track_id": "12532-medium",
        "hls_track_id": null,
        "managed": false,
        "derivativeFile": "file:///srv/avalon/rtmp_streams/ececa279-0217-45b4-92fb-daf49d552f33/outputs
/SampleVideo-medium.mp4"
    },
    {
        "label": "quality-high",
        "id": "e87804de-916b-40f9-aa28-69b8ce6dbcb4",
        "url": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:ececa279-0217-45b4-92fb-daf49d552f33/outputs
/SampleVideo-high",
        "hls_url": "https://mallorn.dlib.indiana.edu:8980/avalon/ececa279-0217-45b4-92fb-daf49d552f33/outputs
/SampleVideo-high.mp4/index.m3u8",
        "duration": 5336,
        "mime_type": null,
        "audio_bitrate": 192000,
        "audio_codec": "mp4a-40-2",
        "video_bitrate": 3000000,
        "video_codec": "avc1",
        "width": "1280.0",
        "height": "720.0",
        "location": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:ececa279-0217-45b4-92fb-daf49d552f33
/outputs/SampleVideo-high",
        "track_id": "12532-high",
        "hls_track_id": null,
        "managed": false,
        "derivativeFile": "file:///srv/avalon/rtmp_streams/ececa279-0217-45b4-92fb-daf49d552f33/outputs
/SampleVideo-high.mp4"
    },
    {
        "label": "quality-low",
        "id": "6cc0e00a-eaf4-4fb7-9be6-64772a5b258a",
        "url": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:ececa279-0217-45b4-92fb-daf49d552f33/outputs
/SampleVideo-low",
        "hls_url": "https://mallorn.dlib.indiana.edu:8980/avalon/ececa279-0217-45b4-92fb-daf49d552f33/outputs
/SampleVideo-low.mp4/index.m3u8",
        "duration": 5336,
        "mime_type": null,
        "audio_bitrate": 128078,
        "audio_codec": "mp4a-40-2",
        "video_bitrate": 500000,
        "video_codec": "avc1",
        "width": "852.0",
        "height": "480.0",
        "location": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:ececa279-0217-45b4-92fb-daf49d552f33
/outputs/SampleVideo-low",
        "track_id": "12532-low",
        "hls_track_id": null,
        "managed": false,
        "derivativeFile": "file:///srv/avalon/rtmp_streams/ececa279-0217-45b4-92fb-daf49d552f33/outputs
/SampleVideo-low.mp4"
    }
}
],
"fields": {
    "duration": "5312",
    "avalon_resource_type": [
        "moving image"
    ],
    "avalon_publisher": null,
    "avalon_uploader": "archivist1@example.com",
    "identifier": [],

```

```

"title": "Lease Test",
"alternative_title": [],
"translated_title": [],
"uniform_title": [],
"statement_of_responsibility": null,
"creator": [],
"date_created": null,
"date_issued": "2020",
"copyright_date": null,
"abstract": null,
"format": [
  "video/mp4"
],
"resource_type": [],
"contributor": [],
"publisher": [],
"genre": [],
"subject": [],
"geographic_subject": [],
"temporal_subject": [],
"topical_subject": [],
"terms_of_use": null,
"table_of_contents": [],
"physical_description": [],
"record_identifier": [
  "http://127.0.0.1:8984/fedora4/rest/lg/05/fb/83/lg05fb83r"
],
"comment": [],
"bibliographic_id": null,
"bibliographic_id_label": null,
"note": null,
"note_type": null,
"language": null,
"related_item_url": null,
"related_item_label": null,
"other_identifier": null,
"other_identifier_type": null,
"rights_statement": null
}
}

```

GET /media_objects.json

```
curl -H "Avalon-API-Key:abcdef123456" "https://mallorn.dlib.indiana.edu/media_objects.json?per_page=1&page=3"
```

Example Response

```

[
  {
    "id": "vd66w000m",
    "title": "100_item_8",
    "collection": "Krishna_Ptest",
    "unit": "Indiana University Libraries",
    "main_contributors": [],
    "publication_date": null,
    "published_by": null,
    "published": false,
    "summary": null,
    "visibility": "private",
    "read_groups": [],
    "files": [
      {
        "workflow_name": "avalon-skip-transcoding",
        "percent_complete": null,
        "status_code": null,
        "structure": null,
        "label": "popeye",

```

```
"thumbnail_offset": 2000,
"poster_offset": 2000,
"physical_description": null,
"file_location": "/srv/avalon/dropbox/Krishna_Ptest/assets/Popeye_forPresident.mp4",
"file_size": "2352948",
"duration": "30101",
"date_digitized": "2018-10-02T19:18:35Z",
"file_checksum": null,
"file_format": "Moving image",
"other_identifier": [],
"captions": "WEBVTT\r\n\r\n1\r\n\r\n00:00:00.200 --> 00:00:02.000\r\n\r\nTitle frame 1-2 sec\r\n\r\n\r\n2\r\n\r\n00:00:
04.000 --> 00:00:05.000\r\n\r\n4 seconds\r\n\r\n\r\n3\r\n\r\n00:00:10.000 --> 00:00:11.000\r\n\r\n10 seconds\r\n\r\n\r\n4\r\n\r\n00:00:
16.000 --> 00:00:16.500\r\n\r\n16 seconds\r\n\r\n\r\n5\r\n\r\n00:00:27.000 --> 00:00:27.800\r\n\r\n27 seconds",
"captions_type": "text/vtt",
"comment": [],
"display_aspect_ratio": "1.3333333333333333",
"original_frame_size": "320x240",
"width": 320,
"height": 240,
"files": [
  {
    "label": "quality-high",
    "id": "track-3",
    "url": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:06e89f15-e16a-475b-af5f-8a119891e559
/c16082dd-5fc7-4b1b-b582-8fa71923e6f6/Popeye_forPresident",
    "hls_url": "https://mallorn.dlib.indiana.edu:8980/avalon/06e89f15-e16a-475b-af5f-8a119891e559
/c16082dd-5fc7-4b1b-b582-8fa71923e6f6/Popeye_forPresident.mp4/index.m3u8",
    "duration": "30102",
    "mime_type": "video/mp4",
    "audio_bitrate": "98902.0",
    "audio_codec": "AAC",
    "video_bitrate": "513984.0",
    "video_codec": "AVC",
    "width": "320",
    "height": "240",
    "location": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:06e89f15-e16a-475b-af5f-8a119891e559
/c16082dd-5fc7-4b1b-b582-8fa71923e6f6/Popeye_forPresident",
    "track_id": "track-3",
    "hls_track_id": "track-4",
    "managed": false,
    "derivativeFile": "file:///var/avalon/rtmp_streams/06e89f15-e16a-475b-af5f-8a119891e559/c16082dd-
5fc7-4b1b-b582-8fa71923e6f6/Popeye_forPresident.mp4"
  }
]
},
"fields": {
  "duration": "30101",
  "avalon_resource_type": [
    "moving image"
  ],
  "avalon_publisher": null,
  "avalon_uploader": "archivist1@example.com",
  "identifier": [],
  "title": "100_item_8",
  "alternative_title": [],
  "translated_title": [],
  "uniform_title": [],
  "statement_of_responsibility": null,
  "creator": [],
  "date_created": null,
  "date_issued": "2017",
  "copyright_date": null,
  "abstract": null,
  "format": [
    "video/mp4"
  ],
  "resource_type": [],
  "contributor": [],
  "publisher": [],
  "genre": [],

```

```

"subject": [],
"geographic_subject": [],
"temporal_subject": [],
"topical_subject": [],
"terms_of_use": null,
"table_of_contents": [],
"physical_description": [],
"record_identifier": [
  "http://127.0.0.1:8984/fedora4/rest/vd/66/w0/00/vd66w000m"
],
"comment": [],
"bibliographic_id": null,
"bibliographic_id_label": null,
"note": null,
"note_type": null,
"language": null,
"related_item_url": null,
"related_item_label": null,
"other_identifier": null,
"other_identifier_type": null,
"rights_statement": null
}
}
]

```

POST /media_objects.json

```

curl -H "Avalon-API-Key:abcdef123456" -X POST -d @data.json -H "Content-type:application/json" -H "Accept: application/json" https://mallorn.dlib.indiana.edu/media_objects.json

```

Example Request Data (data.json)

```

{
  "fields" : {
    "avalon_uploader" : "srsridh@iu.edu",
    "subject" : [],
    "format" : [
      "video/mp4"
    ],
    "title" : "100_item_8",
    "translated_title" : [],
    "publisher" : [],
    "note_type" : null,
    "alternative_title" : [],
    "duration" : "30101",
    "date_created" : null,
    "related_item_url" : null,
    "related_item_label" : null,
    "genre" : [],
    "contributor" : [],
    "bibliographic_id" : null,
    "uniform_title" : [],
    "topical_subject" : [],
    "note" : null,
    "comment" : [],
    "statement_of_responsibility" : null,
    "temporal_subject" : [],
    "rights_statement" : null,
    "language" : null,
    "date_issued" : "2017",
    "creator" : [],
    "other_identifier" : null,
    "geographic_subject" : [],
    "terms_of_use" : null,
    "abstract" : null,
    "avalon_resource_type" : [
      "moving image"
    ]
  }
}

```

```

    ],
    "record_identifier" : [
      "http://127.0.0.1:8984/fedora4/rest/61/08/vb/48/6108vb48x"
    ],
    "identifier" : [],
    "resource_type" : [],
    "bibliographic_id_label" : null,
    "copyright_date" : null,
    "physical_description" : [],
    "table_of_contents" : [],
    "other_identifier_type" : null,
    "avalon_publisher" : "srsridh@iu.edu"
  },
  "publish" : true,
  "collection_id" : "jh343s44s",
  "files" : [
    {
      "file_location" : "/srv/avalon/dropbox/Performance_Testing_100/assets/Popeye_forPresident.mp4",
      "duration" : "30101",
      "files" : [
        {
          "derivativeFile" : "file:///var/avalon/rtmp_streams/3c5ee8d6-dc51-4112-8f60-f4cc36abab5c/5136f7be-1637-4ebf-be5e-35c79df16dac/Popeye_forPresident.mp4",
          "managed" : false,
          "video_bitrate" : "513984.0",
          "duration" : "30102",
          "audio_codec" : "AAC",
          "url" : "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:3c5ee8d6-dc51-4112-8f60-f4cc36abab5c/5136f7be-1637-4ebf-be5e-35c79df16dac/Popeye_forPresident",
          "track_id" : "track-3",
          "id" : "track-3",
          "video_codec" : "AVC",
          "hls_url" : "https://mallorn.dlib.indiana.edu:8980/avalon/3c5ee8d6-dc51-4112-8f60-f4cc36abab5c/5136f7be-1637-4ebf-be5e-35c79df16dac/Popeye_forPresident.mp4/index.m3u8",
          "width" : "320",
          "label" : "quality-high",
          "hls_track_id" : "track-4",
          "location" : "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:3c5ee8d6-dc51-4112-8f60-f4cc36abab5c/5136f7be-1637-4ebf-be5e-35c79df16dac/Popeye_forPresident",
          "height" : "240",
          "mime_type" : "video/mp4",
          "audio_bitrate" : "98902.0"
        }
      ]
    }
  ],
  "captions" : "WEBVTT\r\n\r\n1\r\n00:00:00.200 --> 00:00:02.000\r\nTitle frame 1-2 sec\r\n\r\n2\r\n00:00:04.000 --> 00:00:05.000\r\n4 seconds\r\n\r\n3\r\n00:00:10.000 --> 00:00:11.000\r\n10 seconds\r\n\r\n4\r\n00:00:16.000 --> 00:00:16.500\r\n16 seconds\r\n\r\n5\r\n00:00:27.000 --> 00:00:27.800\r\n27 seconds",
  "other_identifier" : [],
  "file_checksum" : null,
  "workflow_name" : "avalon-skip-transcoding",
  "structure" : null,
  "physical_description" : null,
  "file_size" : "2352948",
  "poster_offset" : 2000,
  "display_aspect_ratio" : "1.3333333333333333",
  "height" : 240,
  "comment" : [],
  "thumbnail_offset" : 2000,
  "original_frame_size" : "320x240",
  "date_digitized" : "2018-10-15T18:57:39Z",
  "width" : 320,
  "captions_type" : "text/vtt",
  "file_format" : "Moving image",
  "label" : "popeye"
}
]
}

```


Example Response

```
{"id":"f4752h024"}
```

PUT /media_objects/id.json

```
curl -H "Avalon-API-Key:abcdef123456" -X PUT -d @data.json -H "Content-type:application/json" -H "Accept:application/json" https://mallorn.dlib.indiana.edu/media_objects/f4752h024.json
```

Example Request Data (data.json)

```
{
  "publish" : true,
  "collection_id" : "jh343s44s",
  "fields" : {
    "physical_description" : [],
    "related_item_label" : null,
    "creator" : [],
    "avalon_uploader" : "srsridh@iu.edu",
    "terms_of_use" : null,
    "copyright_date" : null,
    "date_issued" : "2017",
    "note_type" : null,
    "other_identifier" : null,
    "alternative_title" : [],
    "bibliographic_id" : null,
    "date_created" : null,
    "comment" : [],
    "avalon_publisher" : "srsridh@iu.edu",
    "rights_statement" : null,
    "uniform_title" : [],
    "bibliographic_id_label" : null,
    "geographic_subject" : [],
    "translated_title" : [],
    "abstract" : null,
    "note" : null,
    "duration" : "30101",
    "title" : "Ingest API Test",
    "topical_subject" : [],
    "genre" : [],
    "contributor" : [],
    "statement_of_responsibility" : null,
    "publisher" : [],
    "table_of_contents" : [],
    "language" : null,
    "avalon_resource_type" : [
      "moving image"
    ],
    "temporal_subject" : [],
    "record_identifier" : [
      "http://127.0.0.1:8984/fedora4/rest/61/08/vb/48/6108vb48x"
    ],
    "related_item_url" : null,
    "subject" : [],
    "other_identifier_type" : null,
    "resource_type" : [],
    "identifier" : [],
    "format" : [
      "video/mp4"
    ]
  },
  "files" : [
    {
      "width" : 320,
      "thumbnail_offset" : 2000,

```

```

"file_format" : "Moving image",
"file_checksum" : null,
"file_size" : "2352948",
"poster_offset" : 2000,
"date_digitized" : "2018-10-15T18:57:39Z",
"structure" : null,
"workflow_name" : "avalon-skip-transcoding",
"comment" : [],
"other_identifier" : [],
"display_aspect_ratio" : "1.3333333333333333",
"captions" : "WEBVTT\r\n\r\n1\r\n\r\n00:00:00.200 --> 00:00:02.000\r\nTitle frame 1-2 sec\r\n\r\n2\r\n\r\n00:00:04.000 --> 00:00:05.000\r\n4 seconds\r\n\r\n3\r\n\r\n00:00:10.000 --> 00:00:11.000\r\n10 seconds\r\n\r\n4\r\n\r\n00:00:16.000 --> 00:00:16.500\r\n16 seconds\r\n\r\n5\r\n\r\n00:00:27.000 --> 00:00:27.800\r\n27 seconds",
"file_location" : "/srv/avalon/dropbox/Performance_Testing_100/assets/Popeye_forPresident.mp4",
"original_frame_size" : "320x240",
"duration" : "30101",
"physical_description" : null,
"height" : 240,
"files" : [
  {
    "mime_type" : "video/mp4",
    "hls_track_id" : "track-4",
    "duration" : "30102",
    "video_bitrate" : "513984.0",
    "audio_codec" : "AAC",
    "managed" : false,
    "height" : "240",
    "track_id" : "track-3",
    "derivativeFile" : "file:///var/avalon/rtmp_streams/3c5ee8d6-dc51-4112-8f60-f4cc36abab5c/5136f7be-1637-4ebf-be5e-35c79df16dac/Popeye_forPresident.mp4",
    "location" : "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:3c5ee8d6-dc51-4112-8f60-f4cc36abab5c/5136f7be-1637-4ebf-be5e-35c79df16dac/Popeye_forPresident",
    "label" : "quality-high",
    "width" : "320",
    "audio_bitrate" : "98902.0",
    "hls_url" : "https://mallorn.dlib.indiana.edu:8980/avalon/3c5ee8d6-dc51-4112-8f60-f4cc36abab5c/5136f7be-1637-4ebf-be5e-35c79df16dac/Popeye_forPresident.mp4/index.m3u8",
    "video_codec" : "AVC",
    "url" : "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:3c5ee8d6-dc51-4112-8f60-f4cc36abab5c/5136f7be-1637-4ebf-be5e-35c79df16dac/Popeye_forPresident",
    "id" : "track-3"
  }
],
"captions_type" : "text/vtt",
"label" : "popeye"
}
],
"replace_masterfiles" : true
}

```

Example Response

```
{ "id": "f4752h024" }
```

Admin Collection

GET /admin/collections.json

Retrieves a paginated list of all collections (parameters :page and :per_page specify page number and number per page for pagination)

GET /admin/collections/:id.json

Retrieves information on the specified collection

GET /admin/collections/:id/items.json

Retrieves a paginated list of all items in the specified collection (parameters :page and :per_page specify page number and number per page for pagination)

POST /admin/collections.json

Creates a collection

PUT /admin/collections/:id.json

Updates a collection

Parameters for POST and PUT:

admin_collection:

name: collection name,
description (optional): collection description,
unit: collection unit from controlled vocabulary,
managers: array of Avalon user ids or emails

GET /admin/collections.json

```
curl -H "Avalon-API-Key:abcdef123456" "https://mallorn.dlib.indiana.edu/admin/collections.json?  
per_page=2&page=3"
```

Example Response

```
[
  {
    "id": "1r66j1149",
    "name": "100 sec test",
    "unit": "Indiana University Libraries",
    "description": null,
    "object_count": {
      "total": 0,
      "published": 0,
      "unpublished": 0
    },
    "roles": {
      "managers": [
        "archivist1@example.com",
        "saidulla@iu.edu",
        "manager-cjc@example.com"
      ],
      "editors": [],
      "depositors": [
        "cjc@iu.edu"
      ]
    }
  },
  {
    "id": "d791sg31t",
    "name": "2882 mallorn",
    "unit": "Indiana University Libraries",
    "description": null,
    "object_count": {
      "total": 5,
      "published": 0,
      "unpublished": 5
    },
    "roles": {
      "managers": [
        "saidulla@iu.edu"
      ],
      "editors": [
        "editor@example.com"
      ],
      "depositors": null
    }
  }
]
```

GET /admin/collections/:id.json

```
curl -H "Avalon-API-Key:abcdef123456" https://mallorn.dlib.indiana.edu/admin/collections/d791sg31t.json
```

Example Response

```
{
  "id": "d791sg31t",
  "name": "2882 mallorn",
  "unit": "Indiana University Libraries",
  "description": "",
  "object_count": {
    "total": 5,
    "published": 0,
    "unpublished": 5
  },
  "roles": {
    "managers": [
      "saidulla@iu.edu"
    ],
    "editors": [
      "editor@example.com"
    ],
    "depositors": []
  }
}
```

GET /admin/collections/id/items.json

```
curl -H "Avalon-API-Key:abcdef123456" "https://mallorn.dlib.indiana.edu/admin/collections/d791sg31t/items.json?per_page=2&page=2"
```

Example Response

```
{
  "mk61rh07c": {
    "id": "mk61rh07c",
    "title": "elec1 2882 bug",
    "collection": "2882 mallorn",
    "unit": "Indiana University Libraries",
    "main_contributors": [],
    "publication_date": null,
    "published_by": null,
    "published": false,
    "summary": null,
    "visibility": "private",
    "read_groups": [],
    "files": [
      {
        "id": "tq57nr13n",
        "workflow_name": "avalon",
        "percent_complete": null,
        "status_code": null,
        "structure": null,
        "label": "",
        "thumbnail_offset": 2000,
        "poster_offset": 2000,
        "physical_description": null,
        "file_location": "/tmp/electricbeat-1.mp4",
        "file_size": "337659",
        "duration": "5334",
        "date_digitized": "2018-03-29T17:59:15Z",
        "file_checksum": "94000912e0c10c6c668f13dfb0a70072",
        "file_format": "Moving image",
        "other_identifier": [],
        "captions": "WEBVTT\r\n\r\n1\r\n\r\n00:00:00.200 --> 00:00:02.000\r\n\r\nTitle frame 1-2 sec\r\n\r\n2\r\n\r\n00:00:04.000 --> 00:00:05.000\r\n\r\n4 seconds",
        "captions_type": "text/vtt",
        "comment": []
      }
    ]
  }
}
```

```
"display_aspect_ratio": "1.3333333333333333",
"original_frame_size": "320x240",
"width": 320,
"height": 240,
"files": [
  {
    "label": "quality-high",
    "id": "0b5272fe-b498-47d5-b75f-6c258894296d",
    "url": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:c9eb28f9-4ef3-4040-9478-1633bfa58b74/e3037981-dd6f-4663-b8b0-adblc2dc54e2/electricbeat_1",
    "hls_url": "https://mallorn.dlib.indiana.edu:8980/avalon/c9eb28f9-4ef3-4040-9478-1633bfa58b74/e3037981-dd6f-4663-b8b0-adblc2dc54e2/electricbeat_1.mp4.m3u8",
    "duration": "5334",
    "mime_type": "video/mp4",
    "audio_bitrate": null,
    "audio_codec": null,
    "video_bitrate": "2000000.0",
    "video_codec": "AVC",
    "width": "960",
    "height": "720",
    "location": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:c9eb28f9-4ef3-4040-9478-1633bfa58b74/e3037981-dd6f-4663-b8b0-adblc2dc54e2/electricbeat_1",
    "track_id": "track-8",
    "hls_track_id": "track-11",
    "managed": false,
    "derivativeFile": "file:///var/avalon/rtmp_streams/c9eb28f9-4ef3-4040-9478-1633bfa58b74/e3037981-dd6f-4663-b8b0-adblc2dc54e2/electricbeat_1.mp4"
  },
  {
    "label": "quality-medium",
    "id": "11a94a20-335d-459a-a3d2-042226bc83d4",
    "url": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:c9eb28f9-4ef3-4040-9478-1633bfa58b74/826b8471-6125-4c88-b332-1026fa27b6aa/electricbeat_1",
    "hls_url": "https://mallorn.dlib.indiana.edu:8980/avalon/c9eb28f9-4ef3-4040-9478-1633bfa58b74/826b8471-6125-4c88-b332-1026fa27b6aa/electricbeat_1.mp4/index.m3u8",
    "duration": "5334",
    "mime_type": "video/mp4",
    "audio_bitrate": null,
    "audio_codec": null,
    "video_bitrate": "1064690.0",
    "video_codec": "AVC",
    "width": "640",
    "height": "480",
    "location": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:c9eb28f9-4ef3-4040-9478-1633bfa58b74/826b8471-6125-4c88-b332-1026fa27b6aa/electricbeat_1",
    "track_id": "track-7",
    "hls_track_id": "track-10",
    "managed": false,
    "derivativeFile": "file:///var/avalon/rtmp_streams/c9eb28f9-4ef3-4040-9478-1633bfa58b74/826b8471-6125-4c88-b332-1026fa27b6aa/electricbeat_1.mp4"
  },
  {
    "label": "quality-low",
    "id": "7c71553f-8b0d-45ae-a2de-14768f3baeec",
    "url": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:c9eb28f9-4ef3-4040-9478-1633bfa58b74/10cd97b9-6d32-4196-9e9a-83250308b170/electricbeat_1",
    "hls_url": "https://mallorn.dlib.indiana.edu:8980/avalon/c9eb28f9-4ef3-4040-9478-1633bfa58b74/10cd97b9-6d32-4196-9e9a-83250308b170/electricbeat_1.mp4/index.m3u8",
    "duration": "5334",
    "mime_type": "video/mp4",
    "audio_bitrate": null,
    "audio_codec": null,
    "video_bitrate": "530724.0",
    "video_codec": "AVC",
    "width": "480",
    "height": "360",
    "location": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:c9eb28f9-4ef3-4040-9478-1633bfa58b74/10cd97b9-6d32-4196-9e9a-83250308b170/electricbeat_1",
    "track_id": "track-9",
    "hls_track_id": "track-12",
    "managed": false,
  }
]
```

```

        "derivativeFile": "file:///var/avalon/rtmp_streams/c9eb28f9-4ef3-4040-9478-1633bfa58b74/10cd97b9-
6d32-4196-9e9a-83250308b170/electricbeat_1.mp4"
    }
  ]
}
],
"fields": {
  "duration": "5334",
  "avalon_resource_type": [
    "moving image"
  ],
  "avalon_publisher": null,
  "avalon_uploader": "saidulla@iu.edu",
  "identifier": [],
  "title": "elec1 2882 bug",
  "alternative_title": [],
  "translated_title": [],
  "uniform_title": [],
  "statement_of_responsibility": null,
  "creator": [],
  "date_created": null,
  "date_issued": "1111",
  "copyright_date": null,
  "abstract": null,
  "format": [
    "video/mp4"
  ],
  "resource_type": [],
  "contributor": [],
  "publisher": [],
  "genre": [],
  "subject": [],
  "geographic_subject": [],
  "temporal_subject": [],
  "topical_subject": [],
  "terms_of_use": null,
  "table_of_contents": [],
  "physical_description": [],
  "record_identifier": [
    "http://127.0.0.1:8984/fedora4/rest/mk/61/rh/07/mk61rh07c"
  ],
  "comment": [],
  "bibliographic_id": null,
  "bibliographic_id_label": null,
  "note": null,
  "note_type": null,
  "language": null,
  "related_item_url": null,
  "related_item_label": null,
  "other_identifier": null,
  "other_identifier_type": null,
  "rights_statement": null
}
},
"sx61dm430": {
  "id": "sx61dm430",
  "title": "Luna r642",
  "collection": "2882 mallorn",
  "unit": "Indiana University Libraries",
  "main_contributors": [],
  "publication_date": null,
  "published_by": null,
  "published": false,
  "summary": null,
  "visibility": "private",
  "read_groups": [],
  "files": [
    {
      "id": "5138jd99j",
      "workflow_name": "fullaudio",
      "percent_complete": null,

```

```
"status_code": null,
"structure": null,
"label": "",
"thumbnail_offset": 0,
"poster_offset": 0,
"physical_description": null,
"file_location": "/tmp/Caruso-LunaDestate.mp3",
"file_size": "2165531",
"duration": "135209",
"date_digitized": "2018-04-18T15:09:20Z",
"file_checksum": "df20cc5ee6ec04ed63b0d8497e41fbd0",
"file_format": "Sound",
"other_identifier": [],
"captions": null,
"captions_type": null,
"comment": [],
"display_aspect_ratio": null,
"original_frame_size": null,
"width": null,
"height": null,
"files": [
  {
    "label": "quality-medium",
    "id": "adad926d-3cb2-4547-9159-02dd6c85d014",
    "url": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:d7ffad5f-9c41-4106-94af-99abf055d5d5
/9ff00ea7-2652-4087-a630-dc48638d861f/Caruso_LunaDestate",
    "hls_url": "https://mallorn.dlib.indiana.edu:8980/avalon/d7ffad5f-9c41-4106-94af-99abf055d5d5
/9ff00ea7-2652-4087-a630-dc48638d861f/Caruso_LunaDestate.mp4.m3u8",
    "duration": "135207",
    "mime_type": "audio/mp4",
    "audio_bitrate": "124204.0",
    "audio_codec": "AAC",
    "video_bitrate": null,
    "video_codec": null,
    "width": null,
    "height": null,
    "location": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:d7ffad5f-9c41-4106-94af-99abf055d5d5
/9ff00ea7-2652-4087-a630-dc48638d861f/Caruso_LunaDestate",
    "track_id": "track-7",
    "hls_track_id": "track-9",
    "managed": false,
    "derivativeFile": "file:///var/avalon/rtmp_streams/d7ffad5f-9c41-4106-94af-99abf055d5d5/9ff00ea7-
2652-4087-a630-dc48638d861f/Caruso_LunaDestate.mp4"
  },
  {
    "label": "quality-high",
    "id": "86452f55-b9d5-4045-a9a9-25a6e6438936",
    "url": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:d7ffad5f-9c41-4106-94af-99abf055d5d5
/cd18dlca-870d-48fa-a395-c576efbf4bab/Caruso_LunaDestate",
    "hls_url": "https://mallorn.dlib.indiana.edu:8980/avalon/d7ffad5f-9c41-4106-94af-99abf055d5d5
/cd18dlca-870d-48fa-a395-c576efbf4bab/Caruso_LunaDestate.mp4/index.m3u8",
    "duration": "135207",
    "mime_type": "audio/mp4",
    "audio_bitrate": "147344.0",
    "audio_codec": "AAC",
    "video_bitrate": null,
    "video_codec": null,
    "width": null,
    "height": null,
    "location": "rtmp://mallorn.dlib.indiana.edu:1935/avalon/mp4:d7ffad5f-9c41-4106-94af-99abf055d5d5
/cd18dlca-870d-48fa-a395-c576efbf4bab/Caruso_LunaDestate",
    "track_id": "track-6",
    "hls_track_id": "track-8",
    "managed": false,
    "derivativeFile": "file:///var/avalon/rtmp_streams/d7ffad5f-9c41-4106-94af-99abf055d5d5/cd18dlca-
870d-48fa-a395-c576efbf4bab/Caruso_LunaDestate.mp4"
  }
]
},
"fields": {
```



```

"duration": "135209",
"avalon_resource_type": [
  "sound recording"
],
"avalon_publisher": null,
"avalon_uploader": "saidulla@iu.edu",
"identifier": [],
"title": "Luna r642",
"alternative_title": [],
"translated_title": [],
"uniform_title": [],
"statement_of_responsibility": null,
"creator": [],
"date_created": null,
"date_issued": "1212",
"copyright_date": null,
"abstract": null,
"format": [
  "audio/mpeg"
],
"resource_type": [],
"contributor": [],
"publisher": [],
"genre": [],
"subject": [],
"geographic_subject": [],
"temporal_subject": [],
"topical_subject": [],
"terms_of_use": null,
"table_of_contents": [],
"physical_description": [],
"record_identifier": [
  "http://127.0.0.1:8984/fedora4/rest/sx/61/dm/43/sx61dm430"
],
"comment": [],
"bibliographic_id": null,
"bibliographic_id_label": null,
"note": null,
"note_type": null,
"language": null,
"related_item_url": null,
"related_item_label": null,
"other_identifier": null,
"other_identifier_type": null,
"rights_statement": null
}
}
}

```

POST /admin/collections.json

```

curl -H "Avalon-API-Key:abcdef123456" -X POST -d @data.json -H "Content-type:application/json" -H "Accept:
application/json" https://mallorn.dlib.indiana.edu/admin/collections.json

```

Example Request Data (data.json)

```
{
  "admin_collection" : {
    "unit" : "Indiana University Libraries",
    "managers" : [
      "archivist1@example.com"
    ],
    "description" : "This great new collection has all new content from the IU Libraries.",
    "name" : "New Collection"
  }
}
```

Example Response

```
{"id":"ht24wj605"}
```

PUT /admin/collections/:id.json

```
curl -H "Avalon-API-Key:abcdef123456" -X PUT -d @data.json -H "Content-type:application/json" -H "Accept:application/json" https://mallorn.dlib.indiana.edu/admin/collections/ht24wj605.json
```

Example Request Data (data.json)

```
{
  "admin_collection" : {
    "unit" : "Indiana University Libraries",
    "managers" : [
      "archivist1@example.com"
    ],
    "description" : "This great collection has all mostly new content from the IU Libraries.",
    "name" : "Not Quite So New Collection"
  }
}
```

Example Response

```
{"id":"ht24wj605"}
```

Units

In Avalon, units are part of a controlled vocabulary. To add a new unit, a call to the vocabulary is required.

GET /vocabulary.json

Retrieves a hash of avalon controlled vocabularies, { units: ['Default Unit' , ...], ... }

GET /vocabulary/:vocab.json

Retrieves values contained in specified controlled vocabulary

POST /vocabulary/:vocab.json

Updates specified vocab by adding the value contained in the :entry parameter

GET /vocabulary.json

```
curl -H "Avalon-API-Key:abcdef123456" https://mallorn.dlib.indiana.edu/vocabulary.json
```

Example Response

```
{
  "units": [
    "Indiana University Libraries",
    "Default Unit"
  ],
  "identifier_types": {
    "local": "Catalog Key",
    "oclc": "OCLC",
    "lccn": "LCCN",
    "issue number": "Issue Number",
    "matrix number": "Matrix Number",
    "music publisher": "Music Publisher/Label",
    "videorecording identifier": "Videorecording Identifier",
    "other": "Other"
  },
  "note_types": {
    "general": "General Note",
    "awards": "Awards",
    "biographical/historical": "Bibliographical/Historical Note",
    "creation/production credits": "Creation/Production Credits",
    "language": "Language Note",
    "local": "Local Note",
    "performers": "Performers",
    "statement of responsibility": "Statement of Responsibility",
    "venue": "Venue/Event Date"
  },
  "rights_statements": {
    "http://rightsstatements.org/vocab/InC/1.0/": "In Copyright",
    "http://rightsstatements.org/vocab/InC-OW-EU/1.0/": "In Copyright - EU Orphan Work",
    "http://rightsstatements.org/vocab/InC-EDU/1.0/": "In Copyright - Educational Use Permitted",
    "http://rightsstatements.org/vocab/InC-NC/1.0/": "In Copyright - Non-Commercial Use Permitted",
    "http://rightsstatements.org/vocab/InC-RUU/1.0/": "In Copyright - Rights-Holders Unlocatable or Unidentifiable",
    "http://rightsstatements.org/vocab/NoC-CR/1.0/": "No Copyright - Contractual Restrictions",
    "http://rightsstatements.org/vocab/NoC-NC/1.0/": "No Copyright - Non-Commercial Use Only",
    "http://rightsstatements.org/vocab/NoC-OKLR/1.0/": "No Copyright - Other Known Restrictions",
    "http://rightsstatements.org/vocab/NoC-US/1.0/": "No Copyright - United States",
    "http://rightsstatements.org/vocab/CNE/1.0/": "Copyright Not Evaluated",
    "http://rightsstatements.org/vocab/UND/1.0/": "Copyright Undetermined",
    "http://rightsstatements.org/vocab/NKC/1.0/": "No Known Copyright"
  }
}
```

GET /vocabulary/vocab.json

```
curl -H "Avalon-API-Key:abcdef123456" https://mallorn.dlib.indiana.edu/vocabulary/units.json
```

Example Response

```
[
  "Indiana University Libraries",
  "Default Unit"
]
```

POST /vocabulary/vocab.json

```
curl -H "Avalon-API-Key:abcdef123456" -X POST -d @data.json -H "Content-type:application/json" -H "Accept:application/json" https://mallorn.dlib.indiana.edu/vocabulary/units.json
```

Example Request Data (data.json)

```
{  
  "entry": "IU Art Museum"  
}
```

Example Response

```
// Empty response
```

Response Codes

Code	Description
200	Okay. For GET, the relevant JSON will be contained in response body. For PUTS and POST response body will contain id of created/updated item.
201	<Not used> Created
202	<Not used> Accepted, Queued
400	Bad request
401	Auth Failure. No token present in request header 'Avalon-API-Key'
403	Forbidden. Invalid token in request header 'Avalon-API-Key'
404	Resource Not Found. If object is not found for requested id.
405	<Not used> Method Prohibited
409	<Not used> Conflict/Other Error. Conflict ex: id in use
422	Processing failed. Response body will contain JSON hash with :errors key pointing to a list of error message strings.