



EIDR 2.6 API PROXY

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1 INTRODUCTION

The EIDR system provides various services as summarized in the *EIDR Registry Technical Overview* using a REST-based interface in combination with HTTP 1.1 (see RFC 2616). In addition, EIDR uses an Enhanced API Proxy to provide additional services without impacting the primary API interface (and therefore without impacting existing API integrations).

NOTE: Public services do not necessarily mean open access. ID resolution is not generally restricted, while more advanced features, such as query, are.

1.1 API PROXY SERVICES

The API Proxy allows certain functions not supported directly by the XML-native EIDR API, including:

- New resolution formats: JSON, TSV
 - Empty column filtering (in TSV format)
- Bulk resolution (multiple identifiers at once)
- Improved queries
 - Basic record sorting
 - Pass-through EIDR XPath queries
 - JSON queries

NOTE: The API Proxy only supports read transactions. All write and match transactions must pass through the standard EIDR API.

1.1.1 RETURN TYPE AND FORMAT

The API Proxy supports these EIDR resolution types for all EIDR registries, passed as a type=TYPE parameter:

- **Full** – The full EIDR metadata record
- **DOIKernel** – The full EIDR record cast as a DOI Kernel record

It supports these additional resolution types for the Content ID registry only:

- **SelfDefined** – Metadata unique to the record (excludes inherited values)
- **Simple** – A record summary, suitable for compact lists
- **Provenance** – Basic administrative data regarding the record, limited by the user's credentials
- **AlternateIDs** – A list of all of the Alternate Identifies associated with an EIDR record.
- **LinkedAlternateIDs** – A list of all of the Alternate Identifies associated with an EIDR record and the URLs to resolve those third-party identifiers that are publicly resolvable.

NOTE: If no type is specified, then Full is returned.

The data may be returned in three different data formats, which may be specified in the Header as a MIME type or passed as a format=FORMAT parameter:

- **json**
- **tsv** (tab-separated values: a.k.a., flat file)

- **x-bibliography** (academic citation which can be in text, json, or html format)¹

NOTE: If no format is specified, then JSON is returned.

It is also possible to convert EIDR-compliant JSON directly into the EIDR TSV (tab-separated value) format using the **JSONtoTSV** function.

If you require XML-formatted data, then you should use:

- The DOI Proxy for XML-based ID resolution (although the API Proxy will redirect simple XML resolution requests to the DOI Proxy)
- The EIDR Mirror Registry for XML-based ID resolution and queries
- The EIDR Primary Registry for XML-based match and write operations (create and modify)
- The EIDR Web UI's "View XML" option to review XML-based submission and return values

NOTE: Both type and format are case-insensitive, but by convention are presented in all lowercase.

1.1.2 ID RESOLUTION

This service allows anyone to resolve an EIDR ID to its metadata and related information. It supports these EIDR registries:

- **Content ID** – DOI Prefix 10.5240
- **Video Services ID** – DOI Prefix 10.5239
- **Party ID** – DOI Prefix 10.5237

NOTE: Any XML format ID resolution requests submitted to the API Proxy are automatically forwarded to the DOI Proxy for resolution.

1.1.1 QUERY SERVICE

This service allows authenticated users to submit a query on registered metadata records and get a response. The response is a list of records that match the requested criteria. Queries may be submitted in one of two formats:

- Standard EIDR XPath query
- JSON query

Query supports two additional parameters, sort=SORT-FIELD and order=DIRECTION.

The sort parameter can be one of the following sort keys:

- **title** – ResourceName

¹ Suitable for use in footnotes and bibliographies. Valid only for EIDR Content IDs, where resolution type is forced to "full."

- **date** – ReleaseDate
- **length** – ApproximateLength
- **coo** – CountryOfOrigin
- **struct** – StructuralType
- **reftype** – ReferentType
- **lang** – OriginalLanguage

The sort parameter can be one of the following:

- **asc** – Sort in ascending order
- **desc** – Sort in descending order

Sorting is done as sensibly as possible:

- **title**, **struct**, and **reftype** are sorted alphabetically
- **date** is sorted in date order.
- **length** is converted to seconds and sorted numerically.
- **coo** and **lang** are both arrays. The relevant parts of the items in the array (the countries for **coo** and the language without mode or type for **lang**) are extracted, sorted alphabetically, and concatenated to produce a value for comparison. For example, CountryOfOrigin:["IE", "GB"] is compared as "GB, IE" and an OriginalLanguage element containing hi (Hindi) and en (English) is compared as "en, hi", ignoring the mode and type attributes.

API Proxy queries also support the standard EIDR pageNumber and pageSize parameters. See **EIDR 2.6 REST API Reference**. If these are specified, then the query results will be sorted within each page, but the individual page contents will be as supplied by the registry.

2 HTTP AND REST API ELEMENTS

This section discusses the API of the various services offered by the EIDR API Proxy, accessible only through the HTTPS protocol.

NOTE: HTTP will not be redirected automatically to HTTPS. You must use the HTTPS protocol directly.

2.1 COMMON HTTP HEADERS

As is the case with all REST implementations using HTTP, requests and responses vary in the HTTP method used for requests, HTTP headers, and the actual data transmitted between the server and the clients. The following sub-sections summarize the headers used for all the EIDR API Proxy requests and responses.

2.1.1 HTTP REQUEST HEADERS

The EIDR API Proxy uses the following HTTP request headers for all service requests.

Header Name	Required	Description
-------------	----------	-------------

Accept	Optional	<p>The MIME type of the accepted response. Defaults to “application/json”. The allowed values are:</p> <ul style="list-style-type: none"> • application/json • text/tab-separated-values • application/vnd.eidr.*² • text/xml³ • text/x-bibliography⁴ <p>Overridden by any type or format HTTP query parameters.</p>
Authorization	Conditional. Required only for Query.	The required authentication and authorization credentials. See the “Authentication and Authorization” section below.
Content-Type	Required for the POST method	<p>Different POST APIs use different Content-Type headers</p> <ul style="list-style-type: none"> • resolve/POST: application/json • query: text/xml for XPath (pass-through) queries • query: application/json for JSON queries

Table 1: HTTP Request Headers

NOTE: EIDR ignores any other request headers if specified in a request.

2.1.2 AUTHENTICATION AND AUTHORIZATION

The EIDR API Proxy uses the standard HTTP Authorization header to pass both the authentication and authorization credentials. The EIDR API Proxy uses a proprietary authentication scheme (“Eidr”) that extends standard HTTP Basic authentication to incorporate both an EIDR User and an EIDR Party into the credentials, as detailed in *EIDR 2.6 REST API Reference*.

A pseudo-grammar of the HTTP Authorization request header is shown below:

```
Authorization = "Eidr" + " " + UserID + ":" + PartyID + ":" + PasswordShadow;
PasswordShadow = Base64 (MD5 (Password));
```

NOTE: The “Eidr” authentication scheme token is case-insensitive.

NOTE: As required in Base64 encoding, the resulting string must include padding out to a multiple of 4 characters by appending “=” characters. In the case of a 128-bit MD5 hash, the base64 encoding results in a 24-character string ending in “==”. Some APIs, such as Perl’s md5_base64() function, leave the addition of padding to the caller. Also note that the base64 encoding of the MD5 hash is of the binary string, not of the hexadecimal text string.

² See *EIDR Proxy Services*.

³ Redirecting to the DOI Proxy for resolution.

⁴ The DOI Citation Formatter uses a special accept header and then applies its own Style, Locale, and Citation Format: “Accept: application/vnd.citationstyles.csl+json”.

2.1.3 ESCAPED CHARACTERS

JSON requires that certain characters be escaped when you wish to represent the literal character without having it be interpreted as JSON code.

Character glyph (name)	JSON Escape
(backspace)	\b
(form feed)	\f
(newline)	\n
(carriage return)	\r
(tab)	\t
" (double quote)	\"
\ (backslash)	\\

Table 2: JSON character escaping

The EIDR API Proxy passes requests on to the standard EIDR API, which is XML-based, so certain characters commonly used in the XML elements need to be escaped when they appear in metadata or a query string that will be sent on to the standard EIDR API, as noted in the table below.

Character glyph (name)	XML Escape
" (double quote)	"
' (apostrophe, back quote)	'
< (less than)	<
> (greater than)	>
& (ampersand)	&

Table 3: XML character escaping

NOTE: The double quote (") is reserved in both JSON and XML and requires a different escape character depending on context. If the character appears within a string that will be interpreted as JSON by the API Proxy, use the JSON escape. If it appears in a string that will be passed on to the EIDR registry, then use the XML escape. If in doubt, defer to XML.

2.1.4 ERROR CODES AND DESCRIPTIONS

HTTP Code	Notes
200	Response from the EIDR registry. If there is an error, it will be in the response body. See <i>EIDR 2.6 REST API Reference</i> .
302	XML resolution request redirected to the DOI proxy.
400	<ul style="list-style-type: none"> • Unsupported content type: Type • XML Redirect not supported (an XML-format request for something other than a single ID resolution) • Bad page number: Number (pageNumber is out of bounds) • Bad page size: Size (pageSize is out of bounds) • pageSize Size is too large for type Type (see “API Information Service” for the specific limits)

HTTP Code	Notes
	<ul style="list-style-type: none"> • Full query result size Size too large for type Type (see “API Information Service” for the specific limits) • Invalid ID: ID (the specified ID is not in the correct format) • Invalid 'ids' array is request body (a resolve multiple request where at least one of the IDs is not in the correct format)
403	<ul style="list-style-type: none"> • Authorization error (either credentials are required but not provided or invalid credentials were provided)
500	<ul style="list-style-type: none"> • Invalid connector option • Invalid query • Unrecognized response from registry • Unsupported type • Misc. registry error (see <i>EIDR 2.6 REST API Reference</i>)

Table 4: HTTP Codes

NOTE: Please see *EIDR 2.6 REST API Reference* for a list of the standard EIDR API error codes.

2.1.5 HTTP RESPONSE HEADERS

The EIDR API Proxy responds with the following headers:

Header Name	Description
Content-Type	The Internet Media (MIME) Type of the response sent by the proxy to its clients. One of: <ul style="list-style-type: none"> • application/json; charset=UTF-8 • text/tab-separated-values; charset=UTF-8
Date	The time of the response. For example: Mon, 08 Dec 2014 23:00:38 GMT
EIDR-Version	This will always be the current version. For example: 2.6.0

Table 5: HTTP Response Headers

2.2 PUBLIC SERVICES API PROXY

This section defines the actual HTTP headers, parameters, and data transmitted for each of the services that may be accessed with or without EIDR API credentials.

Single resolutions are supported using HTTP GET. All other services are supported using HTTP POST.

2.2.1 SINGLE ID RESOLUTION SERVICE

This service resolves IDs the EIDR content, video service, or party databases.

Name	Value	
URL	https://proxy.eidr.org/resolve/<asset ID> ⁵	
Method	HTTP GET	
Encoding	None	
HTTP Headers		
Name	Type	Notes
Accept		See section “HTTP Request Headers”. Also allows the MIME types described in the <i>EIDR Resolution Proxies</i> document.
Authorization		Optional. See section “HTTP Request Headers”.
HTTP Parameters		
Name	Type	Notes
type	Enumeration: Full, DOIKernel, SelfDefined, Simple, Provenance, AlternateIDs, LinkedAlternateID	Refer to the <i>EIDR Registry Technical Overview</i> for complete details. Defaults to Full. This field is case-insensitive.
format	Enumeration: json, tsv, xml, x-bibliography	The output data format. This field is case-insensitive.

Table 6: Single ID Resolution Service Request

HTTP Response Headers		
Name	Type	Notes
Content-type		See section “HTTP Response Headers”.
Data		
Results	JSON or TSV	Refer to mapping tables below. If the request was for XML, the response is a redirect to https://doi.org as described in <i>EIDR Resolution Proxies</i> .

Table 7: Single ID Resolution Service Response

2.2.1.1 RESOLUTION SERVICE EXAMPLES

An example of a resolution request is as follows:

⁵ The <asset ID> is any valid EIDR ID in the form <DOI Prefix>/<DOI Suffix>, including Content ID, Video Service ID, or Party ID.


```
GET https://proxy.eidr.org/<asset ID>?type=Full
HTTP/1.1
Accept: text/xml
```

An example of the response to a resolution request is as follows:

```
HTTP/1.1 200 OK
Content-Type: text/xml; charset=UTF-8

<Response JSON/TSV goes here>
```

Below is an example of a single ID resolution request for Full metadata in JSON (default) format using GET via cURL:⁶

```
curl -L -X GET -H "Accept: application/vnd.eidr.full"
https://proxy.eidr.org/resolve/10.5240/7FC6-3F8B-B85F-A1DA-E1F9-H

or

curl -L -X GET "https://proxy.eidr.org/resolve/10.5240/7FC6-3F8B-B85F-A1DA-E1F9-
H?type=full"
```

Here is a sample JSON response to a resolution request for the Full view of a root object:

```
{
  "ID": "10.5240/ABEC-F940-CC66-5394-7B3B-3",
  "StructuralType": "Abstraction",
  "Mode": "AudioVisual",
  "ReferentType": "Short",
  "ResourceName": {
    "ResourceName": "Paperman",
    "_lang": "en",
    "_titleClass": "release"
  },
  "OriginalLanguage": [
    {
      "OriginalLanguage": "en",
      "_mode": "Audio",
      "_type": "primary"
    }
  ],
  "AssociatedOrg": [
    {
      "_idType": "EIDRPartyID",
      "_organizationID": "10.5237/E872-28B7",
      "_role": "producer",
      "DisplayName": "Walt Disney Animation Studios"
    }
  ],
  "ReleaseDate": "2012-11-02",
  "CountryOfOrigin": [
    "US"
  ],
}
```

⁶ Different versions of cURL may return different results. The cURL examples in this document were tested using curl 7.64.0 on Debian Linux 10 (buster).

```

"Status": "valid",
"ApproximateLength": "PT7M",
"AlternateID": [
  {
    "AlternateID": "tt2388725",
    "_type": "IMDB"
  },
  {
    "AlternateID": "7774265109340788112",
    "_domain": "comcast.com",
    "_type": "Proprietary"
  },
  {
    "AlternateID": "206798",
    "_domain": "webedia-group.com",
    "_type": "Proprietary"
  }
],
"Administrators": {
  "Registrant": "10.5237/4C72-BE2C"
},
"Credits": {
  "Director": [
    {
      "DisplayName": "John Kahrs"
    }
  ]
}
}

```

Here is a sample JSON response to a resolution request for the Self-Defined view of an Episode object:

```

{
  "ID": "10.5240/8196-C6F4-3A4E-22CF-4FF6-Z",
  "StructuralType": "Abstraction",
  "ReferentType": "TV",
  "ResourceName": {
    "ResourceName": "Hollywood, Part 3",
    "_lang": "en",
    "_titleClass": "release"
  },
  "ReleaseDate": "1977",
  "Status": "valid",
  "ApproximateLength": "PT30M",
  "AlternateID": [
    {
      "AlternateID": "See-TiVo",
      "_domain": "tivo.com",
      "_relation": "Other",
      "_type": "Proprietary"
    },
    {
      "AlternateID": "HPDY1093",
      "_domain": "crownmedia.com",
      "_type": "Proprietary"
    },
    {
      "AlternateID": "tt0596235",
      "_relation": "IsSameAs",
      "_type": "IMDB"
    }
  ],
  "Administrators": {
    "Registrant": "10.5237/superparty"
  },
  "ExtraObjectMetadata": {
    "EpisodeInfo": {
      "Parent": "10.5240/1855-86AB-68B4-4D2A-6334-Z",
      "SequenceInfo": {

```



```

    "value": "http://www.filmstarts.de/kritiken/206798.html",
    "_type": "text/html"
  },
  {
    "value": "http://www.sensacine.com/peliculas/pelicula-206798/",
    "_type": "text/html"
  },
  {
    "value": "https://www.sensacine.com.mx/peliculas/pelicula-206798/",
    "_type": "text/html"
  }
]
}
}
}

```

2.2.1.2 BIBLIOGRAPHIC CITATION FORMATTING

EIDR Content IDs may be used to generate a pre-formatted bibliographic citation according to a wide variety of styles. This resolution mode is requested by setting the format to “x-bibliography”.

The bibliographic citation format allows additional (optional) parameters to set the citation style and locale.

- Style
 - A list of available styles is available at <https://github.com/citation-style-language/styles.git>
 - Defaults to “apa” if no citation style is specified
- Locale
 - A list of available styles is available at <https://github.com/citation-style-language/locales.git>
 - Defaults to “en-US” if no locale is specified
- Citation-Format
 - Accepted values are “json”, “html”, or “text”(default)

NOTE: When the format is set to “x-bibliography”, the type is ignored (and set automatically to “full”).

If something goes wrong with citation formatting, you will receive one of the following HTTP 400 “Bad Request” error messages:

- [style] is not an accepted style.
- [locale] is not an accepted locale.
- No available EIDR records to cite. (If you did not provide an EIDR ID)
- No valid records to cite. (If the provided EIDR ID did not return a valid record)
- [EIDR IDs] is not a suitable candidate for citation. (If the EIDR ID is not a Content ID – i.e., it is a Party or Video Service ID)

Below is an example of a single ID resolution request for a bibliography citation using GET via cURL:

```
curl -L -X GET -H "Accept: text/x-bibliography;style=apa;locale=en-US;citation-format=html" https://proxy.eidr.org/resolve/10.5240/ABEC-F940-CC66-5394-7B3B-3
```

or

```
curl -L -X GET "https://proxy.eidr.org/resolve/10.5240/ABEC-F940-CC66-5394-7B3B-3?format=x-bibliography&locale=es-ES&style=apa&citation-format=html"
```

Here are sample responses to a citation request (using default style and locale and different citation formats):

HTML:

```
<div class=\"csl-entry\">Kahrs, J. (Director). (2012, November 2). <i>Paperman</i>.
https://doi.org/10.5240/ABEC-F940-CC66-5394-7B3B-3</div>\n
```

JSON:

```
"Kahrs, J. (2012, November 2). Paperman. https://doi.org/10.5240/ABEC-F940-CC66-5394-7B3B-3"
```

Text:

```
Kahrs, J. (2012, November 2). Paperman. https://doi.org/10.5240/ABEC-F940-CC66-5394-7B3B-3
```

2.2.2 MULTIPLE ID RESOLUTION SERVICE

This service resolves a list of one or more EIDR IDs from the EIDR content, video service, or party databases in any order or combination.⁷

Name	Value	
URL	https://proxy.eidr.org/resolve	
Method	HTTP POST	
Encoding	None	
HTTP Headers		
Name	Type	Notes
Accept		See section "HTTP Request Headers".
Authorization		Optional. See section "HTTP Request Headers".
HTTP Parameters		
Name	Type	Notes
type	Enumeration: Full, DOIKernel, SelfDefined, Simple, Provenance, AlternateIDs, LinkedAlternateID, x-bibliography	Refer to the <i>EIDR Registry Technical Overview</i> for complete details. Defaults to Full. This field is case-insensitive.
format	Enumeration: json, tsv	The output data format. Defaults to JSON. This field is case-insensitive.
POST body		A JSON array containing EIDR identifiers as an array of strings (see examples).

⁷ So long as all of the referenced registries support the selected resolution type (i.e., Full or DOIKernel). Any other resolution type is limited to Content IDs.

Table 8: Resolution Service Request

HTTP Response Headers		
Name	Type	Notes
Content-type	application/json text/tab-separated-values	See section “HTTP Response Headers”.
Data		
Results	JSON or TSV	Returns a JSON array of resolved IDs or a TSV header row followed by a continuous data stream of TSV records, each terminated by EndOfLine. ⁸

Table 9: Resolution Service Response

Each individual record in the array is returned as per Single ID Resolution.

NOTE: Since the individual IDs are resolved in parallel, the resolutions will not necessarily be in the same order as the submitted ID list. If an error is returned, it does not follow that all prior IDs in the list are valid, only that this was the first error that the parallel resolutions returned.

2.2.2.1 RESOLUTION SERVICE EXAMPLES

The body of the request is a JSON object of the form:

```
{ids:
  ["EIDR ID1", "EIDR ID2", ...]
}
```

Below is an example of multiple ID resolution requests for DOI Kernel metadata in JSON (default) format using POST via cURL:

```
curl -X POST -H "Accept: application/vnd.eidr.doikernel+json" -H "Content-Type: application/json" -d '{"ids":["10.5240/7EDC-53AA-202D-6D23-666A-H", "10.5237/AD45-F060"]}' https://proxy.eidr.org/resolve
or
curl -X POST -H "Content-Type: application/json" -d '{"ids":["10.5240/7EDC-53AA-202D-6D23-666A-H", "10.5237/AD45-F060"]}' 'https://proxy.eidr.org/resolve?type=doikernel'
```

Here is a sample JSON response to a multiple ID resolution request for LinkedAlternateIDs:

```
[
  {
    "ID": "10.5240/E99A-C175-9DC2-F0CE-334F-T",
    "LinkedAlternateID": [
      {
        "AlternateID": [
```

⁸ The x-bibliography type supports its own citation format styles of JSON, HTML, and text (default), as noted for single resolution.

```

    {
      "AlternateID": "5410753",
      "_type": "Baseline"
    }
  ],
},
{
  "AlternateID": [
    {
      "AlternateID": "403935",
      "_domain": "allocine.fr/episode",
      "_type": "Proprietary"
    }
  ]
},
{
  "AlternateID": [
    {
      "AlternateID": "tt0708420",
      "_relation": "IsSameAs",
      "_type": "IMDB"
    }
  ],
  "URL": {
    "URL": "http://www.imdb.com/title/tt0708420",
    "_type": "text/html"
  }
}
]
},
{
  "ID": "10.5240/95C9-06C1-54DC-BA72-7407-D",
  "LinkedAlternateID": [
    {
      "AlternateID": [
        {
          "AlternateID": "5410783",
          "_type": "Baseline"
        }
      ]
    },
    {
      "AlternateID": [
        {
          "AlternateID": "23316",
          "_domain": "allocine.fr/episode",
          "_type": "Proprietary"
        }
      ]
    }
  ]
}
]
}

```

Below is an example of multiple ID citation formatting requests:

```

curl -X POST -H "Accept: text/x-bibliography;style=apa;locale=en-US;citation-
format=html" -H "Content-Type: application/json" -d '{"ids":["10.5240/FEF3-9557-
400B-2B1D-6583-7", "10.5240/6A9E-73CB-E4C2-0040-6712-1"]}'
https://proxy.eidr.org/resolve

or

curl -X POST -H "Content-Type: application/json" -d '{"ids":["10.5240/FEF3-9557-
400B-2B1D-6583-7", "10.5240/6A9E-73CB-E4C2-0040-6712-1"]}'
'https://proxy.eidr.org/resolve?format=x-bibliography&style=apa&locale=en-
US&citation-format=json'

```

2.2.1 JSON TO TSV CONVERSION

This service converts an EIDR-compliant JSON record into an equivalent TSV (tab-separated value) record.

Name	Value	
URL	https://proxy.eidr.org/jsontotsv	
Method	HTTP POST	
Encoding	None	
HTTP Headers		
Name	Type	Notes
Accept		See section "HTTP Request Headers".
Authorization		Optional. See section "HTTP Request Headers".

Table 10: JSON to TSV Request

HTTP Response Headers		
Name	Type	Notes
Content-type	application/json	See section "HTTP Response Headers".
Data		
Results	TSV	Returns a TSV version of the supplied JSON record.

Table 11: JSON to TSV Response

2.2.1.1 JSON TO TSV CONVERSION EXAMPLES

Below is an example of a JSON to TSV conversion request using POST via cURL:

```
curl -X POST -H "Content-Type: application/json" -d
'{"data": [{"ID": "10.5240/638E-04F8-E718-C84B-85C2-
N", "StructuralType": "Abstraction", "Mode": "Visual", "ReferentType": "Short", "Resour
ceName": {"value": "As in a Looking
Glass", "_lang": "en"}, "OriginalLanguage": [{"value": "en", "_mode": "Visual"}], "Assoc
iatedOrg": [{"_role": "producer", "DisplayName": "American Film Manufacturing
Company"}], "ReleaseDate": "1911", "CountryOfOrigin": ["US"], "Status": "valid", "Appro
ximateLength": "PT23M", "AlternateID": [{"value": "Q2866255", "_domain": "wikidata.org
", "_type": "Proprietary"}, {"value": "20996", "_domain": "citwf.com", "_type": "Proprie
tary"}, {"value": "tt0413737", "_type": "IMDB"}], "Administrators": {"Registrant": "10.
5237/superparty"}, "Credits": {"Director": [{"DisplayName": "Allan
Dwan"}], "Actor": [{"DisplayName": "J. Warren Kerrigan"}]}], {"ID": "10.5240/30EF-
98BA-CAF9-F098-427A-
7", "StructuralType": "Abstraction", "Mode": "Visual", "ReferentType": "Short", "Resour
ceName": {"value": "As in a Looking
Glass", "_lang": "en"}, "OriginalLanguage": [{"value": "en", "_mode": "Visual"}], "Assoc
iatedOrg": [{"_role": "producer", "DisplayName": "Monopol Film
Company"}], "ReleaseDate": "1913", "CountryOfOrigin": ["US"], "Status": "valid", "Appro
ximateLength": "PT30M", "AlternateID": [{"value": "tt0413738", "_relation": "IsSameAs"
, "_type": "IMDB"}, {"value": "20992", "_domain": "citwf.com", "_type": "Proprietary"}, {
```



```
"value":"Q60564935","_domain":"wikidata.org","_type":"Proprietary"}],"Administrators":{"Registrant":"10.5237/superparty"},"Credits":{"Director":[{"DisplayName":"Stanner E.V. Taylor"}],"Actor":[{"DisplayName":"Marion Leonard"}]},"RegistrantExtra":"AL:Pro;","Description":{"value":"Unclear if it was initially released with or without subtitles","_lang":"en"}}}'
https://proxy.eidr.org/jsontotsv
```

2.2.2 API INFORMATION SERVICE

This service provides information about the API itself, including query limits and software versions.

Name	Value	
URL	https://proxy.eidr.org/info	
Method	HTTP GET	
Encoding	None	
HTTP Headers		
Name	Type	Notes
Accept	application/json	See section "HTTP Request Headers".
Authorization		Optional. See section "HTTP Request Headers".

Table 12: API Information Service Request

HTTP Response Headers		
Name	Type	Notes
Content-type		See section "HTTP Response Headers".
Data		
Results	JSON	See example below.

Table 13: API Information Service Response

```
curl -X GET -H "Content-type: application/json" 'https://proxy.eidr.org/info'
```

```
{"limits": {"idOnly": 150000,"simple": 50000,"other": 1000},"versions": {"eidrApiVersion": "2.6.0","eidrConnectorVersion": "0.0.13","eidrProxyVersion": "1.0.2"}}
```

Limits

Maximum query page size or maximum records returned with pageSize=0 (an un-paged query):

- **idOnly:** Maximum records returned by a Query with type=idOnly
- **simple:** Maximum records returned by a Query with type=simple
- **other:** Maximum records returned by a Query with any type other than idOnly or simple.

Versions

Current software version numbers:

- **eidrApiVersion:** EIDR registry (schema) version

- **eidrConnectorVersion:** EIDR open source connector version
- **eidrProxyVersion:** EIDR script (API end points and processing scripts) version

2.3 RESTRICTED SERVICES API PROXY

This section defines the actual HTTP headers, parameters, and data transmitted for each of the services that require EIDR API credentials.

Query services are supported using HTTP POST.

2.3.1 QUERY SERVICE

The API Proxy query service comes in two basic forms:

- Standard EIDR XML query pass through
- JSON query

The Query API accepts the same MIME types and Accept headers as Resolve/POST. XML requests generate an error and are not redirected.⁹

NOTE: To avoid client time-out errors, query size limits are imposed on certain query types. See “API Information Service” for the specific limits.

2.3.1.1

Name	Value	
URL	https://proxy.eidr.org/query/	
Method	HTTP POST	
Encoding	text/xml OR application/json (see example section)	
HTTP Parameters		
Name	Type	Notes
type	Enumeration: Full, DOIKernel, SelfDefined, Simple, Provenance, AlternateIDs, LinkedAlternateID	Refer to the <i>EIDR Registry Technical Overview</i> for complete details. Defaults to Full. This field is case-insensitive.
format	Enumeration: json, tsv	The output data format. Defaults to JSON. This field is case-insensitive.
idOnly	Boolean: true, false	Return only EIDR IDs. Defaults to false. If true, then type is ignored.

⁹ The DOI Proxy only supports Resolve, so Query transactions are not redirected. You must call the standard EIDR API directly.

sort	Enumeration: title, date, length, coo, struct, reftype, lang	See “Query Service” above for details.
order	Enumeration: asc, desc	The direction of the requested sort. Defaults to ascending.
pageNumber	Positive Integer	See <i>EIDR REST API Reference</i>
pageSize	Non-Negative Integer	<p>The EIDR registry returns paged query results. The API Proxy will manage the paged results as follows:</p> <ul style="list-style-type: none"> • If you do not specify pageSize, the query will use the default (2,500) • If you set pageSize = 0, the query will return without paging (individual pages are cached on the proxy server until the entire query is ready to send) • If you set pageSize to something other than a non-negative integer, you will receive an error <p>See <i>EIDR REST API Reference</i></p>
root	EIDR ID	An EIDR Content ID. The query will be limited to this record and its descendants.
HTTP Headers		
Name	Type	Notes
Accept		See section “HTTP Request Headers”.
Accept-Encoding		See section “HTTP Request Headers”.
Authorization		See section “HTTP Request Headers”.
HTTP POST Parameters		
Name	Type	Notes
POST body	<ul style="list-style-type: none"> • content-type = application/xml • content-type = application/json 	<p>For application/xml, the POST body is a standard EIDR XPath query string</p> <p>For application/json, the POST body is a JSON query, described below</p>

Table 14: Query Service Request

HTTP Headers		
Name	Type	Notes
Content-type	Internet Media Type (MIME)	See section “HTTP Response Headers”.
Data		
idOnly="false"	Application/json	A JSON object. {

		totalMatches: <total number of results for the query> pageSize: <pageSize from the request> pageNumber: <pageNumber from the request> results:[<one element for each result in this response>] }
	Text/tab-separated-values	Refer to the TSV column names (and sort order) in “EIDR XML Field Name Mapping Tables,” below.
idOnly="true"	Application/json	A JSON object: { idOnly: true, [“EIDR-ID-1”, “EIDR-ID-2”,...] }
	Text/html	The string “EIDR_ID”, Followed by \n (newline) Followed by a list of newline-separated EIDR IDs.

Table 15: Query Service Response

2.3.1.2 XML QUERY SERVICE EXAMPLES

The format of the response to a query request is as follows:

```
HTTP/1.1 200 OK
Content-Type: text/xml; charset=UTF-8

<Response goes here>
```

Query expressions are used when making a query with the POST method. Refer to the **EIDR Registry Technical Overview** for the standard EIDR XPath query expression grammar.

Below is an example of an XML pass-through query via cURL:

```
curl -X POST -H "Accept: application/json" -H "Content-Type: text/xml" -H
"Authorization: Eidr YOUR:CREREDENTIALS:HERE" -d @query.txt
'https://proxy.eidr.org/query?pageSize=20&pageNumber=1&sort=lang&order=desc'
```

Where “query.txt” is a text file containing a valid EIDR XML query. For example:

```
query.txt contains:
(/FullMetadata/BaseObjectData/Credits/Director/DisplayName "muybridge" AND
/FullMetadata/BaseObjectData/Status "valid")

curl -X POST -H "Accept: application/json" -H "Content-Type: text/xml" -H
"Authorization: Eidr YOUR:CREREDENTIALS:HERE" -d @query.txt
```

```
'https://proxy.eidr.org/query?pageSize=20&pageNumber=1&sort=date&order=desc&type=simple'
```

```
{
  "totalMatches" : 2,
  "results" : [
    {
      "ResourceName" : {
        "_lang" : "und",
        "ResourceName" : "Homage to Eadweard Muybridge"
      },
      "Status" : "valid",
      "ReferentType" : "Short",
      "ID" : "10.5240/B0E9-0FC9-7038-6692-E5DE-P",
      "ReleaseDate" : "1994",
      "OriginalLanguage" : [
        {
          "_mode" : "Audio",
          "OriginalLanguage" : [
            "en"
          ]
        }
      ],
      "StructuralType" : "Abstraction"
    },
    {
      "OriginalLanguage" : [
        {
          "OriginalLanguage" : [
            "zxx"
          ],
          "_mode" : "Visual"
        }
      ],
      "StructuralType" : "Abstraction",
      "ReleaseDate" : "1878-06-15",
      "ResourceName" : {
        "_titleClass" : "release",
        "ResourceName" : "Sallie Gardner at a Gallop",
        "_lang" : "en"
      },
      "ReferentType" : "Short",
      "ID" : "10.5240/9752-46B8-CE37-64B9-C5AD-X",
      "Status" : "valid"
    }
  ]
  "pageSize": 20,
  "pageNumber": 1,
  "currentSize": 2
}
```

```
curl -X POST -H "Content-type: text/xml" -H "Authorization: Eidr
YOUR:CREDENTIALS:HERE" -d @query.txt
'https://proxy.eidr.org/query?format=json&idOnly=true&type=full'
```

```
{ "totalMatches": 2,
  "results": [
    "10.5240/B0E9-0FC9-7038-6692-E5DE-P",
    "10.5240/9752-46B8-CE37-64B9-C5AD-X"
  ],
  "idOnly": true,
  "pageSize": 2500,
  "pageNumber": 1,
  "currentSize": 2
}
```

```
curl -X POST -H "Content-type: text/xml" -H "Authorization: Eidr
YOUR:CREDENTIALS:HERE" -d @query.txt
'https://proxy.eidr.org/query?format=tsv&idOnly=true&type=full'
```

```
EIDR_ID
10.5240/B0E9-0FC9-7038-6692-E5DE-P
10.5240/9752-46B8-CE37-64B9-C5AD-X
```

You can use a “rooted query” to limit the results returned. For example:

query2.txt contains:

```
(/FullMetadata/BaseObjectData/Credits/Director/DisplayName "kubrick" )
```

```
curl -X POST -H "Content-type: text/xml" -H "Authorization: Eidr
YOUR:CREDENTIALS:HERE" -d @query2.txt
'https://proxy.eidr.org/query?idOnly=true&pageSize=100'
```

Currently returns 71 items.¹⁰

Adding a root restriction to the query:

```
curl -X POST -H "Content-type: text/xml" -H "Authorization: Eidr
YOUR:CREDENTIALS:HERE" -d @query2.txt
'https://proxy.eidr.org/query?idOnly=true&pageSize=100&root=10.5240/5240-AEED-
91B0-86C7-1CF3-7'
```

Will only return six items – 10.5240/5240-AEED-91B0-86C7-1CF3-7 and its descendants.

2.3.1.3 JSON QUERY

Simple queries involving EIDR Content ID records may be expressed directly in JSON, without using the XML pass-through.

JSON queries can use AND, OR, and NOT operators to create complex queries. AND and OR require two or more parameters. NOT only allows one parameter. Parameter nesting is allowed. For example:

¹⁰ The exact count will change as records are added to the registry.

AND(OR(a,NOT(b)),c,d). The key, value pairs in a parameter are automatically evaluated for equality (e.g., key = value).

NOTE: The query operators and elements are case sensitive.

Query Elements

- **Text Elements**
 - **id** – ID (EIDR Content ID)
 - **title** – ResourceName
 - **alttitle** – AlternateResourceName
 - **anytitle** – ResourceName OR AlternateResourceName
 - **aid** – AssociatedOrg.organizationID
 - **aoname** – AssociatedOrg.DisplayName
 - **aoaltname** – AssociatedOrg.AlternateName
 - **aoanyname** – AssociatedOrg.DisplayName OR AssociatedOrg.AlternateName
 - **director** – Credits.Director.DisplayName
 - **actor** – Credits.Actor.DisplayName
 - **contributor** – Credits.Director.DisplayName OR Credits.Actor.DisplayName
 - **altid** – AlternateID.value
 - **altidtype** – AlternateID._type
 - **altiddomain** – AlternateID._domain
 - **coo** – CountryOfOrigin
 - **lang** – OriginalLanguage
 - **reftype** – ReferentType
 - **struct** – StructuralType
- **Date Elements**
 - **date** – ReleaseDate
- **Duration Elements**
 - **length** – ApproximateLength

Boolean Operators

- **and** – logical “and” operation: {and: [{expression},{expression}...]}
- **or** – logical “or” operation: {or: [{expression},{expression}...]}
- **not** – logical “not” operation: {not: {expression}}
- **exists** – does the element exist in the record: {exists: {element}}

Text Comparisons¹¹

- **words** – does the element include at least one of the words in the list: {element: {words: 'word_list'}}
- **contains** – does the element include the list of words in that order: {element: {contains: 'word_list'}}
- **exact** – does the element consist of only the list of words in that order: {element: {exact: 'word_list'}}

¹¹ Text comparisons are subject to the standard EIDR XML restrictions. Namely, that comparisons are made token by token, after space, punctuation, and capitalization normalization. This means that you cannot perform a true substring or wildcard search. See “Text Processing and Queries” in *Registry Technical Overview* for more information.

Date Comparisons

- before – is the element earlier than or equal to the supplied date/year: {element: {before: date_or_year}}
- after – is the element later than or equal to the supplied date/year: {element: {after: date_or_year}}
- date – is the element the same as the supplied date/year: {element: {date: date_year}}

NOTE: date_or_year is either an xs:date data type or a positive four-digit integer and must be in the form of “yyyy-mm-dd” (a full date) or “yyyy” (just a year).

NOTE: If only a year is supplied, rather than a full date, then only the year portion of dates is compared.

Duration Comparisons

- minlength – is the element at least as long as (greater than or equal to) the supplied duration: {element: {minlength: duration}}
- maxlength – is the element no longer than (less than or equal to) the supplied duration: {element: {maxlength: duration}}
- length – is the element exactly (equal to) the supplied duration: {element: {length: duration}}

NOTE: [duration] is an xs:duration data type and must be in the form of “PdTThHmMsS” where d, h, m, and s are the number of Days, Hours, Minutes, and Seconds; d, h, and m are non-negative integers; s is a non-negative decimal; and you trim leading and trailing zero elements: e.g., PT25M is 25 minutes.

Tree Comparisons

- isroot – is the record at the root of a registration tree: {isroot: boolean}
- parent – does the record have the supplied Content ID as its parent: {parent: eidr_id}

2.3.1.4 JSON QUERY SERVICE EXAMPLES

JSON and XML queries return their results in exactly the same format. (See “XML Query Service Example” above.) They only differ in how the query expression is passed to the registry.

The API Proxy translates the JSON query into a standard EIDR XML query for submission to the registry, so the same conditions and limitations apply. See “Text Processing and Queries” in *Registry Technical Overview*.

NOTE: When using the JSON query, you must use the JSON query element names, not the XML or JSON field names. See “Query Elements,” above.

Below are examples of JSON queries via cURL:

```
curl -X POST -H "Accept: application/json" -H "Content-Type: application/json" -H "Authorization: Eidr YOUR:CREENTIALS:HERE" -d '{"anytitle": {"words": "star wars"}}' 'https://proxy.eidr.org/query?pageSize=60&sort=date&order=desc'
```

This command generates the EIDR XML query:

```
((/FullMetadata/BaseObjectData/ResourceName star) OR  
(/FullMetadata/BaseObjectData/ResourceName wars) OR  
(/FullMetadata/BaseObjectData/AlternateResourceName star) OR  
(/FullMetadata/BaseObjectData/AlternateResourceName wars))
```


If, instead, you use “title”, this becomes:

```
curl -X POST -H "Accept: application/json" -H "Content-Type: application/json" -H "Authorization: Eidr YOUR:CREREDENTIALS:HERE" -d '{"title": {"words": "star wars"}}' 'https://proxy.eidr.org/query'
```

This command generates the EIDR XML query:

```
((/FullMetadata/BaseObjectData/ResourceName star) OR (/FullMetadata/BaseObjectData/ResourceName wars))
```

If you use “contains” instead of “words”:

```
curl -X POST -H "Accept: application/json" -H "Content-Type: application/json" -H "Authorization: Eidr YOUR:CREREDENTIALS:HERE" -d '{"anytitle": {"contains": "star wars"}}' 'https://proxy.eidr.org/query?sort=date&order=desc'
```

This command generates the EIDR XML query:

```
((/FullMetadata/BaseObjectData/ResourceName "star wars") OR (/FullMetadata/BaseObjectData/AlternateResourceName "star wars"))
```

To find all records that include both Winona Ryder and Johnny Depp:

```
curl -X POST -H "Accept: application/json" -H "Content-Type: application/json" -H "Authorization: Eidr YOUR:CREREDENTIALS:HERE" -d '{"and": [{"actor": {"contains": "Winona Ryder"}}, {"actor": {"contains": "Johnny Depp"}}]}' 'https://proxy.eidr.org/query?pageSize=60'
```

This command generates the EIDR XML query:

```
((/FullMetadata/BaseObjectData/Credits/Actor/DisplayName "Winona Ryder") AND (/FullMetadata/BaseObjectData/Credits/Actor/DisplayName "Johnny Depp"))
```

The “isroot” operator can be true or false:

- {"and":[{"isroot": true}, {"title":{"contains": "star wars"}}]} – returns all root objects with “star wars” in the title.
- {"and":[{"isroot": false}, {"title":{"contains": "gilligan"}}]} – returns all non-root objects with “gilligan” in the title.

It can be combined with the ID query element return the root elements from a list of IDs:

- {"and":[{"isroot": true}, {"ID": {words: "id1 id2 id2..."}]}] } – returns those records in the ID list that are root objects.

NOTE: JSON expects a Boolean value for `isroot`, rather than a string, so do not place `true/false` in quotation marks.

Below are JSON query examples and the resulting XPath equivalents.

JSON: { "title": { "words": "star wars" } }

XPath: ((/FullMetadata/BaseObjectData/ResourceName star) OR (/FullMetadata/BaseObjectData/ResourceName wars))

JSON: { "anytitle": { "words": "star wars" } }

XPath: ((/FullMetadata/BaseObjectData/ResourceName star) OR (/FullMetadata/BaseObjectData/ResourceName wars) OR (/FullMetadata/BaseObjectData/AlternateResourceName star) OR (/FullMetadata/BaseObjectData/AlternateResourceName wars))

JSON: { "and": [{"title": { "contains": "star wars" } }, { "coo": { "exact": "us" } }] }

XPath: ((/FullMetadata/BaseObjectData/ResourceName "star wars") AND (/FullMetadata/BaseObjectData/CountryOfOrigin IS "us"))

JSON: { "or": [{"title": { "contains": "star wars" } }, { "coo": { "exact": "us" } }] }

XPath: ((/FullMetadata/BaseObjectData/ResourceName "star wars") OR (/FullMetadata/BaseObjectData/CountryOfOrigin IS "us"))

JSON: { "not": { "title": { "contains": "star wars" } } }

XPath: (NOT (/FullMetadata/BaseObjectData/ResourceName "star wars"))

JSON: { "date": { "date": "2000" } }

XPath: (/FullMetadata/BaseObjectData/ReleaseDate 2000)

NOTE: In JSON queries, "date" is both a query element (ReleaseDate) and comparison operator (equal to), depending on context.

JSON: { "date": { "before": "2000" } }

XPath: (/FullMetadata/BaseObjectData/ReleaseDate <= 2000)

JSON: { "date": { "after": "2000" } }

XPath: (/FullMetadata/BaseObjectData/ReleaseDate >= 2000)

JSON: { "length": { "length": "PT23M" } }

XPath: (/FullMetadata/BaseObjectData/ApproximateLength PT23M)

NOTE: In JSON queries, “length” is both a query element (ApproximateLength) and comparison operator (equal to), depending on context.

JSON: { "length": { "maxlength": "PT23M" } }

XPath: (/FullMetadata/BaseObjectData/ApproximateLength <= PT23M)

JSON: { "length": { "minlength": "PT23M" } }

XPath: (/FullMetadata/BaseObjectData/ApproximateLength >= PT23M)

JSON: { "exists": "actor" }

XPath: (/FullMetadata/BaseObjectData/Credits/Actor/DisplayName EXISTS)

JSON: { "isroot": true }

XPath: (NOT ((/FullMetadata/ExtraObjectMetadata/SeasonInfo EXISTS) OR (/FullMetadata/ExtraObjectMetadata/ClipInfo EXISTS) OR (/FullMetadata/ExtraObjectMetadata/ManifestationInfo EXISTS) OR (/FullMetadata/ExtraObjectMetadata/EpisodeInfo EXISTS) OR (/FullMetadata/ExtraObjectMetadata/EditInfo EXISTS)))

NOTE: JSON expects a Boolean value for isroot, rather than a string, so do not place true/false in quotation marks.

JSON: { "parent": "10.5240/B6AC-E65C-3B92-CF93-8DC0-1" }

XPath: ((/FullMetadata/ExtraObjectMetadata/SeasonInfo/Parent 10.5240/75C0-4663-9D6D-C864-1D9B-I) OR (/FullMetadata/ExtraObjectMetadata/ClipInfo/Parent 10.5240/75C0-4663-9D6D-C864-1D9B-I) OR (/FullMetadata/ExtraObjectMetadata/ManifestationInfo/Parent 10.5240/75C0-4663-9D6D-C864-1D9B-I) OR (/FullMetadata/ExtraObjectMetadata/EpisodeInfo/Parent 10.5240/75C0-4663-9D6D-C864-1D9B-I) OR (/FullMetadata/ExtraObjectMetadata/EditInfo/Parent 10.5240/75C0-4663-9D6D-C864-1D9B-I))

2.3.1.1 JSON QUERY ERROR MESSAGES

If your query contains mismatched or missing quotes, braces, or brackets or an incorrect use of single-quotes when double-quotes are required, you will likely receive the following error message:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<title>Error</title>
```

```
</head>  
<body>  
<pre>Bad Request</pre>  
</body>  
</html>
```

Check your syntax, compare it to the examples above, and carefully match opening/closing quotes, braces, and brackets.

If your query returns nothing at all – no data values, no errors – then the most likely cause is that you have included an invalid keyword: e.g., “anytitles” instead of “anytitle” (the extra “s” is invalid).

NOTE: Use the cURL “-i” option to return the HTTP headers to verify that command have been received by the API Proxy server.

3 APPENDIX: EIDR XML FIELD NAME MAPPING TABLES

3.1 CONTENT ID REGISTRY

	Native EIDR XPath	JSON Field Name ¹²	TSV Column Name ¹³
		N/A	Row_ID ¹⁴
Base Metadata	/FullMetadata/BaseObjectData/ID	ID	EIDR_ID
	/FullMetadata/BaseObjectData/StructuralType	StructuralType	StructuralType
	/FullMetadata/BaseObjectData/Mode	Mode	Mode
	/FullMetadata/BaseObjectData/ReferentType	ReferentType	ReferentType
		ResourceName	N/A
	/FullMetadata/BaseObjectData/ResourceName	.value	ResourceName
	/FullMetadata/BaseObjectData/ResourceName@lang	._lang	ResourceName@lang
	/FullMetadata/BaseObjectData/ResourceName@titleClass	._titleClass	ResourceName@class
	/FullMetadata/BaseObjectData/ResourceName@systemGenerated	._systemGenerated	ResourceName@systemGenerated
		AlternateResourceName[]	Num_AltResourceName
	/FullMetadata/BaseObjectData/AlternateResourceName	.value	AltResourceName-#
	/FullMetadata/BaseObjectData/AlternateResourceName@lang	._lang	AltResourceName-#@lang
	/FullMetadata/BaseObjectData/AlternateResourceName@titleClass	._titleClass	AltResourceName-#@class
		OriginalLanguage[]	Num_OriginalLanguage
	/FullMetadata/BaseObjectData/OriginalLanguage	.value	OriginalLanguage-#
	/FullMetadata/BaseObjectData/OriginalLanguage@mode	._mode	OriginalLanguage-#@mode
	/FullMetadata/BaseObjectData/OriginalLanguage@type	._type	OriginalLanguage-#@type
		VersionLanguage[]	Num_VersionLanguage
/FullMetadata/BaseObjectData/VersionLanguage	.value	VersionLanguage-#	

¹² JSON fields may appear in a different order.

¹³ TSV columns will always appear in the same order, but the specific columns may differ between pages in a paged query.

¹⁴ The RowID value is a running record count that spans pages in a paged query.

Native EIDR XPath	JSON Field Name ¹²	TSV Column Name ¹³
/FullMetadata/BaseObjectData/VersionLanguage@mode	._mode	VersionLanguage-#@mode
/FullMetadata/BaseObjectData/VersionLanguage@type	._type	VersionLanguage-#@type
	AssociatedOrg[]	Num_AssociatedOrg
/FullMetadata/BaseObjectData/AssociatedOrg/DisplayName	.DisplayName	AssociatedOrg-#
	N/A	AssociatedOrg-#_Num_AlternateName
/FullMetadata/BaseObjectData/AssociatedOrg/AlternateName	.AlternateName[]	AssociatedOrg-#_AlternateName-#
/FullMetadata/BaseObjectData/AssociatedOrg@role	._role	AssociatedOrg-#@role
/FullMetadata/BaseObjectData/AssociatedOrg@organizationID	._organizationID	AssociatedOrg-#@organizationID
/FullMetadata/BaseObjectData/AssociatedOrg@idType	._idType	AssociatedOrg-#@idType
/FullMetadata/BaseObjectData/ReleaseDate	ReleaseDate	ReleaseDate
	N/A	Num_CountryOfOrigin
/FullMetadata/BaseObjectData/CountryOfOrigin	CountryOfOrigin[]	CountryOfOrigin-#
/FullMetadata/BaseObjectData/Status	Status	PublicationStatus
/FullMetadata/BaseObjectData/ApproximateLength	ApproximateLength	ApproxLength
/FullMetadata/BaseObjectData/Credits	Credits	N/A
/FullMetadata/BaseObjectData/Credits/Director	.Director[]	Num_Director
/FullMetadata/BaseObjectData/Credits/Director/DisplayName	.DisplayName	Director-#
/FullMetadata/BaseObjectData/Credits/Actor	.Actor[]	Num_Actor
/FullMetadata/BaseObjectData/Credits/Actor/DisplayName	.DisplayName	Actor-#
	AlternateID[]	Num_AlternateID
/FullMetadata/BaseObjectData/AlternateID	.value	AlternateID_(Type/Domain)-#
/FullMetadata/BaseObjectData/AlternateID@type	._type	N/A
/FullMetadata/BaseObjectData/AlternateID@domain	._domain	N/A
/FullMetadata/BaseObjectData/AlternateID@relation	._relation	AlternateID_(Type/Domain)-#@relation
/FullMetadata/BaseObjectData/Administrators	Administrators	N/A
/FullMetadata/BaseObjectData/Administrators/Registrant	.Registrant	Registrant
	.N/A	Num_MetadataAuthority
/FullMetadata/BaseObjectData/Administrators/MetadataAuthority	.MetadataAuthority[]	MetadataAuthority-#
/FullMetadata/BaseObjectData/RegistrantExtra	RegistrantExtra	RegistrantExtra

	Native EIDR XPath	JSON Field Name ¹²	TSV Column Name ¹³
		Description	N/A
	/FullMetadata/BaseObjectData/Description	.value	Description
	/FullMetadata/BaseObjectData/Description@lang	._lang	Description@lang
	/FullMetadata/ExtraObjectMetadata	ExtraObjectMetadata	N/A
Series	/FullMetadata/ExtraObjectMetadata/SeriesInfo/	.SeriesInfo	N/A
	/FullMetadata/ExtraObjectMetadata/SeriesInfo/EndDate	.EndDate	Series_EndDate
	/FullMetadata/ExtraObjectMetadata/SeriesInfo/SeriesClass	.SeriesClass	Series_Class
	/FullMetadata/ExtraObjectMetadata/SeriesInfo/NumberRequired	.NumberRequired	Series_NumberRequired
	/FullMetadata/ExtraObjectMetadata/SeriesInfo/DateRequired	.DateRequired	Series_DateRequired
	/FullMetadata/ExtraObjectMetadata/SeriesInfo/OriginalTitleRequired	.OriginalTitleRequired	Series_OriginalTitleRequired
Season	/FullMetadata/ExtraObjectMetadata/SeasonInfo	.SeasonInfo	N/A
	/FullMetadata/ExtraObjectMetadata/SeasonInfo/Parent	.Parent	Season_Parent
	/FullMetadata/ExtraObjectMetadata/SeasonInfo/EndDate	.EndDate	Season_EndDate
		.N/A	Season_NumClass
	/FullMetadata/ExtraObjectMetadata/SeasonInfo/SeasonClass	.SeasonClass[]	Season_Class-#
	/FullMetadata/ExtraObjectMetadata/SeasonInfo/NumberRequired	.NumberRequired	Season_NumberRequired
	/FullMetadata/ExtraObjectMetadata/SeasonInfo/DateRequired	.DateRequired	Season_DateRequired
	/FullMetadata/ExtraObjectMetadata/SeasonInfo/OriginalTitleRequired	.OriginalTitleRequired	Season_OriginalTitleRequired
/FullMetadata/ExtraObjectMetadata/SeasonInfo/SequenceNumber	.SequenceNumber	Season_SequenceNumber	
Episode	/FullMetadata/ExtraObjectMetadata/EpisodeInfo	.EpisodeInfo	N/A
	/FullMetadata/ExtraObjectMetadata/EpisodeInfo/Parent	.Parent	Episode_Parent
	/FullMetadata/ExtraObjectMetadata/EpisodeInfo/SequenceInfo	.SequenceInfo	N/A
		.DistributionNumber	N/A
	/FullMetadata/ExtraObjectMetadata/EpisodeInfo/SequenceInfo/DistributionNumber	.value	Episode_DistributionNumber
	/FullMetadata/ExtraObjectMetadata/EpisodeInfo/SequenceInfo/DistributionNumber@domain	._domain	Episode_DistributionNumber@domain
		.HouseSequence	N/A
/FullMetadata/ExtraObjectMetadata/EpisodeInfo/SequenceInfo/HouseSequence	.value	Episode_HouseSequence	

	Native EIDR XPath	JSON Field Name¹²	TSV Column Name¹³
	/FullMetadata/ExtraObjectMetadata/EpisodeInfo/SequenceInfo/HouseSequence@domain	._domain	Episode_HouseSequence@domain
		.AlternateNumber[]	Episode_Num_AlternateNum
	/FullMetadata/ExtraObjectMetadata/EpisodeInfo/SequenceInfo/AlternateNumber	.value	Episode_AlternateNum-#
	/FullMetadata/ExtraObjectMetadata/EpisodeInfo/SequenceInfo/AlternateNumber@domain	._domain	Episode_AlternateNum-#@domain
		N/A	Episode_Num_Class
	/FullMetadata/ExtraObjectMetadata/EpisodeInfo/EpisodeClass	.EpisodeClass[]	Episode_Class-#
	/FullMetadata/ExtraObjectMetadata/EpisodeInfo/TimeSlot	.TimeSlot	Episode_TimeSlot
Edit	/FullMetadata/ExtraObjectMetadata/EditInfo	.EditInfo	N/A
	/FullMetadata/ExtraObjectMetadata/EditInfo/Parent	.Parent	Edit_Parent
	/FullMetadata/ExtraObjectMetadata/EditInfo/EditUse	.EditUse	Edit_Use
		.N/A	Edit_Num_Class
	/FullMetadata/ExtraObjectMetadata/EditInfo/EditClass	.EditClass[]	Edit_Class-#
		N/A	Edit_Num_MadeForRegion
	/FullMetadata/ExtraObjectMetadata/EditInfo/MadeForRegion	.MadeForRegion[]	Edit_MadeForRegion-#
		.EditDetails[]	Edit_Num_Details
	/FullMetadata/ExtraObjectMetadata/EditInfo/EditDetails	.value	Edit_Details-#
	/FullMetadata/ExtraObjectMetadata/EditInfo/EditDetails@domain	._domain	Edit_Details-#@domain
	/FullMetadata/ExtraObjectMetadata/EditInfo/ColorType	.ColorType	Edit_ColorType
	/FullMetadata/ExtraObjectMetadata/EditInfo/ThreeD	.ThreeD	Edit_ThreeD
	Clip	/FullMetadata/ExtraObjectMetadata/ClipInfo	.ClipInfo
/FullMetadata/ExtraObjectMetadata/ClipInfo/Parent		.Parent	Clip_Parent
/FullMetadata/ExtraObjectMetadata/ClipInfo/ComponentsMode		.ComponentsMode	Clip_ComponentsMode
/FullMetadata/ExtraObjectMetadata/ClipInfo/Start		.Start	Clip_Start
/FullMetadata/ExtraObjectMetadata/ClipInfo/Duration		.Duration	Clip_Duration
Manifestati	/FullMetadata/ExtraObjectMetadata/ManifestationInfo	.ManifestationInfo	N/A
	/FullMetadata/ExtraObjectMetadata/ManifestationInfo/Parent	.Parent	Manif_Parent
		.N/A	Manif_Num_Class

	Native EIDR XPath	JSON Field Name ¹²	TSV Column Name ¹³
	/FullMetadata/ExtraObjectMetadata/ManifestationInfo/ManifestationClass	.ManifestationClass[]	Manif_Class-#
		N/A	Manif_Num_MadeForRegion
	/FullMetadata/ExtraObjectMetadata/ManifestationInfo/MadeForRegion	.MadeForRegion[]	Manif_MadeForRegion-#
		.ManifestationDetails[]	Manif_Num_Details
	/FullMetadata/ExtraObjectMetadata/ManifestationInfo/ManifestationDetails	.value	Manif_Details-#
	/FullMetadata/ExtraObjectMetadata/ManifestationInfo/ManifestationDetails@domain	._domain	Manif_Details-#@domain
	/FullMetadata/ExtraObjectMetadata/ManifestationInfo/Digital	(Container/Track Information)	Manif_HasDigital
Compilation	/FullMetadata/ExtraObjectMetadata/CompilationInfo	.CompilationInfo	N/A
		.CompilationClass	N/A
	/FullMetadata/ExtraObjectMetadata/CompilationInfo/md:CompilationClass	.value	Compilation_Class
	/FullMetadata/ExtraObjectMetadata/CompilationInfo/md:CompilationClass@hasOther Inclusions	._hasOtherInclusions	Compilation_Class@hasOtherInclusions
	/FullMetadata/ExtraObjectMetadata/CompilationInfo/md:Entry	.Entry[]	Compilation_Num_Entry
	/FullMetadata/ExtraObjectMetadata/CompilationInfo/md:Entry/md:ContentID	.ContentID	Compilation_EntryID-#
		.DisplayName	N/A
	/FullMetadata/ExtraObjectMetadata/CompilationInfo/md:Entry/md:DisplayName	.value	Compilation_DisplayName-#
	/FullMetadata/ExtraObjectMetadata/CompilationInfo/md:Entry/md:DisplayName@language	._language	Compilation_DisplayName-#@language
	/FullMetadata/ExtraObjectMetadata/CompilationInfo/md:Entry/md:EntryNumber	.EntryNumber	Compilation_EntryNumber-#
/FullMetadata/ExtraObjectMetadata/CompilationInfo/md:Entry/md:EntryClass	.EntryClass	Compilation_EntryClass-#	
Composite	/FullMetadata/ExtraObjectMetadata/CompositeInfo	.CompositeInfo	N/A
	/FullMetadata/ExtraObjectMetadata/CompositeInfo/CompositeClass	.CompositeClass	Composite_Class
	/FullMetadata/ExtraObjectMetadata/CompositeInfo/Element	.Element[]	Composite_Num_Element
	/FullMetadata/ExtraObjectMetadata/CompositeInfo/Element/ID	.ID	Composite_Element-#ID
		.OtherID	N/A
	/FullMetadata/ExtraObjectMetadata/CompositeInfo/Element/OtherID	.value	Composite_Element-#OtherID
	/FullMetadata/ExtraObjectMetadata/CompositeInfo/Element/OtherID@relation	._relation	Composite_Element-#OtherID@relation
	/FullMetadata/ExtraObjectMetadata/CompositeInfo/Element/OtherID@type	._type	Composite_Element-#OtherID@type
/FullMetadata/ExtraObjectMetadata/CompositeInfo/Element/OtherID@domain	._domain	Composite_Element-#OtherID@domain	

	Native EIDR XPath	JSON Field Name¹²	TSV Column Name¹³
	/FullMetadata/ExtraObjectMetadata/CompositeInfo/Element/ComponentsMode	.ComponentsMode	Composite_Element-#ComponentsMode
	/FullMetadata/ExtraObjectMetadata/CompositeInfo/Element/SourceStart	.SourceStart	Composite_Element-#SourceStart
	/FullMetadata/ExtraObjectMetadata/CompositeInfo/Element/SourceDuration	.SourceDuration	Composite_Element-#SourceDuration
	/FullMetadata/ExtraObjectMetadata/CompositeInfo/Element/DestStart	.DestStart	Composite_Element-#DestStart
	/FullMetadata/ExtraObjectMetadata/CompositeInfo/Element/DestDuration	.DestDuration	Composite_Element-#DestDuration
	/FullMetadata/ExtraObjectMetadata/CompositeInfo/Element/Description	.Description	Composite_Element-#Description
LWR	/FullMetadata/ExtraObjectMetadata/(LWR-Name)Info	.(LWR-Name)Info	N/A
	/FullMetadata/ExtraObjectMetadata/(LWR-Name)Info/ID	.ID	(LWR-Name)-#ID
	/FullMetadata/ExtraObjectMetadata/(LWR-Name)Info/(LWR-Name)Class	.Class	(LWR-Name)-#Class
Provenance	/ProvenanceMetadata/ID	ID	EIDR_ID
	/ProvenanceMetadata/Status	Status	PublicationStatus
	/ProvenanceMetadata/Administrators	Administrators	N/A
	/ProvenanceMetadata/Administrators/Registrant	.Registrant	Registrant
	/ProvenanceMetadata/IssueNumber	IssueNumber	Provenance_IssueNumber
	/ProvenanceMetadata/CreatedBy	CreatedBy	CreatedBy
	/ProvenanceMetadata/CreationDate	CreationDate	CreationDate
	/ProvenanceMetadata/LastModifiedBy	LastModifiedBy	LastModifiedBy
	/ProvenanceMetadata/LastModificationDate	LastModificationDate	LastModificationDate
Alternate IDs	/AlternateIDs/ID	ID	EIDR_ID
		AlternateID[]	Num_AlternateID
	/AlternateIDs/AlternateID	.value	AlternateID_(Type/Domain)-#
	/AlternateIDs/AlternateID@type	._type	N/A
	/AlternateIDs/AlternateID@domain	._domain	N/A
	/AlternateIDs/AlternateID@relation	._relation	AlternateID_(Type/Domain)-#@relation
Linked Alt	/LinkedAlternateIDs/ID	ID	EIDR_ID
	/LinkedAlternateIDs/LinkedAlternateID	LinkedAlternateID[]	N/A
		.AlternateID[]	Num_AlternateID
	/LinkedAlternateIDs/LinkedAlternateID/AlternateID	.value	LinkedAlternateID_(Type/Domain)-#

	Native EIDR XPath	JSON Field Name ¹²	TSV Column Name ¹³
	/LinkedAlternateIDs/LinkedAlternateID/AlternateID@type	._type	N/A
	/LinkedAlternateIDs/LinkedAlternateID/AlternateID@domain	._domain	N/A
	/LinkedAlternateIDs/LinkedAlternateID/AlternateID@relation	._relation	LinkedAlternateID_(Type/Domain)-#@relation
		N/A	AlternateID_(Type/Domain)-#_Num_URL
	/LinkedAlternateIDs/LinkedAlternateID /URL	.URL[].value	AlternateID_(Type/Domain)-#_URL-#
	/LinkedAlternateIDs/LinkedAlternateID /URL@type	._type	AlternateID_(Type/Domain)-#_URL-#@type
DOI Kernel	/kernelMetadata/referentDoiName	referentDoiName	ReferentDOIName
	/kernelMetadata/primaryReferentType	primaryReferentType	PrimaryReferentType
	/kernelMetadata/registrationAgencyDoiName	registrationAgencyDoiName	RegistrationAgencyDOIName
	/kernelMetadata/issueDate	issueDate	IssueDate
	/kernelMetadata/issueNumber	issueNumber	DOI_IssueNumber
	/kernelMetadata/referentCreation	referentCreation	N/A
	/kernelMetadata/referentCreation/name	.name.value	Name
	/kernelMetadata/referentCreation/name@primaryLanguage	._primaryLanguage	Name@primaryLanguage
	/kernelMetadata/referentCreation/name/type	.type	Name@type
	/kernelMetadata/referentCreation/identifier	.identifier[].	Num_Identifier
	/kernelMetadata/referentCreation/identifier/nonUriValue	.nonUriValue	Identifier-#
		.N/A	Identifier-#_Num_URI
	/kernelMetadata/referentCreation/identifier/uri	.uri[].value	Identifier-#_URI-#
	/kernelMetadata/referentCreation/identifier/uri@returnType	._returnType	Identifier-#_URI-#@returnType
	/kernelMetadata/referentCreation/identifier/	._validNamespace	Identifier-#_URI-#@validNamespace
	/kernelMetadata/referentCreation/identifier/type	.type	Identifier-#_Type
	/kernelMetadata/referentCreation/identifier/type@validNamespace	._validNamespace	Identifier-#_Type_Namespace
	/kernelMetadata/referentCreation/structuralType	.structuralType	DOI_StructuralType
		N/A	Num_Mode
	/kernelMetadata/referentCreation/mode	.mode[]	DOI_Mode-#
	N/A	Num_Character	

Native EIDR XPath	JSON Field Name ¹²	TSV Column Name ¹³
/kernelMetadata/referentCreation/character	.character[]	Character-#
/kernelMetadata/referentCreation/type	.type	Type
/kernelMetadata/referentCreation/principalAgent	.principalAgent[]	Num_PrincipalAgent
/kernelMetadata/referentCreation/principalAgent/name/value	..name.value	PrincipalAgent-#
/kernelMetadata/referentCreation/principalAgent/name/type	.type	PrincipalAgent-#_Type
/kernelMetadata/referentCreation/principalAgent/identifier/value	.identifier.value	PrincipalAgent-#_Value
/kernelMetadata/referentCreation/principalAgent/identifier/type	.type	PrincipalAgent-#_ValueType
/kernelMetadata/referentCreation/principalAgent/role	.role	PrincipalAgent-#_Role
/kernelMetadata/referentCreation/linkedCreation	N/A	Num_LinkedCreation
/kernelMetadata/referentCreation/linkedCreation/identifier	N/A	LinkedCreation-#_Num_Identifier
/kernelMetadata/referentCreation/linkedCreation/identifier/nonUriValue	.nonUriValue	LinkedCreation-#_Identifier-#
/kernelMetadata/referentCreation/linkedCreation/identifier/uri	N/A	LinkedCreation-#_Identifier-#_Num_URI
/kernelMetadata/referentCreation/linkedCreation/identifier/uri/value	.value	LinkedCreation-#_Identifier-#_URI-#
/kernelMetadata/referentCreation/linkedCreation/identifier/uri@returnType	._returnType	LinkedCreation-#_Identifier-#_URI-#@returnType
/kernelMetadata/referentCreation/linkedCreation/type	.type	LinkedCreation-#_Identifier-#_Type
/kernelMetadata/referentCreation/linkedCreation/type@validNamespace	._validNamespace	LinkedCreation-#_Identifier-#_Type@namespace
/kernelMetadata/referentCreation/linkedCreation/linkedCreationRole	.linkedCreationRole	LinkedCreation-#_Role

3.2 PARTY REGISTRY

Native EIDR XPath	JSON Field Name	TSV Column Name
	N/A	Row_ID
/Party/ID	ID	ID
/Party/PartyName	PartyName	N/A
/Party/PartyName/DisplayName	.DisplayName	PartyName
	N/A	Num_AlternatePartyName
/Party/AlternatePartyName	.AlternatePartyName[]	AlternatePartyName-#

	Native EIDR XPath	JSON Field Name	TSV Column Name
	/Party/ContactInfo	ContactInfo	N/A
	/Party/ContactInfo/Name	.Name	ContactName
	/Party/ContactInfo/PrimaryEmail	.PrimaryEmail	ContactEmail
	/Party/Active	Active	Active
		N/A	Num_AllowedRoles
	/Party/AllowedRoles	AllowedRoles[]	AllowedRoles-#
DOI Kernel	/kernelMetadata/referentDoiName	referentDoiName	ReferentDOIName
	/kernelMetadata/primaryReferentType	primaryReferentType	PrimaryReferentType
	/kernelMetadata/registrationAgencyDoiName	registrationAgencyDoiName	RegistrationAgencyDOIName
	/kernelMetadata/issueDate	issueDate	IssueDate
	/kernelMetadata/issueNumber	issueNumber	DOI_IssueNumber
		N/A	Num_Party-Service
	/kernelMetadata/referentParty/name	referentParty.name[].value	Party-Service-#
	/kernelMetadata/referentParty/name@type	referentParty.name[].type	Party-Service-#@type
	/kernelMetadata/referentParty/identifier	referentParty.identifier	Party-ServiceID
	/kernelMetadata/referentParty/structuralType	referentParty.structuralType	Party-ServiceStructuralType
	/kernelMetadata/referentParty/associatedRole	referentParty.associatedRole	Party-ServiceRole
	/kernelMetadata/referentParty/associatedTerritory	referentParty.associatedTerritory	Party-ServiceTerritory
/kernelMetadata/referentParty/linkedParty	referentParty.linkedParty	ServiceLinkedParty	

3.1 VIDEO SERVICE REGISTRY

	Native EIDR XPath	JSON Field Name	TSV Columne
EIR		N/A	Row_ID
	/Service/ID	ID	ID
		ServiceName	N/A
	/Service/ServiceName/DisplayName	.DisplayName	ServiceName
	/Service/ServiceName@abbreviation	._abbreviation	ServiceName@abbreviation
		N/A	Num_AlternateServiceName
	/Service/AlternateServiceName	AlternatePartyName[]	AlternateServiceName-#

Native EIDR XPath	JSON Field Name	TSV Columne
/Service/AlternateServiceName@abbreviation	._abbreviation	AlternateServiceName-#@abbreviation
	AlternateID[]	Num_AlternateID
/Service/AlternateID	.value	AlternateID_(Type/Domain)-#
/Service/AlternateID@domain	._domain	N/A
/Service/Description	Description	Description
/Service/Parent	Parent	Parent
	N/A	Num_OtherAffiliation
/Service/OtherAffiliation	OtherAffiliation[]	OtherAffiliation[]
/Service/Active	Active	Active
	N/A	Num_Format
/Service/Format	Format[]	Format-#
/Service/PrimaryTimeZone	PrimaryTimeZone	PrimaryTimeZone
/Service/PrimaryAudioLanguage	PrimaryAudioLanguage	PrimaryAudioLanguage
	N/A	Num_DeliveryModel
/Service/DeliveryModel	DeliveryModel[]	DeliveryModel-#
/kernelMetadata/referentDoiName	referentDoiName	ReferentDOIName
/kernelMetadata/primaryReferentType	primaryReferentType	PrimaryReferentType
/kernelMetadata/registrationAgencyDoiName	registrationAgencyDoiName	RegistrationAgencyDOIName
/kernelMetadata/issueDate	issueDate	IssueDate
/kernelMetadata/issueNumber	issueNumber	DOI_IssueNumber
	N/A	Num_Party-Service
/kernelMetadata/referentParty/name	referentParty.name[].value	Party-Service-#
/kernelMetadata/referentParty/name@type	referentParty.name[].type	Party-Service-#@type
/kernelMetadata/referentParty/identifier	referentParty.identifier	Party-ServiceID
/kernelMetadata/referentParty/structuralType	referentParty.structuralType	Party-ServiceStructuralType
/kernelMetadata/referentParty/associatedRole	referentParty.associatedRole	Party-ServiceRole
/kernelMetadata/referentParty/associatedTerritory	referentParty.associatedTerritory	Party-ServiceTerritory
/kernelMetadata/referentParty/linkedParty	referentParty.linkedParty	ServiceLinkedParty

