PlanetPress® Connect

OL™ Software

REST API Cookbook with Working Examples

Version: 1.6

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Objectif Lune, Inc.
2030 Pie-IX, Suite 500
Montréal, QC, Canada, H1V 2C8

+1 (514) 875-5863
www.objectiflune.com

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Welcome to the PlanetPress Connect REST API Cookbook

This guide is aimed at technically experienced users who wish to learn and use the REST API available in **PlanetPress Connect** version 1.6.

The PlanetPress Connect REST API consists of many services that expose access to a number of areas including workflow, data entity management and file store operations.

These services can be used to perform various interactions with the PlanetPress Connect server such as:

- Upload & Manage Data Files, Data Mapping Configurations & Design Templates in File Store
- Create, Manage & Find Data Entities internal to the PlanetPress Connect Server
- Create & Monitor Processing Operations within the Workflow

The REST API also supports added security to restrict unauthorized access to the services.

This guide is broken down into three sections:

- Technical Overview - Overview of the concepts and structures used in PlanetPress Connect and the REST API
- Working Examples - Working examples of the PlanetPress Connect REST API in action (HTML5 & JavaScript/jQuery)
- REST API Reference - A complete reference to the PlanetPress Connect REST API & Services

It is recommended that the technical overview section be read first, followed by the working examples, using the REST API reference for greater detail on implementing any specific example.

Technical Overview

This section provides an overview of the concepts and structures used within PlanetPress Connect and the REST API.

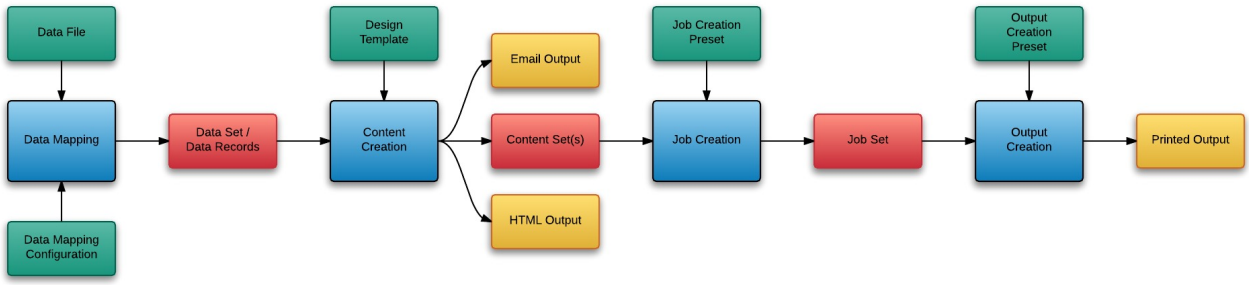
- Workflow & Workflow Processes
- Workflow Components
- Workflow Operations
- JSON Structures

Workflow & Workflow Processes

In PlanetPress Connect there are four main workflow processes: Data Mapping, Content Creation, Job Creation, and Output Creation.

There is also an additional workflow process, named All-In-One, which embodies all four other workflow processes in a singular process.

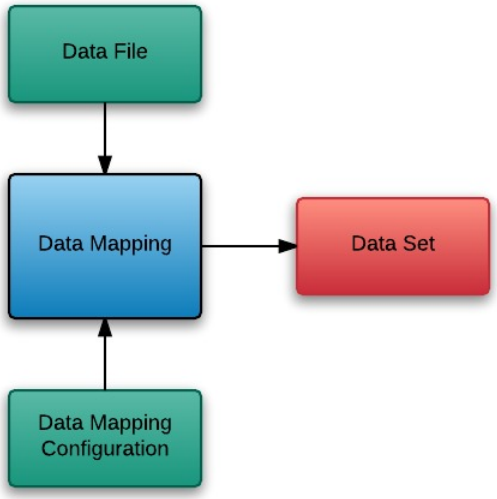
The following flowchart illustrates the primary workflow in PlanetPress Connect:



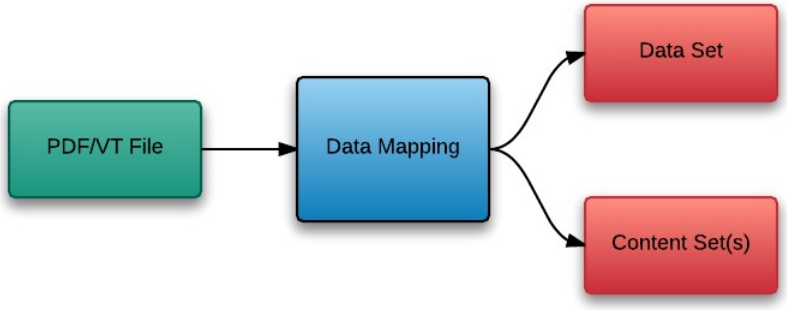
Data Mapping

The Data Mapping process involves taking a data file or source, applying a data mapping configuration to it, and producing a structured set of data or data records (a Data Set). This process can also produce a data set from a PDF/VT file using its internal meta data instead of a data mapping configuration.

The following flowchart illustrates the standard workflow for the Data Mapping process:



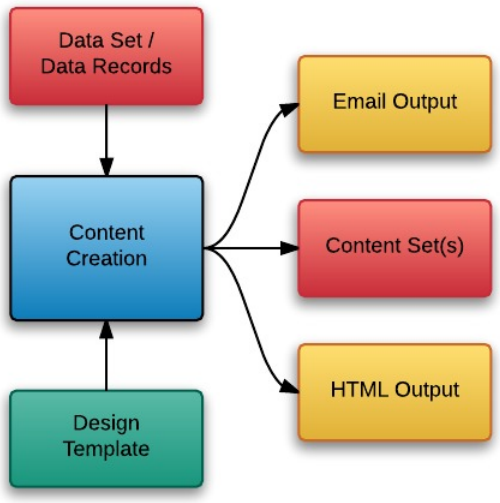
The following flowchart illustrates the alternative workflow for the Data Mapping process when using PDF/VT data files specifically:


PDF/VT File
Data Mapping
Data Set
Content Set(s)

Content Creation

The Content Creation process involves taking a number of data records (from a Data Set) combining it with a suitable design template, and producing a set or sets of content (Content Sets). If the content is for the email or web context then output can be published at this stage.

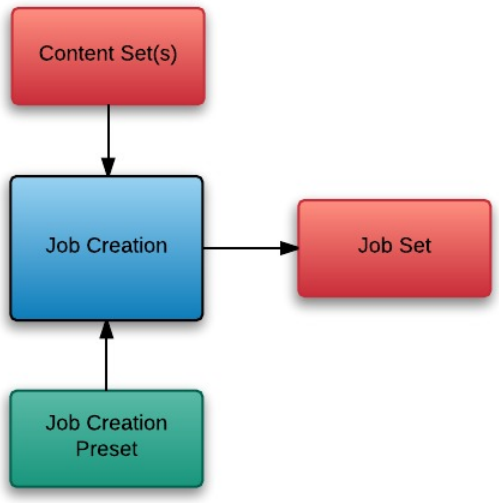
The following flowchart illustrates the standard workflow for the Content Creation process:



Job Creation

The Job Creation process involves taking one or more content sets and applying a preset for organising/sorting/grouping them into sets of logical jobs (a Job Set). This includes data filtering and finishing options.

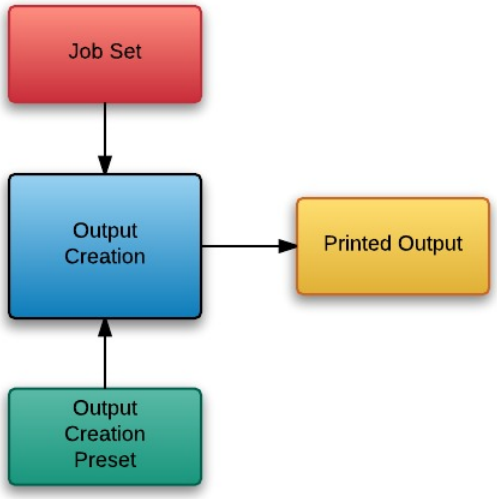
The following flowchart illustrates the standard workflow for the Job Creation process:



Output Creation

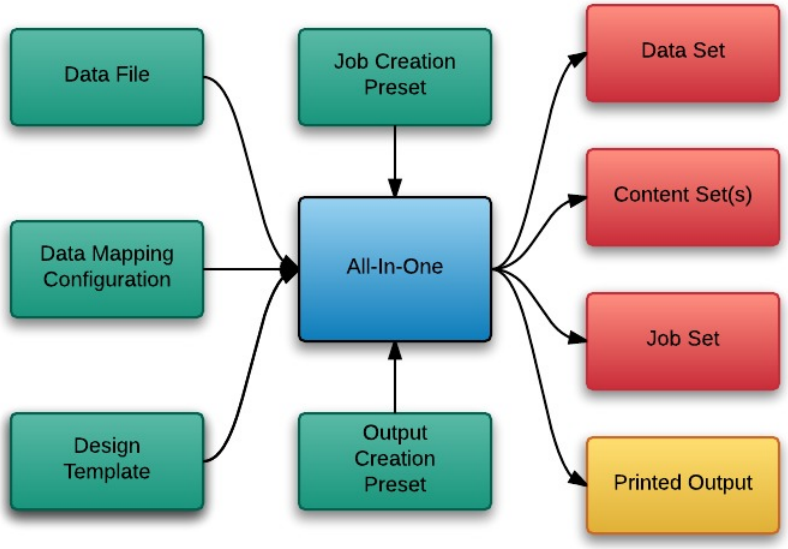
The Output Creation process involves taking a set of jobs, applying a preset and generating the printed output.

The following flowchart illustrates the standard workflow for the Output Creation process:



All-In-One

The following flowchart illustrates the potential inputs, outputs and workflows for the All-In-One process:



Workflow Components

Each process in the overall PlanetPress Connect workflow takes a series of inputs and produces output. These can be divided into Input Components and Data Entities.

Input Components

Input components are used as input to a specific workflow process. The following table lists the types of input components used in the PlanetPress Connect workflow:

Name	Relevant Workflow Process	File Name Examples
Data File	Data Mapping	• Promo-EN-10.csv • Promo-EN-10000.csv • PDFVT-Data.pdf
Data Mapping Configuration	Data Mapping	• Promo-EN.OL-datamapper • Transact-EN.OL-datamapper
Design Template	Content Creation	• letter-ol.OL-template • invoice-ol-transpromo.OL-template
Job Creation Preset	Job Creation	• Promo-EN-JC-Config.OL-jobpreset
Output Creation Preset	Output Creation	• FX4112_Hold_Config.OL-outputpreset • Promo-EN-OC-Config.OL-outputpreset

Data Entities

There are many data entity types used by PlanetPress Connect, but not all entities can be accessed through the REST API. The main types to be aware of when working with the API are Data Sets, Data Records, Content Sets, Content Items, Jobs Sets and Jobs. The following table lists these entity types in greater detail:

Entity	Description
Data Set & Data Records	The data set is the artefact produced by a data mapping operation. It holds the data that was mapped out of the input data file. A data mapping operation produces a single data set, which contains as many data records as there are documents. Each data record contains a collection of data values. The data records in the data set form the master record, or document record, which typically contains document recipient information. The master record can also contain a collection of data tables, which form the detail records that hold data such as invoice line items. Each data table contains a collection of data records, where each data record contains a collection of data values and a collection of data tables, and so on.
Content Sets & Content Items	The content set is the artefact produced by a content creation operation. It holds all the pages that were produced by the operation. A content creation operation produces one or more content sets, which contain as many content items as there were data records given at the start of the operation. Because the data records used may have different data set owners, a content set cannot be linked to a single data set, but rather content items are linked to data records. A content item is further divided in content sections and content pages.
Job Set & Jobs	The job set is the artefact produced by a job creation operation. It consists in a hierarchical structure that divides documents is various structures and basically decides which documents are to be printed and in which order. A job creation operation creates a single job set with contains a series of containers where every level contains one or more of the next level down: jobs, job segments, document sets, documents and document pages. The last level in the chain, the document pages, contains a single content item. Hence, at the job creation level, a document may consist of one or more content items.

Data entities can be produced as output from a workflow process and can then be used as input to another workflow process.

Workflow Operations

Each individual process in the overall workflow process can potentially be a long running operation.

Accordingly, an initial HTTP request is submitted to initiate the workflow operation, then additional requests are required to monitor progress and retrieve the final result. All the required detail is included in the HTTP response headers of the initial request, including the URIs that should be used for further processing

A successful request will return a response that will include the headers listed in the following table:

Header	Description
operationId	The unique id of the operation being processed
Link	Contains multiple link headers which provide details on which URI to use to retrieve further information on the operation: • Header with **rel="progress"** - The URL to use to check the progress of the operation • Header with **rel="result"** - The URL to use to retrieve the result of the operation • Header with **rel="cancel"** - The URL to use to cancel the operation

A request made to the **progress** URI during processing will return a progress percentage value of 0 to 100, and finally the value of ‘done’ once the operation has completed.

A request made to the **cancel** URI during processing will immediately cancel the operation.

A request made to the **result** URI after processing has completed will return the final result of the operation.

This approach is replicated across most workflow based services as demonstrated in the Working with the Workflow Services page of the Working Examples section.

JSON Structures

The following table lists the various JSON structures used by the PlanetPress Connect REST API:

Name	Example
JSON Identifier	`{ "identifier": 12345 }`
JSON Identifier (Named)	`{ "identifier": "Promo-EN-1000.csv" }`
JSON Identifier List	`{ "identifiers": [ 12345, 23456, 34567 ] }`
JSON Identifier (with createOnly flag)	`{ "identifier": 12345, "createOnly": true }`
JSON Identifier List (with createOnly flag)	`{ "identifiers": [ 12345, 23456, 34567 ], "createOnly": true }`
JSON Name/Value List (Properties Only)	`[ { "name": "start", "value": "2015-01-01 00:00:00T-0500" }, {`

Name	Example

	<pre>"name": "end",
	"value": "2015-12-31 23:59:59T-0500"
	}
	]</pre>

JSON Name/Value List	<pre>{
	"id": 12345,
	"properties": [
	{
	"name": "start",
	"value": "2015-01-01 00:00:00T-0500"
	},
	{
	"name": "end",
	"value": "2015-12-31 23:59:59T-0500"
	},
	]
	
	}</pre>

JSON Name/Value Lists	<pre>[
	{
	"id": 12345,
	"properties": [
	{
	"name": "start",
	"value": "2015-01-01 00:00:00T-0500"
	},
	{
	"name": "end",
	"value": "2015-12-31 23:59:59T-0500"
	},
	]
	},</pre>

Name	Example

	{
	"id": 23456,
	"properties": [
	{
	"name": "start",
	"value": "2015-01-01 00:00:00T-0500"
	},
	{
	"name": "end",
	"value": "2015-12-31 23:59:59T-0500"
	},
	]
	}
	]

JSON Record Content List	{ "id": 12345, "table": "record", "fields":[{ "name": "ID", "value": "CU00048376" }, { "name": "Gender", "value": "M." }, { "name": "FirstName", "value": "Benjamin" }, { "name": "LastName", "value": "Verret"

Name	Example

	<pre>}
	]
	}</pre>

JSON Record Content Lists	<pre>[
	{
	"id": 12345,
	"table": "record",
	"fields":[
	{
	"name": "ID",
	"value": "CU00048376"
	},
	{
	"name": "Gender",
	"value": "M."
	},
	{
	"name": "FirstName",
	"value": "Benjamin"
	},
	{
	"name": "LastName",
	"value": "Verret"
	}
	]
	},
	{
	"id": 23456,
	"table": "record",
	"fields":[
	{
	"name": "ID",
	"value": "CU01499303"</pre>

Name	Example
```
            },
            {
                "name": "Gender",
                "value": "Miss"
            },
            {
                "name": "FirstName",
                "value": "Dianne"
            },
            {
                "name": "LastName",
                "value": "Straka"
            }
        ]
    }
]
```
 |
| JSON Content Item Identifier List |
```
{
    "identifiers": [
        {
            "item": 12345,
            "record": 54321
        },
        {
            "item": 23456,
            "record":  65432
        },
        {
            "item": 34567,
            "record": 76543
        }
    ]
}
```
 |

Name	Example

JSON Data Record Identifier	<pre>{
	    "record": 12345
	}</pre>

JSON Identifier List (with Email Parameters)	<pre>{
	    "identifiers": [
	        12345,
	        23456
	    ],
	    "host": "mail.company.com",
	    "user": "johns",
	    "password": "password5",
	    "sender": "john.smith@company.com",
	    "useAuth": true,
	    "useStartTLS": false,
	    "useSender": true,
	    "attachWebPage": true,
	    "attachPdfPage": true
	}</pre>

JSON Job Set Structure	<pre>{
	    "jobs": [
	        {
	            // First Job in JobSet
	            "segments": [
	                {
	                    // First JobSegment in first Job
	                    "documentsets": [
	                        {
	                            // First DocumentSet in first JobSegment in first Job</pre>

Name	Example

	"documents": [
	{
	// First Document in first DocumentSet in first JobSegment in first Job
	"documentpages": [
	{
	// First DocumentPages in first Document in first DocumentSet in first JobSegment in first Job
	
	"contentitem": 111
	},
	{
	// Second DocumentPages in first Document in first DocumentSet in first JobSegment in first Job
	
	"contentitem": 222
	}
	]
	},
	{
	// Second Document in first DocumentSet in first JobSegment in first Job
	"documentpages": [
	{
	// First DocumentPages in second Document in first

Name	Example
```
            }
             ]
        },
        {
            // Second Job in JobSet
            "segments": [
                {
                    // First JobSegment in second
Job
                    "documentsets": [
                        {
                            // First DocumentSet in
first JobSegment in second Job
                            "documents": [
                                {
                                    // First
Document in first DocumentSet in first JobSegment in
second Job
                                    "documentpages":
[
                                        {
                                            // First
DocumentPages in first Document in first DocumentSet
in first JobSegment in second Job

"contentitem": 789
                                        }
                                    ]
                                }
                            ]
                        }
                    ]
                }
            ]
```
 |

Name	Example

JSON HTML Parameters List	{
	"section": "Section 1",
	"inline": "ALL"
	}

JSON All-In-One Configuration	{
	"datamining":
	{
	"identifier": "Promo-EN-1000.csv",
	"config": "Promo-EN.OL-datamapper"
	},
	"contentcreation":
	{
	"config": "letter-ol.OL-template"
	},
	"jobcreation":
	{
	"config": "4567"
	},
	"outputcreation":
	{
	"config": "5678",
	"createOnly": true
	},
	"printRange":
	{
	"printRange": "1-3, 6, 10"
	}
	}

JSON Page Details Summary	{

Name	Example

	"pages": [
	{
	"count": 200,
	"media": {
	"name": "Plain A4 Paper",
	"size": "A4",
	"width": "210mm",
	"height": "297mm"
	}
	},
	{
	"count": 108,
	"media": {
	"name": "Plain Letter Paper",
	"size": "Letter",
	"width": "8.5in",
	"height": "11in"
	}
	}
	]
	}

JSON Page Details List	[
	{
	"id": 12345,
	"pages": [
	{
	"count": 2,
	"media": {
	"name": "Plain A4 Paper",
	"size": "A4",
	"width": "210mm",
	"height": "297mm"

Name	Example
	`}, { "count": 1, "media": { "name": "Plain Letter Paper", "size": "Letter", "width": "8.5in", "height": "11in" } }] }, { "id": 23456, "pages": [{ "count": 2, "media": { "name": "Plain A4 Paper", "size": "A4", "width": "210mm", "height": "297mm" } }, { "count": 2, "media": { "name": "Plain Letter Paper", "size": "Letter", "width": "8.5in", "height": "11in" } }`

Name	Example

Working Examples

This section provides a number of working examples that demonstrate the use of the various resources and methods available in the PlanetPress Connect REST API.

For help on getting started with the PlanetPress Connect REST API Cookbook and the working examples, see the Getting Started page.

- Server Security & Authentication
- Working with the File Store
- Working with the Entity Services
- Working with the Workflow Services

Getting Started

This guide provides many working examples to help illustrate the correct use of a given API/method. To achieve this, the guide uses HTML5 & JavaScript/jQuery syntax, and thus, some basic experience and knowledge of these technologies is assumed.

HTML5: http://www.w3schools.com/html/

jQuery: https://jquery.com/

Help on installing and getting started with the working examples can be found on the Requirements & Installation and Structure of the Working Examples pages.

Important notes on general use of the working examples can be found in the HTML Input Placeholders & Multiple Value Fields and Display of Working Example Results pages.

If you have server security settings enabled on your PlanetPress Connect server then the Using the Working Examples with Server Security page should be read also.

Requirements & Installation

Requirements

To use the PlanetPress Connect REST API Cookbook with Working Examples source you will require the following:

1. A working installation of PlanetPress Connect
2. Any modern web browser able to display HTML5[1]

Warning

If using Internet Explorer, you may find issues when using the working examples with PlanetPress Connect's **Server Security Settings** set to *enabled.*

The working examples use HTML5 Local Storage to facilitate authentication and certain simplicity / ease-of-use (across browser tabs). Depending on how your Internet Explorer security settings are configured, you may experience issues if the security level of your zone is set too high.

Essentially, the security zone needs to have the security option **Userdata persistence** (under **Miscellaneous**) set to *enabled*. Without this option enabled, the working examples will not function correctly when using them with PlanetPress Connect's **Server Security Settings** set to enabled.

After running the Authenticate/Login to Server working example to re-authenticate, you should only need to refresh existing pages in order for the authentication credentials (token) to be picked up. In the case of Internet Explorer, you may need to restart the browser for the changes to be picked up.

If all else fails, disabling of the **Sever Security Settings** in the PlanetPress Connect Server Preferences should avoid issues with running the various examples on Internet Explorer.

It is recommended that you use a modern web-browser other than Internet Explorer when running the working examples.

[1] Any recent version of Mozilla Firefox, Google Chrome, or Opera with support for HTML5 should be suitable for running the working examples contained in this guide. Versions of Internet Explorer 10+ may also be suitable in some cases.

Installation

The working examples source comes pre-installed with PlanetPress Connect and can be located in a sub-directory of your existing PlanetPress Connect installation directory.

To locate the source on Windows:

1. Open up **Windows Explorer** and navigate to the PlanetPress Connect installation directory followed by its **plugins** sub-directory.
2. Find the **com.objectiflune.serverengine.rest.gui** directory and navigate to its **www** sub-directory
3. You should now be exploring the following or similar location:

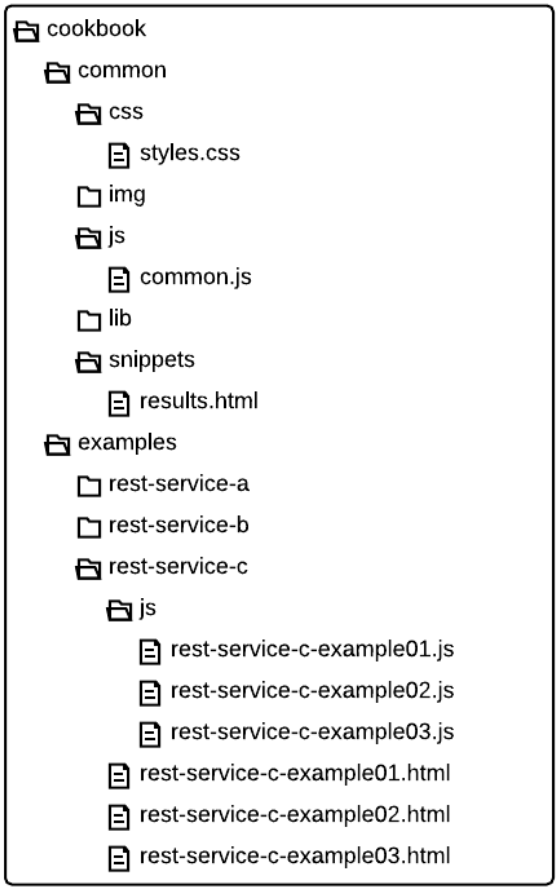
   C:\Program Files\Objectif Lune\OL Connect\plugins\com.objectiflune.serverengine.rest.gui_1.X.XXXXX.XXXXXXXX-XXXX\www
4. The **www** directory contains a **cookbook** sub-directory, which contains all of the working examples source. You should find a directory structure matching that shown on the Structure of the Working Examples page.

> **Note**
>
> You can access the PlanetPress Connect REST API Cookbook with Working Examples source locally by entering the following URL in your web browser:
>
> http://localhost:9340/serverengine/html/cookbook/index.html

Structure of the Working Examples

The working examples are designed to be complete examples, and will generally consists of one HTML5 file paired with a JavaScript/jQuery module which can be found in the *examples/<service-name>/js/* sub-directory.

Where any frequent or boilerplate functionality is commonly used across the examples, this has been moved to the *common/js/common.js* JavaScript/jQuery module.



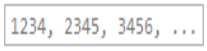
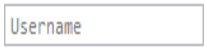
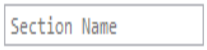
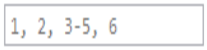
The examples make use of this module for functionality such as setting up the example, and displaying output results.

The examples also make use of some simple CSS classes as defined in *common/css/styles.css* and HTML snippets for the presentation of output results.

HTML Input Placeholders & Multiple Value Fields

In the working examples, HTML **input** elements make use of the **placeholder** attribute to help provide some indication of the type and format of the value expected to be entered / specified.

The following table lists examples of placeholders commonly used in the working examples:

HTML	Expected Type	Example Values
	Single ID Value	• 2341 • 3
	Single ID or Name Value (File Name)	• 2341 • Promo-EN-1000.csv
	One or More ID Values (comma separated)	• 2341, 2342 • 3456
 	Name (Text) Value	• ol-admin • Section 2
	Numerical Range	• 1, 2, 3 • 1-5 • 1, 2, 3-5, 6
	Email Address Value	• john.smith@contoso.com
	Server Hostname Value	• mailbox.contoso.com

Display of Working Example Results

When a working example is run, any results will be displayed in a **Results** area that will appear below the working example existing HTML interface.

For example:

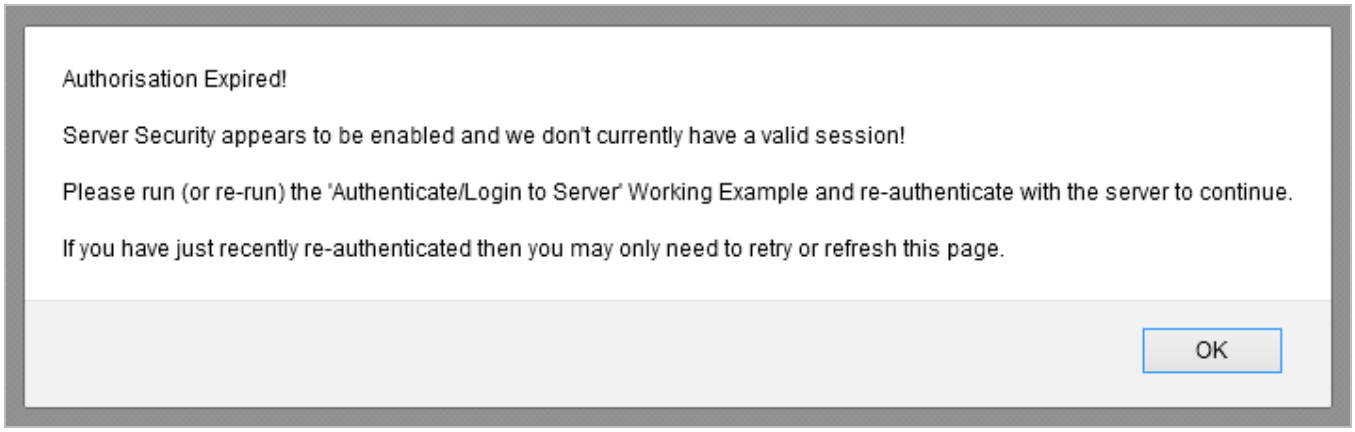
Note

In some examples the same result will displayed in both *plain* and *JSON structure* based formats. This is to assist ease-of-use when working with outputs of one example that will be needed as an input to another example.

A working example can be run multiple times, and each time the results will be appended below allowing you to compare the output of varying inputs. The **Clear** button can be selected at any time to clear all existing results.

Using the Working Examples with Server Security

If you have the **Server Security Settings** set to *enabled* in your PlanetPress Connect Server Preferences, then you may see the following dialog box initially display when working with the examples:



In the event of this dialog box, just follow the instructions and either refresh the page or re-authenticate by running the Authenticating with the Server (Authenticate/Login to Server) working example covered under the Server Security & Authentication section.

> **Note**
>
> Once re-authenticated, you shouldn't see this dialog box again for as long as your session remains active.

Server Security & Authentication

This section consists of a number of pages covering various useful working examples:

1. Authenticating with the Server

See the Authentication Service page of the REST API Reference section for further detail.

> **Note**
>
> A complete listing including these examples can be found in the **index.html** file located at the root of the working example source code which contains links to all working examples.

Authenticating with the Server

Problem

Your PlanetPress Connect Server is configured to use server security, and you want to authenticate with the server to obtain the correct access to make future requests.

Solution

The solution is to create a request using the following URI and method type to authenticate with the server via the Authentication REST service:

Authenticate/Login to Server	/rest/serverengine/authentication/login	*POST*

Example

HTML5

auth-login-server.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Authenticate/Login to Server Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/auth-login-server.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Authentication Service - Authenticate/Login to Server
Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="username">Username:</label>
                    <input id="username" type="text"
placeholder="Username" required>
                </div>
```

```
                <div>
                    <label for="password">Password:</label>
                    <input id="password" type="password"
placeholder="Password" required>
                </div>
                <div>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

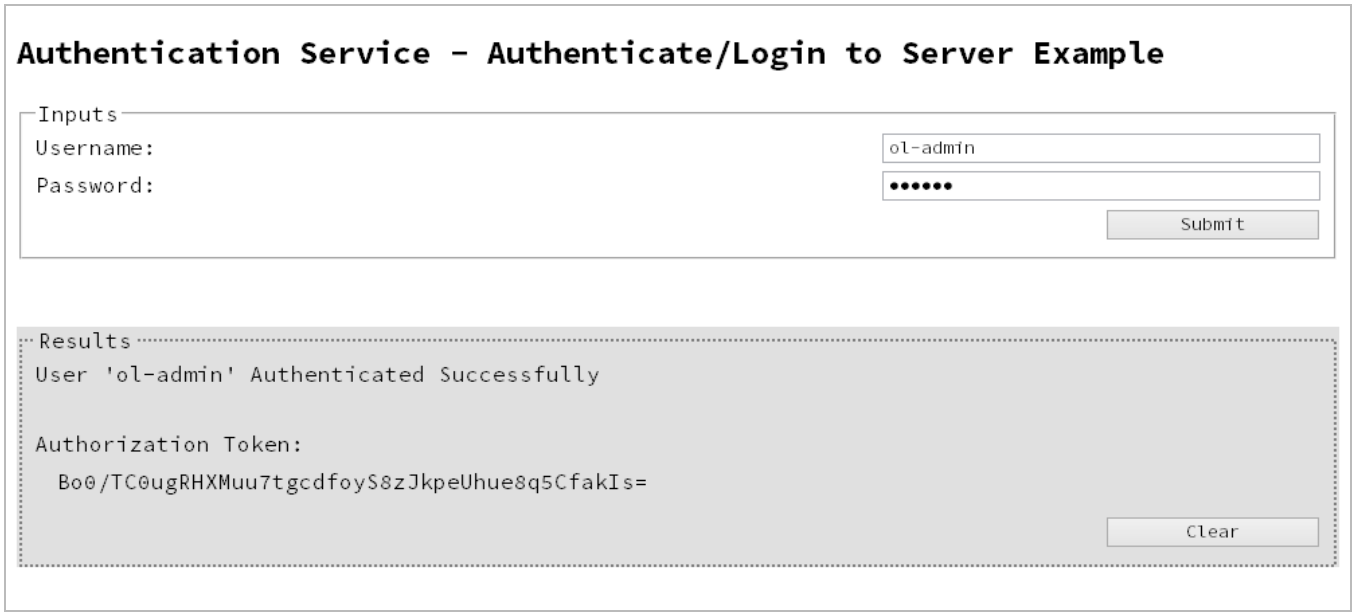
JavaScript/jQuery

auth-login-server.js

```
/* Authentication Service - Authenticate/Login to Server Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        $("form").on("submit", function (event) {

            event.preventDefault();

            var username = $("#username").val(),
                password = $("#password").val();

            $.ajax({
                beforeSend: function (xhr) {
                    var base64    = "Basic " + btoa(username + ":"
+ password);
                    xhr.setRequestHeader("Authorization", base64);
                },
                type:   "POST",
                url:    "/rest/serverengine/authentication/login"
            }).done(function (response) {
                displayStatus("User '" + username + "'
```

```
Authenticated Successfully");
                displayResult("Authorization Token", response);
                setSessionToken(response);
            }).fail(function (xhr, status, error) {
                displayStatus("Authentication of User '" + username
+ "' failed!");
                displayResult("Status", xhr.status + " " + error);
                displayResult("Error", xhr.responseText);
                setSessionToken(null);
            });
        });
    });
}(jQuery));
```

Screenshot & Output



Usage

To run the example simply enter your credentials into the **Username** and **Password** fields and select the **Submit** button.

Once selected, a request containing the credentials will be sent to the server and the result will be returned and displayed to the **Results** area.

If authentication was successful then the response will contain an **Authorization Token** that can be then used in the submission of future requests to the server.

Discussion

Firstly, we define an event handler that will run in response to the submission of the HTML form via the selection of the **Submit** button.

When our event hander function is called, we then obtain the value of the **Username** and **Password** fields. We define two variables, `username` to hold the value of the **Username** text field and `password` to hold the value of the **Password** text field.

Next we construct an jQuery AJAX request which will be sent to the Authentication REST service:

Method `type` and `url` arguments are specified as shown earlier.

We specify a `beforeSend` argument containing a function that will add an additional `Authorization` header to the request to facilitate Basic HTTP Authentication. The value of the `Authorization` request header is a Base64 digest of the `username` and `password` variables.

When the request is successful or done, a request response is received and the content of that response is passed as the function parameter `response`. In the example, we then display the value of this parameter which should be the new **Authorization Token** which can then be used in the submission of future requests to the server.

This is achieved by placing the value of the **Authorization Token** in the `auth_token` request header of a future request. In the example the common function `setSessionToken` is used to facilitate this function for all future working example requests.

Further Reading

See the Authentication Service page of the REST API Reference section for further detail.

Working with the File Store

This section consists of a number of pages covering various useful working examples:

1. Uploading a Data File to the File Store
2. Uploading a Data Mapping Configuration to the File Store
3. Uploading a Design Template to the File Store
4. Uploading a Job Creation Preset to the File Store
5. Uploading an Output Creation Preset to the File Store

See the File Store Service page of the REST API Reference section for further detail.

> **Note**
>
> A complete listing including these examples can be found in the **index.html** file located at the root of the working example source code which contains links to all working examples.

Uploading a Data File to the File Store

Problem

You want to upload a data file to the File Store so that it can be used as part of a Data Mapping operation.

Solution

The solution is to create a request using the following URI and method type to submit the data file to the server via the File Store REST service:

Upload Data File	/rest/serverengine/filestore/DataFile	*POST*

Example

HTML5

fs-datafile-upload.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Upload Data File Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/fs-datafile-upload.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>File Store Service - Upload Data File Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="datafile">Data File:</label>
                    <input id="datafile" type="file" required>
                </div>
            </fieldset>
            <fieldset>
```

```
                <legend>Options</legend>
                <div>
                    <label for="named">Named:</label>
                    <input id="named" type="checkbox">
                </div>
                <div>
                    <label for="persistent">Persistent:</label>
                    <input id="persistent" type="checkbox">
                </div>
            </fieldset>
            <fieldset>
                <legend>Actions</legend>
                <div>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

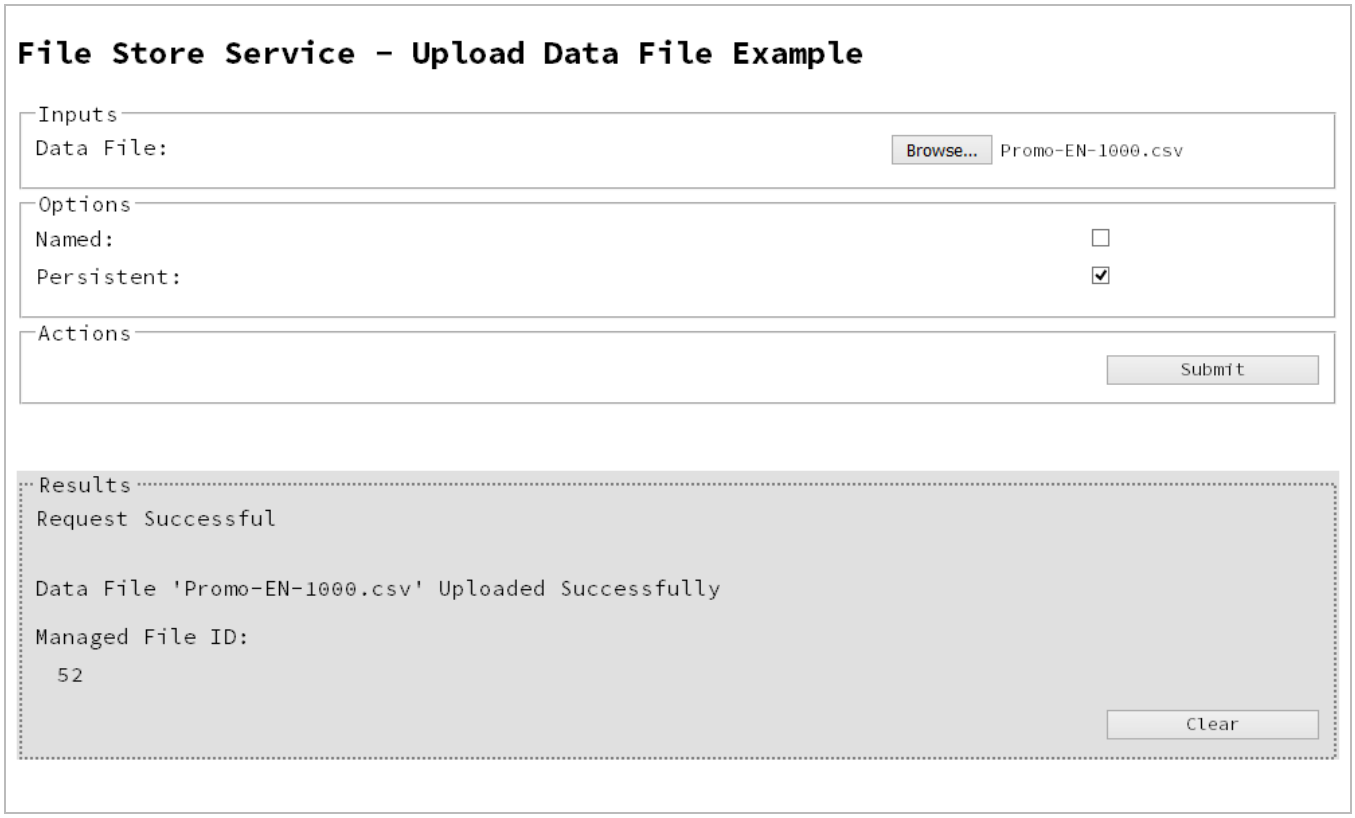
JavaScript/jQuery

fs-datafile-upload.js

```
/* File Store Service - Upload Data File Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var file = $("#datafile")[0].files[0],
                named = $("#named").is(":checked"),
                persistent = $("#persistent").is(":checked");

            var settings = {
```

```
                type:           "POST",
                url:
"/rest/serverengine/filestore/DataFile?persistent=" + persistent,
                data:           file,
                processData:    false,
                contentType:    "application/octet-stream"
            };
            if (named) { settings.url += "&filename=" + file.name;
}
            $.ajax(settings).done(function (response) {
                displayStatus("Request Successful");
                displayInfo("Data File '" + file.name + "' Uploaded
Successfully");
                displayResult("Managed File ID", response);
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output



Usage

To run the example simply select the **Browse** button and then select the data file you wish to upload using the selection dialog box.

Next you can specify the following options to use with the upload of the data file:

- **Named** - allow this file to be identified/referenced by its Managed File Name as well as its Managed File ID
- **Persistent** - make this file persistent in the file store

> **Note**
>
> Only one Managed File in the file store can be associated with a specific name. If two files are uploaded to the file store under the same name, then only the most recently uploaded file will be associated with (or can be referenced using) that name.

Once the file and options are selected, simply select the **Submit** button to upload the file to the server's file store and the resulting Managed File ID for the data file will be returned and displayed to the **Results** area.

Discussion

Firstly, we define an event handler that will run in response to the submission of the HTML form via the selection of the **Submit** button.

When our event handler function is called, we then obtain a reference to the local data file previously selected. This is achieved by getting the first value of the `files` attribute of the HTML element with the ID of `datafile` (in this case a file type input HTML element) and storing it in a variable `file`.

We also obtain boolean values for the **Named** and **Persistent** options (both checkbox type input HTML elements) and store them in the `named` and `persistent` variables respectively.

Next we construct a jQuery AJAX request which will be sent to the File Store REST service. We use an object called `settings` to hold the arguments for our request:

Method `type` and `url` arguments are specified as shown earlier, with the addition of a

`persistent` query parameter which specifies whether the file is to be persistent in the file store when uploaded.

We specify the variable `file` as the `data` or contents of the request, a `contentType` argument of `"application/octet-stream"`, and because we are sending file data we also specify a `processData` argument set to `false`.

If the **Named** option is checked in our form, and the `named` variable is `true`, then a `filename` query parameter is also added which contains the file name of the file selected (`file.name`).

Lastly, the `settings` object is passed as an argument to the jQuery AJAX function `ajax` and the request is executed.

When the request is successful or done, a request response is received and the content of that response is passed as the function parameter `response`. In the example, we then display the value of this parameter which should be the new Managed File ID of the data file in the file store.

Further Reading

See the File Store Service page of the REST API Reference section for further detail.

Uploading a Data Mapping Configuration to the File Store

Problem

You want to upload a data mapping configuration to the File Store so that it can be used as part of a Data Mapping operation.

Solution

The solution is to create a request using the following URI and method type to submit the data mapping configuration to the server via the File Store REST service:

Upload Data Mapping Configuration	/rest/serverengine/filestore/DataMiningConfig	*POST*

Example

HTML5

fs-datamapper-upload.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Upload Data Mapping Configuration Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/fs-datamapper-upload.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>File Store Service - Upload Data Mapping Configuration
Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="datamapper">Data Mapping
Configuration:</label>
                    <input id="datamapper" type="file" required>
```

```
                </div>
            </fieldset>
            <fieldset>
                <legend>Options</legend>
                <div>
                    <label for="named">Named:</label>
                    <input id="named" type="checkbox">
                </div>
                <div>
                    <label for="persistent">Persistent:</label>
                    <input id="persistent" type="checkbox">
                </div>
            </fieldset>
            <fieldset>
                <legend>Actions</legend>
                <div>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

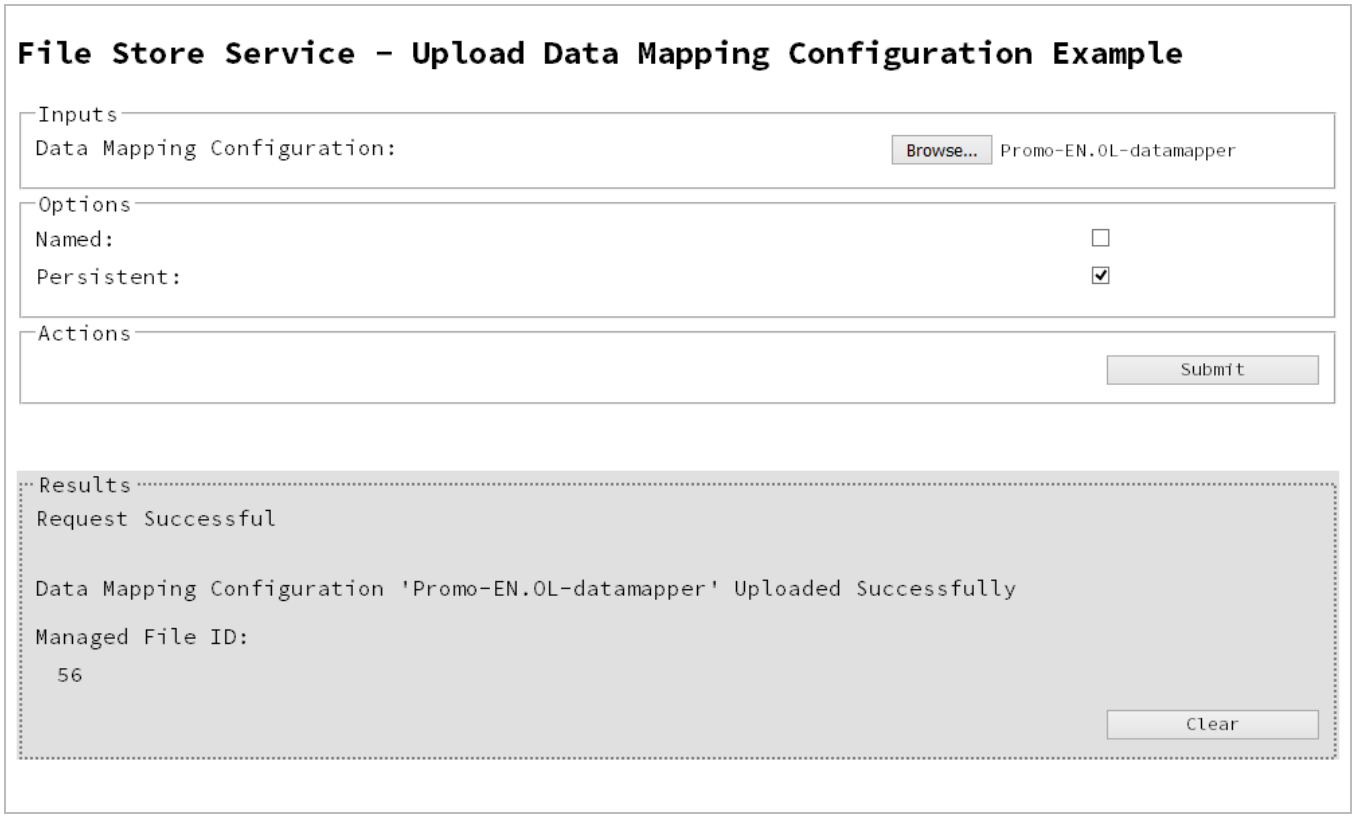
JavaScript/jQuery

fs-datamapper-upload.js

```
/* File Store Service - Upload Data Mapping Configuration Example
*/
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var file = $("#datamapper")[0].files[0],
```

```
                named = $("#named").is(":checked"),
                persistent = $("#persistent").is(":checked");

            var settings = {
                type:           "POST",
                url:
"/rest/serverengine/filestore/DataMiningConfig?persistent=" +
persistent,
                data:           file,
                processData:    false,
                contentType:    "application/octet-stream"
            };
            if (named) { settings.url += "&filename=" + file.name;
}
            $.ajax(settings).done(function (response) {
                displayStatus("Request Successful");
                displayInfo("Data Mapping Configuration '" +
file.name + "' Uploaded Successfully");
                displayResult("Managed File ID", response);
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output



Usage

To run the example simply select the **Browse** button and then select the data mapping configuration you wish to upload using the selection dialog box.

Next you can specify the following options to use with the upload of the data mapping configuration:

- **Named** - allow this configuration to be identified/referenced by its Managed File Name as well as its Managed File ID
- **Persistent** - make this configuration persistent in the file store

> **Note**
>
> Only one Managed File in the file store can be associated with a specific name. If two

files are uploaded to the file store under the same name, then only the most recently uploaded file will be associated with (or can be referenced using) that name.

Once the configuration and options are selected, simply select the **Submit** button to upload the configuration to the server's file store and the resulting Managed File ID for the data mapping configuration will be returned and displayed to the **Results** area.

Discussion

Firstly, we define an event handler that will run in response to the submission of the HTML form via the selection of the **Submit** button.

When our event handler function is called, we then obtain a reference to the local data mapping configuration previously selected. This is achieved by getting the first value of the `files` attribute of the HTML element with the ID of `datamapper` (in this case a file type input HTML element) and storing it in a variable `file`.

We also obtain boolean values for the **Named** and **Persistent** options (both checkbox type input HTML elements) and store them in the `named` and `persistent` variables respectively.

Next we construct a jQuery AJAX request which will be sent to the File Store REST service. We use an object called `settings` to hold the arguments for our request:

Method `type` and `url` arguments are specified as shown earlier, with the addition of a `persistent` query parameter which specifies whether the configuration is to be persistent in the file store when uploaded.

We specify the variable `file` as the `data` or contents of the request, a `contentType` argument of `"application/octet-stream"`, and because we are sending file data we also specify a `processData` argument set to `false`.

If the **Named** option is checked in our form, and the `named` variable is `true`, then a `filename` query parameter is also added which contains the file name of the configuration selected (`file.name`).

Lastly, the `settings` object is passed as an argument to the jQuery AJAX function `ajax` and the request is executed.

When the request is successful or done, a request response is received and the content of that response is passed as the function parameter `response`. In the example, we then display the value of this parameter which should be the new Managed File ID of the data mapping configuration in the file store.

Further Reading

See the File Store Service page of the REST API Reference section for further detail.

Uploading a Design Template to the File Store

Problem

You want to upload a design template to the File Store so that it can be used as part of a Content Creation operation.

Solution

The solution is to create a request using the following URI and method type to submit the design template to the server via the File Store REST service:

Upload Design Template	/rest/serverengine/filestore/template	*POST*

Example

HTML5

fs-designtemplate-upload.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Upload Design Template Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/fs-designtemplate-upload.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>File Store Service - Upload Design Template
Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="designtemplate">Design
Template:</label>
                    <input id="designtemplate" type="file"
required>
```

```
            </div>
        </fieldset>
        <fieldset>
            <legend>Options</legend>
            <div>
                <label for="named">Named:</label>
                <input id="named" type="checkbox" checked>
            </div>
            <div>
                <label for="persistent">Persistent:</label>
                <input id="persistent" type="checkbox">
            </div>
        </fieldset>
        <fieldset>
            <legend>Actions</legend>
            <div>
                <input id="submit" type="submit"
value="Submit">
            </div>
        </fieldset>
    </form>
</body>
</html>
```

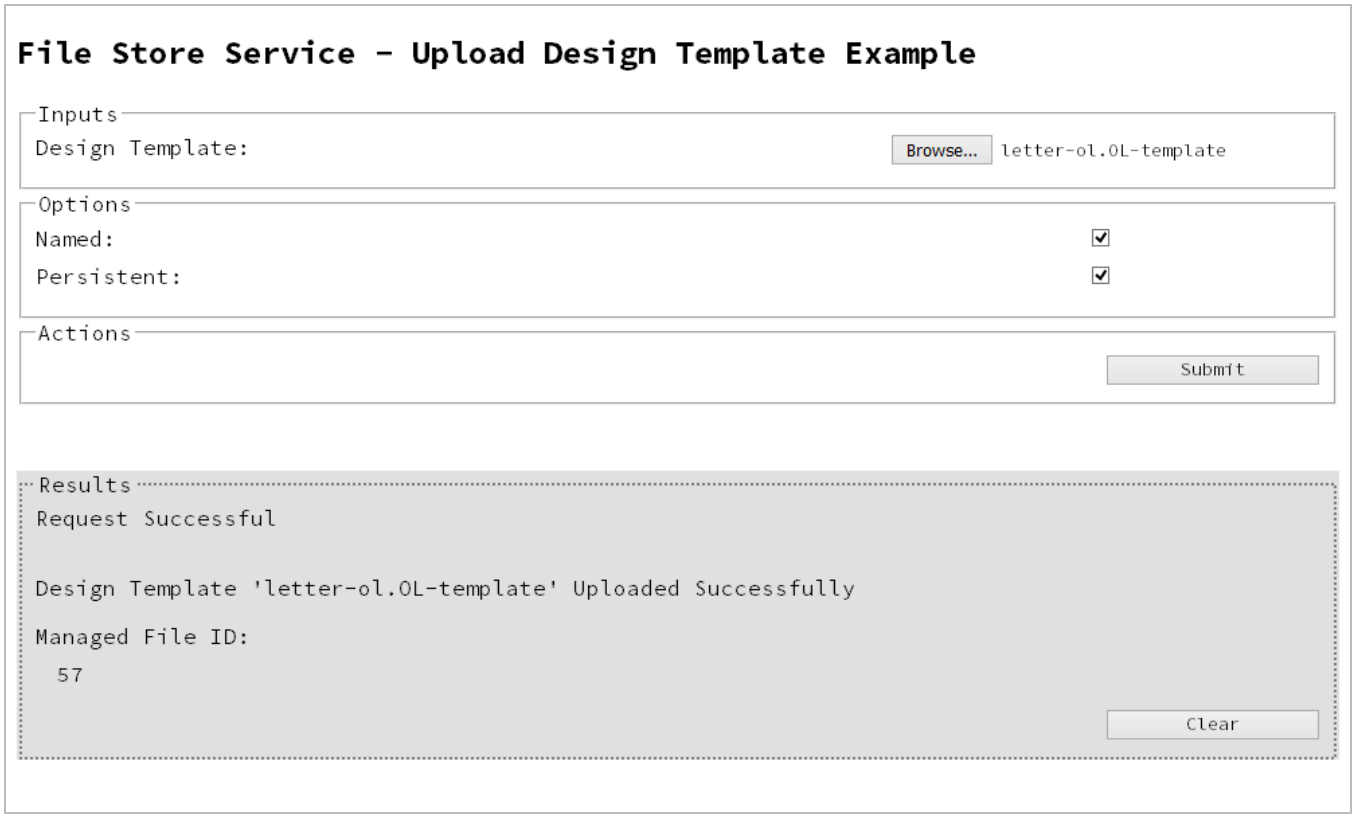
JavaScript/jQuery

fs-designtemplate-upload.js

```
/* File Store Service - Upload Design Template Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var file = $("#designtemplate")[0].files[0],
                named = $("#named").is(":checked"),
```

```
                persistent = $("#persistent").is(":checked");

            var settings = {
                type:           "POST",
                url:
"/rest/serverengine/filestore/template?persistent=" + persistent,
                data:           file,
                processData:    false,
                contentType:    "application/zip"
            };
            if (named) { settings.url += "&filename=" + file.name;
}
            $.ajax(settings).done(function (response) {
                displayStatus("Request Successful");
                displayInfo("Design Template '" + file.name + "'
Uploaded Successfully");
                displayResult("Managed File ID", response);
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output



Usage

To run the example simply select the **Browse** button and then select the design template you wish to upload using the selection dialog box.

Next you can specify the following options to use with the upload of the design template:

- **Named** - allow this template to be identified/referenced by its Managed File Name as well as its Managed File ID
- **Persistent** - make this template persistent in the file store

> **Note**
>
> Only one Managed File in the file store can be associated with a specific name. If two files are uploaded to the file store under the same name, then only the most recently

uploaded file will be associated with (or can be referenced using) that name.

Once the template and options are selected, simply select the **Submit** button to upload the template to the server's file store and the resulting Managed File ID for the design template will be returned and displayed to the **Results** area.

Discussion

Firstly, we define an event handler that will run in response to the submission of the HTML form via the selection of the **Submit** button.

When our event handler function is called, we then obtain a reference to the local design template previously selected. This is achieved by getting the first value of the `files` attribute of the HTML element with the ID of `designtemplate` (in this case a file type input HTML element) and storing it in a variable `file`.

We also obtain boolean values for the **Named** and **Persistent** options (both checkbox type input HTML elements) and store them in the `named` and `persistent` variables respectively.

Next we construct a jQuery AJAX request which will be sent to the File Store REST service. We use an object called `settings` to hold the arguments for our request:

Method `type` and `url` arguments are specified as shown earlier, with the addition of a `persistent` query parameter which specifies whether the template is to be persistent in the file store when uploaded.

We specify the variable `file` as the `data` or contents of the request, a `contentType` argument of `"application/zip"`, and because we are sending file data we also specify a `processData` argument set to `false`.

If the **Named** option is checked in our form, and the `named` variable is `true`, then a `filename` query parameter is also added which contains the file name of the template selected (`file.name`).

Lastly, the `settings` object is passed as an argument to the jQuery AJAX function `ajax` and the request is executed.

When the request is successful or done, a request response is received and the content of that response is passed as the function parameter `response`. In the example, we then display the value of this parameter which should be the new Managed File ID of the design template in the file store.

Further Reading

See the File Store Service page of the REST API Reference section for further detail.

Uploading a Job Creation Preset to the File Store

Problem

You want to upload a job creation preset to the File Store so that it can be used as part of a Job Creation operation.

Solution

The solution is to create a request using the following URI and method type to submit the job creation preset to the server via the File Store REST service:

Upload Job Creation Preset	/rest/serverengine/filestore/JobCreationConfig	*POST*

Example

HTML5

fs-jcpreset-upload.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Upload Job Creation Preset Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/fs-jcpreset-upload.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>File Store Service - Upload Job Creation Preset
Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="jcpreset">Job Creation
Preset:</label>
                    <input id="jcpreset" type="file" required>
```

```
                </div>
            </fieldset>
            <fieldset>
                <legend>Options</legend>
                <div>
                    <label for="named">Named:</label>
                    <input id="named" type="checkbox">
                </div>
                <div>
                    <label for="persistent">Persistent:</label>
                    <input id="persistent" type="checkbox">
                </div>
            </fieldset>
            <fieldset>
                <legend>Actions</legend>
                <div>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

fs-jcpreset-upload.js

```
/* File Store Service - Upload Job Creation Preset Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var file = $("#jcpreset")[0].files[0],
                named = $("#named").is(":checked"),
```

```
                persistent = $("#persistent").is(":checked");

            var settings = {
                type:           "POST",
                url:
"/rest/serverengine/filestore/JobCreationConfig?persistent=" +
persistent,
                data:           file,
                processData:    false,
                contentType:    "application/xml"
            };
            if (named) { settings.url += "&filename=" + file.name;
}
            $.ajax(settings).done(function (response) {
                displayStatus("Request Successful");
                displayInfo("Job Creation Preset '" + file.name +
"' Uploaded Successfully");
                displayResult("Managed File ID", response);
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output

Usage

To run the example simply select the **Browse** button and then select the job creation preset you wish to upload using the selection dialog box.

Next you can specify the following options to use with the upload of the job creation preset:

- **Named** - allow this preset to be identified/referenced by its Managed File Name as well as its Managed File ID
- **Persistent** - make this preset persistent in the file store

> **Note**
>
> Only one Managed File in the file store can be associated with a specific name. If two files are uploaded to the file store under the same name, then only the most recently

uploaded file will be associated with (or can be referenced using) that name.

Once the preset and options are selected, simply select the **Submit** button to upload the preset to the server's file store and the resulting Managed File ID for the job creation preset will be returned and displayed to the **Results** area.

Discussion

Firstly, we define an event handler that will run in response to the submission of the HTML form via the selection of the **Submit** button.

When our event handler function is called, we then obtain a reference to the local job creation preset previously selected. This is achieved by getting the first value of the `files` attribute of the HTML element with the ID of `jcpreset` (in this case a file type input HTML element) and storing it in a variable `file`.

We also obtain boolean values for the **Named** and **Persistent** options (both checkbox type input HTML elements) and store them in the `named` and `persistent` variables respectively.

Next we construct a jQuery AJAX request which will be sent to the File Store REST service. We use an object called `settings` to hold the arguments for our request:

Method `type` and `url` arguments are specified as shown earlier, with the addition of a `persistent` query parameter which specifies whether the preset is to be persistent in the file store when uploaded.

We specify the variable `file` as the `data` or contents of the request, a `contentType` argument of `"application/xml"`, and because we are sending file data we also specify a `processData` argument set to `false`.

If the **Named** option is checked in our form, and the `named` variable is `true`, then a `filename` query parameter is also added which contains the file name of the preset selected (`file.name`).

Lastly, the `settings` object is passed as an argument to the jQuery AJAX function `ajax` and the request is executed.

When the request is successful or done, a request response is received and the content of that response is passed as the function parameter `response`. In the example, we then display the value of this parameter which should be the new Managed File ID of the job creation preset in the file store.

Further Reading

See the File Store Service page of the REST API Reference section for further detail.

Uploading an Output Creation Preset to the File Store

Problem

You want to upload an output creation preset to the File Store so that it can be used as part of a Output Creation operation.

Solution

The solution is to create a request using the following URI and method type to submit the output creation preset to the server via the File Store REST service:

Upload Output Creation Preset	/rest/serverengine/filestore/OutputCreationConfig	*POST*

Example

HTML5

fs-ocpreset-upload.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Upload Output Creation Preset Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/fs-ocpreset-upload.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>File Store Service - Upload Output Creation Preset
Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="ocpreset">Output Creation
Preset:</label>
                    <input id="ocpreset" type="file" required>
```

```
                </div>
            </fieldset>
            <fieldset>
                <legend>Options</legend>
                <div>
                    <label for="named">Named:</label>
                    <input id="named" type="checkbox">
                </div>
                <div>
                    <label for="persistent">Persistent:</label>
                    <input id="persistent" type="checkbox">
                </div>
            </fieldset>
            <fieldset>
                <legend>Actions</legend>
                <div>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

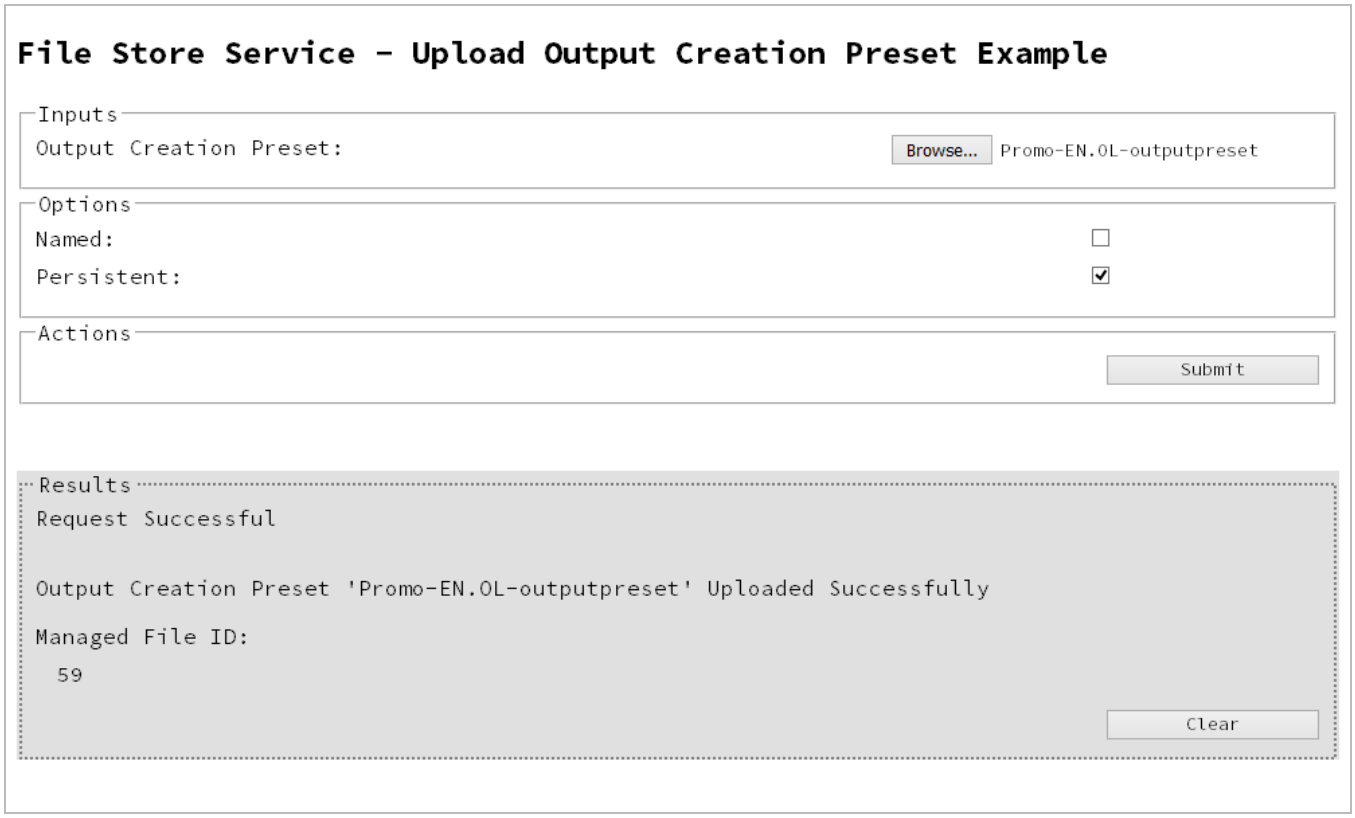
JavaScript/jQuery

fs-ocpreset-upload.js

```
/* File Store Service - Upload Output Creation Preset Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var file = $("#ocpreset")[0].files[0],
                named = $("#named").is(":checked"),
```

```
                persistent = $("#persistent").is(":checked");

            var settings = {
                type:           "POST",
                url:
"/rest/serverengine/filestore/OutputCreationConfig?persistent=" +
persistent,
                data:           file,
                processData:    false,
                contentType:    "application/xml"
            };
            if (named) { settings.url += "&filename=" + file.name;
}
            $.ajax(settings).done(function (response) {
                displayStatus("Request Successful");
                displayInfo("Output Creation Preset '" + file.name
+ "' Uploaded Successfully");
                displayResult("Managed File ID", response);
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output



Usage

To run the example simply select the **Browse** button and then select the output creation preset you wish to upload using the selection dialog box.

Next you can specify the following options to use with the upload of the output creation preset:

- **Named** - allow this preset to be identified/referenced by its Managed File Name as well as its Managed File ID
- **Persistent** - make this preset persistent in the file store

> **Note**
>
> Only one Managed File in the file store can be associated with a specific name. If two files are uploaded to the file store under the same name, then only the most recently

> uploaded file will be associated with (or can be referenced using) that name.

Once the preset and options are selected, simply select the **Submit** button to upload the preset to the server's file store and the resulting Managed File ID for the output creation preset will be returned and displayed to the **Results** area.

Discussion

Firstly, we define an event handler that will run in response to the submission of the HTML form via the selection of the **Submit** button.

When our event handler function is called, we then obtain a reference to the local output creation preset previously selected. This is achieved by getting the first value of the `files` attribute of the HTML element with the ID of `ocpreset` (in this case a file type input HTML element) and storing it in a variable `file`.

We also obtain boolean values for the **Named** and **Persistent** options (both checkbox type input HTML elements) and store them in the `named` and `persistent` variables respectively.

Next we construct a jQuery AJAX request which will be sent to the File Store REST service. We use an object called `settings` to hold the arguments for our request:

> Method `type` and `url` arguments are specified as shown earlier, with the addition of a `persistent` query parameter which specifies whether the preset is to be persistent in the file store when uploaded.
>
> We specify the variable `file` as the `data` or contents of the request, a `contentType` argument of `"application/xml"`, and because we are sending file data we also specify a `processData` argument set to `false`.
>
> If the Named option is checked in our form, and the `named` variable is `true`, then a `filename` query parameter is also added which contains the file name of the preset selected (`file.name`).

Lastly, the `settings` object is passed as an argument to the jQuery AJAX function `ajax` and the request is executed.

When the request is successful or done, a request response is received and the content of that `response` is passed as the function parameter response. In the example, we then display the value of this parameter which should be the new Managed File ID of the output creation preset in the file store.

Further Reading

See the File Store Service page of the REST API Reference section for further detail.

Working with the Entity Services

This section consists of a number of pages covering various useful working examples:

1. Finding all the Data Sets in the Server
2. Finding the Data Records in a Data Set
3. Finding all the Content Sets in the Server
4. Finding the Content Items in a Content Set
5. Finding all the Job Sets in the Server
6. Finding the Jobs in a Job Set

See the Data Set Entity Service, Content Set Entity Service and Job Set Entity Service pages of the REST API Reference section for further detail.

> **Note**
>
> A complete listing including these examples can be found in the **index.html** file located at the root of the working example source code which contains links to all working examples.

Finding all the Data Sets in the Server

Problem

You want to obtain a list of all the previously generated Data Sets contained in the PlanetPress Connect Server potentially for use in a Content Creation operation.

Solution

The solution is to create a request using the following URI and method type and submit it to the server via the Data Set Entity REST service:

Get All Data Set Entities	/rest/serverengine/entity/datasets	*GET*

Example

HTML5

dse-get-all-datasets.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Get All Data Sets Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/dse-get-all-datasets.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Data Set Entity Service - Get All Data Sets
Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="submit">No Input Required</label>
                    <input id="submit" type="submit"
value="Submit">
                </div>
```

```
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

dse-get-all-datasets.js

```
/* Data Set Entity Service - Get All Data Sets Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            $.ajax({
                type:   "GET",
                url:    "/rest/serverengine/entity/datasets"
            }).done(function (response) {
                displayStatus("Request Successful");
                displayHeading("Data Set IDs");
                displaySubResult("Plain", jsonIDListToPlain
(response));
                displaySubResult("JSON Identifier List",
jsonPrettyPrint(response));
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output

Usage

To run the example simply select the **Submit** button to request a list of the all the data sets currently contained within the server.

The resulting list will then be returned and displayed to the **Results** area in both Plain list and JSON Identifier List formats.

Further Reading

See the Data Set Entity Service page of the REST API Reference section for further detail.

Finding the Data Records in a Data Set

Problem

You want to obtain a list of all the previously generated Data Records contained within a specific Data Set potentially for use in a Content Creation operation.

Solution

The solution is to create a request using the following URI and method type and submit it to the server via the Data Set Entity REST service:

Get Data Records for Data Set	/rest/serverengine/entity/datasets/{dataSetId}	*GET*

Example

HTML5

dse-get-datarecords.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Get Data Records for Data Set Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/dse-get-datarecords.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Data Set Entity Service - Get Data Records for Data Set
Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="dataset">Data Set ID:</label>
                    <input id="dataset" type="text"
placeholder="1234" required>
```

```
                </div>
                <div>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

dse-get-datarecords.js

```
/* Data Set Entity Service - Get Data Records for Data Set Example
*/
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var dataSetId = $("#dataset").val();

            $.ajax({
                type:   "GET",
                url:    "/rest/serverengine/entity/datasets/" +
dataSetId
            }).done(function (response) {
                displayStatus("Request Successful");
                displayHeading("Data Record IDs for Data Set '" +
dataSetId + "'");
                displaySubResult("Plain", jsonIDListToPlain
(response));
                displaySubResult("JSON Identifier List",
jsonPrettyPrint(response));
            }).fail(displayDefaultFailure);
```

```
        });
    });
}(jQuery));
```

Screenshot & Output

Usage

To run the example simply enter the **Data Set ID** and select the **Submit** button to request a list of the all the data records contained within the specific data set in the server.

The resulting list will then be returned and displayed to the **Results** area in both Plain list and JSON Identifier List formats.

Further Reading

See the Data Set Entity Service page of the REST API Reference section for further detail.

Finding all the Content Sets in the Server

Problem

You want to obtain a list of all the previously generated Content Sets contained in the PlanetPress Connect Server potentially for use in a Job Creation operation.

Solution

The solution is to create a request using the following URI and method type and submit it to the server via the Content Set Entity REST service:

Get All Content Set Entities	/rest/serverengine/entity/contentsets	*GET*

Example

HTML5

cse-get-all-contentsets.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Get All Content Sets Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/cse-get-all-contentsets.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Content Set Entity Service - Get All Content Sets
Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="submit">No Input Required</label>
                    <input id="submit" type="submit"
value="Submit">
                </div>
```

```
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

cse-get-all-contentsets.js

```
/* Content Set Entity Service - Get All Content Sets Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            $.ajax({
                type:   "GET",
                url:    "/rest/serverengine/entity/contentsets"
            }).done(function (response) {
                displayStatus("Request Successful");
                displayHeading("Content Set IDs");
                displaySubResult("Plain", jsonIDListToPlain
(response));
                displaySubResult("JSON Identifier List",
jsonPrettyPrint(response));
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output

Usage

To run the example simply select the **Submit** button to request a list of the all the content sets currently contained within the server.

The resulting list will then be returned and displayed to the **Results** area in both Plain list and JSON Identifier List formats.

Further Reading

See the Content Set Entity Service page of the REST API Reference section for further detail.

Finding the Content Items in a Content Set

Problem

You want to obtain a list of all the previously generated Content Items contained within a specific Content Set potentially for use in a Job Creation operation.

Solution

The solution is to create a request using the following URI and method type and submit it to the server via the Content Set Entity REST service:

Get Content Items for Content Set	/rest/serverengine/entity/contentsets/{contentSetId}	*GET*

Example

HTML5

cse-get-contentitems.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Get Content Items for Content Set Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/cse-get-contentitems.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Content Set Entity Service - Get Content Items for
Content Set Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="contentset">Content Set ID:</label>
                    <input id="contentset" type="text"
placeholder="1234" required>
```

```
                </div>
                <div>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

cse-get-contentitems.js

```
/* Content Set Entity Service - Get Content Items for Content Set
Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var contentSetId = $("#contentset").val();

            $.ajax({
                type:   "GET",
                url:    "/rest/serverengine/entity/contentsets/" +
contentSetId
            }).done(function (response) {
                displayStatus("Request Successful");
                displayHeading("Content Item IDs for Content Set '"
+ contentSetId + "'");
                displaySubResult("Plain",
jsonContentItemIDListToTable(response));
                displaySubResult("JSON Content Item Identifier
List", jsonPrettyPrint(response));
            }).fail(displayDefaultFailure);
```

```
        });
    });
}(jQuery));
```

Screenshot & Output

Usage

To run the example simply enter the **Content Set ID** and select the **Submit** button to request a list of the all the content items contained within the specific content set in the server.

The resulting list will then be returned as a list of Content Item and Data Record ID pairs which will be displayed to the **Results** area in both Plain table and JSON Content Item Identifier List formats.

Further Reading

See the Content Set Entity Service page of the REST API Reference section for further detail.

Finding all the Job Sets in the Server

Problem

You want to obtain a list of all the previously generated Job Sets contained in the PlanetPress Connect Server potentially for use in a Output Creation operation.

Solution

The solution is to create a request using the following URI and method type and submit it to the server via the Job Set Entity REST service:

Get All Job Set Entities	/rest/serverengine/entity/jobsets	*GET*

Example

HTML5

jse-get-all-jobsets.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Get All Job Sets Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/jse-get-all-jobsets.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Job Set Entity Service - Get All Job Sets Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="submit">No Input Required</label>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
```

```
        </form>
    </body>
</html>
```

JavaScript/jQuery

jse-get-all-jobsets.js

```
/* Job Set Entity Service - Get All Job Sets Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            $.ajax({
                type:   "GET",
                url:    "/rest/serverengine/entity/jobsets"
            }).done(function (response) {
                displayStatus("Request Successful");
                displayHeading("Job Set IDs");
                displaySubResult("Plain", jsonIDListToPlain
(response));
                displaySubResult("JSON Identifier List",
jsonPrettyPrint(response));
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output

Usage

To run the example simply select the **Submit** button to request a list of the all the job sets currently contained within the server.

The resulting list will then be returned and displayed to the **Results** area in both Plain list and JSON Identifier List formats.

Further Reading

See the Job Set Entity Service page of the REST API Reference section for further detail.

Finding the Jobs in a Job Set

Problem

You want to obtain a list of all the previously generated Jobs contained within a specific Job Set potentially for use in a Output Creation operation.

Solution

The solution is to create a request using the following URI and method type and submit it to the server via the Job Set Entity REST service:

Get Jobs for Job Set	/rest/serverengine/entity/jobsets/{jobSetId}	*GET*

Example

HTML5

jse-get-jobs.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Get Jobs for Job Set Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/jse-get-jobs.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Job Set Entity Service - Get Jobs for Job Set
Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="jobset">Job Set ID:</label>
                    <input id="jobset" type="text"
placeholder="1234" required>
                </div>
```

```
                <div>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

jse-get-jobs.js

```
/* Job Set Entity Service - Get Jobs for Job Set Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var jobSetId = $("#jobset").val();

            $.ajax({
                type:   "GET",
                url:    "/rest/serverengine/entity/jobsets/" +
jobSetId
            }).done(function (response) {
                displayStatus("Request Successful");
                displayHeading("Job IDs for Job Set '" + jobSetId +
"'");
                displaySubResult("Plain", jsonIDListToPlain
(response));
                displaySubResult("JSON Identifier List",
jsonPrettyPrint(response));
            }).fail(displayDefaultFailure);
        });
    });
```

```
}(jQuery));
```

Screenshot & Output

Usage

To run the example simply enter the **Job Set ID** and select the **Submit** button to request a list of the all the jobs contained within the specific job set in the server.

The resulting list will then be returned and displayed to the **Results** area in both Plain list and JSON Identifier List formats.

Further Reading

See the Job Set Entity Service page of the REST API Reference section for further detail.

Working with the Workflow Services

This section consists of a number of pages covering various useful working examples:

1. Running a Data Mapping Operation
2. Running a Data Mapping Operation (Using JSON)
3. Running a Data Mapping Operation for PDF/VT File (to Data Set)
4. Running a Data Mapping Operation for PDF/VT File (to Content Set)
5. Running a Content Creation Operation for Print
6. Running a Content Creation Operation for Print By Data Record (Using JSON)
7. Running a Content Creation Operation for Email By Data Record (Using JSON)
8. Creating Content for Web By Data Record
9. Creating Content for Web By Data Record (Using JSON)
10. Running a Job Creation Operation (Using JSON)
11. Running an Output Creation Operation
12. Running an Output Creation Operation (Using JSON)
13. Running an Output Creation Operation By Job (Using JSON)
14. Running an All-In-One Operation (Using JSON)

See the Data Mapping Service, Content Creation Service, Content Creation (Email) Service, Content Creation (HTML) Service, Job Creation Service, Output Creation Service and All-In-One Service pages of the REST API Reference section for further detail.

Note

A complete listing including these examples can be found in the **index.html** file located at the root of the working example source code which contains links to all working examples.

Running a Data Mapping Operation

Problem

You want to run a data mapping operation to generate a Data Set using a data file and a data mapping configuration as inputs.

Solution

The solution is to make a series of requests using the following URIs and method types to submit, monitor progress and ultimately retrieve the result of the data mapping operation. There is also the option of cancelling an operation during processing if required. These requests can be submitted via the Data Mapping REST service:

Process Data Mapping	/rest/serverengine/workflow/datamining/{configId}/{dataFileId}	*POST*
Get Progress of Operation	/rest/serverengine/workflow/datamining/getProgress/{operationId}	*GET*
Get Result of Operation	/rest/serverengine/workflow/datamining/getResult/{operationId}	*POST*
Cancel an Operation	/rest/serverengine/workflow/datamining/cancel/{operationId}	*POST*

Example

HTML5

dm-process.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Process Data Mapping Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/dm-process.js"></script>
```

```
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Data Mapping Service - Process Data Mapping
Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="datafile">Data File
ID/Name:</label>
                    <input id="datafile" type="text"
placeholder="1234 or Filename" required>
                </div>
                <div>
                    <label for="datamapper">Data Mapping
Configuration ID/Name:</label>
                    <input id="datamapper" type="text"
placeholder="1234 or Filename" required>
                </div>
            </fieldset>
            <fieldset>
                <legend>Progress & Actions</legend>
                <div>
                    <progress value="0" max="100"></progress>
                </div>
                <div>
                    <input id="cancel" type="button" value="Cancel"
disabled>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

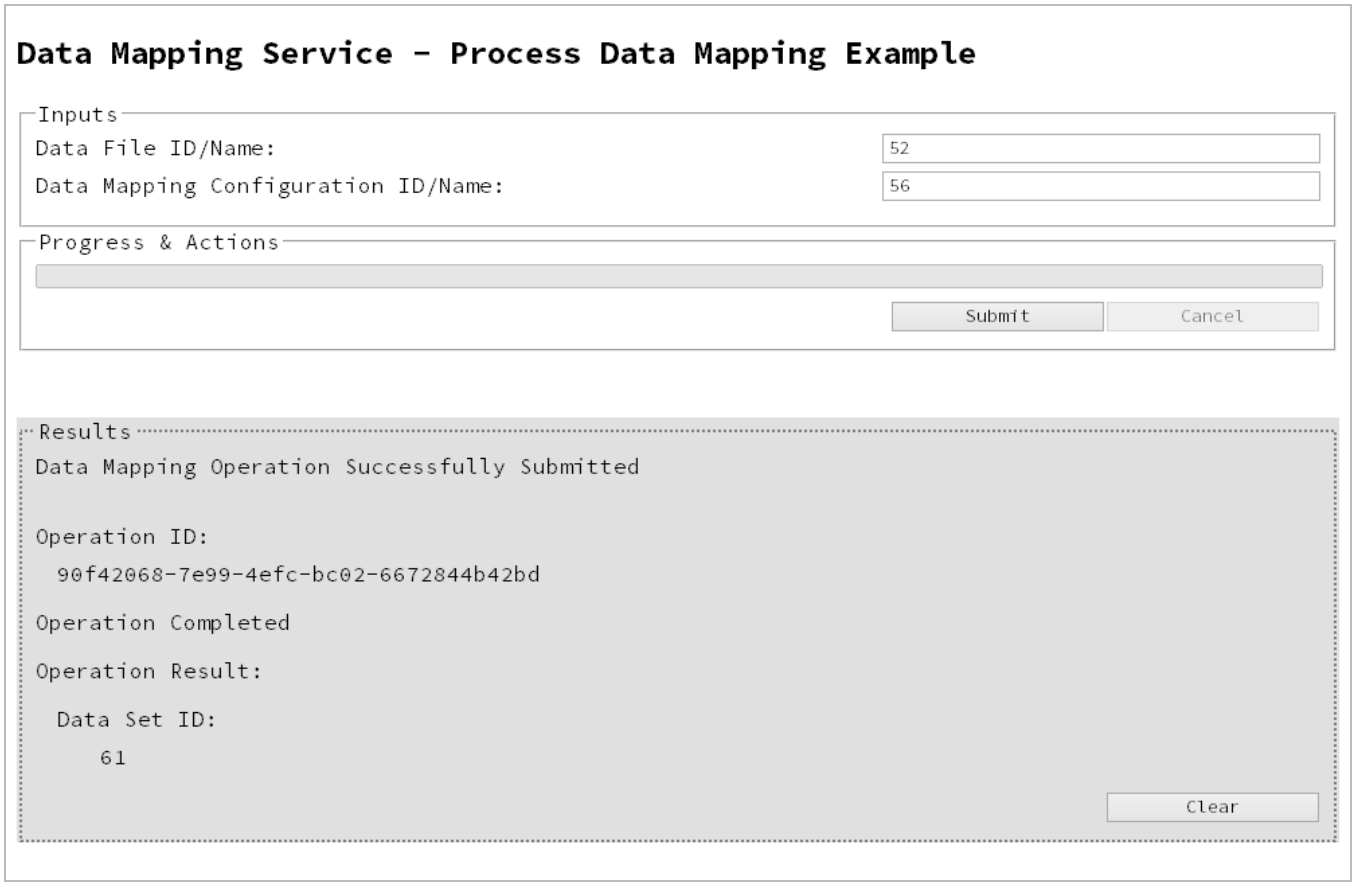
dm-process.js

```
/* Data Mapping Service - Process Data Mapping Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        var $submitButton = $("#submit"),
            $cancelButton = $("#cancel"),
            $progressBar = $("progress"),
            operationId = null;

        $cancelButton.on("click", function () {
            if (operationId !== null) {

                /* Cancel an Operation */
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/datamining/cancel/" + operationId
                }).done(function (response) {
                    displayInfo("Operation Cancelled!");
                    operationId = null;
                    setTimeout(function () {
                        $progressBar.attr("value", 0);
                        $submitButton.removeAttr("disabled");
                        $cancelButton.attr("disabled", "disabled");
                    }, 100);
                }).fail(displayDefaultFailure);
            }
        });

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var configId = $("#datamapper").val(),
                dataFileId = $("#datafile").val();

            var getFinalResult = function () {

                /* Get Result of Operation */
```

```
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/datamining/getResult/" + operationId
                }).done(function (response, status, request) {
                    displayHeading("Operation Result");
                    displaySubResult("Data Set ID", response);
                }).fail(displayDefaultFailure);
            };

            /* Process Data Mapping */
            $.ajax({
                type:   "POST",
                url:    "/rest/serverengine/workflow/datamining/" +
configId + "/" + dataFileId
            }).done(function (response, status, request) {

                var progress = null;
                operationId = request.getResponseHeader
("operationId");

                $submitButton.attr("disabled", "disabled");
                $cancelButton.removeAttr("disabled");

                displayStatus("Data Mapping Operation Successfully
Submitted");
                displayResult("Operation ID", operationId);

                var getProgress = function () {
                    if (operationId !== null) {

                        /* Get Progress of Operation */
                        $.ajax({
                            type:   "GET",
                            cache:  false,
                            url:
"/rest/serverengine/workflow/datamining/getProgress/" + operationId
                        }).done(function (response, status,
request) {

                            if (response !== "done") {
                                if (response !== progress) {
                                    progress = response;
```

```
                                    $progressBar.attr("value",
progress);
                                }
                                setTimeout(getProgress, 1000);
                            } else {
                                $progressBar.attr("value",
(progress = 100));
                                displayInfo("Operation Completed");
                                getFinalResult();
                                operationId = null;
                                setTimeout(function () {
                                    $progressBar.attr("value", 0);
                                    $submitButton.removeAttr
("disabled");
                                    $cancelButton.attr("disabled",
"disabled");
                                }, 100);
                            }
                        }).fail(displayDefaultFailure);
                    }
                };
                getProgress();
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output



Usage

To run the example simply enter the **Managed File ID or Name** for your data file and your data mapping configuration (previously uploaded to the file store) into the appropriate text fields, and then select the **Submit** button to start the data mapping operation.

Once the operation has started processing, the Operation ID will be displayed in the **Results** area and the **Cancel** button will become enabled, giving you the option to cancel the running operation.

The progress of the operation will be displayed in the progress bar, and once the data mapping operation has completed, the ID of the generated Data Set will be returned and displayed to the **Results** area.

Further Reading

See the Data Mapping Service page of the REST API Reference section for further detail.

Running a Data Mapping Operation (Using JSON)

Problem

You want to run a data mapping operation to generate a Data Set using a data file and a data mapping configuration as inputs.

Solution

The solution is to make a series of requests using the following URIs and method types to submit, monitor progress and ultimately retrieve the result of the data mapping operation. There is also the option of cancelling an operation during processing if required. These requests can be submitted via the Data Mapping REST service:

Process Data Mapping (JSON)	/rest/serverengine/workflow/datamining/{configId}	*POST*
Get Progress of Operation	/rest/serverengine/workflow/datamining/getProgress/{operationId}	*GET*
Get Result of Operation	/rest/serverengine/workflow/datamining/getResult/{operationId}	*POST*
Cancel an Operation	/rest/serverengine/workflow/datamining/cancel/{operationId}	*POST*

Example

HTML5

dm-process-json.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Process Data Mapping (JSON) Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/dm-process-json.js"></script>
```

```
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Data Mapping Service - Process Data Mapping (JSON)
Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="datafile">Data File
ID/Name:</label>
                    <input id="datafile" type="text"
placeholder="1234 or Filename" required>
                </div>
                <div>
                    <label for="datamapper">Data Mapping
Configuration ID/Name:</label>
                    <input id="datamapper" type="text"
placeholder="1234 or Filename" required>
                </div>
            </fieldset>
            <fieldset>
                <legend>Progress & Actions</legend>
                <div>
                    <progress value="0" max="100"></progress>
                </div>
                <div>
                    <input id="cancel" type="button" value="Cancel"
disabled>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

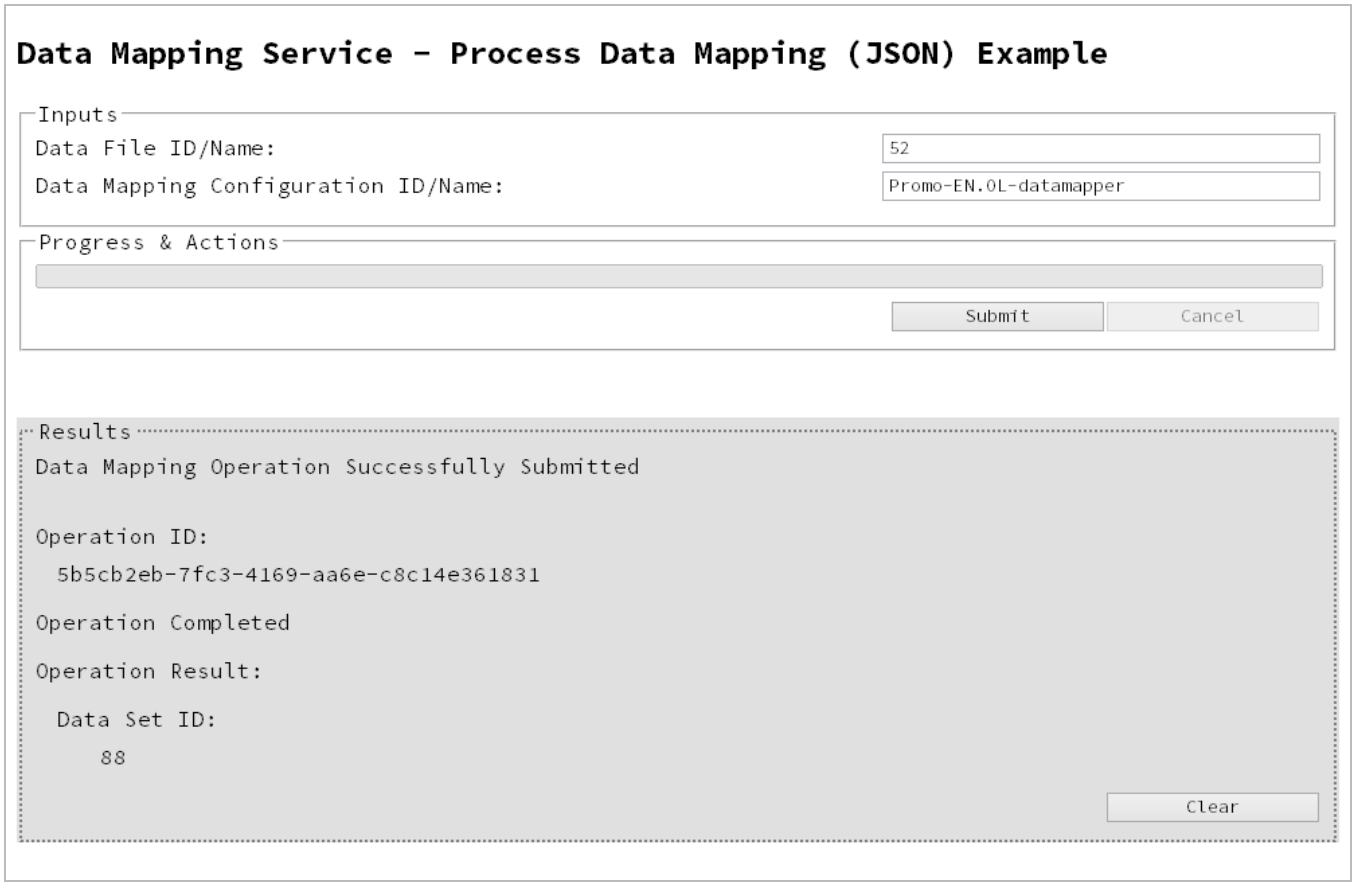
dm-process-json.js

```
/* Data Mapping Service - Process Data Mapping (JSON) Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        var $submitButton = $("#submit"),
            $cancelButton = $("#cancel"),
            $progressBar = $("progress"),
            operationId = null;

        $cancelButton.on("click", function () {
            if (operationId !== null) {

                /* Cancel an Operation */
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/datamining/cancel/" + operationId
                }).done(function (response) {
                    displayInfo("Operation Cancelled!");
                    operationId = null;
                    setTimeout(function () {
                        $progressBar.attr("value", 0);
                        $submitButton.removeAttr("disabled");
                        $cancelButton.attr("disabled", "disabled");
                    }, 100);
                }).fail(displayDefaultFailure);
            }
        });

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var configId = $("#datamapper").val(),
                dataFileId = $("#datafile").val();

            var getFinalResult = function () {

                /* Get Result of Operation */
```

```
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/datamining/getResult/" + operationId
                }).done(function (response, status, request) {
                    displayHeading("Operation Result");
                    displaySubResult("Data Set ID", response);
                }).fail(displayDefaultFailure);
            };

            /* Process Data Mapping (JSON) */
            $.ajax({
                type:           "POST",
                url:
"/rest/serverengine/workflow/datamining/" + configId,
                data:           JSON.stringify(plainIDToJson
(dataFileId)),
                contentType:    "application/json"
            }).done(function (response, status, request) {

                var progress = null;
                operationId = request.getResponseHeader
("operationId");

                $submitButton.attr("disabled", "disabled");
                $cancelButton.removeAttr("disabled");

                displayStatus("Data Mapping Operation Successfully
Submitted");
                displayResult("Operation ID", operationId);

                var getProgress = function () {
                    if (operationId !== null) {

                        /* Get Progress of Operation */
                        $.ajax({
                            type:   "GET",
                            cache:  false,
                            url:
"/rest/serverengine/workflow/datamining/getProgress/" + operationId
                        }).done(function (response, status,
request) {
```

```
                            if (response !== "done") {
                                if (response !== progress) {
                                    progress = response;
                                    $progressBar.attr("value",
progress);
                                }
                                setTimeout(getProgress, 1000);
                            } else {
                                $progressBar.attr("value",
(progress = 100));
                                displayInfo("Operation Completed");
                                getFinalResult();
                                operationId = null;
                                setTimeout(function () {
                                    $progressBar.attr("value", 0);
                                    $submitButton.removeAttr
("disabled");
                                    $cancelButton.attr("disabled",
"disabled");
                                }, 100);
                            }
                        }).fail(displayDefaultFailure);
                    }
                };
                getProgress();
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output



Usage

To run the example simply enter the **Managed File ID or Name** for your data file and your data mapping configuration (previously uploaded to the file store) into the appropriate text fields, and then select the **Submit** button to start the data mapping operation.

Once the operation has started processing, the Operation ID will be displayed in the **Results** area and the **Cancel** button will become enabled, giving you the option to cancel the running operation.

The progress of the operation will be displayed in the progress bar, and once the data mapping operation has completed, the ID of the generated Data Set will be returned and displayed to the **Results** area.

Further Reading

See the Data Mapping Service page of the REST API Reference section for further detail.

Running a Data Mapping Operation for PDF/VT File (to Data Set)

Problem

You want to run a data mapping operation to generate a Data Set using only a PDF/VT file as input.

Solution

The solution is to make a series of requests using the following URIs and method types to submit, monitor progress and ultimately retrieve the result of the data mapping operation. There is also the option of cancelling an operation during processing if required. These requests can be submitted via the Data Mapping REST service:

Process Data Mapping (PDF/VT to Data Set)	/rest/serverengine/workflow/datamining/pdfvtds/{dataFileId}	*POST*
Get Progress of Operation	/rest/serverengine/workflow/datamining/getProgress/{operationId}	*GET*
Get Result of Operation	/rest/serverengine/workflow/datamining/getResult/{operationId}	*POST*
Cancel an Operation	/rest/serverengine/workflow/datamining/cancel/{operationId}	*POST*

Example

HTML5

dm-process-pdfvt-ds.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Process Data Mapping (PDF/VT to Data Set)
Example</title>
        <script src="../../common/lib/js/jquery-
```

```
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/dm-process-pdfvt-ds.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">

    </head>
    <body>
        <h2>Data Mapping Service - Process Data Mapping (PDF/VT to
Data Set) Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="datafile">Data File
ID/Name:</label>
                    <input id="datafile" type="text"
placeholder="1234 or Filename" required>
                </div>
            </fieldset>
            <fieldset>
                <legend>Progress & Actions</legend>
                <div>
                    <progress value="0" max="100"></progress>
                </div>
                <div>
                    <input id="cancel" type="button" value="Cancel"
disabled>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

dm-process-pdfvt-ds.js

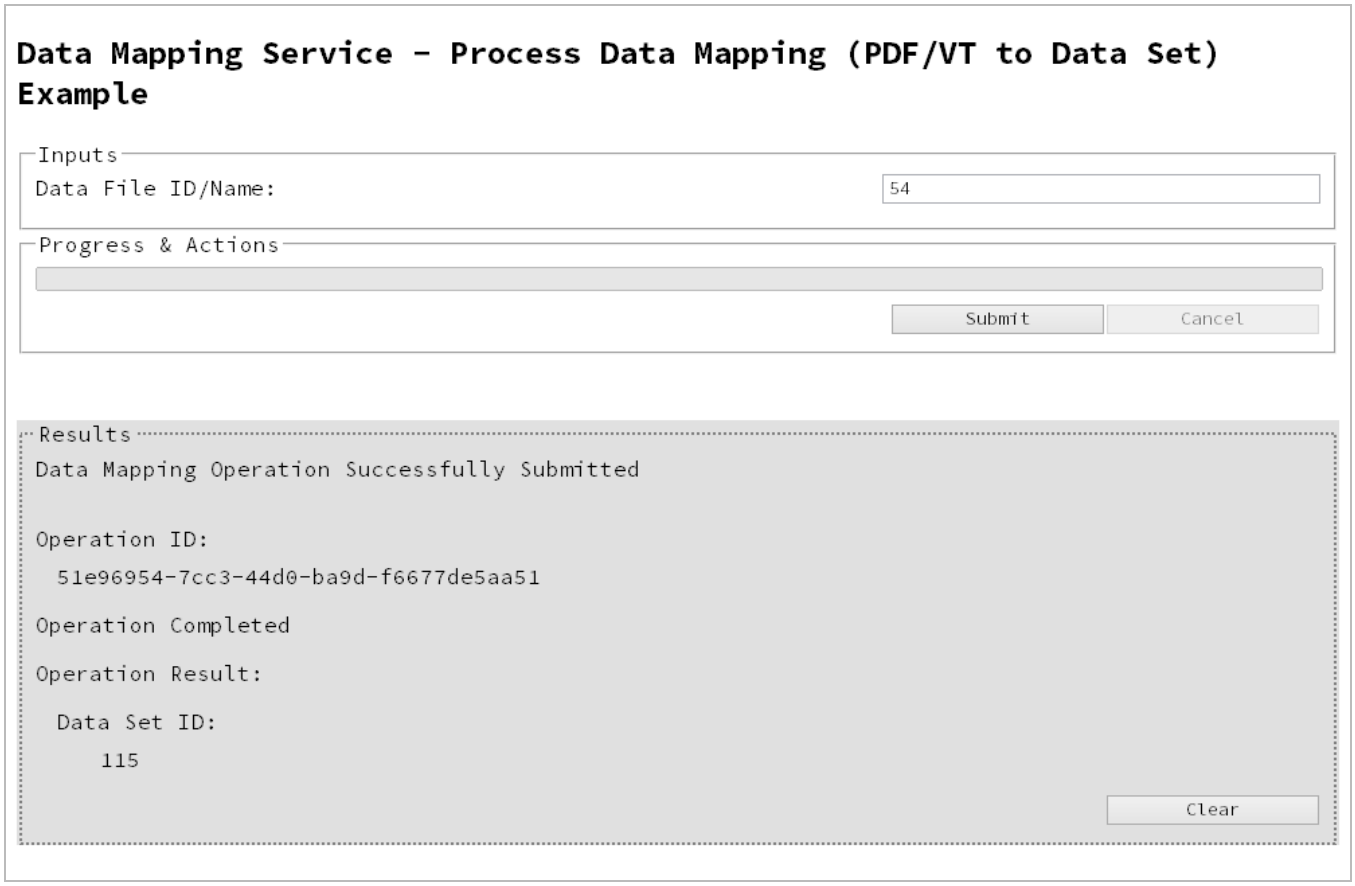
```
/* Data Mapping Service - Process Data Mapping (PDF/VT to Data Set)
Example */
(function ($) {
```

```
    "use strict";
    $(document).ready(function () {

        setupExample();

        var $submitButton = $("#submit"),
            $cancelButton = $("#cancel"),
            $progressBar = $("progress"),
            operationId = null;

        $cancelButton.on("click", function () {
            if (operationId !== null) {

                /* Cancel an Operation */
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/datamining/cancel/" + operationId
                }).done(function (response) {
                    displayInfo("Operation Cancelled!");
                    operationId = null;
                    setTimeout(function () {
                        $progressBar.attr("value", 0);
                        $submitButton.removeAttr("disabled");
                        $cancelButton.attr("disabled", "disabled");
                    }, 100);
                }).fail(displayDefaultFailure);
            }
        });

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var dataFileId = $("#datafile").val();

            var getFinalResult = function () {

                /* Get Result of Operation */
                $.ajax({
                    type:   "POST",
                    url:
```

```
"/rest/serverengine/workflow/datamining/getResult/" + operationId
                }).done(function (response, status, request) {
                    displayHeading("Operation Result");
                    displaySubResult("Data Set ID", response);
                }).fail(displayDefaultFailure);
            };

            /* Process Data Mapping (PDF/VT to Data Set) */
            $.ajax({
                type:   "POST",
                url:
"/rest/serverengine/workflow/datamining/pdfvtds/" + dataFileId
            }).done(function (response, status, request) {

                var progress = null;
                operationId = request.getResponseHeader
("operationId");

                $submitButton.attr("disabled", "disabled");
                $cancelButton.removeAttr("disabled");

                displayStatus("Data Mapping Operation Successfully
Submitted");
                displayResult("Operation ID", operationId);

                var getProgress = function () {
                    if (operationId !== null) {

                        /* Get Progress of Operation */
                        $.ajax({
                            type:   "GET",
                            cache:  false,
                            url:
"/rest/serverengine/workflow/datamining/getProgress/" + operationId
                        }).done(function (response, status,
request) {

                            if (response !== "done") {
                                if (response !== progress) {
                                    progress = response;
                                    $progressBar.attr("value",
progress);
                                }
```

```
                                setTimeout(getProgress, 1000);
                            } else {
                                $progressBar.attr("value",
(progress = 100));
                                displayInfo("Operation Completed");
                                getFinalResult();
                                operationId = null;
                                setTimeout(function () {
                                    $progressBar.attr("value", 0);
                                    $submitButton.removeAttr
("disabled");
                                    $cancelButton.attr("disabled",
"disabled");
                                }, 100);
                            }
                        }).fail(displayDefaultFailure);
                    }
                };
                getProgress();
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output



Usage

To run the example simply enter the **Managed File ID or Name** for your PDF/VT file (previously uploaded to the file store) into the appropriate text field, and then select the **Submit** button to start the data mapping operation.

Once the operation has started processing, the Operation ID will be displayed in the **Results** area and the **Cancel** button will become enabled, giving you the option to cancel the running operation.

The progress of the operation will be displayed in the progress bar, and once the data mapping operation has completed, the ID of the generated Data Set will be returned and displayed to the **Results** area.

Further Reading

See the Data Mapping Service page of the REST API Reference section for further detail.

Running a Data Mapping Operation for PDF/VT File (to Content Set)

Problem

You want to run a data mapping operation to generate a Content Set using only a PDF/VT file as input.

Solution

The solution is to make a series of requests using the following URIs and method types to submit, monitor progress and ultimately retrieve the result of the data mapping operation. There is also the option of cancelling an operation during processing if required. These requests can be submitted via the Data Mapping REST service:

Process Data Mapping (PDF/VT to Content Set)	/rest/serverengine/workflow/datamining/pdfvtcs/{dataFileId}	*POST*
Get Progress of Operation	/rest/serverengine/workflow/datamining/getProgress/{operationId}	*GET*
Get Result of Operation	/rest/serverengine/workflow/datamining/getResult/{operationId}	*POST*
Cancel an Operation	/rest/serverengine/workflow/datamining/cancel/{operationId}	*POST*

Example

HTML5

dm-process-pdfvt-cs.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Process Data Mapping (PDF/VT to Content Set)
Example</title>
        <script src="../../common/lib/js/jquery-
```

```
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/dm-process-pdfvt-cs.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Data Mapping Service - Process Data Mapping (PDF/VT to
Content Set) Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="datafile">Data File
ID/Name:</label>
                    <input id="datafile" type="text"
placeholder="1234 or Filename" required>
                </div>
            </fieldset>
            <fieldset>
                <legend>Progress & Actions</legend>
                <div>
                    <progress value="0" max="100"></progress>
                </div>
                <div>
                    <input id="cancel" type="button" value="Cancel"
disabled>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

dm-process-pdfvt-cs.js

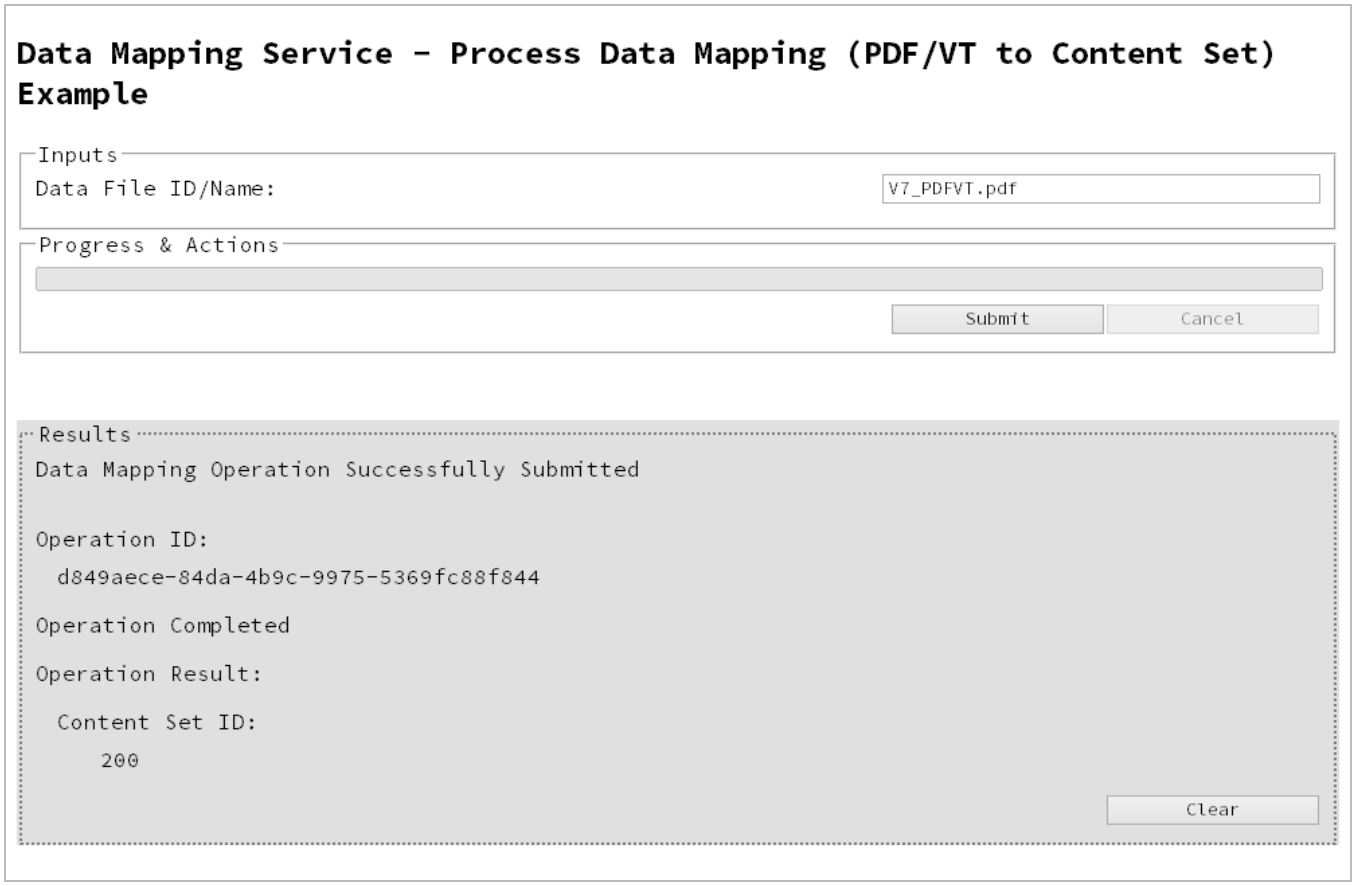
```
/* Data Mapping Service - Process Data Mapping (PDF/VT to Content
Set) Example */
(function ($) {
    "use strict";
```

```
    $(document).ready(function () {

        setupExample();

        var $submitButton = $("#submit"),
            $cancelButton = $("#cancel"),
            $progressBar = $("progress"),
            operationId = null;

        $cancelButton.on("click", function () {
            if (operationId !== null) {

                /* Cancel an Operation */
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/datamining/cancel/" + operationId
                }).done(function (response) {
                    displayInfo("Operation Cancelled!");
                    operationId = null;
                    setTimeout(function () {
                        $progressBar.attr("value", 0);
                        $submitButton.removeAttr("disabled");
                        $cancelButton.attr("disabled", "disabled");
                    }, 100);
                }).fail(displayDefaultFailure);
            }
        });

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var dataFileId = $("#datafile").val();

            var getFinalResult = function () {

                /* Get Result of Operation */
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/datamining/getResult/" + operationId
```

```
                }).done(function (response, status, request) {
                    displayHeading("Operation Result");
                    displaySubResult("Content Set ID", response);
                }).fail(displayDefaultFailure);
            };

            /* Process Data Mapping (PDF/VT to Content Set) */
            $.ajax({
                type:   "POST",
                url:
"/rest/serverengine/workflow/datamining/pdfvtcs/" + dataFileId
            }).done(function (response, status, request) {

                var progress = null;
                operationId = request.getResponseHeader
("operationId");

                $submitButton.attr("disabled", "disabled");
                $cancelButton.removeAttr("disabled");

                displayStatus("Data Mapping Operation Successfully
Submitted");
                displayResult("Operation ID", operationId);

                var getProgress = function () {
                    if (operationId !== null) {

                        /* Get Progress of Operation */
                        $.ajax({
                            type:   "GET",
                            cache:  false,
                            url:
"/rest/serverengine/workflow/datamining/getProgress/" + operationId
                        }).done(function (response, status,
request) {

                            if (response !== "done") {
                                if (response !== progress) {
                                    progress = response;
                                    $progressBar.attr("value",
progress);
                                }
                                setTimeout(getProgress, 1000);
```

```
                            } else {
                                $progressBar.attr("value",
(progress = 100));
                                displayInfo("Operation Completed");
                                getFinalResult();
                                operationId = null;
                                setTimeout(function () {
                                    $progressBar.attr("value", 0);
                                    $submitButton.removeAttr
("disabled");
                                    $cancelButton.attr("disabled",
"disabled");
                                }, 100);
                            }
                        }).fail(displayDefaultFailure);
                    }
                };
                getProgress();
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output



Usage

To run the example simply enter the **Managed File ID or Name** for your PDF/VT file (previously uploaded to the file store) into the appropriate text field, and then select the **Submit** button to start the data mapping operation.

Once the operation has started processing, the Operation ID will be displayed in the **Results** area and the **Cancel** button will become enabled, giving you the option to cancel the running operation.

The progress of the operation will be displayed in the progress bar, and once the data mapping operation has completed, the ID of the generated Content Set will be returned and displayed to the **Results** area.

Further Reading

See the Data Mapping Service page of the REST API Reference section for further detail.

Running a Content Creation Operation for Print

Problem

You want to run a content creation operation to generate a Content Set using a design template and an existing set of Data Records as inputs.

Solution

The solution is to make a series of requests using the following URIs and method types to submit, monitor progress and ultimately retrieve the result of the content creation operation. There is also the option of cancelling an operation during processing if required. These requests can be submitted via the Content Creation REST service:

Process Content Creation	/rest/serverengine/workflow/contentcreation/{templateId}/{dataSetId}	*POST*
Get Progress of Operation	/rest/serverengine/workflow/contentcreation/getProgress/{operationId}	*GET*
Get Result of Operation	/rest/serverengine/workflow/contentcreation/getResult/{operationId}	*POST*
Cancel an Operation	/rest/serverengine/workflow/contentcreation/cancel/{operationId}	*POST*

Example

HTML5

cc-process.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Process Content Creation Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/cc-process.js"></script>
```

```
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Content Creation Service - Process Content Creation
Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="dataset">Data Set ID:</label>
                    <input id="dataset" type="text"
placeholder="1234" required>
                </div>
                <div>
                    <label for="designtemplate">Design Template
ID/Name:</label>
                    <input id="designtemplate" type="text"
placeholder="1234 or Filename" required>
                </div>
            </fieldset>
            <fieldset>
                <legend>Progress & Actions</legend>
                <div>
                    <progress value="0" max="100"></progress>
                </div>
                <div>
                    <input id="cancel" type="button" value="Cancel"
disabled>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

cc-process.js

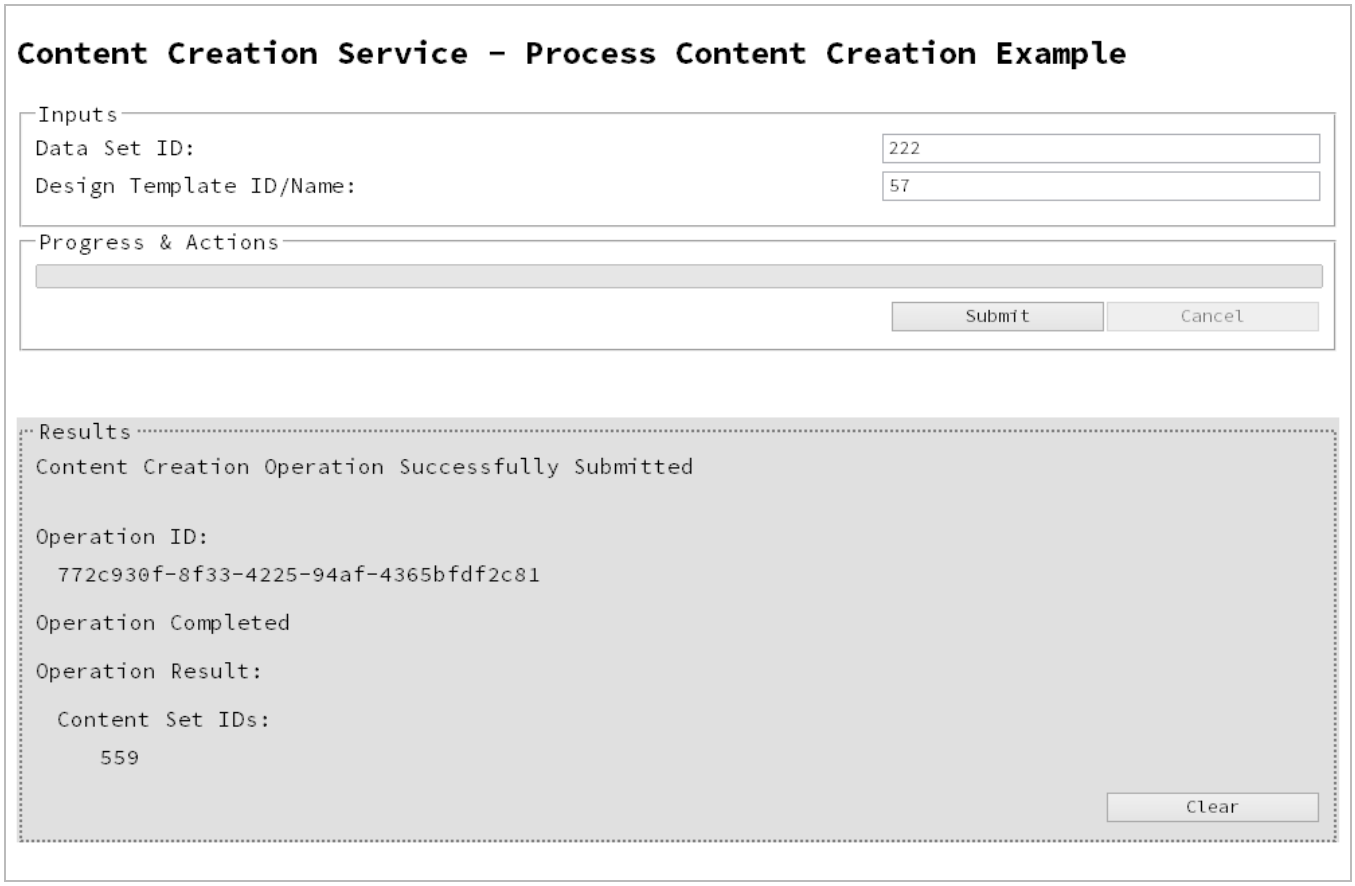
```
/* Content Creation Service - Process Content Creation Example */
(function ($) {
```

```
    "use strict";
    $(document).ready(function () {

        setupExample();

        var $submitButton = $("#submit"),
            $cancelButton = $("#cancel"),
            $progressBar = $("progress"),
            operationId = null;

        $cancelButton.on("click", function () {
            if (operationId !== null) {

                /* Cancel an Operation */
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/contentcreation/cancel/" + operationId
                }).done(function (response) {
                    displayInfo("Operation Cancelled!");
                    operationId = null;
                    setTimeout(function () {
                        $progressBar.attr("value", 0);
                        $submitButton.removeAttr("disabled");
                        $cancelButton.attr("disabled", "disabled");
                    }, 100);
                }).fail(displayDefaultFailure);
            }
        });

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var dataSetId = $("#dataset").val(),
                templateId = $("#designtemplate").val();

            var getFinalResult = function () {

                /* Get Result of Operation */
                $.ajax({
                    type:   "POST",
```

```
                    url:
"/rest/serverengine/workflow/contentcreation/getResult/" +
operationId
                }).done(function (response, status, request) {
                    displayHeading("Operation Result");
                    displaySubResult("Content Set IDs", response);
                }).fail(displayDefaultFailure);
            };

            /* Process Content Creation */
            $.ajax({
                type:   "POST",
                url:
"/rest/serverengine/workflow/contentcreation/" + templateId + "/" +
dataSetId
            }).done(function (response, status, request) {

                var progress = null;
                operationId = request.getResponseHeader
("operationId");

                $submitButton.attr("disabled", "disabled");
                $cancelButton.removeAttr("disabled");

                displayStatus("Content Creation Operation
Successfully Submitted");
                displayResult("Operation ID", operationId);

                var getProgress = function () {
                    if (operationId !== null) {

                        /* Get Progress of Operation */
                        $.ajax({
                            type:   "GET",
                            cache:  false,
                            url:
"/rest/serverengine/workflow/contentcreation/getProgress/" +
operationId
                        }).done(function (response, status,
request) {

                            if (response !== "done") {
                                if (response !== progress) {
```

```
                                    progress = response;
                                    $progressBar.attr("value",
progress);
                                }
                                setTimeout(getProgress, 1000);
                            } else {
                                $progressBar.attr("value",
(progress = 100));
                                displayInfo("Operation Completed");
                                getFinalResult();
                                operationId = null;
                                setTimeout(function () {
                                    $progressBar.attr("value", 0);
                                    $submitButton.removeAttr
("disabled");
                                    $cancelButton.attr("disabled",
"disabled");
                                }, 100);
                            }
                        }).fail(displayDefaultFailure);
                    }
                };
                getProgress();
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output



Usage

To run the example simply enter the **Data Set ID** and the **Managed File ID or Name** of your design template (previously uploaded to the file store) into the appropriate text fields, and then select the **Submit** button to start the content creation operation.

Once the operation has started processing, the Operation ID will be displayed in the **Results** area and the **Cancel** button will become enabled, giving you the option to cancel the running operation.

The progress of the operation will be displayed in the progress bar, and once the content creation operation has completed, the IDs of the generated Content Sets will be returned and displayed to the **Results** area.

Further Reading

See the Content Creation Service page of the REST API Reference section for further detail.

Running a Content Creation Operation for Print By Data Record (Using JSON)

Problem

You want to run a content creation operation to generate a Content Set using a design template and an existing set of Data Records as inputs.

Solution

The solution is to make a series of requests using the following URIs and method types to submit, monitor progress and ultimately retrieve the result of the content creation operation. There is also the option of cancelling an operation during processing if required. These requests can be submitted via the Content Creation REST service:

Process Content Creation (By Data Record) (JSON)	/rest/serverengine/workflow/contentcreation/{templateId}	*POST*
Get Progress of Operation	/rest/serverengine/workflow/contentcreation/getProgress/{operationId}	*GET*
Get Result of Operation	/rest/serverengine/workflow/contentcreation/getResult/{operationId}	*POST*
Cancel an Operation	/rest/serverengine/workflow/contentcreation/cancel/{operationId}	*POST*

Example

HTML5

cc-process-by-dre-json.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Process Content Creation (By Data Record) (JSON)
Example</title>
```

```
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/cc-process-by-dre-json.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Content Creation Service - Process Content Creation (By
Data Record) (JSON) Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="datarecords">Data Record ID
(s):</label>
                    <input id="datarecords" type="text"
placeholder="1234, 2345, 3456, ..." required>
                </div>
                <div>
                    <label for="designtemplate">Design Template
ID/Name:</label>
                    <input id="designtemplate" type="text"
placeholder="1234 or Filename" required>
                </div>
            </fieldset>
            <fieldset>
                <legend>Progress & Actions</legend>
                <div>
                    <progress value="0" max="100"></progress>
                </div>
                <div>
                    <input id="cancel" type="button" value="Cancel"
disabled>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

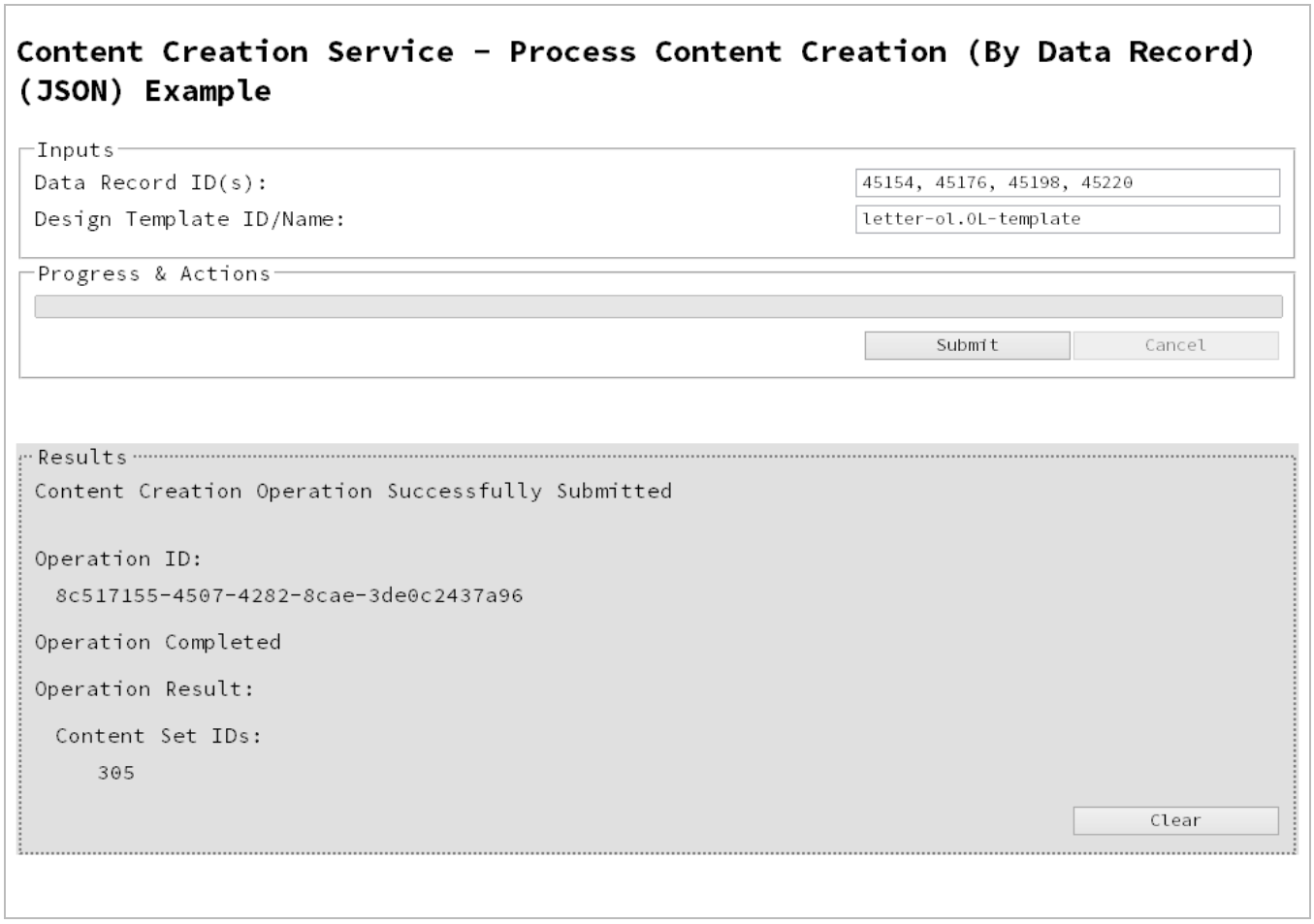
cc-process-by-dre-json.js

```
/* Content Creation Service - Process Content Creation (By Data
Record) (JSON) Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        var $submitButton = $("#submit"),
            $cancelButton = $("#cancel"),
            $progressBar = $("progress"),
            operationId = null;

        $cancelButton.on("click", function () {
            if (operationId !== null) {

                /* Cancel an Operation */
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/contentcreation/cancel/" + operationId
                }).done(function (response) {
                    displayInfo("Operation Cancelled!");
                    operationId = null;
                    setTimeout(function () {
                        $progressBar.attr("value", 0);
                        $submitButton.removeAttr("disabled");
                        $cancelButton.attr("disabled", "disabled");
                    }, 100);
                }).fail(displayDefaultFailure);
            }
        });

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var dataRecordIds = $("#datarecords").val(),
```

```
            templateId = $("#designtemplate").val();

        var getFinalResult = function () {

            /* Get Result of Operation */
            $.ajax({
                type:   "POST",
                url:
"/rest/serverengine/workflow/contentcreation/getResult/" +
operationId
            }).done(function (response, status, request) {
                displayHeading("Operation Result");
                displaySubResult("Content Set IDs", response);
            }).fail(displayDefaultFailure);
        };

        /* Process Content Creation (By Data Record) (JSON) */
        $.ajax({
            type:           "POST",
            url:
"/rest/serverengine/workflow/contentcreation/" + templateId,
            data:           JSON.stringify(plainIDListToJson
(dataRecordIds)),
            contentType:    "application/json"
        }).done(function (response, status, request) {

            var progress = null;
            operationId = request.getResponseHeader
("operationId");

            $submitButton.attr("disabled", "disabled");
            $cancelButton.removeAttr("disabled");

            displayStatus("Content Creation Operation
Successfully Submitted");
            displayResult("Operation ID", operationId);

            var getProgress = function () {
                if (operationId !== null) {

                    /* Get Progress of Operation */
                    $.ajax({
                        type:    "GET",
```

```
                            cache:    false,
                            url:
"/rest/serverengine/workflow/contentcreation/getProgress/" +
operationId
                        }).done(function (response, status,
request) {

                            if (response !== "done") {
                                if (response !== progress) {
                                    progress = response;
                                    $progressBar.attr("value",
progress);
                                }
                                setTimeout(getProgress, 1000);
                            } else {
                                $progressBar.attr("value",
(progress = 100));
                                displayInfo("Operation Completed");
                                getFinalResult();
                                operationId = null;
                                setTimeout(function () {
                                    $progressBar.attr("value", 0);
                                    $submitButton.removeAttr
("disabled");
                                    $cancelButton.attr("disabled",
"disabled");
                                }, 100);
                            }
                        }).fail(displayDefaultFailure);
                    }
                };
                getProgress();
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output



Usage

To run the example simply enter a comma delimited list of your **Data Record IDs** and the **Managed File ID or Name** of your design template (previously uploaded to the file store) into the appropriate text fields, and then select the **Submit** button to start the content creation operation.

Once the operation has started processing, the Operation ID will be displayed in the **Results** area and the **Cancel** button will become enabled, giving you the option to cancel the running operation.

The progress of the operation will be displayed in the progress bar, and once the content creation operation has completed, the IDs of the generated Content Sets will be returned and displayed to the **Results** area.

Further Reading

See the Content Creation Service page of the REST API Reference section for further detail.

Running a Content Creation Operation for Email By Data Record (Using JSON)

Problem

You want to run a content creation operation to generate and send email content using a design template and an existing set of Data Records as inputs.

Solution

The solution is to make a series of requests using the following URIs and method types to submit, monitor progress and ultimately retrieve the result of the content creation operation. There is also the option of cancelling an operation during processing if required. These requests can be submitted via the Content Creation (Email) REST service:

Process Content Creation (By Data Record) (JSON)	/rest/serverengine/workflow/contentcreation/email/{templateId}	*POST*
Get Progress of Operation	/rest/serverengine/workflow/contentcreation/email/getProgress/{operationId}	*GET*
Get Result of Operation	/rest/serverengine/workflow/contentcreation/email/getResult/{operationId}	*POST*
Cancel an Operation	/rest/serverengine/workflow/contentcreation/email/cancel/{operationId}	*POST*

Example

HTML5

cce-process-by-dre-json.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
```

```
        <title>Process Content Creation (By Data Record) (JSON)
Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/cce-process-by-dre-json.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Content Creation (Email) Service - Process Content
Creation (By Data Record) (JSON) Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="datarecords">Data Record ID
(s):</label>
                    <input id="datarecords" type="text"
placeholder="1234, 2345, 3456, ..." required>
                </div>
                <div>
                    <label for="designtemplate">Design Template
ID/Name:</label>
                    <input id="designtemplate" type="text"
placeholder="1234 or Filename" required>
                </div>
            </fieldset>
            <fieldset>
                <legend>Email Parameters</legend>
                <div>
                    <label for="section">Section:</label>
                    <input id="section" type="text"
placeholder="Section Name">
                </div>
                <div>
                    <label for="sender">From:</label>
                    <input id="sender" type="text"
placeholder="sender@email.com" required>
                </div>
                <div>
                    <label for="host">Host:</label>
                    <input id="host" type="text"
placeholder="mail.server.com" required>
```

```
                </div>
                <div>
                    <label for="usesender">Use From as To Email
Address:</label>
                    <input id="usesender" type="checkbox" checked>
                </div>
                <div>
                    <label for="attachpdf">Attach PDF Page to
Email:</label>
                    <input id="attachpdf" type="checkbox">
                </div>
                <div>
                    <label for="attachweb">Attach Web Page to
Email:</label>
                    <input id="attachweb" type="checkbox">
                </div>
            </fieldset>
            <fieldset>
                <legend>Email Security</legend>
                <div>
                    <label for="useauth">Use
Authentication:</label>
                    <input id="useauth" type="checkbox" checked>
                </div>
                <div>
                    <label for="starttls">Start TLS:</label>
                    <input id="starttls" type="checkbox">
                </div>
                <div>
                    <label for="username">Username:</label>
                    <input id="username" type="text"
placeholder="Username">
                </div>
                <div>
                    <label for="password">Password:</label>
                    <input id="password" type="password"
placeholder="Password">
                </div>
            </fieldset>
            <fieldset>
                <legend>Progress & Actions</legend>
                <div>
                    <progress value="0" max="100"></progress>
```

```
                </div>
                <div>
                    <input id="cancel" type="button" value="Cancel"
disabled>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

cce-process-by-dre-json.js

```
/* Content Creation (Email) Service - Process Content Creation (By
Data Record) (JSON) Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        var $useAuth = $("#useauth"),
            $startTLS = $("#starttls"),
            $username = $("#username"),
            $password = $("#password"),
            $submitButton = $("#submit"),
            $cancelButton = $("#cancel"),
            $progressBar = $("progress"),
            operationId = null;

        $cancelButton.on("click", function () {
            if (operationId !== null) {

                /* Cancel an Operation */
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/contentcreation/email/cancel/" +
operationId
```

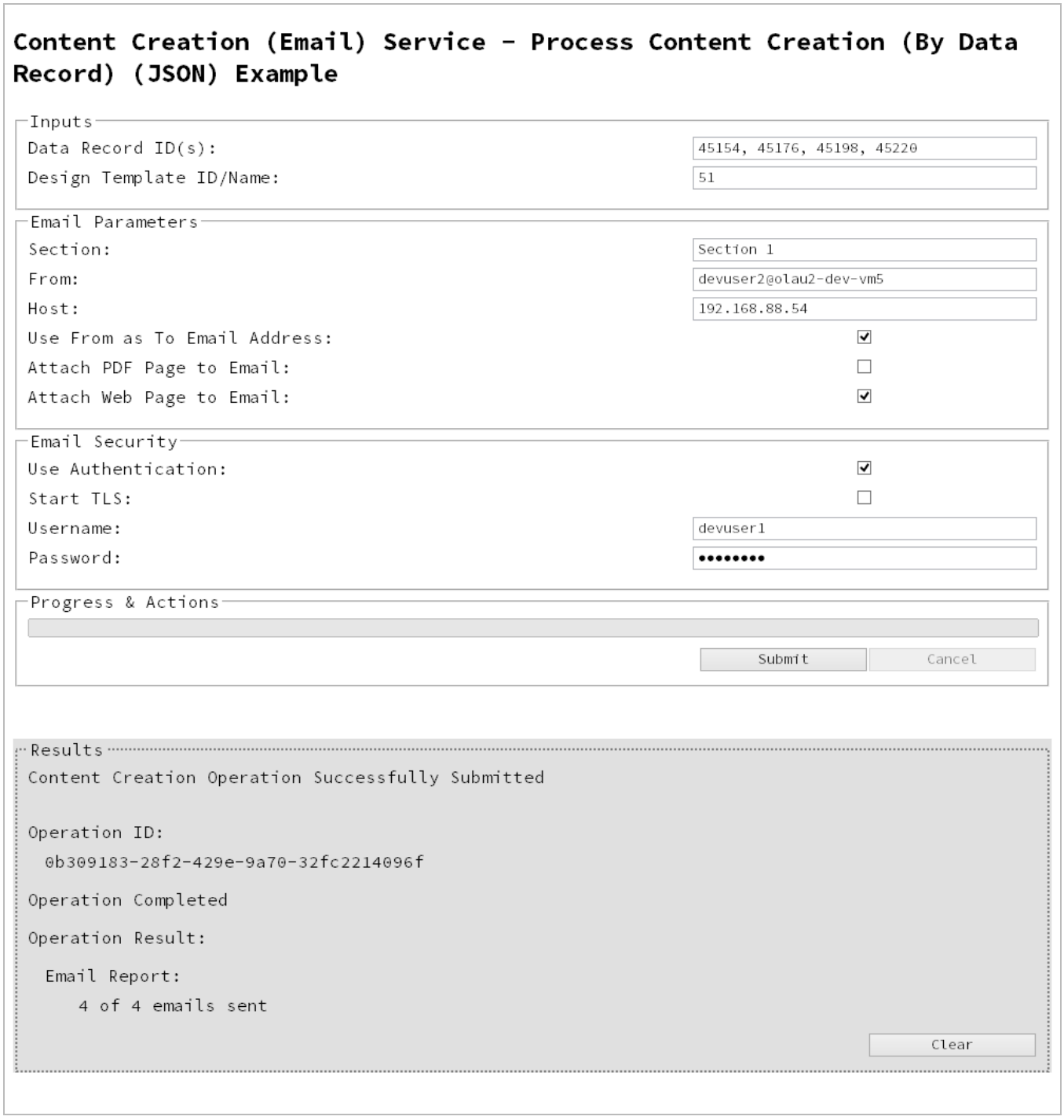
```
                }).done(function (response) {
                    displayInfo("Operation Cancelled!");
                    operationId = null;
                    setTimeout(function () {
                        $progressBar.attr("value", 0);
                        $submitButton.removeAttr("disabled");
                        $cancelButton.attr("disabled", "disabled");
                    }, 100);
                }).fail(displayDefaultFailure);
            }
        });

        $useAuth.on("click", function (event) {
            if (event.target.checked) {
                $startTLS.removeAttr("disabled");
                $username.removeAttr("disabled");
                $password.removeAttr("disabled");
            } else {
                $startTLS.attr("disabled", "disabled");
                $username.attr("disabled", "disabled");
                $password.attr("disabled", "disabled");
            }
        });

        $("form").on("submit", function (event) {
            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var dataRecordIds = $("#datarecords").val(),
                templateId = $("#designtemplate").val(),
                section = $("#section").val().trim();

            var getFinalResult = function () {

                /* Get Result of Operation */
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/contentcreation/email/getResult/" +
operationId
                }).done(function (response, status, request) {
                    displayHeading("Operation Result");
                    displaySubResult("Email Report", response);
```

```
            }).fail(displayDefaultFailure);
        };

        /* Construct JSON Identifier List (with Email
Parameters) */
        var config = {
                "sender":    $("#sender").val(),
                "host":      $("#host").val(),
                "useAuth" :     $useAuth.is(":checked"),
                "useSender":    $("#usesender").is(":checked"),
                "attachWebPage":    $("#attachweb").is
(":checked"),
                "attachPdfPage":    $("#attachpdf").is
(":checked")
            },
            drids = plainIDListToJson(dataRecordIds);

        if (config.useAuth) {
            config.useStartTLS = $startTLS.is(":checked");
            config.user = $username.val();
            config.password = $password.val();
        } else {
            config.user = "";
        }
        config.identifiers = drids.identifiers;

        /* Process Content Creation (By Data Record) (JSON) */
        var settings = {
            type:           "POST",
            url:
"/rest/serverengine/workflow/contentcreation/email/" + templateId,
            data:           JSON.stringify(config),
            contentType:    "application/json; charset=utf-8"
        };
        if (section.length) { settings.url += "?section=" +
section; }
        $.ajax(settings).done(function (response, status,
request) {

            var progress  = null;
            operationId = request.getResponseHeader
("operationId");
```

```
                $submitButton.attr("disabled", "disabled");
                $cancelButton.removeAttr("disabled");

                displayStatus("Content Creation Operation
Successfully Submitted");
                displayResult("Operation ID", operationId);

                var getProgress = function () {
                    if (operationId !== null) {

                        /* Get Progress of Operation */
                        $.ajax({
                            type:   "GET",
                            cache:  false,
                            url:
"/rest/serverengine/workflow/contentcreation/email/getProgress/" +
operationId
                        }).done(function (response, status,
request) {

                            if (response !== "done") {
                                if (response !== progress) {
                                    progress = response;
                                    $progressBar.attr("value",
progress);
                                }
                                setTimeout(getProgress, 1000);
                            } else {
                                $progressBar.attr("value",
(progress = 100));
                                displayInfo("Operation Completed");
                                getFinalResult();
                                operationId = null;
                                setTimeout(function () {
                                    $progressBar.attr("value", 0);
                                    $submitButton.removeAttr
("disabled");
                                    $cancelButton.attr("disabled",
"disabled");
                                }, 100);
                            }
                        }).fail(displayDefaultFailure);
                    }
```

```
                };
                getProgress();
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output



Usage

To run the example you first need to enter a comma delimited list of your **Data Record IDs** and the **Managed File ID or Name** of your design template (previously uploaded to the file store) into the appropriate text fields as your inputs.

Next you need to specify the email parameters to use with the content creation operation:

- **Section** - the section within the email context of the template to use
- **From** - the email address to be shown as the sender in the email output
- **Host** - the network address or name of your SMTP mail server through which the emails will be sent
- **Use From as To Address** - use the sender address as the receiver address for all emails in the output
- **Attach PDF Page to Email** - if a Print Context exists in the template, generate it's output as a PDF and attach it to the email output
- **Attach Web Page to Email** - if a Web Context exists in the template, generate it's output as a single HTML (with embedded resources) and attach it to email output

Then you need to specify how email security is to be used with the content creation operation:

- **Use Authentication** - if authentication is to be used with the mail server
- **Start TLS** - if Transport Layer Security (TLS) is to be used when sending emails
- **Username** - the username to authenticate/login with
- **Password** - the password to authenticate/login with

Lastly, select the **Submit** button to start the content creation operation.

Once the operation has started processing, the Operation ID will be displayed in the **Results** area and the **Cancel** button will become enabled, giving you the option to cancel the running operation.

The progress of the operation will be displayed in the progress bar, and once the content creation operation has completed, a report of the emails successfully sent will be returned and displayed to the **Results** area.

Further Reading

See the Content Creation (Email) Service page of the REST API Reference section for further detail.

Creating Content for Web By Data Record

Problem

You want to create and retrieve web content using a design template and an existing Data Record as inputs.

Solution

The solution is to create a request using the following URI and method type and submit it to the server via the Content Creation (HTML) REST service:

Process Content Creation (By Data Record)	/rest/serverengine/workflow/contentcreation/html/{templateId}/{dataRecordId: [0-9]+}	*GET*

Example

HTML5

cch-process-by-dre.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Process Content Creation (By Data Record)
Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/cch-process-by-dre.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Content Creation (HTML) Service - Process Content
Creation (By Data Record) Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="datarecord">Data Record ID:</label>
```

```
                    <input id="datarecord" type="text"
placeholder="1234" required>
                </div>
                <div>
                    <label for="designtemplate">Design Template
ID/Name:</label>
                    <input id="designtemplate" type="text"
placeholder="1234 or Filename" required>
                </div>
            </fieldset>
            <fieldset>
                <legend>HTML Parameters</legend>
                <div>
                    <label for="section">Section:</label>
                    <input id="section" type="text"
placeholder="Section Name">
                </div>
                <div>
                    <label for="inline">Inline Mode:</label>
                    <select id="inline">
                        <option value="NONE">None</option>
                        <option value="CSS">CSS</option>
                        <option value="ALL">All</option>
                    </select>
                </div>
                <div>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

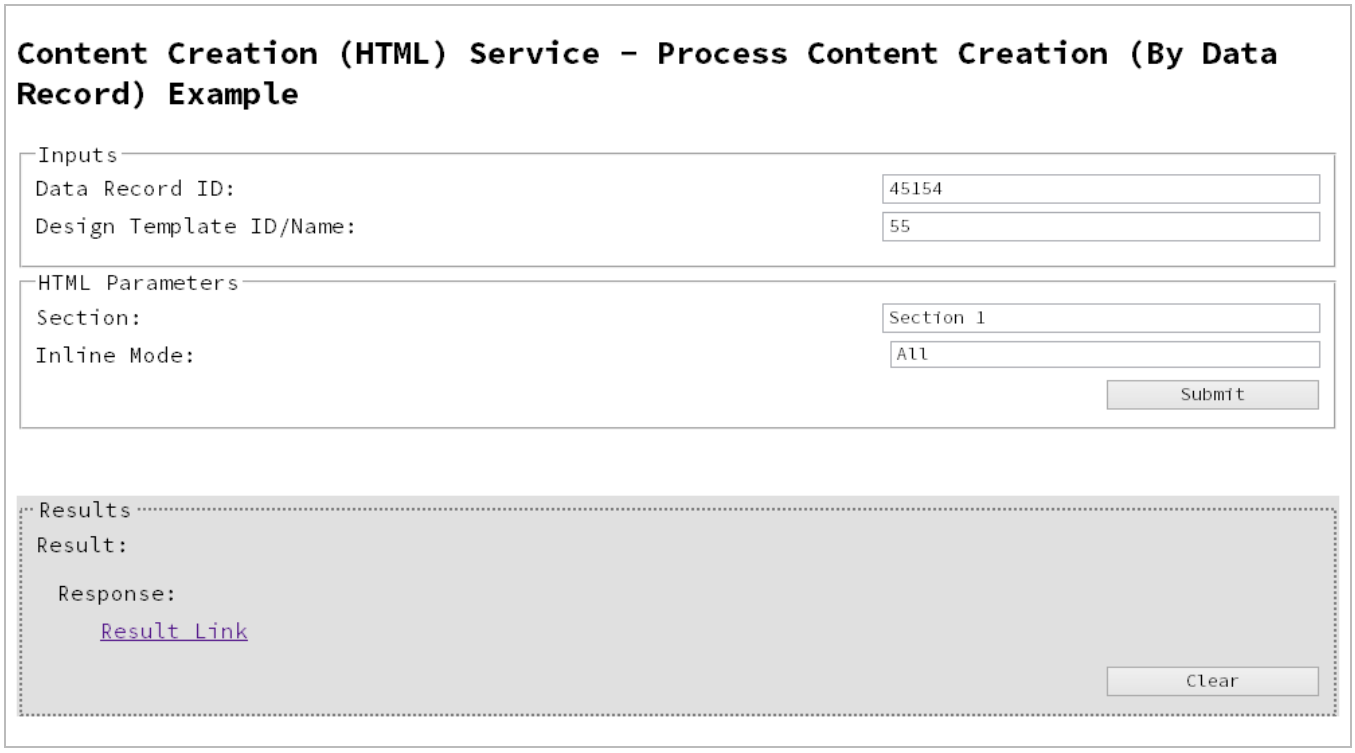
JavaScript/jQuery

cch-process-by-dre.js

```
/* Content Creation (HTML) Service - Process Content Creation (By
Data Record) Example */
(function ($) {
    "use strict";
```

```
    $(document).ready(function () {

        setupExample();

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var dataRecordId = $("#datarecord").val(),
                templateId = $("#designtemplate").val(),
                section = $("#section").val().trim(),
                params = {
                    inline:    $("#inline").val()
                };
            if (section.length) { params.section = section; }

            /* Process Content Creation (By Data Record) */
            $.ajax({
                type:   "GET",
                url:
"/rest/serverengine/workflow/contentcreation/html/" +
                            templateId + "/" + dataRecordId,
                data:   params
            }).done(function (response, status, request) {
                displayHeading("Result");
                displaySubResult("Response", htmlToLinkWindow
(response, "Result Link"), false);
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output



Usage

To run the example you first need to enter your **Data Record ID** and the **Managed File ID or Name** of your design template (previously uploaded to the file store) into the appropriate text fields as your inputs.

Next you need to specify the HTML parameters to use when creating the web content:

- **Section** - the section within the web context of the template to use
- **Inline Mode** - the inline mode to be used in the creation of content

Lastly, select the **Submit** button to create and retrieve the web content. When the response returns a **Results Link** will be displayed in the **Results** area. This link can be selected to view the resulting web content that was created.

Further Reading

See the Content Creation (HTML) Service page of the REST API Reference section for further detail.

Creating Content for Web By Data Record (Using JSON)

Problem

You want to create and retrieve web content using a design template and an existing Data Record as inputs.

Solution

The solution is to create a request using the following URI and method type and submit it to the server via the Content Creation (HTML) REST service:

Process Content Creation (By Data Record) (JSON)	/rest/serverengine/workflow/contentcreation/html/{templateId}/{dataRecordId: [0-9]+}	*POST*

Example

HTML5

cch-process-by-dre-json.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Process Content Creation (By Data Record) (JSON)
Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/cch-process-by-dre-json.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Content Creation (HTML) Service - Process Content
Creation (By Data Record) (JSON) Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="datarecord">Data Record ID:</label>
                    <input id="datarecord" type="text"
```

```
placeholder="1234" required>
                </div>
                <div>
                    <label for="designtemplate">Design Template
ID/Name:</label>
                    <input id="designtemplate" type="text"
placeholder="1234 or Filename" required>
                </div>
            </fieldset>
            <fieldset>
                <legend>HTML Parameters</legend>
                <div>
                    <label for="section">Section:</label>
                    <input id="section" type="text"
placeholder="Section Name">
                </div>
                <div>
                    <label for="inline">Inline Mode:</label>
                    <select id="inline">
                        <option value="NONE">None</option>
                        <option value="CSS">CSS</option>
                        <option value="ALL">All</option>
                    </select>
                </div>
                <div>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

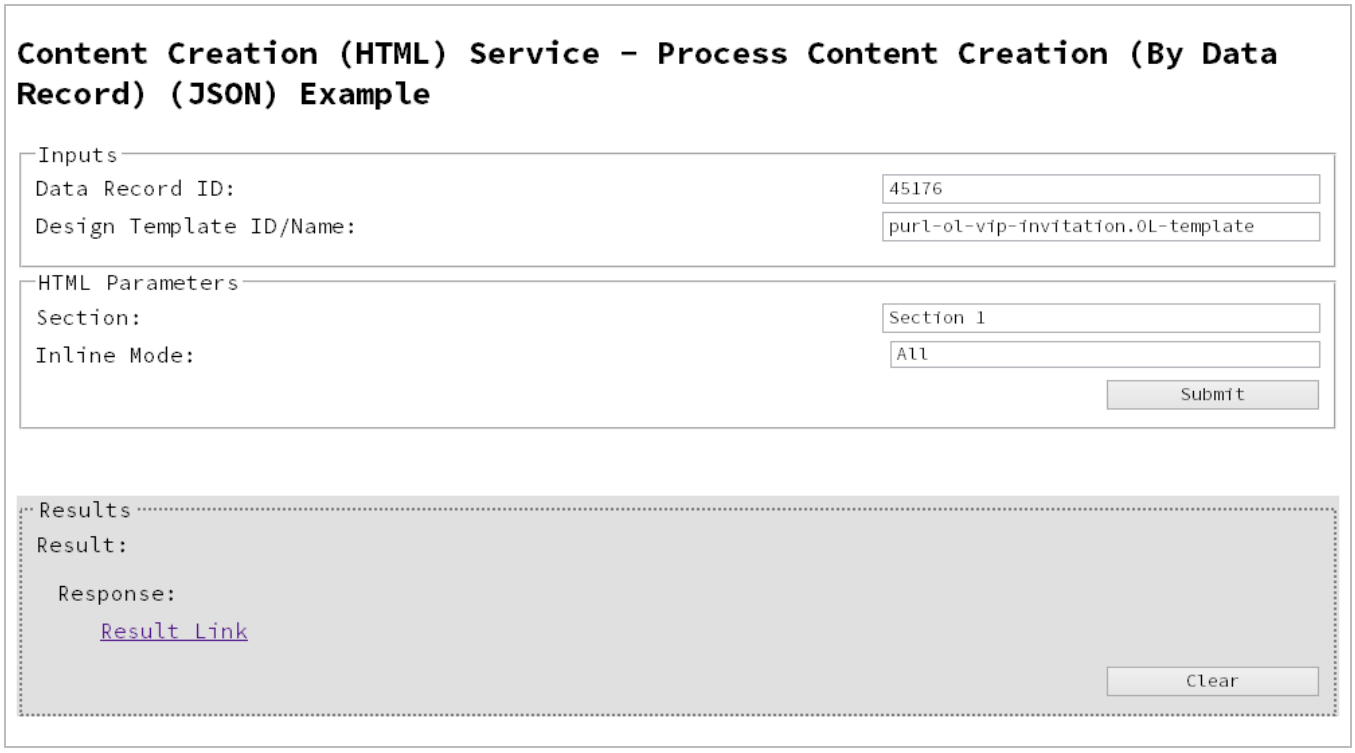
JavaScript/jQuery

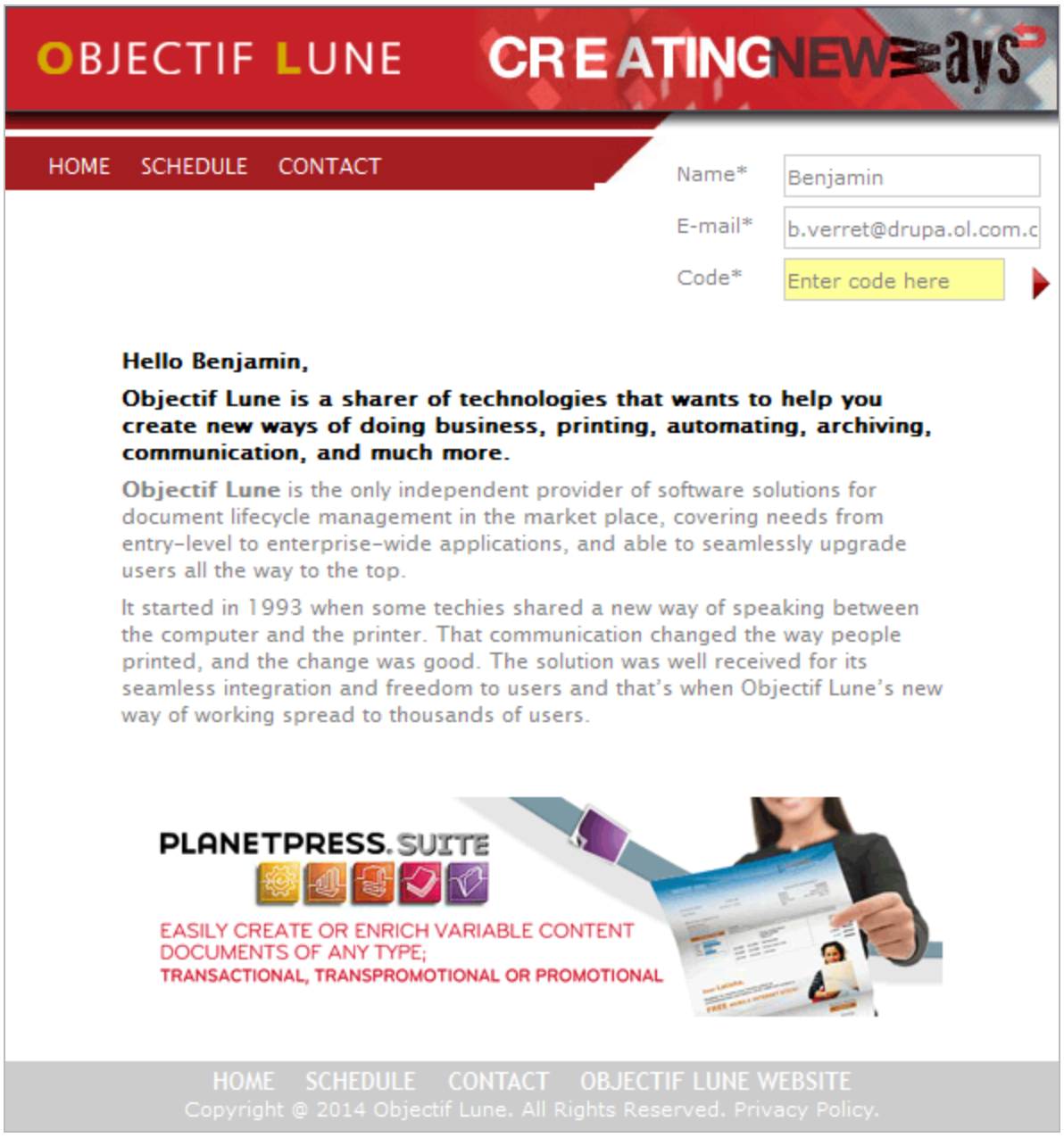
cch-process-by-dre-json.js

```
/* Content Creation (HTML) Service - Process Content Creation (By
Data Record) (JSON) Example */
(function ($) {
    "use strict";
    $(document).ready(function () {
```

```
        setupExample();

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var dataRecordId = $("#datarecord").val(),
                templateId = $("#designtemplate").val(),
                section = $("#section").val().trim(),
                params = {
                    inline:    $("#inline").val()
                };
            if (section.length) { params.section = section; }

            /* Process Content Creation (By Data Record) (JSON) */
            $.ajax({
                type:           "POST",
                url:
"/rest/serverengine/workflow/contentcreation/html/" +
                                    templateId + "/" +
dataRecordId,
                data:           JSON.stringify(params),
                contentType:    "application/json; charset=utf-8"
            }).done(function (response, status, request) {
                displayHeading("Result");
                displaySubResult("Response", htmlToLinkWindow
(response, "Result Link"), false);
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output





Usage

To run the example you first need to enter your **Data Record ID** and the **Managed File ID or Name** of your design template (previously uploaded to the file store) into the appropriate text fields as your inputs.

Next you need to specify the HTML parameters to use when creating the web content:

- **Section** - the section within the web context of the template to use
- **Inline Mode** - the inline mode to be used in the creation of content

Lastly, select the **Submit** button to create and retrieve the web content. When the response returns a **Results Link** will be displayed in the **Results** area. This link can be selected to view the resulting web content that was created.

Further Reading

See the Content Creation (HTML) Service page of the REST API Reference section for further detail.

Running a Job Creation Operation (Using JSON)

Problem

You want to run a job creation operation to generate a Job Set using a job creation preset and an existing set of Content Sets as inputs.

Solution

The solution is to make a series of requests using the following URIs and method types to submit, monitor progress and ultimately retrieve the result of the job creation operation. There is also the option of cancelling an operation during processing if required. These requests can be submitted via the Job Creation REST service:

Process Job Creation (JSON)	/rest/serverengine/workflow/jobcreation/{configId}	*POST*
Get Progress of Operation	/rest/serverengine/workflow/jobcreation/getProgress/{operationId}	*GET*
Get Result of Operation	/rest/serverengine/workflow/jobcreation/getResult/{operationId}	*POST*
Cancel an Operation	/rest/serverengine/workflow/jobcreation/cancel/{operationId}	*POST*

Example

HTML5

jc-process-json.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Process Job Creation (JSON) Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/jc-process-json.js"></script>
```

```
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Job Creation Service - Process Job Creation (JSON)
Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="contentsets">Content Set ID
(s):</label>
                    <input id="contentsets" type="text"
placeholder="1234, 2345, 3456, ..." required>
                </div>
                <div>
                    <label for="jcpreset">Job Creation Preset
ID/Name:</label>
                    <input id="jcpreset" type="text"
placeholder="1234 or Filename" required>
                </div>
            </fieldset>
            <fieldset>
                <legend>Progress & Actions</legend>
                <div>
                    <progress value="0" max="100"></progress>
                </div>
                <div>
                    <input id="cancel" type="button" value="Cancel"
disabled>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

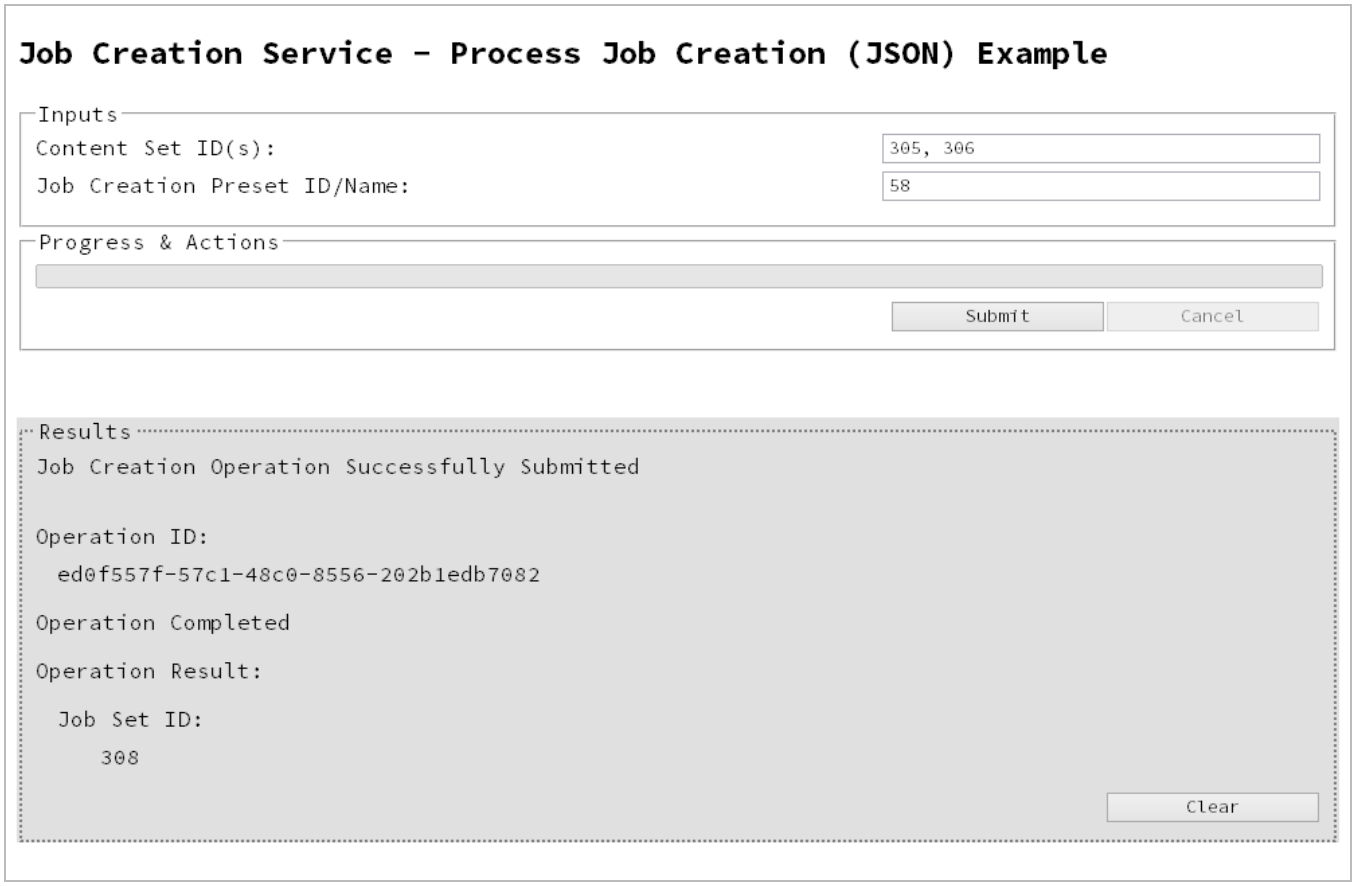
jc-process-json.js

```
/* Job Creation Service - Process Job Creation (JSON) Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        var $submitButton = $("#submit"),
            $cancelButton = $("#cancel"),
            $progressBar = $("progress"),
            operationId = null;

        $cancelButton.on("click", function () {
            if (operationId !== null) {

                /* Cancel an Operation */
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/jobcreation/cancel/" + operationId
                }).done(function (response) {
                    displayInfo("Operation Cancelled!");
                    operationId = null;
                    setTimeout(function () {
                        $progressBar.attr("value", 0);
                        $submitButton.removeAttr("disabled");
                        $cancelButton.attr("disabled", "disabled");
                    }, 100);
                }).fail(displayDefaultFailure);
            }
        });

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var contentSetIds = $("#contentsets").val(),
                configId = $("#jcpreset").val();

            var getFinalResult = function () {

                /* Get Result of Operation */
```

```
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/jobcreation/getResult/" + operationId
                }).done(function (response, status, request) {
                    displayHeading("Operation Result");
                    displaySubResult("Job Set ID", response);
                }).fail(displayDefaultFailure);
            };

            /* Process Job Creation (JSON) */
            $.ajax({
                type:           "POST",
                url:
"/rest/serverengine/workflow/jobcreation/" + configId,
                data:           JSON.stringify(plainIDListToJson
(contentSetIds)),
                contentType:    "application/json"
            }).done(function (response, status, request) {

                var progress = null;
                operationId = request.getResponseHeader
("operationId");

                $submitButton.attr("disabled", "disabled");
                $cancelButton.removeAttr("disabled");

                displayStatus("Job Creation Operation Successfully
Submitted");
                displayResult("Operation ID", operationId);

                var getProgress = function () {
                    if (operationId !== null) {

                        /* Get Progress of Operation */
                        $.ajax({
                            type:   "GET",
                            cache:  false,
                            url:
"/rest/serverengine/workflow/jobcreation/getProgress/" +
operationId
                        }).done(function (response, status,
request) {
```

```
                                if (response !== "done") {
                                    if (response !== progress) {
                                        progress = response;
                                        $progressBar.attr("value",
progress);
                                    }
                                    setTimeout(getProgress, 1000);
                                } else {
                                    $progressBar.attr("value",
(progress = 100));
                                    displayInfo("Operation Completed");
                                    getFinalResult();
                                    operationId = null;
                                    setTimeout(function () {
                                        $progressBar.attr("value", 0);
                                        $submitButton.removeAttr
("disabled");
                                        $cancelButton.attr("disabled",
"disabled");
                                    }, 100);
                                }
                            }).fail(displayDefaultFailure);
                        }
                    };
                    getProgress();
                }).fail(displayDefaultFailure);
            });
        });
}(jQuery));
```

Screenshot & Output



Usage

To run the example simply enter a comma delimited list of your **Content Set IDs** and the **Managed File ID or Name** of your job creation preset (previously uploaded to the file store) into the appropriate text fields, and then select the **Submit** button to start the job creation operation.

Once the operation has started processing, the Operation ID will be displayed in the **Results** area and the **Cancel** button will become enabled, giving you the option to cancel the running operation.

The progress of the operation will be displayed in the progress bar, and once the job creation operation has completed, the ID of the generated Job Set will be returned and displayed to the **Results** area.

Further Reading

See the Job Creation Service page of the REST API Reference section for further detail.

Running an Output Creation Operation

Problem

You want to run an output creation operation to generate print output using an output creation preset and an existing Job Set as inputs.

Solution

The solution is to make a series of requests using the following URIs and method types to submit, monitor progress and ultimately retrieve the result of the output creation operation. There is also the option of cancelling an operation during processing if required. These requests can be submitted via the Output Creation REST service:

Process Output Creation	/rest/serverengine/workflow/outputcreation/{configId}/{jobSetId}	*POST*
Get Progress of Operation	/rest/serverengine/workflow/outputcreation/getProgress/{operationId}	*GET*
Get Result of Operation	/rest/serverengine/workflow/outputcreation/getResult/{operationId}	*POST*
Get Result of Operation (as Text)	/rest/serverengine/workflow/outputcreation/getResultTxt/{operationId}	*POST*
Cancel an Operation	/rest/serverengine/workflow/outputcreation/cancel/{operationId}	*POST*

Example

HTML5

oc-process.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Process Output Creation Example</title>
```

```
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/oc-process.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Output Creation Service - Process Output Creation
Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="jobset">Job Set ID:</label>
                    <input id="jobset" type="text"
placeholder="1234" required>
                </div>
                <div>
                <label for="ocpreset">Output Creation Preset
ID/Name:</label>
                    <input id="ocpreset" type="text"
placeholder="1234 or Filename" required>
                </div>
            </fieldset>
            <fieldset>
                <legend>Options</legend>
                <div>
                    <label for="resultstxt">Get Results as
Text:</label>
                    <input id="resultstxt" type="checkbox">
                </div>
            </fieldset>
            <fieldset>
                <legend>Progress & Actions</legend>
                <div>
                    <progress value="0" max="100"></progress>
                </div>
                <div>
                    <input id="cancel" type="button" value="Cancel"
disabled>
                    <input id="submit" type="submit"
value="Submit">
                </div>
```

```
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

oc-process.js

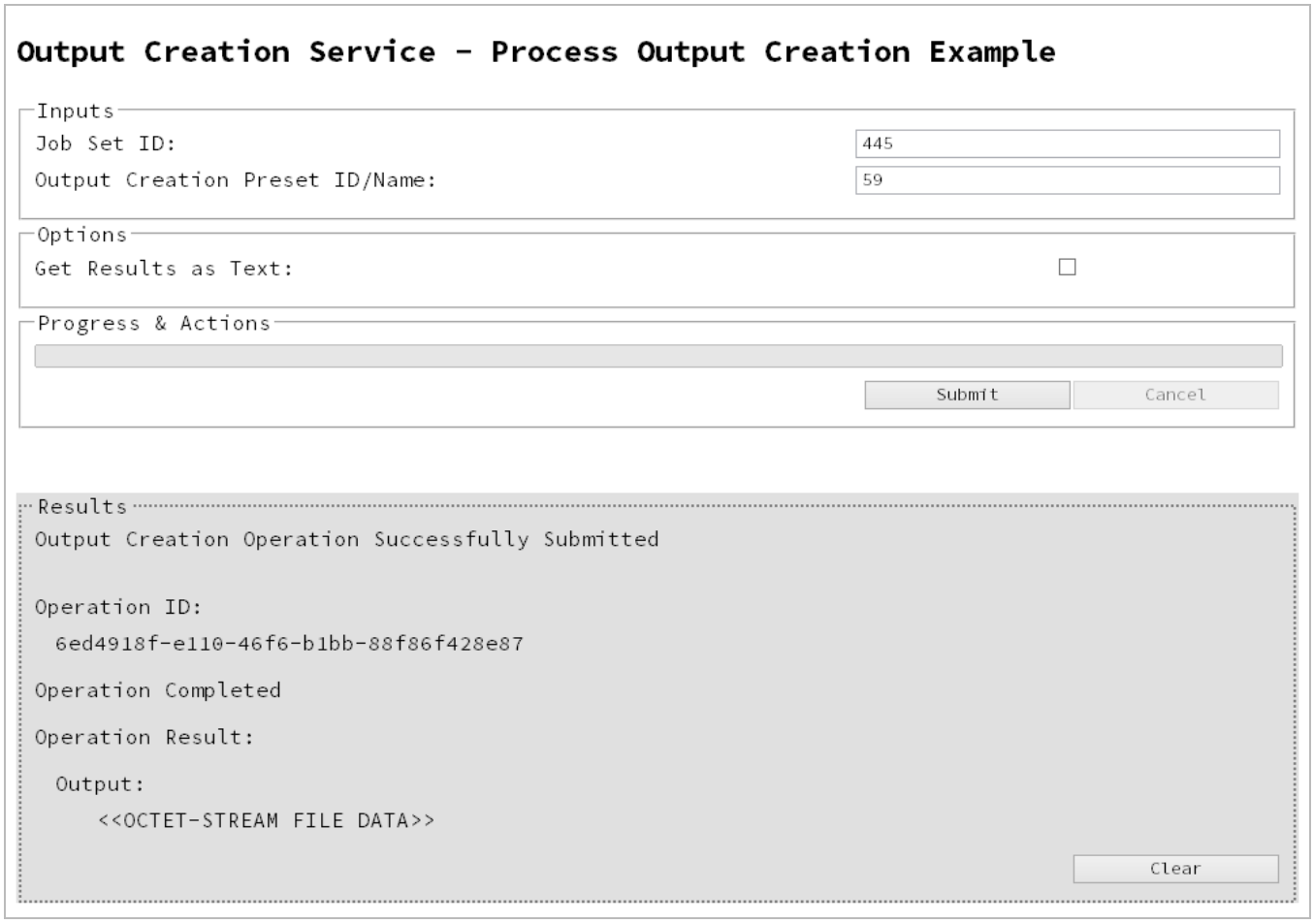
```
/* Output Creation Service - Process Output Creation Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        var $submitButton = $("#submit"),
            $cancelButton = $("#cancel"),
            $progressBar = $("progress"),
            operationId = null;

        $cancelButton.on("click", function () {
            if (operationId !== null) {

                /* Cancel an Operation */
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/outputcreation/cancel/" + operationId
                }).done(function (response) {
                    displayInfo("Operation Cancelled!");
                    operationId = null;
                    setTimeout(function () {
                        $progressBar.attr("value", 0);
                        $submitButton.removeAttr("disabled");
                        $cancelButton.attr("disabled", "disabled");
                    }, 100);
                }).fail(displayDefaultFailure);
            }
        });

        $("form").on("submit", function (event) {
```

```
            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var jobSetId = $("#jobset").val(),
                configId = $("#ocpreset").val();

            var getFinalResult = function () {

                var results = ($("#resultstxt").is(":checked")) ?
"getResultTxt" : "getResult";

                /* Get Result of Operation */
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/outputcreation/" + results + "/" +
operationId
                }).done(function (response, status, request) {
                    if (request.getResponseHeader("Content-Type")
=== "application/octet-stream") {
                        response = "&lt;&lt;OCTET-STREAM FILE
DATA&gt;&gt;";
                    }
                    displayHeading("Operation Result");
                    displaySubResult("Output", response);
                }).fail(displayDefaultFailure);
            };

            /* Process Output Creation */
            $.ajax({
                type:   "POST",
                url:
"/rest/serverengine/workflow/outputcreation/" + configId + "/" +
jobSetId
            }).done(function (response, status, request) {

                var progress  = null;
                operationId = request.getResponseHeader
("operationId");

                $submitButton.attr("disabled", "disabled");
                $cancelButton.removeAttr("disabled");
```

```
                displayStatus("Output Creation Operation
Successfully Submitted");
                displayResult("Operation ID", operationId);

                var getProgress = function () {
                    if (operationId !== null) {

                        /* Get Progress of Operation */
                        $.ajax({
                            type:   "GET",
                            cache:  false,
                            url:
"/rest/serverengine/workflow/outputcreation/getProgress/" +
operationId
                        }).done(function (response, status,
request) {

                            if (response !== "done") {
                                if (response !== progress) {
                                    progress = response;
                                    $progressBar.attr("value",
progress);
                                }
                                setTimeout(getProgress, 1000);
                            } else {
                                $progressBar.attr("value",
(progress = 100));
                                displayInfo("Operation Completed");
                                getFinalResult();
                                operationId = null;
                                setTimeout(function () {
                                    $progressBar.attr("value", 0);
                                    $submitButton.removeAttr
("disabled");
                                    $cancelButton.attr("disabled",
"disabled");
                                }, 100);
                            }
                        }).fail(displayDefaultFailure);
                    }
                };
                getProgress();
```

```
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output



Usage

To run the example simply enter the **Job Set ID** and the **Managed File ID or Name** of your output creation preset (previously uploaded to the file store) into the appropriate text fields, and then check any options that you may require:

- **Get Results as Text** - Return the result as text specifically. In this example this would return the absolute path to the output file(s).

Lastly, select the **Submit** button to start the Output creation operation.

Once the operation has started processing, the Operation ID will be displayed in the **Results** area and the **Cancel** button will become enabled, giving you the option to cancel the running operation.

The progress of the operation will be displayed in the progress bar, and once the output creation operation has completed, the output result will be returned and displayed to the **Results** area.

> **Note**
>
> If the result returned is expected to be file data, then the value <<*OCTET-STREAM FILE DATA*>> will be displayed.

Further Reading

See the Output Creation Service page of the REST API Reference section for further detail.

Running an Output Creation Operation (Using JSON)

Problem

You want to run an output creation operation to generate print output using an output creation preset and an existing Job Set as inputs.

Solution

The solution is to make a series of requests using the following URIs and method types to submit, monitor progress and ultimately retrieve the result of the output creation operation. There is also the option of cancelling an operation during processing if required. These requests can be submitted via the Output Creation REST service:

Process Output Creation (JSON)	/rest/serverengine/workflow/outputcreation/{configId}	*POST*
Get Progress of Operation	/rest/serverengine/workflow/outputcreation/getProgress/{operationId}	*GET*
Get Result of Operation	/rest/serverengine/workflow/outputcreation/getResult/{operationId}	*POST*
Get Result of Operation (as Text)	/rest/serverengine/workflow/outputcreation/getResultTxt/{operationId}	*POST*
Cancel an Operation	/rest/serverengine/workflow/outputcreation/cancel/{operationId}	*POST*

Example

HTML5

oc-process-json.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Process Output Creation (JSON) Example</title>
```

```
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/oc-process-json.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Output Creation Service - Process Output Creation
(JSON) Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="jobset">Job Set ID:</label>
                    <input id="jobset" type="text"
placeholder="1234" required>
                </div>
                <div>
                    <label for="ocpreset">Output Creation Preset
ID/Name:</label>
                    <input id="ocpreset" type="text"
placeholder="1234 or Filename" required>
                </div>
            </fieldset>
            <fieldset>
                <legend>Options</legend>
                <div>
                    <label for="createonly">Create Only:</label>
                    <input id="createonly" type="checkbox">
                </div>
                <div>
                    <label for="resultstxt">Get Results as
Text:</label>
                    <input id="resultstxt" type="checkbox">
                </div>
            </fieldset>
            <fieldset>
                <legend>Progress & Actions</legend>
                <div>
                    <progress value="0" max="100"></progress>
                </div>
                <div>
                    <input id="cancel" type="button" value="Cancel"
```

```
disabled>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

oc-process-json.js

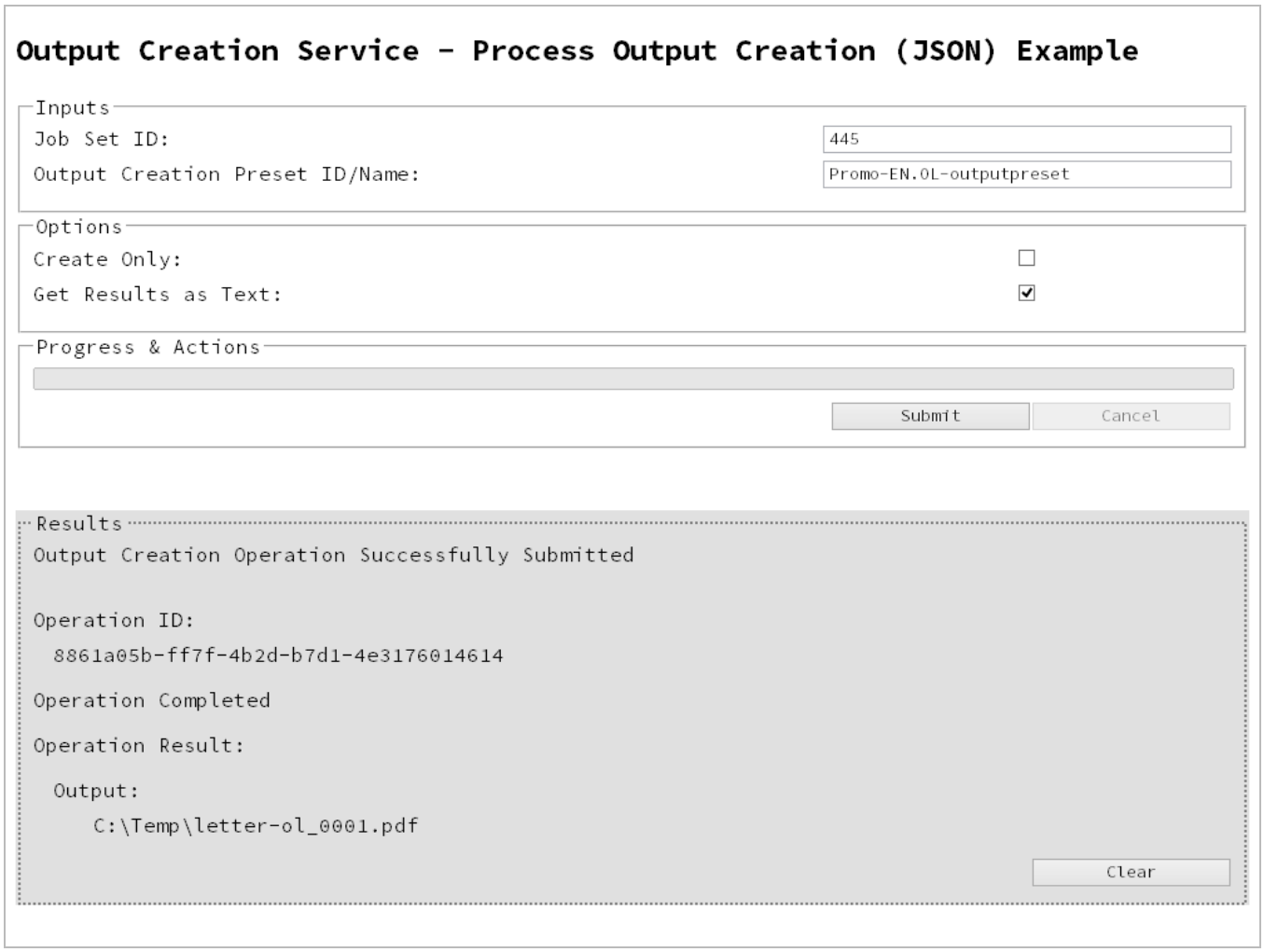
```
/* Output Creation Service - Process Output Creation (JSON) Example
*/
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        var $submitButton = $("#submit"),
            $cancelButton = $("#cancel"),
            $progressBar = $("progress"),
            operationId = null;

        $cancelButton.on("click", function () {
            if (operationId !== null) {

                /* Cancel an Operation */
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/outputcreation/cancel/" + operationId
                }).done(function (response) {
                    displayInfo("Operation Cancelled!");
                    operationId = null;
                    setTimeout(function () {
                        $progressBar.attr("value", 0);
                        $submitButton.removeAttr("disabled");
                        $cancelButton.attr("disabled", "disabled");
                    }, 100);
```

```
                }).fail(displayDefaultFailure);
            }
        });

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var jobSetId = $("#jobset").val(),
                configId = $("#ocpreset").val(),
                createOnly = $("#createonly").is(":checked");

            var getFinalResult = function () {

                var results = ($("#resultstxt").is(":checked")) ?
"getResultTxt" : "getResult";

                /* Get Result of Operation */
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/outputcreation/" + results + "/" +
operationId
                }).done(function (response, status, request) {
                    if (request.getResponseHeader("Content-Type")
=== "application/octet-stream") {
                        response = "&lt;&lt;OCTET-STREAM FILE
DATA&gt;&gt;";
                    }
                    displayHeading("Operation Result");
                    displaySubResult("Output", response);
                }).fail(displayDefaultFailure);
            };

            /* Process Output Creation (JSON) */
            $.ajax({
                type:           "POST",
                url:
"/rest/serverengine/workflow/outputcreation/" + configId,
                data:           JSON.stringify(plainIDToJson
(jobSetId, createOnly)),
                contentType:    "application/json"
```

```
            }).done(function (response, status, request) {

                var progress  = null;
                operationId = request.getResponseHeader
("operationId");

                $submitButton.attr("disabled", "disabled");
                $cancelButton.removeAttr("disabled");

                displayStatus("Output Creation Operation
Successfully Submitted");
                displayResult("Operation ID", operationId);

                var getProgress = function () {
                    if (operationId !== null) {

                        /* Get Progress of Operation */
                        $.ajax({
                            type:   "GET",
                            cache:  false,
                            url:
"/rest/serverengine/workflow/outputcreation/getProgress/" +
operationId
                        }).done(function (response, status,
request) {

                            if (response !== "done") {
                                if (response !== progress) {
                                    progress = response;
                                    $progressBar.attr("value",
progress);
                                }
                                setTimeout(getProgress, 1000);
                            } else {
                                $progressBar.attr("value",
(progress = 100));
                                displayInfo("Operation Completed");
                                getFinalResult();
                                operationId = null;
                                setTimeout(function () {
                                    $progressBar.attr("value", 0);
                                    $submitButton.removeAttr
("disabled");
```

```
                                        $cancelButton.attr("disabled",
"disabled");
                                    }, 100);
                                }
                            }).fail(displayDefaultFailure);
                        }
                    };
                    getProgress();
                }).fail(displayDefaultFailure);
            });
        });
}(jQuery));
```

Screenshot & Output



Usage

To run the example simply enter the **Job Set ID** and the **Managed File ID or Name** of your output creation preset (previously uploaded to the file store) into the appropriate text fields, and then check any options that you may require:

- **Create Only** - Create the output in server but do not send spool file to its final destination. In this example this would mean that the output files(s) would not be sent to the output directory specified in the output creation preset.
- **Get Results as Text** - Return the result as text specifically. In this example this would return the absolute path to the output file(s).

Lastly, select the **Submit** button to start the Output creation operation.

Once the operation has started processing, the Operation ID will be displayed in the **Results** area and the **Cancel** button will become enabled, giving you the option to cancel the running operation.

The progress of the operation will be displayed in the progress bar, and once the output creation operation has completed, the output result will be returned and displayed to the **Results** area.

> **Note**
>
> If the result returned is expected to be file data, then the value *<<OCTET-STREAM FILE DATA>>* will be displayed.

Further Reading

See the Output Creation Service page of the REST API Reference section for further detail.

Running an Output Creation Operation By Job (Using JSON)

Problem

You want to run an output creation operation to generate print output using an output creation preset and a list of existing Jobs as inputs.

Solution

The solution is to make a series of requests using the following URIs and method types to submit, monitor progress and ultimately retrieve the result of the output creation operation. There is also the option of cancelling an operation during processing if required. These requests can be submitted via the Output Creation REST service:

Process Output Creation (By Job) (JSON)	/rest/serverengine/workflow/outputcreation/{configId}/jobs	*POST*
Get Progress of Operation	/rest/serverengine/workflow/outputcreation/getProgress/{operationId}	*GET*
Get Result of Operation	/rest/serverengine/workflow/outputcreation/getResult/{operationId}	*POST*
Get Result of Operation (as Text)	/rest/serverengine/workflow/outputcreation/getResultTxt/{operationId}	*POST*
Cancel an Operation	/rest/serverengine/workflow/outputcreation/cancel/{operationId}	*POST*

Example

HTML5

oc-process-by-je-json.html

```
<!DOCTYPE html>
<html>
    <head>
```

```
        <meta charset="utf-8">
        <title>Process Output Creation (By Job) (JSON)
Example</title>
        <script src="../../common/lib/js/jquery-
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/oc-process-by-je-json.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>Output Creation Service - Process Output Creation (By
Job) (JSON) Example</h2>
        <form>
            <fieldset>
                <legend>Inputs</legend>
                <div>
                    <label for="jobs">Job ID(s):</label>
                    <input id="jobs" type="text" placeholder="1234,
2345, 3456, ..." required>
                </div>
                <div>
                    <label for="ocpreset">Output Creation Preset
ID/Name:</label>
                    <input id="ocpreset" type="text"
placeholder="1234 or Filename" required>
                </div>
            </fieldset>
            <fieldset>
                <legend>Options</legend>
                <div>
                    <label for="createonly">Create Only:</label>
                    <input id="createonly" type="checkbox">
                </div>
                <div>
                    <label for="resultstxt">Get Results as
Text:</label>
                    <input id="resultstxt" type="checkbox">
                </div>
            </fieldset>
            <fieldset>
                <legend>Progress & Actions</legend>
                <div>
                    <progress value="0" max="100"></progress>
```

```
                </div>
                <div>
                    <input id="cancel" type="button" value="Cancel"
disabled>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

oc-process-by-je-json.js

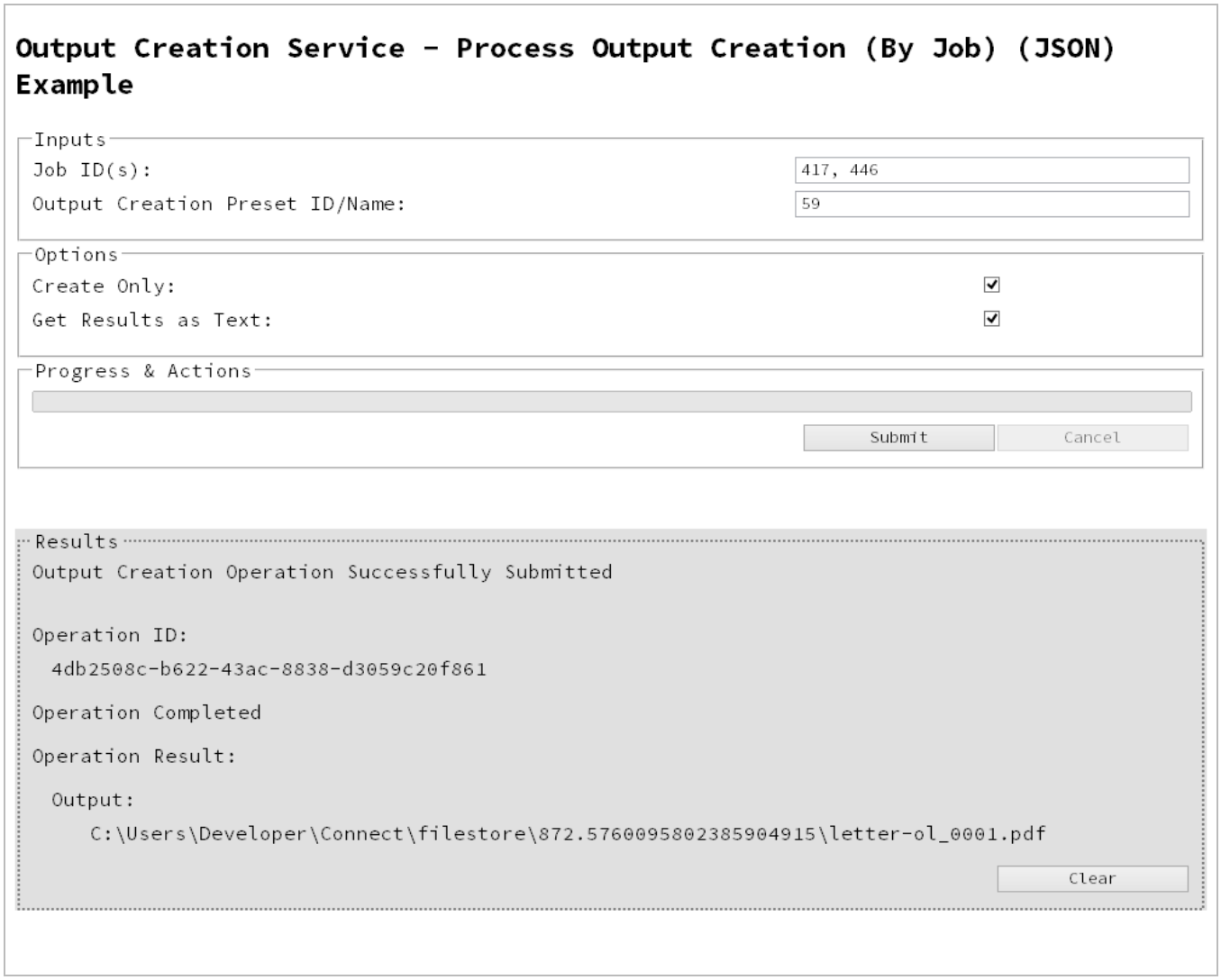
```
/* Output Creation Service - Process Output Creation (By Job)
(JSON) Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();

        var $submitButton = $("#submit"),
            $cancelButton = $("#cancel"),
            $progressBar = $("progress"),
            operationId = null;

        $cancelButton.on("click", function () {
            if (operationId !== null) {

                /* Cancel an Operation */
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/outputcreation/cancel/" + operationId
                }).done(function (response) {
                    displayInfo("Operation Cancelled!");
                    operationId = null;
                    setTimeout(function () {
                        $progressBar.attr("value", 0);
```

```
                        $submitButton.removeAttr("disabled");
                        $cancelButton.attr("disabled", "disabled");
                    }, 100);
                }).fail(displayDefaultFailure);
            }
        });

        $("form").on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            var jobIds = $("#jobs").val(),
                configId = $("#ocpreset").val(),
                createOnly = $("#createonly").is(":checked");

            var getFinalResult = function () {

                var results = ($("#resultstxt").is(":checked")) ?
"getResultTxt" : "getResult";

                /* Get Result of Operation */
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/outputcreation/" + results + "/" +
operationId
                }).done(function (response, status, request) {
                    if (request.getResponseHeader("Content-Type")
=== "application/octet-stream") {
                        response = "&lt;&lt;OCTET-STREAM FILE
DATA&gt;&gt;";
                    }
                    displayHeading("Operation Result");
                    displaySubResult("Output", response);
                }).fail(displayDefaultFailure);
            };

            /* Process Output Creation (By Job) (JSON) */
            $.ajax({
                type:           "POST",
                url:
"/rest/serverengine/workflow/outputcreation/" + configId + "/jobs",
```

```
                data:           JSON.stringify(plainIDListToJson
(jobIds, createOnly)),
                contentType:    "application/json"
            }).done(function (response, status, request) {

                var progress  = null;
                operationId = request.getResponseHeader
("operationId");

                $submitButton.attr("disabled", "disabled");
                $cancelButton.removeAttr("disabled");

                displayStatus("Output Creation Operation
Successfully Submitted");
                displayResult("Operation ID", operationId);

                var getProgress = function () {
                    if (operationId !== null) {

                        /* Get Progress of Operation */
                        $.ajax({
                            type:   "GET",
                            cache:  false,
                            url:
"/rest/serverengine/workflow/outputcreation/getProgress/" +
operationId
                        }).done(function (response, status,
request) {

                            if (response !== "done") {
                                if (response !== progress) {
                                    progress = response;
                                    $progressBar.attr("value",
progress);
                                }
                                setTimeout(getProgress, 1000);
                            } else {
                                $progressBar.attr("value",
(progress = 100));
                                displayInfo("Operation Completed");
                                getFinalResult();
                                operationId = null;
                                setTimeout(function () {
```

```
                                        $progressBar.attr("value", 0);
                                        $submitButton.removeAttr
("disabled");
                                        $cancelButton.attr("disabled",
"disabled");
                                    }, 100);
                                }
                            }).fail(displayDefaultFailure);
                        }
                    };
                    getProgress();
                }).fail(displayDefaultFailure);
            });
        });
}(jQuery));
```

Screenshot & Output



Usage

To run the example simply enter a comma delimited list of your **Job IDs** and the **Managed File ID or Name** of your output creation preset (previously uploaded to the file store) into the appropriate text fields, and then check any options that you may require:

- **Create Only** - Create the output in server but do not send spool file to its final destination. In this example this would mean that the output files(s) would not be sent to the output directory specified in the output creation preset.

- **Get Results as Text** - Return the result as text specifically. In this example this would return the absolute path to the output file(s).

Lastly, select the **Submit** button to start the Output creation operation.

Once the operation has started processing, the Operation ID will be displayed in the **Results** area and the **Cancel** button will become enabled, giving you the option to cancel the running operation.

The progress of the operation will be displayed in the progress bar, and once the output creation operation has completed, the output result will be returned and displayed to the **Results** area.

> **Note**
>
> If the result returned is expected to be file data, then the value *<<OCTET-STREAM FILE DATA>>* will be displayed.

Further Reading

See the Output Creation Service page of the REST API Reference section for further detail.

Running an All-In-One Operation (Using JSON)

Problem

You want to run an All-In-One operation to generate either a data set, content set or printed output using one the following input combinations:

Process Steps	Input Combination	Expected Output
Data Mapping Only	Data File + Data Mapping Configuration	Data Set
Data Mapping + Content Creation	Data File + Data Mapping Configuration + Design Template	Content Set(s)
Content Creation Only	Data Records + Design Template	Content Set(s)
Data Mapping + Content Creation + Job Creation	Data File + Data Mapping Configuration + Design Template	Job Set
Content Creation + Job Creation	Data Records + Design Template	Job Set
Content Creation + Job Creation + Output Creation	Data Records + Design Template + Output Creation Preset	Printed Output
Output Creation Only	Jobs + Output Creation Preset	Printed Output
Data Mapping + Content Creation + Job Creation + Output Creation	Data File + Data Mapping Configuration + Design Template + Output Creation Preset	Printed Output
Data Mapping + Content Creation + Job	Data File + Data Mapping Configuration + Design Template + Job Creation Preset +	Printed Output

Process Steps	Input Combination	Expected Output
Creation + Output Creation	Output Creation Preset	

Solution

The solution is to make a series of requests using the following URIs and method types to submit, monitor progress and ultimately retrieve the result of the All-In-One operation. There is also the option of cancelling an operation during processing if required. These requests can be submitted via the All-In-One REST service:

Process All-In-One (JSON)	/rest/serverengine/workflow/print/submit	*POST*
Get Progress of Operation	/rest/serverengine/workflow/print/getProgress/{operationId}	*GET*
Get Result of Operation	/rest/serverengine/workflow/print/getResult/{operationId}	*POST*
Get Result of Operation (as Text)	/rest/serverengine/workflow/print/getResultTxt/{operationId}	*POST*
Cancel an Operation	/rest/serverengine/workflow/print/cancel/{operationId}	*POST*

Example

HTML5

aio-process-json.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <title>Process All-In-One (JSON) Example</title>
        <script src="../../common/lib/js/jquery-
```

```
1.11.3.min.js"></script>
        <script src="../../common/js/common.js"></script>
        <script src="js/aio-process-json.js"></script>
        <link rel="stylesheet" href="../../common/css/styles.css">
    </head>
    <body>
        <h2>All-In-One Service - Process All-In-One (JSON)
Example</h2>
        <form>
            <fieldset id="inputs">
                <legend>Inputs</legend>
                <div>
                    <label for="datamining">Data Mapping:</label>
                    <input id="datamining" type="checkbox">
                </div>
                <div>
                    <label for="contentcreation">Content
Creation:</label>
                    <input id="contentcreation" type="checkbox">
                </div>
                <div>
                    <label for="jobcreation">Job Creation:</label>
                    <input id="jobcreation" type="checkbox">
                </div>
                <div>
                    <label for="outputcreation">Output
Creation:</label>
                    <input id="outputcreation" type="checkbox">
                </div>
            </fieldset>
            <fieldset id="datamining-inputs" disabled>
                <legend>Data Mapping</legend>
                <div>
                    <label for="datafile">Data File
ID/Name:</label>
                    <input id="datafile" type="text"
placeholder="1234 or Filename" required>
                </div>
                <div>
                    <label for="datamapper">Data Mapping
Configuration ID/Name:</label>
                    <input id="datamapper" type="text"
placeholder="1234 or Filename" required>
```

```
                </div>
            </fieldset>
            <fieldset id="contentcreation-inputs" disabled>
                <legend>Content Creation</legend>
                <div>
                    <label for="datarecords">Data Record ID
(s):</label>
                    <input id="datarecords" type="text"
placeholder="1234, 2345, 3456, ..." required>
                </div>
                <div>
                    <label for="designtemplate">Design Template
ID/Name:</label>
                    <input id="designtemplate" type="text"
placeholder="1234 or Filename" required>
                </div>
            </fieldset>
            <fieldset id="jobcreation-inputs" disabled>
                <legend>Job Creation</legend>
                <div>
                    <label for="jcpreset">Job Creation Preset
ID/Name:</label>
                    <input id="jcpreset" type="text"
placeholder="1234 or Filename" disabled>
                </div>
            </fieldset>
            <fieldset id="outputcreation-inputs" disabled>
                <legend>Output Creation</legend>
                <div>
                    <label for="jobs">Job ID(s):</label>
                    <input id="jobs" type="text" placeholder="1234,
2345, 3456, ..." required>
                </div>
                <div>
                    <label for="ocpreset">Output Creation Preset
ID/Name:</label>
                    <input id="ocpreset" type="text"
placeholder="1234 or Filename" required>
                </div>
            </fieldset>
            <fieldset>
                <legend>Options</legend>
                <div>
```

```
                    <label for="createonly">Create Only:</label>
                    <input id="createonly" type="checkbox"
disabled>
                </div>
                <div>
                    <label for="resultstxt">Get Results as
Text:</label>
                    <input id="resultstxt" type="checkbox"
disabled>
                </div>
                <div>
                    <label for="printrange">Print Range:</label>
                    <input id="printrange" type="text"
placeholder="1, 2, 3-5, 6" disabled>
                </div>
            </fieldset>
            <fieldset>
                <legend>Progress & Actions</legend>
                <div>
                    <progress value="0" max="100"></progress>
                </div>
                <div>
                    <input id="cancel" type="button" value="Cancel"
disabled>
                    <input id="submit" type="submit"
value="Submit">
                </div>
            </fieldset>
        </form>
    </body>
</html>
```

JavaScript/jQuery

aio-process-json.js

```
/* All-In-One Service - Process All-In-One (JSON) Example */
(function ($) {
    "use strict";
    $(document).ready(function () {

        setupExample();
```

```
        var $form =     $("form"),
            $inputs =   $("#inputs input"),

            $datafile =      $("#datafile"),
            $datamapper =    $("#datamapper"),
            $datarecords =   $("#datarecords"),
            $template =      $("#designtemplate"),
            $jcpreset =      $("#jcpreset"),
            $jobs =          $("#jobs"),
            $ocpreset =      $("#ocpreset"),
            $createonly =    $("#createonly"),
            $resultstxt =    $("#resultstxt"),
            $printrange =    $("#printrange"),

            AIOConfig =      null,
            outputDesc =     null,
            operationId =    null,

            $submitButton =  $("#submit"),
            $cancelButton =  $("#cancel"),
            $progressBar =   $("progress");

        $cancelButton.on("click", function () {
            if (operationId !== null) {

                /* Cancel an Operation */
                $.ajax({
                    type:   "POST",
                    url:
"/rest/serverengine/workflow/print/cancel/" + operationId
                }).done(function (response) {
                    displayInfo("Operation Cancelled!");
                    operationId = null;
                    setTimeout(function () {
                        $progressBar.attr("value", 0);
                        $submitButton.removeAttr("disabled");
                        $cancelButton.attr("disabled", "disabled");
                    }, 100);
                }).fail(displayDefaultFailure);
            }
        });
```

```
        /**
         * @function generateAIOConfig
         * @description Validates the workflow selected by the user
         * and constructs and an All-In-One Configuration using the
relevant
         * input fields in the HTML Form.
         * Any invalid inputs or workflow selections will be red-
flagged in
         * the HTML Form. Null can also be returned if no workflow
selections
         * are made or if the workflow selections made are of an
invalid sequence.
         * @private
         * @returns {Object} The All-In-One Configuration Object or
Null
         */
        function generateAIOConfig() {

            var config = {},
                required = [],
                i = null,

                /* Parse Input Value to JSON Identifier List
(Helper Function) */
                jsonIDListValue = function ($input) {
                    return (plainIDListToJson($input.val
())).identifiers;
                },

                /* Parse Input Value to Boolean (Helper Function)
*/
                booleanValue = function ($input) {
                    return $input.is(":checked");
                };

            /* Get Input Value and add it to the Configuration
(Helper Function) */
            function getInputValue($input, process, field, parser)
{
                var value = $input.val();
                if (value !== "") {
                    if (parser) {
                        value = parser($input);
```

```
                }
                if (config[process] === undefined) {
                    config[process] = {};
                }
                config[process][field] = value;
            }
        }

        /* Get Required & Actual Workflow Selections */
        $inputs.each(function () {
            if ($(this).prop("checked")) {
                config[this.id] = {};
            }
            $(this).removeAttr("required");
            required.push(this.id);
        });
        var selections = (Object.keys(config)).length;

        /* Verify the Workflow Selections and note any
omissions */
        var matches = 0,
            missing = [];
        for (i = 0; i < required.length; i += 1) {
            var step = required[i];
            if (config[step]) {
                if (!matches && step === "jobcreation") {
                    missing.push("contentcreation");
                }
                matches += 1;
            } else {
                if (matches !== 0) {
                    missing.push(step);
                }
            }
            if (matches === selections) {
                break;
            }
        }

        /* Add the inputs to the Workflow Selections to Create
the All-In-One Configuration */
        if (config.datamining) {
            getInputValue($datafile, "datamining",
```

```
"identifier");
                getInputValue($datamapper, "datamining", "config");
                outputDesc = "Data Set ID";
            }
            if (config.contentcreation) {
                getInputValue($template, "contentcreation",
"config");
                if (!config.datamining) {
                    getInputValue($datarecords, "contentcreation",
"identifiers", jsonIDListValue);
                    $datarecords.removeAttr("disabled");
                } else {
                    $datarecords.attr("disabled", "disabled");
                }
                outputDesc = "Content Set ID(s)";
            }
            if (config.jobcreation) {
                outputDesc = "Job Set ID";
            }
            if (config.outputcreation) {
                getInputValue($ocpreset, "outputcreation",
"config");
                getInputValue($createonly, "outputcreation",
"createOnly", booleanValue);
                if (!config.contentcreation) {
                    getInputValue($jobs, "outputcreation",
"identifiers", jsonIDListValue);
                    $jobs.removeAttr("disabled");
                } else {
                    $jobs.attr("disabled", "disabled");
                }
                $createonly.removeAttr("disabled");
                $resultstxt.removeAttr("disabled");
                outputDesc = "Output";
            } else {
                $createonly.attr("disabled", "disabled");
                $resultstxt.attr("disabled", "disabled");

                if (!$resultstxt.is(":checked")) { $resultstxt.prop
("checked", true); }
            }

            if (config.datamining && config.contentcreation &&
```

```
                config.jobcreation && config.outputcreation) {

                getInputValue($jcpreset, "jobcreation", "config");
                getInputValue($printrange, "printRange",
"printRange");
                $jcpreset.removeAttr("disabled");
                $printrange.removeAttr("disabled");
            } else {
                $jcpreset.attr("disabled", "disabled");
                $printrange.attr("disabled", "disabled");
            }

            /* Red-flag any omissions in Workflow Selections */
            if (!selections || missing.length) {
                for (i = 0; i < missing.length; i += 1) {
                    $("#" + missing[i]).attr("required",
"required");
                }
                return null;
            }
            return config;
        }

        $inputs.on("change", function (event) {
            var input = event.target;
            var process  = $("#" + input.id + "-inputs");
            if ($(input).prop("checked")) {
                process.removeAttr("disabled");
            } else {
                process.attr("disabled", "disabled");
            }
        }).trigger("change");

        $form.on("change", function (event) {
            AIOConfig = generateAIOConfig();
        }).trigger("change");

        $form.on("submit", function (event) {

            event.preventDefault();
            if (!checkSessionValid()) { return; }

            if (!AIOConfig) {
```

```
                alert("Invalid All-In-One Configuration!\n\nPlease
enter a valid " +
                    "combination of input fields, and try again.");
                return;
            }

            var getFinalResult = function () {

                var results = ($resultstxt.is(":checked")) ?
"getResultTxt" : "getResult";

                /* Get Result of Operation */
                $.ajax({
                    type:   "POST",
                    url:    "/rest/serverengine/workflow/print/" +
results + "/" + operationId
                }).done(function (response, status, request) {
                    if (request.getResponseHeader("Content-Type")
=== "application/octet-stream") {
                        response = "&lt;&lt;OCTET-STREAM FILE
DATA&gt;&gt;";
                    }
                    displayHeading("Operation Result");
                    displaySubResult(outputDesc, response);
                }).fail(displayDefaultFailure);
            };

            /* Process All-In-One (JSON) */
            $.ajax({
                type:           "POST",
                url:
"/rest/serverengine/workflow/print/submit",
                data:           JSON.stringify(AIOConfig),
                contentType:    "application/json"
            }).done(function (response, status, request) {

                var progress  = null;
                operationId = request.getResponseHeader
("operationId");

                $submitButton.attr("disabled", "disabled");
                $cancelButton.removeAttr("disabled");
```

```
                displayStatus("All-In-One Operation Successfully
Submitted");
                displayHeading("Input Configuration");
                displaySubResult("JSON All-In-One Configuration",
jsonPrettyPrint(AIOConfig));
                displayResult("Operation ID", operationId);

                var getProgress = function () {
                    if (operationId !== null) {

                        /* Get Progress of Operation */
                        $.ajax({
                            type:   "GET",
                            cache:  false,
                            url:
"/rest/serverengine/workflow/print/getProgress/" + operationId
                        }).done(function (response, status,
request) {

                            if (response !== "done") {
                                if (response !== progress) {
                                    progress = response;
                                    $progressBar.attr("value",
progress);
                                }
                                setTimeout(getProgress, 1000);
                            } else {
                                $progressBar.attr("value",
(progress = 100));
                                displayInfo("Operation Completed");
                                getFinalResult();
                                operationId = null;
                                setTimeout(function () {
                                    $progressBar.attr("value", 0);
                                    $submitButton.removeAttr
("disabled");
                                    $cancelButton.attr("disabled",
"disabled");
                                }, 100);
                            }
                        }).fail(displayDefaultFailure);
                    }
                };
```

```
                getProgress();
            }).fail(displayDefaultFailure);
        });
    });
}(jQuery));
```

Screenshot & Output

All-In-One Service - Process All-In-One (JSON) Example

Inputs

Data Mapping:	☑
Content Creation:	☑
Job Creation:	☑
Output Creation:	☑

Data Mapping

Data File ID/Name:	Promo-EN-1000.csv
Data Mapping Configuration ID/Name:	Promo-EN.OL-datamapper

Content Creation

Data Record ID(s):	45154, 45176, 45198, 45220
Design Template ID/Name:	letter-ol.OL-template

Job Creation

Job Creation Preset ID/Name:	58

Output Creation

Job ID(s):	417, 446
Output Creation Preset ID/Name:	59

Options

Create Only:	☐
Get Results as Text:	☑
Print Range:	1-5, 7, 9

Progress & Actions

Submit Cancel

Results

```
All-In-One Operation Successfully Submitted

Input Configuration:

  JSON All-In-One Configuration:
    {
        "datamining": {
            "identifier": "Promo-EN-1000.csv",
            "config": "Promo-EN.OL-datamapper"
        },
        "contentcreation": {
            "config": "letter-ol.OL-template"
        },
        "jobcreation": {
            "config": "58"
        },
        "outputcreation": {
            "config": "59",
            "createOnly": false
        },
        "printRange": {
            "printRange": "1-5, 7, 9"
        }
    }

Operation ID:
  74d88e38-3ae6-421f-9a7c-19f1966da111
```

Usage

To run the example simply select the input combination of your choosing, populate the appropriate input fields and then check any options that you may require.

The following file based input fields can be referenced by **Managed File ID or Name**:

- Data file
- Data Mapping configuration
- Design template
- Job Creation preset
- Output Creation preset

The following options are only available if the input combination includes an output creation step:

- **Create Only** - Create the output in server but do not send spool file to its final destination. In this example this would mean that the output files(s) would not be sent to the output directory specified in the output creation preset.
- **Get Results as Text** - Return the result as text specifically. If our All-In-One Configuration includes an output creation step, then in this example this would return the absolute path to the output file(s).
- **Print Range** - Restrict the printed output to a specific range of records in the input data, not a specific range of pages (requires combination with all workflow steps).

Lastly, select the **Submit** button to start the All-In-One operation.

Once the operation has started processing, the JSON All-In-One Configuration along with the Operation ID will be displayed in the **Results** area and the **Cancel** button will become enabled, giving you the option to cancel the running operation.

The progress of the operation will be displayed in the progress bar, and once the All-in-One operation has completed, the result will be returned and displayed to the **Results** area.

If the All-In-One configuration includes a output creation step, then the result returned will be the output files (either their absolute path(s) or the output file itself). If the configuration does not include an output creation step, then the result returned will be either a Data Set ID, Content Set IDs or Job Set ID.

Note

If the result returned is expected to be file data, then the value <<*OCTET-STREAM FILE DATA*>> will be displayed.

Further Reading

See the All-In-One Service page of the REST API Reference section for further detail.

REST API Reference

The PlanetPress Connect REST API defines a number of RESTful services that facilitate various functionality within the server during workflow processing.

The following table is a summary of the services available in the PlanetPress Connect REST API:

Service Name	Internal Name	Description
Authentication Service	*AuthenticationRestService*	Exposes methods for authenticated access (login & password) to the PlanetPress Connect REST API. Uses a combination of basic and token based authorisation.
Content Creation Service	*ContentCreationRestService*	Exposes methods for the manual creation, monitoring & cancellation of new print context based content creation operations within the workflow, including a method for accessing the result of a successful operation.
Content Item Entity Service	*ContentItemEntityRestService*	Exposes methods specific to the Content Item entity type including property value accessor methods and an associated data record lookup method.
Content Set Entity Service	*ContentSetEntityRestService*	Exposes methods specific to the Content Set entity type including property value accessor methods, methods to access all content sets and delete specific content sets, and a method to access the content item IDs contained within a specific content set.

Service Name	Internal Name	Description
Data Record Entity Service	*DataRecordEntityRestService*	Exposes methods specific to the Data Record entity type including accessor methods for data records and the value & property values for a specific data record.
Data Set Entity Service	*DataSetEntityRestService*	Exposes methods specific to the Data Set entity type including property value accessor methods, methods to access all data sets and delete specific data sets, and a method to access the data record IDs contained within a specific data set.
Data Mapping Service	*DataminingRestService*	Exposes methods for the manual creation, monitoring & cancellation of data mapping operations within the workflow, including a method for accessing the result of a successful operation. Also exposes methods for basic data mapping pass-throughs specific to PDF VT data files.
Content Creation (Email) Service	*EmailExportRestService*	Exposes methods for the manual creation, monitoring & cancellation of new email context based content creation operations within the workflow, including a method for accessing the result of a successful operation.
File Store Service	*FilestoreRestService*	Exposes methods specific to file store operations in PlanetPress Connect including the upload of data files, data mapping configurations, design templates, job creation presets & output creation presets. Also includes generic

Service Name	Internal Name	Description
		methods for the upload of directories and files to the file store, and the download & deletion of managed files already contained within the file store.
Content Creation (HTML) Service	*HTMLMergeRestService*	Exposes methods for the manual creation of new web context based content. Also exposes additional method to access the generated HTML content/resources.
Job Creation Service	*JobCreationRestService*	Exposes methods for the manual creation, monitoring & cancellation of job creation operations within the workflow, including a method for accessing the result of a successful operation.
Job Entity Service	*JobEntityRestService*	Exposes methods specific to the Job entity type including property value accessor methods and get job contents method.
Job Set Entity Service	*JobSetEntityRestService*	Exposes methods specific to the Job Set entity type including property value accessor methods, methods to access all jobs sets and delete specific data sets, and a method to access the job IDs contained within a specific job set.
Output Creation Service	*OutputCreationRestService*	Exposes methods for the manual creation, monitoring & cancellation of output creation operations within the workflow, including methods for accessing the result of a successful operation.

Service Name	Internal Name	Description
All-In-One Service	*PrintRestService*	Exposes methods for the manual creation, monitoring & cancellation of "All-In-One" operations within the workflow, including methods for accessing the result of a successful operation. Also includes a test output destination method.

Authentication Service

The following table is a summary of the resources and methods available in the Authentication service:

Method Name	Uniform Resource Identifier (URI)	Method Type
Service Handshake	/authentication	GET
Authenticate/Login to Server	/authentication/login	POST
Service Version	/authentication/version	GET

Service Handshake

Queries the availability of the Authentication service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/authentication</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Handshake message:

Server Engine REST Service available: AuthenticationRestService</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – REST Service available
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Authenticate/Login to Server

Submits an authentication request (using credentials) to the PlanetPress Connect server and if successful provides access to the various other REST API services available.

Request takes no content, but requires an additional Authorization header which contains a base64 encoded set of credentials (basic user name & password). On success, the response with return an authorization token which can then be used as an additional **auth_token** header in any future requests made to the REST API services.

> **Warning**
>
> If server security settings are enabled and a request is made to any resource of any service in the REST API, if that request contains no authorization token and no Authorization header, then the response will come back as *Unauthorized* and will contain an additional **WWW-Authenticate** response header.

Type:	*POST*
URI:	/rest/serverengine/authentication/login
Parameters:	-
Request:	**Add. Headers:** – **Authorization** – Basic User name & Password credentials (Base64 encoded) **Content:** - **Content Type:** -
Response:	**Add. Headers:** – **WWW-Authenticate** – BASIC (Prompt for Basic Authorization Credentials when no Authorization header specified)

Content:	Authorization Token
Content Type:	text/plain
Status:	• 200 OK – Server authentication successful, new token generated • 401 Unauthorized – Server authentication has failed or no credentials have been provided/specified in request header

Service Version

Returns the version of the Authentication service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/authentication/version</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Version of Service</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – Version of REST Service retrieved
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Content Creation Service

The following table is a summary of the resources and methods available in the Content Creation service:

Method Name	Uniform Resource Identifier (URI)	Method Type
Service Handshake	/workflow/contentcreation	GET
Process Content Creation	/workflow/contentcreation/{templateId}/{dataSetId}	POST
Process Content Creation (By Data Record) (JSON)	/workflow/contentcreation/{templateId}	POST
Get Progress of Operation	/workflow/contentcreation/getProgress/{operationId}	GET
Get Result of Operation	/workflow/contentcreation/getResult/{operationId}	POST
Cancel an Operation	/workflow/contentcreation/cancel/{operationId}	POST
Service Version	/workflow/contentcreation/version	GET

Service Handshake

Queries the availability of the Content Creation service.

Type:	*GET*
URI:	/rest/serverengine/workflow/contentcreation
Parameters:	-
Request:	**Add. Headers:** — **auth_token** – Authorization Token (if server security settings enabled) **Content:** — - **Content Type:** — -
Response:	**Add. Headers:** — - **Content:** — Handshake message: *Server Engine REST Service available: ContentCreationRestService* **Content Type:** — text/plain **Status:** — • 200 OK – REST Service available • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Process Content Creation

Submits a request to initiate a new Content Creation operation.

Request takes no content, and on success returns a response containing additional headers that specify the ID of the new operation as well as link URLs that can be used to retrieve further information/cancel the operation.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/contentcreation/{templateId}/{dataSetId}</td></tr>
<tr><td>Parameters:</td><td>Path:
templateId – the Managed File ID (or Name) of the design template in File Store
dataSetId – the ID of the Data Set entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>operationId – Operation ID of new Content Creation operation
Link – Contains multiple link URLs that can be used to retrieve further information/cancel the operation.</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content</td><td>-</td></tr>
</table></td></tr>
</table>

	Type:	
	Status:	• 202 Accepted – Creation of new operation successful • 400 Bad Request – Design template or Data Set entity not found in File Store/Server • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Process Content Creation (By Data Record) (JSON)

Submits a request to initiate a new Content Creation operation.

Request takes a JSON Identifier List of Data Record IDs as content, and on success returns a response containing additional headers that specify the ID of the new operation as well as link URLs that can be used to retrieve further information/cancel the operation.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/contentcreation/{templateId}</td></tr>
<tr><td>Parameters:</td><td>Path:
templateId – the Managed File ID (or Name) of the design template in File Store</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON Identifier List specifying a list of Data Record entity IDs</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>operationId – Operation ID of new Content Creation operation
Link – Contains multiple link URLs that can be used to retrieve further information/cancel the operation.</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content</td><td>-</td></tr>
</table></td></tr>
</table>

	Type:	
	Status:	• 202 Accepted – Creation of new operation successful • 400 Bad Request – Design template or Data Record entity not found in File Store/Server • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Get Progress of Operation

Retrieves the progress of a running Content Creation operation of a specific operation ID.

Request takes no content, and on success returns a response containing the current value of operation progress (values ranging from 0 – 100, followed by the value of 'done' on completion).

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/contentcreation/getProgress/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of Content Creation operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Progress value of Content Creation operation</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Progress of operation successfully retrieved
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Get Result of Operation

Retrieves the final result of a completed Content Creation operation of a specific operation ID.

Request takes no content, and on success returns a response containing the IDs of the generated Content Sets.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/contentcreation/getResult/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of Content Creation operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Content Set IDs</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Result of completed operation successfully retrieved
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Cancel an Operation

Requests the cancellation of a running Content Creation operation of a specific operation ID.

Request takes no content, and on success returns a response with no content.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/contentcreation/cancel/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of Content Creation operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
<tr><td>Status:</td><td>204 No Content – Operation cancellation requested
401 Unauthorized – Server authentication required
403 Forbidden – Server authentication has failed or expired</td></tr>
</table></td></tr>
</table>

Service Version

Returns the version of the Content Creation service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/contentcreation/version</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Version of Service</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – Version of REST Service retrieved
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Content Item Entity Service

The following table is a summary of the resources and methods available in the Content Item Entity service:

Method Name	Uniform Resource Identifier (URI)	Method Type
Service Handshake	/entity/contentitems	GET
Get Data Record for Content Item	/entity/contentitems/{contentItemId}/datarecord	GET
Get Content Item Properties	/entity/contentitems/{contentItemId}/properties	GET
Update Content Item Properties	/entity/contentitems/{contentItemId}/properties	PUT
Update Multiple Content Item Properties	/entity/contentitems/properties	PUT
Service Version	/entity/contentitems/version	GET

Service Handshake

Queries the availability of the Content Item Entity service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/contentitems</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Handshake message:

Server Engine REST Service available: ContentItemEntityRestService</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>

200 OK – REST Service available
401 Unauthorized – Server authentication required
403 Forbidden – Server authentication has failed or expired

</td></tr>
</table>
</td></tr>
</table>

Get Data Record for Content Item

Returns the ID of the corresponding Data Record for a specific Content Item entity.

Request takes no content, and on success returns a response containing a JSON Data Record Identifier for the Data Record of the Content Item.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/contentitems/{contentItemId}/datarecord</td></tr>
<tr><td>Parameters:</td><td>Path:
contentItemId – the ID of the Content Item entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>JSON Data Record Identifier for the Data Record of Content Item</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
<tr><td>Status:</td><td>200 OK – Data Record Identifier returned
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Get Content Item Properties

Returns a list of the properties for a specific Content Item entity.

Request takes no content, and on success returns a response containing a JSON Name/Value List (Properties Only) of all the properties for the Content Item.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/contentitems/{contentItemId}/properties</td></tr>
<tr><td>Parameters:</td><td>Path:
contentItemId – the ID of the Content Item entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>JSON Name/Value List (Properties Only) of properties for Content Item</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
<tr><td>Status:</td><td>200 OK – Content Item entity properties successfully retrieved
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Update Content Item Properties

Submits a request to update (and replace) the properties for a specific Content Item entity in the Server.

Request takes a JSON Name/Value List as content (the Content Item ID and the new properties), and on success returns a response containing the result of the request for update/replacement (*"true"*).

<table>
<tr><td>Type:</td><td>PUT</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/contentitems/{contentItemId}/properties</td></tr>
<tr><td>Parameters:</td><td>Path:
contentItemId – the ID of the Content Item entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON Name/Value List of properties for Content Item</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Result of request to update Content Item</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Update of Content Item properties successfully requested (response of "true" for</td></tr>
</table></td></tr>
</table>

	success) • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired • 500 Server Error – Internal Server Error or Content Item ID mismatch in JSON

Update Multiple Content Item Properties

Submits a request to update one or more properties for one or more Content Item entities in the Server.

Request takes multiple JSON Name/Value Lists as content (each with the Content Item ID and the new properties), and on success returns a response containing no content.

Type:	*PUT*
URI:	/rest/serverengine/entity/contentitems/properties
Parameters:	-
Request:	**Add. Headers:** **auth_token** – Authorization Token (if server security settings enabled) **Content:** JSON Name/Value Lists of the properties of the Content Items **Content Type:** application/json
Response:	**Add. Headers:** - **Content:** - **Content Type:** - **Status:** • 200 OK – Properties of Content Item entities successfully updated • 401 Unauthorized – Server authentication required

	• 403 Forbidden – Server authentication has failed or expired

Service Version

Returns the version of the Content Item Entity service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/contentitems/version</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Version of Service</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – Version of REST Service retrieved
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Content Set Entity Service

The following table is a summary of the resources and methods available in the Content Set Entity service:

Method Name	Uniform Resource Identifier (URI)	Method Type
Get All Content Set Entities	/entity/contentsets	GET
Get Content Items for Content Set	/entity/contentsets/{contentSetId}	GET
Get Page Details for Content Set	/entity/contentsets/{contentSetId}/pages	GET
Delete Content Set Entity	/entity/contentsets/{contentSetId}/delete	POST
Get Content Set Properties	/entity/contentsets/{contentSetId}/properties	GET
Update Content Set Properties	/entity/contentsets/{contentSetId}/properties	PUT
Service Version	/entity/contentsets/version	GET

Get All Content Set Entities

Returns a list of all the Content Set entities currently contained within the Server.

Request takes no content, and on success returns a response containing a JSON Identifier List of all the Content Sets.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/contentsets</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>JSON Identifier List of all the Content Sets in Server</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
<tr><td>Status:</td><td>• 200 OK – Identifier List of Content Sets returned
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Get Content Items for Content Set

Returns a list of all the Content Item entities (and their corresponding Data Record entities) contained within a specific Content Set entity.

Request takes no content, and on success returns a response containing a JSON Content Item Identifier List of all the Content Items in the Content Set.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/contentsets/{contentSetId}</td></tr>
<tr><td>Parameters:</td><td>Path:
contentSetId – the ID of the Content Set entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>JSON Content Item Identifier List of all the Content Items in Content Set</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
<tr><td>Status:</td><td>200 OK – Content Item Identifier List returned
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Get Page Details for Content Set

Returns a list of the page details for a specific Content Set entity.

Request takes no content, and on success returns a response containing either:

- a JSON Page Details Summary, or
- a JSON Page Details List (page details broken down by Content Items)

Type:	*GET*
URI:	/rest/serverengine/entity/contentsets/{contentSetId}/pages
Parameters:	Path: • **contentSetId** – the ID of the Content Set entity in Server Query: • **detail** – Return a full list of details instead of a summary (Possible values: true or false. Default Value: false)
Request:	**Add. Headers:** **auth_token** – Authorization Token (if server security settings enabled) **Content:** - **Content Type:** -
Response:	**Add. Headers:** - **Content:** JSON Page Details Summary or Page Details List containing page details for Content Set

	Content Type: application/json
	Status: • 200 OK – Content Set entity page details successfully retrieved • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Delete Content Set Entity

Submits a request for a specific Content Set entity to be marked for deletion from the Server.

Request takes no content, and on success returns a response containing the result of the request for deletion (*"true"* or *"false"*).

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/contentsets/{contentSetId}/delete</td></tr>
<tr><td>Parameters:</td><td>Path:
contentSetId – the ID of the Content Set entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Result of request for Content Set removal</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Deletion of Content Set successfully requested from Server (response of "true" for success or "false" for failure)
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Get Content Set Properties

Returns a list of the properties for a specific Content Set entity.

Request takes no content, and on success returns a response containing a JSON Name/Value List (Properties Only) of all the properties for the Content Set.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/contentsets/{contentSetId}/properties</td></tr>
<tr><td>Parameters:</td><td>Path:
contentSetId – the ID of the Content Set entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>JSON Name/Value List (Properties Only) of properties for Content Set</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
<tr><td>Status:</td><td>200 OK – Content Set entity properties successfully retrieved
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Update Content Set Properties

Submits a request to update (and replace) the properties for a specific Content Set entity in the Server.

Request takes a JSON Name/Value List as content (the Content Set ID and the new properties), and on success returns a response containing the result of the request for update/replacement (*"true"*).

<table>
<tr><td>Type:</td><td>PUT</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/contentsets/{contentSetId}/properties</td></tr>
<tr><td>Parameters:</td><td>Path:
contentSetId – the ID of the Content Set entity in Server</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON Name/Value List of properties for Content Set</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Result of request to update Content Set</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Update of Content Set properties successfully requested (response of "true" for</td></tr>
</table>
</td></tr>
</table>

	success) • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired • 500 Server Error – Internal Server Error or Content Set ID mismatch in JSON

Service Version

Returns the version of the Content Set Entity service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/contentsets/version</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Version of Service</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – Version of REST Service retrieved
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Data Record Entity Service

The following table is a summary of the resources and methods available in the Data Record Entity service:

Method Name	Uniform Resource Identifier (URI)	Method Type
Service Handshake	/entity/datarecords	GET
Get Data Record Values	/entity/datarecords/{dataRecordId}/values	GET
Update Data Record Values	/entity/datarecords/{dataRecordId}/values	PUT
Get Data Record Properties	/entity/datarecords/{dataRecordId}/properties	GET
Update Data Record Properties	/entity/datarecords/{dataRecordId}/properties	PUT
Update Multiple Data Record Values	/entity/datarecords	PUT
Update Multiple Data Record Properties	/entity/datarecords/properties	PUT
Service Version	/entity/datarecords/version	GET

Service Handshake

Queries the availability of the Data Record Entity service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/datarecords</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Handshake message:

Server Engine REST Service available: DataRecordEntityRestService</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – REST Service available
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Get Data Record Values

Returns a list of the values for a specific Data Record entity.

Request takes no content, and on success returns a response containing a JSON Record Content List of all the values in the Data Record.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/datarecords/{dataRecordId}/values</td></tr>
<tr><td>Parameters:</td><td>Path:
dataRecordId – the ID of the Data Record entity in Server
Query:
recursive – recurse all Data Tables within the Data Record and retrieve the values of any nested Data Records also (Default Value: "false")</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>JSON Record Content List of the values in Data Record</td></tr>
<tr><td>Content</td><td>application/json</td></tr>
</table></td></tr>
</table>

	Type:	
	Status:	• 200 OK – Data Record entity values successfully retrieved • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Update Data Record Values

Submits a request to update one or more values for a specific Data Record entity in the Server.

Request takes a JSON Record Content List as content (the Data Record ID and the new values), and on success returns a response containing no content.

<table>
<tr><td>Type:</td><td>PUT</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/datarecords/{dataRecordId}/values</td></tr>
<tr><td>Parameters:</td><td>Path:
dataRecordId – the ID of the Data Record entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON Record Content List of the values for Data Record</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
<tr><td>Status:</td><td>200 OK – Data Record entity values successfully updated
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

		• 403 Forbidden – Server authentication has failed or expired • 500 Server Error – Internal Server Error or Data Record ID mismatch in JSON

Get Data Record Properties

Returns a list of the properties for a specific Data Record entity.

Request takes no content, and on success returns a response containing a JSON Name/Value List (Properties Only) of all the properties for the Data Record.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/datarecords/{dataRecordId}/properties</td></tr>
<tr><td>Parameters:</td><td>Path:
dataRecordId – the ID of the Data Record entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>JSON Name/Value List (Properties Only) of properties for Data Record</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
<tr><td>Status:</td><td>200 OK – Data Record entity properties successfully retrieved
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Update Data Record Properties

Submits a request to update (and replace) the properties for a specific Data Record entity in the Server.

Request takes a JSON Name/Value List as content (the Data Record ID and the new properties), and on success returns a response containing the result of the request for update/replacement (*"true"*).

<table>
<tr><td>Type:</td><td>PUT</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/datarecords/{dataRecordId}/properties</td></tr>
<tr><td>Parameters:</td><td>Path:
dataRecordId – the ID of the Data Record entity in Server</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON Name/Value List of properties for Data Record</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Result of request to update Data Record</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Update of Data Record properties successfully requested (response of "true" for</td></tr>
</table>
</td></tr>
</table>

	success) • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired • 500 Server Error – Internal Server Error or Data Record ID mismatch in JSON

Update Multiple Data Record Values

Submits a request to update one or more values for one or more Data Record entities in the Server.

Request takes multiple JSON Record Content Lists as content (each with the Data Record ID and the new values), and on success returns a response containing no content.

<table>
<tr><td>Type:</td><td>PUT</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/datarecords</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON Record Content Lists of the values for the Data Records</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
<tr><td>Status:</td><td>• 200 OK – Values of Data Record entities successfully updated
• 401 Unauthorized – Server authentication required</td></tr>
</table>
</td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Update Multiple Data Record Properties

Submits a request to update one or more properties for one or more Data Record entities in the Server.

Request takes multiple JSON Name/Value Lists as content (each with the Data Record ID and the new properties), and on success returns a response containing no content.

Type:	*PUT*
URI:	/rest/serverengine/entity/datarecords/properties
Parameters:	-
Request:	**Add. Headers:** — **auth_token** – Authorization Token (if server security settings enabled) **Content:** — JSON Name/Value Lists of the properties of the Data Records **Content Type:** — application/json
Response:	**Add. Headers:** — - **Content:** — - **Content Type:** — - **Status:** — • 200 OK – Properties of Data Record entities successfully updated • 401 Unauthorized – Server authentication required

	• 403 Forbidden – Server authentication has failed or expired

Service Version

Returns the version of the Data Record Entity service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/datarecords/version</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Version of Service</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – Version of REST Service retrieved
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Data Set Entity Service

The following table is a summary of the resources and methods available in the Data Set Entity service:

Method Name	Uniform Resource Identifier (URI)	Method Type
Get All Data Set Entities	/entity/datasets	GET
Get Data Records for Data Set	/entity/datasets/{dataSetId}	GET
Delete Data Set Entity	/entity/datasets/{dataSetId}/delete	POST
Get Data Set Properties	/entity/datasets/{dataSetId}/properties	GET
Update Data Set Properties	/entity/datasets/{dataSetId}/properties	PUT
Service Version	/entity/datasets/version	GET

Get All Data Set Entities

Returns a list of all the Data Set entities currently contained within the Server.

Request takes no content, and on success returns a response containing a JSON Identifier List of all the Data Sets.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/datasets</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>JSON Identifier List of all the Data Sets in Server</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
<tr><td>Status:</td><td>

200 OK – Identifier List of Data Sets returned
401 Unauthorized – Server authentication required
403 Forbidden – Server authentication has failed or expired

</td></tr>
</table>
</td></tr>
</table>

Get Data Records for Data Set

Returns a list of all the Data Records entities contained within a specific Data Set entity.

Request takes no content, and on success returns a response containing a JSON Identifier List of all the Data Records in the Data Set.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/datasets/{dataSetId}</td></tr>
<tr><td>Parameters:</td><td>Path:
dataSetId – the ID of the Data Set entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>JSON Identifier List of all the Data Records in Data Set</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
<tr><td>Status:</td><td>200 OK – Identifier List of Data Records returned
401 Unauthorized – Server authentication required
403 Forbidden – Server authentication has failed or expired</td></tr>
</table></td></tr>
</table>

Delete Data Set Entity

Submits a request for a specific Data Set entity to be marked for deletion from the Server.

Request takes no content, and on success returns a response containing the result of the request for deletion (*"true"* or *"false"*).

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/datasets/{dataSetId}/delete</td></tr>
<tr><td>Parameters:</td><td>Path:
dataSetId – the ID of the Data Set entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Result of request for Data Set removal</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Deletion of Data Set successfully requested from Server (response of "true" for success or "false" for failure)
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Get Data Set Properties

Returns a list of the properties for a specific Data Set entity.

Request takes no content, and on success returns a response containing a JSON Name/Value List (Properties Only) of all the properties for the Data Set.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/datasets/{dataSetId}/properties</td></tr>
<tr><td>Parameters:</td><td>Path:
dataSetId – the ID of the Data Set entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>JSON Name/Value List (Properties Only) of properties for Data Set</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
<tr><td>Status:</td><td>200 OK – Data Set entity properties successfully retrieved
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Update Data Set Properties

Submits a request to update (and replace) the properties for a specific Data Set entity in the Server.

Request takes a JSON Name/Value List as content (the Data Set ID and the new properties), and on success returns a response containing the result of the request for update/replacement (*"true"*).

<table>
<tr><td>Type:</td><td>PUT</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/datasets/{dataSetId}/properties</td></tr>
<tr><td>Parameters:</td><td>Path:
dataSetId – the ID of the Data Set entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON Name/Value List of properties for Data Set</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Result of request to update Data Set</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Update of Data Set properties successfully requested (response of "true" for</td></tr>
</table></td></tr>
</table>

	success) • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired • 500 Server Error – Internal Server Error or Data Set ID mismatch in JSON

Service Version

Returns the version of the Data Set Entity service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/datasets/version</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Version of Service</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – Version of REST Service retrieved
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Data Mapping Service

The following table is a summary of the resources and methods available in the Data Mapping service:

Method Name	Uniform Resource Identifier (URI)	Method Type
Service Handshake	/workflow/datamining	GET
Process Data Mapping	/workflow/datamining/{configId}/{dataFileId}	POST
Process Data Mapping (JSON)	/workflow/datamining/{configId}	POST
Process Data Mapping (PDF/VT to Data Set)	/workflow/datamining/pdfvtds/{dataFileId}	POST
Process Data Mapping (PDF/VT to Content Set)	/workflow/datamining/pdfvtcs/{dataFileId}	POST
Get Progress of Operation	/workflow/datamining/getProgress/{operationId}	GET
Get Result of Operation	/workflow/datamining/getResult/{operationId}	POST
Cancel an Operation	/workflow/datamining/cancel/{operationId}	POST
Service Version	/workflow/datamining/version	GET

Service Handshake

Queries the availability of the Data Mapping service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/datamining</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Handshake message:

Server Engine REST Service available: DataMiningRestService</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – REST Service available
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Process Data Mapping

Submits a request to initiate a new Data Mapping operation.

Request takes no content, and on success returns a response containing additional headers that specify the ID of the new operation as well as link URLs that can be used to retrieve further information/cancel the operation.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/datamining/{configId}/{dataFileId}</td></tr>
<tr><td>Parameters:</td><td>Path:
configId – the Managed File ID (or Name) of the Data Mapping configuration in File Store
dataFileId – the Managed File ID (or Name) of the data file in File Store</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>operationId – Operation ID of new Data Mapping operation
Link – Contains multiple link URLs that can be used to retrieve further information/cancel the operation.</td></tr>
<tr><td>Content:</td><td>-</td></tr>
</table></td></tr>
</table>

	Content Type:	-
	Status:	• 202 Accepted – Creation of new operation successful • 400 Bad Request – Data file or Data Mapping Configuration not found in File Store • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Process Data Mapping (JSON)

Submits a request to initiate a new Data Mapping operation.

As content the request takes one of either:

- a JSON Identifier of the data file's Managed File ID, or
- a JSON Identifier (Named) of the data file's Managed File Name

On success, it returns a response containing additional headers that specify the ID of the new operation as well as link URLs that can be used to retrieve further information/cancel the operation.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/datamining/{configId}</td></tr>
<tr><td>Parameters:</td><td>Path:
configId – the Managed File ID (or Name) of the Data Mapping configuration in File Store</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON Identifier specifying Managed File ID or JSON Identifier (Named) specifying Managed File Name in File Store</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>operationId – Operation ID of new Data Mapping operation
Link – Contains multiple link URLs that can be</td></tr>
</table></td></tr>
</table>

	used to retrieve further information/cancel the operation.
Content:	-
Content Type:	-
Status:	• 202 Accepted – Creation of new operation successful • 400 Bad Request – Data file or Data Mapping Configuration not found in File Store • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired • 500 Internal Server Error – JSON Identifier bad or missing

Process Data Mapping (PDF/VT to Data Set)

Submits a request to initiate a new Data Mapping operation using a PDF/VT data file specifically.

No Data Mapping configuration is specified, and a Data Set will be generated based on the default properties extracted from the metadata of the PDF/VT data file.

Request takes no content, and on success returns a response containing additional headers that specify the ID of the new operation as well as link URLs that can be used to retrieve further information/cancel the operation.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/datamining/pdfvtds/{dataFileId}</td></tr>
<tr><td>Parameters:</td><td>Path:
dataFileId – the Managed File ID (or Name) of the PDF/VT data file in File Store</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>operationId – Operation ID of new Data Mapping operation
Link – Contains multiple link URLs that can be used to retrieve further information/cancel the operation.</td></tr>
</table></td></tr>
</table>

Content:	-
Content Type:	-
Status:	• 202 Accepted – Creation of new operation successful • 400 Bad Request – PDF/VT data file not found in File Store • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Process Data Mapping (PDF/VT to Content Set)

Submits a request to initiate a new Data Mapping operation using a PDF/VT data file specifically.

No Data Mapping configuration or design template are specified, and a Content Set will be generated based on the default properties extracted from the metadata of the PDF/VT data file.

Request takes no content, and on success returns a response containing additional headers that specify the ID of the new operation as well as link URLs that can be used to retrieve further information/cancel the operation.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/datamining/pdfvtcs/{dataFileId}</td></tr>
<tr><td>Parameters:</td><td>Path:
dataFileId – the Managed File ID (or Name) of the PDF/VT data file in File Store</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>operationId – Operation ID of new Data Mapping operation
Link – Contains multiple link URLs that can be used to retrieve further information/cancel the operation.</td></tr>
</table></td></tr>
</table>

Content:	-
Content Type:	-
Status:	• 202 Accepted – Creation of new operation successful • 400 Bad Request – PDF/VT data file not found in File Store • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Get Progress of Operation

Retrieves the progress of a running Data Mapping operation of a specific operation ID.

Request takes no content, and on success returns a response containing the current value of operation progress (values ranging from 0 – 100, followed by the value of 'done' on completion).

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/datamining/getProgress/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of Data Mapping operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Progress value of Data Mapping operation</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Progress of operation successfully retrieved
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Get Result of Operation

Retrieves the final result of a completed Data Mapping operation of a specific operation ID.

Request takes no content, and on success returns a response containing the ID of the generated Data Set (or Content Set for a PDF/VT to Content Set specific data mapping operation).

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/datamining/getResult/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of Data Mapping operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Data Set ID (or Content Set ID)</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Result of completed operation successfully retrieved
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Cancel an Operation

Requests the cancellation of a running Data Mapping operation of a specific operation ID.

Request takes no content, and on success returns a response with no content.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/datamining/cancel/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of Data Mapping operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
<tr><td>Status:</td><td>204 No Content – Operation cancellation requested
401 Unauthorized – Server authentication required
403 Forbidden – Server authentication has failed or expired</td></tr>
</table></td></tr>
</table>

Service Version

Returns the version of the Data Mapping service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/datamining/version</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Version of Service</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – Version of REST Service retrieved
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Content Creation (Email) Service

The following table is a summary of the resources and methods available in the Content Creation (Email) service:

Method Name	Uniform Resource Identifier (URI)	Method Type
Service Handshake	/workflow/contentcreation/email	GET
Process Content Creation (By Data Record) (JSON)	/workflow/contentcreation/email/{templateId}	POST
Get Progress of Operation	/workflow/contentcreation/email/getProgress/{operationId}	GET
Get Result of Operation	/workflow/contentcreation/email/getResult/{operationId}	POST
Cancel an Operation	/workflow/contentcreation/email/cancel/{operationId}	POST
Service Version	/workflow/contentcreation/email/version	GET

Service Handshake

Queries the availability of the Content Creation (Email) service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/contentcreation/email</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Handshake message:

/workflow/contentcreation/email is available</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – REST Service available
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Process Content Creation (By Data Record) (JSON)

Submits a request to initiate a new Content Creation (Email) operation.

Request takes a JSON Identifier List (with Email Parameters) of Data Record IDs as content, and on success returns a response containing additional headers that specify the ID of the new operation as well as link URLs that can be used to retrieve further information/cancel the operation.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/contentcreation/email/{templateId}</td></tr>
<tr><td>Parameters:</td><td>Path:
templateId – the Managed File ID (or Name) of the design template in File Store
Query:
section – the Section of the Email Context to export (No Default Value)</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON Identifier List (with Email Parameters) of Data Record IDs specifying a list of Data Record entity IDs and parameters to be used for content creation.</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>operationId – Operation ID of new Content Creation (Email) operation</td></tr>
</table></td></tr>
</table>

	• **Link** – Contains multiple link URLs that can be used to retrieve further information/cancel the operation.
Content:	-
Content Type:	-
Status:	• 202 Accepted – Creation of new operation successful • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired • 404 Not Found – Design template or Data Record entity not found in File Store/Server

Get Progress of Operation

Retrieves the progress of a running Content Creation (Email) operation of a specific operation ID.

Request takes no content, and on success returns a response containing the current value of operation progress (values ranging from 0 – 100, followed by the value of 'done' on completion).

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/contentcreation/email/getProgress/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of Content Creation (Email) operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Progress value of Content Creation (Email) operation</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Progress of operation successfully</td></tr>
</table></td></tr>
</table>

	retrieved • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Get Result of Operation

Retrieves the final result of a completed Content Creation (Email) operation of a specific operation ID.

Request takes no content, and on success returns a response containing a report on the number of emails that were successfully sent.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/contentcreation/email/getResult/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of Content Creation (Email) operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Result of Content Creation (Email) Operation (with successful email count) (e.g. "3 of 3 emails sent")</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Result of completed operation successfully retrieved</td></tr>
</table></td></tr>
</table>

	• 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Cancel an Operation

Requests the cancellation of a running Content Creation (Email) operation of a specific operation ID.

Request takes no content, and on success returns a response with no content.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/contentcreation/email/cancel/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of Content Creation (Email) operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
<tr><td>Status:</td><td>204 No Content – Operation cancellation requested
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Service Version

Returns the version of the Content Creation (Email) service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/contentcreation/email/version</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Version of Service</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – Version of REST Service retrieved
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

File Store Service

The following table is a summary of the resources and methods available in the File Store service:

Method Name	Uniform Resource Identifier (URI)	Method Type
Service Handshake	/filestore	GET
Upload File	/filestore/file/{fileId}	POST
Upload Directory	/filestore/dir/{fileId}	POST
Download File or Directory	/filestore/file/{fileId}	GET
Delete File or Directory	/filestore/delete/{fileId}	GET
Upload Data Mapping Configuration	/filestore/DataMiningConfig	POST
Upload Job Creation Preset	/filestore/JobCreationConfig	POST
Upload Data File	/filestore/DataFile	POST
Upload Design Template	/filestore/template	POST
Upload Output Creation Preset	/filestore/OutputCreationConfig	POST
Service Version	/filestore/version	GET

Service Handshake

Queries the availability of the File Store service.

Type:	*GET*
URI:	/rest/serverengine/filestore
Parameters:	-
Request:	**Add. Headers:** **auth_token** – Authorization Token (if server security settings enabled) **Content:** - **Content Type:** -
Response:	**Add. Headers:** - **Content:** Handshake message: *Server Engine REST Service available: FilestoreRestService* **Content Type:** text/plain **Status:** • 200 OK – REST Service available • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Upload File

Submits a file to the File Store using a specific Managed File ID (or Name).

Request takes binary file data as content, and on success returns a response containing the Managed File ID (or Name) used for the file.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/filestore/file/{fileId}</td></tr>
<tr><td>Parameters:</td><td>Path:
fileId – the Managed File ID (or Name) for file in File Store</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>File</td></tr>
<tr><td>Content Type:</td><td>application/octet-stream</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Managed File ID (or Name)</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – File successfully uploaded to File Store
401 Unauthorized – Server authentication required
403 Forbidden – Server authentication has failed</td></tr>
</table></td></tr>
</table>

			or expired • 405 Not Allowed – File already exists in File Store

Upload Directory

Submits a zipped directory to the File Store using a specific Managed File ID (or Name).

Request takes zipped file data as content, and on success returns a response containing the Managed File ID (or Name) used for the directory.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/filestore/dir/{fileId}</td></tr>
<tr><td>Parameters:</td><td>Path:
fileId – the Managed File ID (or Name) for directory in File Store</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>Directory (as zipped file)</td></tr>
<tr><td>Content Type:</td><td>application/octet-stream</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Managed File ID (or Name)</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Directory successfully uploaded to File Store
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired • 405 Not Allowed – Directory already exists in File Store

Download File or Directory

Obtains a file or directory of a specific Managed File ID (or Name) from the File Store.

Request takes no content, and on success returns a response containing the file or directory data (as zipped file).

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/filestore/file/{fileId}</td></tr>
<tr><td>Parameters:</td><td>Path:
fileId – the Managed File ID (or Name) of the file or directory in File Store</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>Content-Disposition
File - "attachment; filename={OrigFileName}"
Directory - "attachment; filename= {OrigDirName}.zip"</td></tr>
<tr><td>Content:</td><td>File or Directory (zipped as file)</td></tr>
<tr><td>Content Type:</td><td>File - application/octet-stream
Directory - application/zip</td></tr>
</table></td></tr>
</table>

	Status:	• 200 OK – File or directory successfully downloaded from file store • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Delete File or Directory

Removes a file or directory of a specific Managed File ID (or Name) from the File Store.

Request takes no content, and on success returns a response containing the result of the request for removal (*"true"* or *"false"*).

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/filestore/delete/{fileId}</td></tr>
<tr><td>Parameters:</td><td>Path:
fileId – the Managed File ID (or Name) of the file or directory in File Store</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Result of request for removal</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Removal of file or directory successfully requested from File Store (response of "true" for success or "false" for failure)</td></tr>
</table></td></tr>
</table>

	• 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Upload Data Mapping Configuration

Submits a Data Mapping configuration to the File Store.

Request takes binary file data as content, and on success returns a response containing the new Managed File ID for the configuration.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/filestore/DataMiningConfig</td></tr>
<tr><td>Parameters:</td><td>Query:
filename – the file name of the configuration to be uploaded (No Default Value)
persistent – whether the configuration to be uploaded will be persistent in File Store (Default Value: false)</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>Data Mapping Configuration (File)</td></tr>
<tr><td>Content Type:</td><td>application/octet-stream</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Managed File ID</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Configuration successfully uploaded to</td></tr>
</table></td></tr>
</table>

	File Store • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Upload Job Creation Preset

Submits a Job Creation preset to the File Store.

Request takes XML file data as content, and on success returns a response containing the new Managed File ID for the preset.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/filestore/JobCreationConfig</td></tr>
<tr><td>Parameters:</td><td>Query:
filename – the file name of the preset to be uploaded (No Default Value)
persistent – whether the preset to be uploaded will be persistent in File Store (Default Value: false)</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>Job Creation Preset (File)</td></tr>
<tr><td>Content Type:</td><td>application/xml</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Managed File ID</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Preset successfully uploaded to File</td></tr>
</table></td></tr>
</table>

	Store • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Upload Data File

Submits a data file to the File Store.

Request takes binary file data as content, and on success returns a response containing the new Managed File ID for the data file.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/filestore/DataFile</td></tr>
<tr><td>Parameters:</td><td>Query:
filename – the file name of the data file to be uploaded (No Default Value)
persistent – whether the data file to be uploaded will be persistent in File Store (Default Value: false)</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>Data File (File)</td></tr>
<tr><td>Content Type:</td><td>application/octet-stream</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Managed File ID</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Data file successfully uploaded to File</td></tr>
</table></td></tr>
</table>

	Store • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Upload Design Template

Submits a design template to the File Store.

Request takes zipped file data as content, and on success returns a response containing the new Managed File ID for the design template.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/filestore/template</td></tr>
<tr><td>Parameters:</td><td>Query:
filename – the file name of the design template to be uploaded (No Default Value)
persistent – whether the design template to be uploaded will be persistent in File Store (Default Value: false)</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>Design Template (File)</td></tr>
<tr><td>Content Type:</td><td>application/zip</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Managed File ID</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Template successfully uploaded to File</td></tr>
</table></td></tr>
</table>

	Store • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Upload Output Creation Preset

Submits an Output Creation preset to the File Store.

Request takes XML file data as content, and on success returns a response containing the new Managed File ID for the preset.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/filestore/OutputCreationConfig</td></tr>
<tr><td>Parameters:</td><td>Query:
filename – the file name of the preset to be uploaded (No Default Value)
persistent – whether the preset to be uploaded will be persistent in File Store (Default Value: false)</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>Output Creation Preset (File)</td></tr>
<tr><td>Content Type:</td><td>application/xml</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Managed File ID</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Preset successfully uploaded to File</td></tr>
</table></td></tr>
</table>

	Store • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Service Version

Returns the version of the File Store service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/filestore/version</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Version of Service</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – Version of REST Service retrieved
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Content Creation (HTML) Service

The following table is a summary of the resources and methods available in the Content Creation (HTML) service:

Method Name	Uniform Resource Identifier (URI)	Method Type
Service Handshake	/workflow/contentcreation/html	GET
Process Content Creation (By Data Record)	/workflow/contentcreation/html/{templateId}/{dataRecordId: [0-9]+}	GET
Process Content Creation (By Data Record) (JSON)	/workflow/contentcreation/html/{templateId}/{dataRecordId: [0-9]+}	POST
Get Template Resource	/workflow/contentcreation/html/{templateId}/{relPath: .+}	GET
Service Version	/workflow/contentcreation/html/version	GET

Service Handshake

Queries the availability of the Content Creation (HTML) service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/contentcreation/html</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Handshake message:

Merge engine available</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – REST Service available
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Process Content Creation (By Data Record)

Submits a request to create new HTML content for the Web Context.

Request takes no content, and on success returns a response containing the generated HTML specific to the Data Record ID and section specified.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/contentcreation/html/{templateId}/{dataRecordId: [0-9]+}</td></tr>
<tr><td>Parameters:</td><td>Path:
templateId – the Managed File ID (or Name) of the design template in File Store
dataRecordId – the ID of the Data Record entity in Server
Query:
section – the section within the Web Context to create (No Default Value)
inline – the inline mode to be used in the creation of content (Possible values: NONE, CSS or ALL. No Default Value)</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
</table></td></tr>
</table>

Content:	The generated HTML output for the Data Record ID
Content Type:	text/html
Status:	• 200 OK – Output generated successfully • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired • 404 Not Found – Design template or Data Record entity not found in File Store/Server • 500 Server Error – Content Creation Error: Data Record Not Found / Web Context in Template Not found

Process Content Creation (By Data Record) (JSON)

Submits a request to create new HTML content for the Web Context.

Request takes a JSON HTML Parameters List as content, and on success returns a response containing the generated HTML output specific to the Data Record ID specified.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/contentcreation/html/{templateId}/{dataRecordId: [0-9]+}</td></tr>
<tr><td>Parameters:</td><td>Path:
templateId – the Managed File ID (or Name) of the design template in File Store
dataRecordId – the ID of the Data Record entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON HTML Parameters List listing section and inline mode.</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>The generated HTML output for the Data Record ID</td></tr>
<tr><td>Content Type:</td><td>text/html</td></tr>
</table></td></tr>
</table>

	Status:
	• 200 OK – Output generated successfully • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired • 404 Not Found – Design template or Data Record entity not found in File Store/Server • 500 Server Error – Content Creation Error: Data Record Not Found / Web Context in Template Not found

Get Template Resource

Submits a request to retrieve a resource from a design template stored in the File Store.

Request takes no content, and on success returns a response containing the resource from the design template.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/contentcreation/html/{templateId}/{relPath: .+}</td></tr>
<tr><td>Parameters:</td><td>Path:
templateId – the Managed File ID (or Name) of the design template in File Store
relPath – the relative path to the resource within template</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>The resource located at the relative path within the template</td></tr>
<tr><td>Content Type:</td><td>(Depends on Resource requested)</td></tr>
<tr><td>Status:</td><td>200 OK – Resource successfully retrieved</td></tr>
</table></td></tr>
</table>

		• 400 Bad Request - Unable to open resource within template or resource doesn't exist • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired • 404 Not Found – Design template or Data Record entity not found in File Store/Server • 500 Server Error - Unable to open template or template doesn't exist

Service Version

Returns the version of the Content Creation (HTML) service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/contentcreation/html/version</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Version of Service</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – Version of REST Service retrieved
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Job Creation Service

The following table is a summary of the resources and methods available in the Job Creation service:

Method Name	Uniform Resource Identifier (URI)	Method Type
Service Handshake	/workflow/jobcreation	GET
Process Job Creation	/workflow/jobcreation/{configId}	POST
Process Job Creation (JSON)	/workflow/jobcreation/{configId}	POST
Process Job Creation (JSON Job Set Structure)	/workflow/jobcreation	POST
Get Progress of Operation	/workflow/jobcreation/getProgress/{operationId}	GET
Get Result of Operation	/workflow/jobcreation/getResult/{operationId}	POST
Cancel an Operation	/workflow/jobcreation/cancel/{operationId}	POST
Service Version	/workflow/jobcreation/version	GET

Service Handshake

Queries the availability of the Job Creation service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/jobcreation</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Handshake message:

Server Engine REST Service available: JobCreationRestService</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – REST Service available
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Process Job Creation

Submits a request to initiate a new Job Creation operation.

Request takes no content, and on success returns a response containing additional headers that specify the ID of the new operation as well as link URLs that can be used to retrieve further information/cancel the operation.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/jobcreation/{configId}</td></tr>
<tr><td>Parameters:</td><td>Path:
configId – the Managed File ID (or Name) of the Job Creation Preset in File Store</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>operationId – Operation ID of new Job Creation operation
Link – Contains multiple link URLs that can be used to retrieve further information/cancel the operation.</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
</table>

	Status:	• 202 Accepted – Creation of new operation successful • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired • 404 Not Found – Job Creation Preset not found in File Store

Process Job Creation (JSON)

Submits a request to initiate a new Job Creation operation.

Request takes a JSON Identifier List of Content Set IDs as content, and on success returns a response containing additional headers that specify the ID of the new operation as well as link URLs that can be used to retrieve further information/cancel the operation.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/jobcreation/{configId}</td></tr>
<tr><td>Parameters:</td><td>Path:
configId – the Managed File ID (or Name) of the Job Creation Preset in File Store</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON Identifier List specifying a list of Content Set entity IDs</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>operationId – Operation ID of new Job Creation operation
Link – Contains multiple link URLs that can be used to retrieve further information/cancel the operation.</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content</td><td>-</td></tr>
</table></td></tr>
</table>

	Type:	
	Status:	• 202 Accepted – Creation of new operation successful • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired • 404 Not Found – Job Creation Preset or Content Set entity not found in File Store/Server

Process Job Creation (JSON Job Set Structure)

Submits a request to initiate a new Job Creation operation.

Request takes a JSON Job Set Structure containing a list of Content Items as content, and on success returns a response containing additional headers that specify the ID of the new operation as well as link URLs that can be used to retrieve further information/cancel the operation.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/jobcreation</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON Job Set Structure describing Job Set (and Content Items)</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>operationId – Operation ID of new Job Creation operation
Link – Contains multiple link URLs that can be used to retrieve further information/cancel the operation.</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
</table>

	Status:	• 202 Accepted – Creation of new operation successful • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Get Progress of Operation

Retrieves the progress of a running Job Creation operation of a specific operation ID.

Request takes no content, and on success returns a response containing the current value of operation progress (values ranging from 0 – 100, followed by the value of 'done' on completion).

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/jobcreation/getProgress/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of Job Creation operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Progress value of Job Creation operation</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Progress of operation successfully retrieved
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Get Result of Operation

Retrieves the final result of a completed Job Creation operation of a specific operation ID.

Request takes no content, and on success returns a response containing the IDs of the generated Job Set.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/jobcreation/getResult/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of Job Creation operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Job Set ID</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Result of completed operation successfully retrieved
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Cancel an Operation

Requests the cancellation of a running Job Creation operation of a specific operation ID.

Request takes no content, and on success returns a response with no content.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/jobcreation/cancel/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of Job Creation operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
<tr><td>Status:</td><td>204 No Content – Operation cancellation requested
401 Unauthorized – Server authentication required
403 Forbidden – Server authentication has failed or expired</td></tr>
</table></td></tr>
</table>

Service Version

Returns the version of the Job Creation service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/jobcreation/version</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Version of Service</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – Version of REST Service retrieved
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Job Entity Service

The following table is a summary of the resources and methods available in the Job Entity service:

Method Name	Uniform Resource Identifier (URI)	Method Type
Service Handshake	/entity/jobs	GET
Get Content Items for Job	/entity/jobs/{jobId}/contents	GET
Get Job Properties	/entity/jobs/{jobId}/properties	GET
Update Job Properties	/entity/jobs/{jobId}/properties	PUT
Update Multiple Job Properties	/entity/jobs/properties	PUT
Service Version	/entity/jobs/version	GET

Service Handshake

Queries the availability of the Job Entity service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/jobs</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Handshake message:

Server Engine REST Service available: JobEntityRestService</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – REST Service available
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Get Content Items for Job

Returns a list of all the Content Item entities (and their corresponding Data Record entities) contained within a specific Job entity.

Request takes no content, and on success returns a response containing a JSON Content Item Identifier List of all the Content Items for the Job.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/jobs/{jobId}/contents</td></tr>
<tr><td>Parameters:</td><td>Path:
jobId – the ID of the Job entity in Server</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>JSON Content Item Identifier List of all the Content Items in Job</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
<tr><td>Status:</td><td>200 OK – Content Item Identifier List returned
401 Unauthorized – Server authentication required</td></tr>
</table>
</td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Get Job Properties

Returns a list of the properties for a specific Job entity.

Request takes no content, and on success returns a response containing a JSON Name/Value List (Properties Only) of all the properties for the Job.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/jobs/{jobId}/properties</td></tr>
<tr><td>Parameters:</td><td>Path:
jobId – the ID of the Job entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>JSON Name/Value List (Properties Only) of properties for Job</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
<tr><td>Status:</td><td>200 OK – Job entity properties successfully retrieved
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Update Job Properties

Submits a request to update (and replace) the properties for a specific Job entity in the Server.

Request takes a JSON Name/Value List as content (the Job ID and the new properties), and on success returns a response containing the result of the request for update/replacement (*"true"*).

<table>
<tr><td>Type:</td><td>PUT</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/jobs/{jobId}/properties</td></tr>
<tr><td>Parameters:</td><td>Path:
jobId – the ID of the Job entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON Name/Value List of properties for Job</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Result of request to update Job</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Update of Job properties successfully requested (response of "true" for success)
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired • 500 Server Error – Internal Server Error or Job ID mismatch in JSON

Update Multiple Job Properties

Submits a request to update one or more properties for one or more Job entities in the Server.

Request takes multiple JSON Name/Value Lists as content (each with the Job ID and the new properties), and on success returns a response containing no content.

<table>
<tr><td>Type:</td><td>PUT</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/jobs/properties</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON Name/Value Lists of the properties of the Jobs</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
<tr><td>Status:</td><td>

200 OK – Properties of Job entities successfully updated
401 Unauthorized – Server authentication required
403 Forbidden – Server authentication has failed or expired

</td></tr>
</table>
</td></tr>
</table>

Service Version

Returns the version of the Job Entity service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/jobs/version</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Version of Service</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – Version of REST Service retrieved
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Job Set Entity Service

The following table is a summary of the resources and methods available in the Job Set Entity service:

Method Name	Uniform Resource Identifier (URI)	Method Type
Get All Job Set Entities	/entity/jobsets	GET
Get Jobs for Job Set	/entity/jobsets/{jobSetId}	GET
Delete Job Set Entity	/entity/jobsets/{jobSetId}/delete	POST
Get Job Set Properties	/entity/jobsets/{jobSetId}/properties	GET
Update Job Set Properties	/entity/jobsets/{jobSetId}/properties	PUT
Service Version	/entity/jobsets/version	GET

Get All Job Set Entities

Returns a list of all the Job Set entities currently contained within the Server.

Request takes no content, and on success returns a response containing a JSON Identifier List of all the Job Sets.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/jobsets</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>JSON Identifier List of all the Job Sets in Server</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
<tr><td>Status:</td><td>

200 OK – Identifier List of Job Sets returned
401 Unauthorized – Server authentication required
403 Forbidden – Server authentication has failed or expired

</td></tr>
</table>
</td></tr>
</table>

Get Jobs for Job Set

Returns a list of all the Job entities contained within a specific Job Set entity.

Request takes no content, and on success returns a response containing a JSON Identifier List of all the Jobs in the Job Set.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/jobsets/{jobSetId}</td></tr>
<tr><td>Parameters:</td><td>Path:
jobSetId – the ID of the Job Set entity in Server</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>JSON Identifier List of all the Jobs in Job Set</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
<tr><td>Status:</td><td>200 OK – Identifier List of Jobs returned
401 Unauthorized – Server authentication required
403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Delete Job Set Entity

Submits a request for a specific Job Set entity to be marked for deletion from the Server.

Request takes no content, and on success returns a response containing the result of the request for deletion (*"true"* or *"false"*).

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/jobsets/{jobSetId}/delete</td></tr>
<tr><td>Parameters:</td><td>Path:
jobSetId – the ID of the Job Set entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Result of request for Job Set removal</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Deletion of Job Set successfully requested from Server (response of "true" for success or "false" for failure)
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Get Job Set Properties

Returns a list of the properties for a specific Job Set entity.

Request takes no content, and on success returns a response containing a JSON Name/Value List (Properties Only) of all the properties for the Job Set.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/jobsets/{jobSetId}/properties</td></tr>
<tr><td>Parameters:</td><td>Path:
jobSetId – the ID of the Job Set entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>JSON Name/Value List (Properties Only) of properties for Job Set</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
<tr><td>Status:</td><td>200 OK – Job Set entity properties successfully retrieved
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Update Job Set Properties

Submits a request to update (and replace) the properties for a specific Job Set entity in the Server.

Request takes a JSON Name/Value List as content (the Job Set ID and the new properties), and on success returns a response containing the result of the request for update/replacement (*"true"*).

<table>
<tr><td>Type:</td><td>PUT</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/jobsets/{jobSetId}/properties</td></tr>
<tr><td>Parameters:</td><td>Path:
jobSetId – the ID of the Job Set entity in Server</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON Name/Value List of properties for Job Set</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Result of request to update Job Set</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Update of Job Set properties successfully requested (response of "true" for success)</td></tr>
</table>
</td></tr>
</table>

	• 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired • 500 Server Error – Internal Server Error or Job Set ID mismatch in JSON

Service Version

Returns the version of the Job Set Entity service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/entity/jobsets/version</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Version of Service</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – Version of REST Service retrieved
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Output Creation Service

The following table is a summary of the resources and methods available in the Output Creation service:

Method Name	Uniform Resource Identifier (URI)	Method Type
Service Handshake	/workflow/outputcreation	GET
Process Output Creation	/workflow/outputcreation/{configId}/{jobSetId}	POST
Process Output Creation (JSON)	/workflow/outputcreation/{configId}	POST
Process Output Creation (By Job) (JSON)	/workflow/outputcreation/{configId}/jobs	POST
Get Progress of Operation	/workflow/outputcreation/getProgress/{operationId}	GET
Get Result of Operation	/workflow/outputcreation/getResult/{operationId}	POST
Get Result of Operation (as Text)	/workflow/outputcreation/getResultTxt/{operationId}	POST
Cancel an Operation	/workflow/outputcreation/cancel/{operationId}	POST
Service Version	/workflow/outputcreation/version	GET

Service Handshake

Queries the availability of the Output Creation service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/outputcreation</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Handshake message:

Server Engine REST Service available: OutputCreationRestService</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>

200 OK – REST Service available
401 Unauthorized – Server authentication required
403 Forbidden – Server authentication has failed or expired

</td></tr>
</table>
</td></tr>
</table>

Process Output Creation

Submits a request to initiate a new Output Creation operation.

Request takes no content, and on success returns a response containing additional headers that specify the ID of the new operation as well as link URLs that can be used to retrieve further information/cancel the operation.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/outputcreation/{configId}/{jobSetId}</td></tr>
<tr><td>Parameters:</td><td>Path:
configId – the Managed File ID (or Name) of the Output Creation Preset in File Store
jobSetId – the ID of the Job Set entity in Server</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>operationId – Operation ID of new Output Creation operation
Link – Contains multiple link URLs that can be used to retrieve further information/cancel the operation.</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content</td><td>-</td></tr>
</table></td></tr>
</table>

	Type:	
	Status:	• 202 Accepted – Creation of new operation successful • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired • 404 Not Found – Output Creation Preset or Job Set entity not found in File Store/Server

Process Output Creation (JSON)

Submits a request to initiate a new Output Creation operation.

Request takes a JSON Identifier of the Job Set ID (with a createOnly flag) as content, and on success returns a response containing additional headers that specify the ID of the new operation as well as link URLs that can be used to retrieve further information/cancel the operation.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/outputcreation/{configId}</td></tr>
<tr><td>Parameters:</td><td>Path:
configId – the Managed File ID (or Name) of the Output Creation Preset in File Store</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON Identifier (with createOnly flag) specifying the Job Set entity's ID</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>operationId – Operation ID of new Output Creation operation
Link – Contains multiple link URLs that can be used to retrieve further information/cancel the operation.</td></tr>
<tr><td>Content:</td><td>-</td></tr>
</table></td></tr>
</table>

	Content Type:	-
	Status:	• 202 Accepted – Creation of new operation successful • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired • 404 Not Found – Output Creation Preset or Job Set entity not found in File Store/Server • 500 Internal Server Error – JSON Identifier invalid or missing required structure

Process Output Creation (By Job) (JSON)

Submits a request to initiate a new Output Creation operation.

Request takes a JSON Identifier List of the Job IDs (with a createOnly flag) as content, and on success returns a response containing additional headers that specify the ID of the new operation as well as link URLs that can be used to retrieve further information/cancel the operation.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/outputcreation/{configId}/jobs</td></tr>
<tr><td>Parameters:</td><td>Path:
configId – the Managed File ID (or Name) of the Output Creation Preset in File Store</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON Identifier List (with createOnly flag) specifying the Job entity IDs</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>operationId – Operation ID of new Output Creation operation
Link – Contains multiple link URLs that can be used to retrieve further information/cancel the operation.</td></tr>
<tr><td>Content:</td><td>-</td></tr>
</table></td></tr>
</table>

	Content Type:	-
	Status:	• 202 Accepted – Creation of new operation successful • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired • 404 Not Found – Output Creation Preset or Job entity not found in File Store/Server • 500 Internal Server Error – JSON Identifier List invalid or missing required structure

Get Progress of Operation

Retrieves the progress of a running Output Creation operation of a specific operation ID.

Request takes no content, and on success returns a response containing the current value of operation progress (values ranging from 0 – 100, followed by the value of 'done' on completion).

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/outputcreation/getProgress/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of Output Creation operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Progress value of Output Creation operation</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Progress of operation successfully retrieved
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Get Result of Operation

Retrieves the final result of a completed Output Creation operation of a specific operation ID.

Request takes no content, and on success returns a response containing either the absolute paths of the final generated output files (multiple spool files) or the content of a final generated output file (single spool file).

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/outputcreation/getResult/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of Output Creation operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Absolute Paths of the Output Files or the Output File itself</td></tr>
<tr><td>Content Type:</td><td>application/octet-stream</td></tr>
<tr><td>Status:</td><td>200 OK – Result of completed operation successfully retrieved</td></tr>
</table></td></tr>
</table>

	• 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Get Result of Operation (as Text)

Retrieves the final result of a completed Output Creation operation of a specific operation ID.

Request takes no content, and on success returns a response containing the absolute path or paths of the final generated output file or files (single or multiple spool files respectively).

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/outputcreation/getResultTxt/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of Output Creation operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Absolute Path(s) of the Output File(s)</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Result of completed operation successfully retrieved
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Cancel an Operation

Requests the cancellation of a running Output Creation operation of a specific operation ID.

Request takes no content, and on success returns a response with no content.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/outputcreation/cancel/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of Output Creation operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
<tr><td>Status:</td><td>204 No Content – Operation cancellation requested
401 Unauthorized – Server authentication required
403 Forbidden – Server authentication has failed or expired</td></tr>
</table></td></tr>
</table>

Service Version

Returns the version of the Output Creation service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/outputcreation/version</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Version of Service</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – Version of REST Service retrieved
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

All-In-One Service

The following table is a summary of the resources and methods available in the All-In-One service:

Method Name	Uniform Resource Identifier (URI)	Method Type
Service Handshake	/workflow/print	GET
Process All-In-One (JSON)	/workflow/print/submit	POST
Get Progress of Operation	/workflow/print/getProgress/{operationId}	GET
Get Result of Operation	/workflow/print/getResult/{operationId}	POST
Get Result of Operation (as Text)	/workflow/print/getResultTxt/{operationId}	POST
Cancel an Operation	/workflow/print/cancel/{operationId}	POST
Service Version	/workflow/print/version	GET

Service Handshake

Queries the availability of the All-In-One service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/print</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Handshake message:

Server Engine REST Service available: PrintRestService</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – REST Service available
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

Process All-In-One (JSON)

Submits a request to initiate a new All-In-One operation.

Request takes a JSON All-In-One Configuration as content, and on success returns a response containing additional headers that specify the ID of the new operation as well as link URLs that can be used to retrieve further information/cancel the operation.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/print/submit</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>JSON All-In-One Configuration containing workflow process steps/properties</td></tr>
<tr><td>Content Type:</td><td>application/json</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>operationId – Operation ID of new All-In-One operation
Link – Contains multiple link URLs that can be used to retrieve further information/cancel the operation.</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
<tr><td>Status:</td><td>202 Accepted – Creation of new operation</td></tr>
</table>
</td></tr>
</table>

	successful • 400 Bad Request – Required Input resource/file not found in File Store • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired • 500 Internal Server Error – General error with running the All-In-One Process or a Specific error relating to a process step (see error description)

Get Progress of Operation

Retrieves the progress of a running All-In-One operation of a specific operation ID.

Request takes no content, and on success returns a response containing the current value of operation progress (values ranging from 0 – 100, followed by the value of 'done' on completion).

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/print/getProgress/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of All-In-One operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Progress value of All-In-One operation</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>200 OK – Progress of operation successfully retrieved
401 Unauthorized – Server authentication required</td></tr>
</table></td></tr>
</table>

	• 403 Forbidden – Server authentication has failed or expired

Get Result of Operation

Retrieves the final result of a completed All-In-One operation of a specific operation ID.

Request takes no content, and on success returns a response (depending on the All-In-One configuration) containing either:

- the ID of the Data Set, Content Set or Job Set entity generated, or
- the absolute paths of the final generated output files (multiple spool files) or the content of a final generated output file (single spool file).

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/print/getResult/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of All-In-One operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Either:
the ID of the Data Set, Content Set or Job Set, or
the Absolute Paths of the Output Files or the Output File itself</td></tr>
</table></td></tr>
</table>

	Content Type: application/octet-stream
	Status: • 200 OK – Result of completed operation successfully retrieved • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Get Result of Operation (as Text)

Retrieves the final result of a completed All-In-One operation of a specific operation ID.

Request takes no content, and on success returns a response (depending on the All-In-One configuration) containing either:

- the ID of the Data Set, Content Set or Job Set entity generated, or
- the absolute path or paths of the final generated output file or files (single or multiple spool files respectively).

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/print/getResultTxt/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of All-In-One operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Either:
the ID of the Data Set, Content Set or Job Set, or
the Absolute Path(s) of the Output File(s)</td></tr>
</table></td></tr>
</table>

	Content Type: text/plain
	Status: • 200 OK – Result of completed operation successfully retrieved • 401 Unauthorized – Server authentication required • 403 Forbidden – Server authentication has failed or expired

Cancel an Operation

Requests the cancellation of a running All-In-One operation of a specific operation ID.

Request takes no content, and on success returns a response with no content.

<table>
<tr><td>Type:</td><td>POST</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/print/cancel/{operationId}</td></tr>
<tr><td>Parameters:</td><td>Path:
operationId – Operation ID of All-In-One operation</td></tr>
<tr><td>Request:</td><td><table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table></td></tr>
<tr><td>Response:</td><td><table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
<tr><td>Status:</td><td>204 No Content – Operation cancellation requested
401 Unauthorized – Server authentication required
403 Forbidden – Server authentication has failed or expired</td></tr>
</table></td></tr>
</table>

Service Version

Returns the version of the All-In-One service.

<table>
<tr><td>Type:</td><td>GET</td></tr>
<tr><td>URI:</td><td>/rest/serverengine/workflow/print/version</td></tr>
<tr><td>Parameters:</td><td>-</td></tr>
<tr><td>Request:</td><td>
<table>
<tr><td>Add. Headers:</td><td>auth_token – Authorization Token (if server security settings enabled)</td></tr>
<tr><td>Content:</td><td>-</td></tr>
<tr><td>Content Type:</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Response:</td><td>
<table>
<tr><td>Add. Headers:</td><td>-</td></tr>
<tr><td>Content:</td><td>Version of Service</td></tr>
<tr><td>Content Type:</td><td>text/plain</td></tr>
<tr><td>Status:</td><td>• 200 OK – Version of REST Service retrieved
• 401 Unauthorized – Server authentication required
• 403 Forbidden – Server authentication has failed or expired</td></tr>
</table>
</td></tr>
</table>

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