

Submission Feed & Send SMS

with **DataWinners** API

1 Introduction

Among the various features provided by DataWinners, also present is a feed API that helps the users to perform Extract, Transform and Load (ETL) operations on the data collected. DataWinners also has an API for sending out SMS via the application. This document provides the specifications for this feed & send SMS feature and describes its operation under various scenarios.

The Submission feed provided by DataWinners is a data-based feed API that provides all the data submitted to the system. Along with the submitted data it also includes the changes performed on them by user operations (Edit & Delete). Submissions which cannot be tied to a particular project (see All Data - Failed Submissions page within the DataWinners application) are not present in this output.

2 Explanation of the URL Structure

The feed provides the Submissions tied to a particular project in a single request. To assist in the incremental consumption the users can also request for data within a certain date range.

URL for the Feed

app.datawinners.com/feeds/{form_code}?start_date={date}&end_date={date}

Parameters present in the URL

- {form_code} - This is the Questionnaire Code of the form
- {start_date} - The start date of the period for which the user is requesting data
- {end_date} - The end date of the period for which the user is requesting data
- The start date and the end date are encoded in URL format
- The format of the date is dd-mm-yyyy hh:mm:ss, The date & time used in the URL follows the UTC timezone

Example

The feed request for a project with the Questionnaire Code 126, to pull data between Jan 1, 2013 and Jul 7, 2013 will look like this:

app.datawinners.com/feeds/126/?start_date=01-01-2013%2000%3A00%3A00&end_date=07-07-2013%2000%3A00%3A00

3 Authentication & Security

The feed access is secured using a HTTP Basic authentication. The user has to provide the username & password to access any of the Submissions in the account. Every registered Admin and Project Manager with DataWinners will have access to view the feed associated with the Questionnaire. The same user roles and permissions set in the DataWinners account apply automatically into the Feed.

The Data Senders of the Questionnaires have no access to feed.

If an error is made in the username or password, the user is just prompted to enter the credentials again and no explicit error message is returned.

4 Error Scenarios

The following error scenarios are handled in the system and an appropriate error code, along with the relevant error message, will be returned when these occur.

Serial No	Error Scenario	Error Code returned
1	Invalid Form Code (Questionnaire Code)	101
2	Invalid Date Format	102
3	End Date Lesser than Start Date	103
4	User Authentication Failed	401

Connection time-outs of 3rd party applications are not handled by DataWinners.

5 Feed Output

DataWinners will send feed data via streaming manner. There will be no maximum limit on the number of feed entries sent out of DataWinners. DataWinners will continue to stream data as long as there is valid data for the given query parameters and will close the connection once the feed entry for the last Submission is sent. The output of the feed is in JSON format.

The data is provided in a Key:Value pair fashion. Present in the feed are the following properties related to a Submission,

- **Data Sender ID** (data_sender_id)
This is the DataWinners ID of the user (Data Sender) who has made that submission.
- **Submission ID** (id)
This is a unique identifier to represent a Submission.
- **Question Code** (q1, q2, etc.)
An unique question identifier, this value is independent from the serial number of the question displayed on the application.
- **Answer**
The corresponding answer for each of the questions. This will be the value for all answers except for multiple questions where the answer would be a comma-separated value of the options.
- **Submission Modified Time** (submission_modified_time)
The date and time when the Submission was last modified.
- **Feed Modified Time** (feed_modified_time)
The date and time when the feed entry was last updated. The start date and end date provide the Submission based on this value (modified date).
- **Status** (status)
This property indicates the state of the Submission: Success, Error or Deleted.

The output of the feed may be empty if there are no Submissions for the chosen date range. Under such scenarios, empty parenthesis [] will be returned.

Examples of the Submission Provided by the Feed**1. 'Success' Submission**

```
{"status": "success", "data_sender_id": "3456.0",  
"values": {"q1": "wp02", "q3": "8.0", "q2": "25.12.2013", "q5": ["b"], "q4": "2  
4.12.2012", "q7": ["a","c"], "q6": "admin1", "q8": "-18 27"},  
"submission_modified_time": "2013-03-01T04:50:14.150527+00:00",  
"feed_modified_time": "2013-06-06 10:08:29.703502+00:00"  
,"id": "de7b22c2bd1a11e29b4a080027c9d022"}
```

2. 'Error' Submission

```
{"status": "error", "data_sender_id": "3456.0",  
"values": {"q1": "wp02", "q3": "8.0", "q2": "25.12.2013", "q5": ["b"], "q4": "2  
4.12.2012", "q7": ["a","c"], "q6": "admin1", "q8": "-18 27"},  
"submission_modified_time": "2013-03-01T04:50:14.150527+00:00",  
"feed_modified_time": "2013-06-06 10:08:29.703502+00:00"  
,"id": "de7b22c2bd1a11e29b4a080027c9d022"}
```

3. 'Deleted' Submission

```
{"status": "deleted", "data_sender_id": "3456.0",  
"values": {"q1": "wp02", "q3": "8.0", "q2": "25.12.2013", "q5": ["b"], "q4": "2  
4.12.2012", "q7": ["a","c"], "q6": "admin1", "q8": "-18 27"},  
"submission_modified_time": "2013-03-01T04:50:14.150527+00:00",  
"feed_modified_time": "2013-06-06 10:08:29.703502+00:00"  
,"id": "de7b22c2bd1a11e29b4a080027c9d022"}
```

6 Send SMS

DataWinners has provided an API for sending out SMS via the application. The API requires the message and the recipient numbers (in a format specified later) to be sent to DW which will then route these messages to the corresponding data senders via the Short Message Service Centre (SMSC). A valid user account of the type SMS API user will be required to send out messages using this API.

The format of the SMS request should be as follows:

```
{ "numbers" : ["003142314226", "0975262517353", "+0915439263538" ] "message" :  
"Please collect the latest printed questionnaire from the data entry centers" }
```

Each SMS request should contain the message and all the numbers to which this message has to be sent out. If more than one message needs to be sent out, then as many SMS requests to DW need to be made, one for each message required to be sent out. After the messages are sent from DW, DW will respond with a success/failure acknowledgement message to the requesting application. This acknowledgement message will be in the format below

```
{ "003142314226" : "success", "0975262517353" : "failure", "+0915439263538"  
: "success" }
```

Note: If an account wants to use this feature, the account admin should contact the HNI Support team in order for this SMS API user to be set up within DataWinners.