How to Use Bulk Within a Formula

Doing bulk within a formula can be a little difficult. Bulk by nature is an asynchronous job, while formulas are a synchronous procedure. One way to get them to work together is via webhooks.

There are two ways to know when a bulk job is completed. You can poll the `GET /bulk/{id}/status` endpoint repeatedly until status is `COMPLETED` or `ABORTED` or you can set the header `Elements-Async-Callback-Url` and receive a webhook when the job is done.

When using webhooks, the key is to have two formulas. One to start the bulk job and set the `Elements-Async-Callback-Url` to manually trigger a second formula that downloads the results and sends them somewhere else.

Here are two example formulas when using the webhook method. They will bulk download from one instance, and bulk upload to another.

> **IMPORTANT NOTE**: for these formulas to work, you must use a common resource! You must be able to call `GET /MyResource`, copy a payload that gets returned and call `POST /myResource` to the other endpoint. I will include my example transformations.

To Configure:

1. Import both formulas Bulk Step 1.json 🔗 and Bulk Step 2.json 🔗.
2. Create the common resource by calling `POST /organizations/objects/MyContact/definitions` with this payload: ObjectDefinition.json 🔗
3. Create transformations for Salesforce by calling `POST /organizations/elements/sfdc/transformations/MyContact` with: MyContactSFDC.json 🔗
4. Create transformations for DynamicsCRM by calling `POST /organizations/elements/dynamicscrm/transformations/MyContact`

with: dynamicscrmMyContact.json 📎

5. Create a formula instance for Bulk Step 2 and capture the ID of the created formula instance.

   You will need to give the Bulk Step 1 formula the instance ID for the second formula. This will let the webhook trigger the correct formula instance

   ⚗️ **Bulk Step 2**   ⬤ Active

   Name
   bulk step 2

   Variables

   Instances

   | salesforce — CRM Source ✏️ 🗑️ | Microsoft Dynamics CRM — target ✏️ 🗑️ |

   Values
   object
   MyContact

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6. Create a formula instance for Bulk Step 1 using the formula instance id from step 5.

   ⚗️ **Bulk Step 1**   ⬤ Active

   Name
   bulk step 1

   Variables

   Instances

   | salesforce — CRM Source ✏️ 🗑️ |

   Values

   cron   object
   0 0 12 1 1/1 ? *   MyContact

   SecondFormulaInstanceId
   53378

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