Data Exchange Framework Activity for Marketing Automation 4.0 Installation Guide

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1. Introduction

The Data Exchange Framework (DEF) Activity for Marketing Automation extends the Marketing Automation activities. It enables you to trigger data synchronization from within a Marketing Automation plan.

1.1. Requirements

This product must be installed on a Sitecore content management (CM) server.

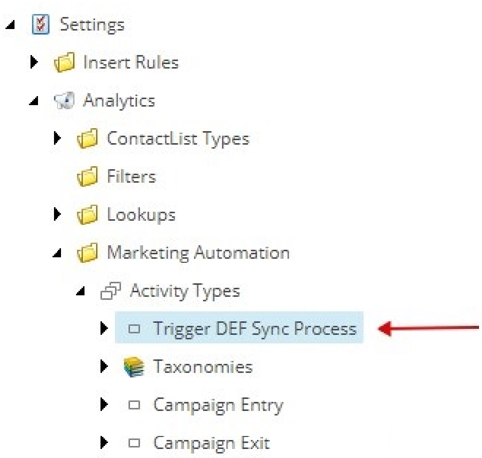
This product requires that the following are installed on the server:

- Sitecore Experience Platform 9.3.
- Data Exchange Framework (DEF) 4.0.0.
- Data Exchange Tenant Service 4.0.0 package.
- DEF Tenant Web Service 4.0. You must deploy this service as a separate IIS site.

1.2. Installation

To install the DEF Activity for Marketing Automation:

1. Download DEF Activity for Marketing Automation 4.0.0 from the Sitecore Downloads page.
2. On the CM server, in Sitecore, click **Control Panel**. In the **Administration** section, click **Install a package**.
   The **Install a package** wizard guides you through the installation process.
3. When the installation is complete, confirm that the Activity was installed by opening the Content Editor and locating the item `/sitecore/system/Settings/Analytics/Marketing Automation/Activity Types/Trigger DEF Sync Process`.



4. Download the DEF Action Plugin for Marketing Automation 4.0. package. Deploy the package on top of the xConnect Marketing Automation Service.

5. Verify that the `App_Data\Config\sitecore\MarketingAutomation` folder contains the configuration file. Verify that the binaries folder of your Marketing Automation Service contains all the .dlls from the package.

> **NOTE**
> By default, the binaries folder is the root folder of the installation.

2. Walkthrough: Setting up a Marketing Automation action in Data Exchange Framework

This walkthrough shows you an example of how to set up a Marketing Automation (MA) action. It describes how to:

- Create a Data Exchange Framework tenant
- Create a value accessor
- Create a pipeline
- Create value readers
- Create a pipeline context builder
- Create a Tenant Service Endpoint.
- Add a Trigger DEF Sync process to an Engagement Plan.

2.1. Create a Data Exchange Framework tenant

The tenant is a container for the settings that need to be configured for the service. To create a tenant:

1. In Sitecore, open the Content Editor and navigate to `/sitecore/system/Data Exchange`.
2. On the **Folder** tab, click **Empty Data Exchange Tenant** to create a new tenant.
3. Select the created tenant and click on the **Data Exchange SDK** tab in the top menu bar.
4. Click on **Upgrade Tenant**. In the **Instruction Set** field, click the **Tenant Service** option.
5. Make a note of the tenant ID. Add the tenant ID, host, and credentials in the `<tenant service>\App_Config\ConnectionStrings.config` file, in the connection string called `Sitecore`. For example:

```
<connectionStrings>
    <add name="sitecore" connectionString="database=master;tenant id={841B0E94-4348-494D-B32D-CA5E94F26ACC};host=my-sitecore;password=b;user name=sitecore\admin;timeout=20" />
</connectionStrings>
```

6. On your Sitecore Content Management and Marketing Automation Service servers, in the `App_Config\connectionstring.config` file, make sure you have a connection string for the tenant web service associated with the tenant. For example:

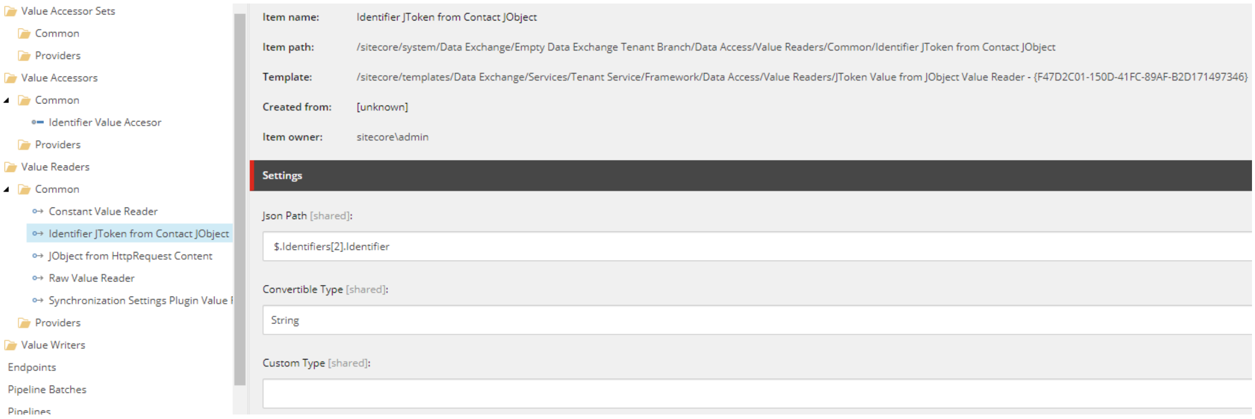
```
<xmlversion="1.0" encoding="utf-8">
<connectionStrings>
    <add name="my-tenant" connectionString="https://my-tenant.service"/>
</connectionStrings>
```

2.2. Create a value accessor

When an MA event triggers the Data Exchange Framework Action Plugin for MA it sends a request to the Tenant Service, which extracts the message body from the request. The contact is serialized as a JSON object.

You must create a value accessor that can access the first identifier in the serialized xConnect contact.

1. Navigate to `<tenant>/Data Access/Value Readers/Common`.
2. On the **Folder** tab, click *JToken Value from JObject Value Reader* to create an item. Name it *Identifier JToken from Contact JObject*.
3. In the **Convertible Type** field, select *String*. In the **Json Path** field, enter *$.Identifiers[1].Identifier*.



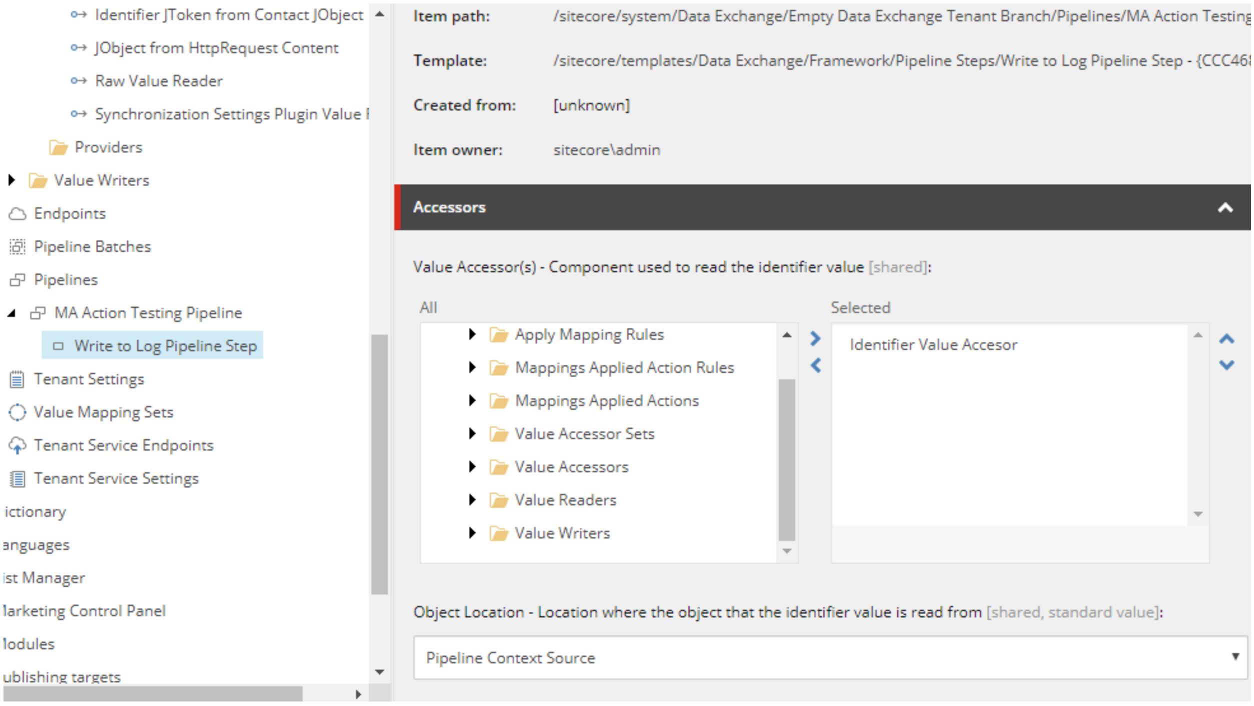
4. Save the changes.
5. Navigate to `<tenant>/Data Access/Value Accessors/Common`.
6. On the **Folder** tab, click **Value Accessor** to create an *Identifier Value Accessor*.
7. In the **Value Reader** field, click the *Identifier JToken from Contact JObject* object that you created.
8. Save the changes.

2.3. Create a pipeline

To create a pipeline:

1. Navigate to your `<tenant>/Pipelines.`
2. On the **Folder** tab, click **Pipeline** to create a new item. Name it, for example, *MA Action Testing Pipeline*.
3. Select the pipeline. On the Folder tab, click **Write to Log Pipeline Step** to create a new pipeline step.

4. Select the new pipeline step and configure the *Identifier Value Accesor* value accessor you created previously.



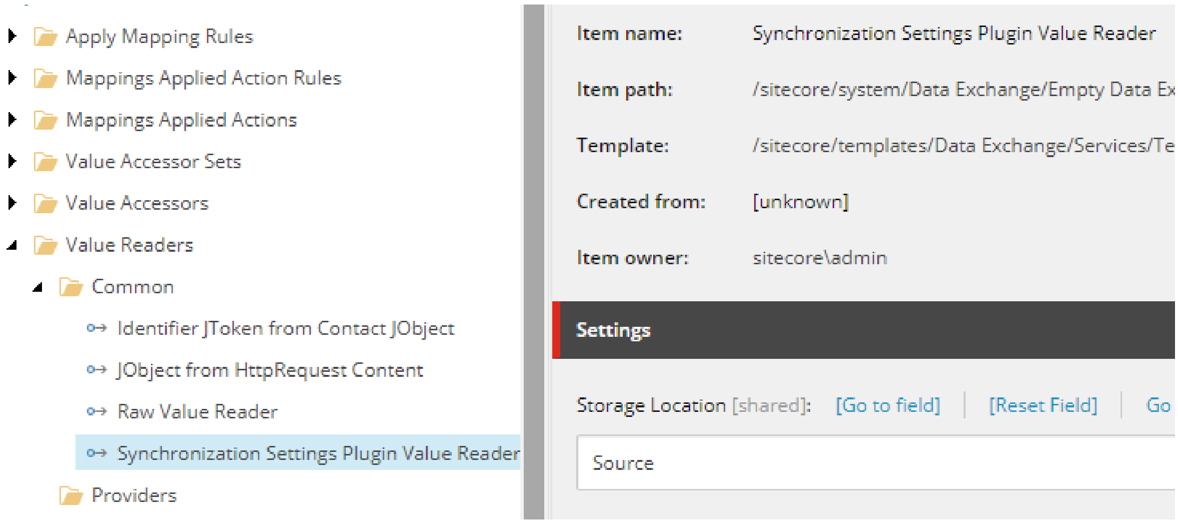
5. Save the changes.

2.4. Create value readers

To create the necessary value readers:

1. Navigate to <tenant>/Data Access/Value Readers/Common/.
2. On the **Folder** tab, click **JObject from HttpRequest Content Value Reader** to create a new item. Name it, for example, *JObject from HttpRequest Content*.
3. In <tenant>/Data Access/Value Readers/Common/, on the **Folder** tab, click **Raw Value Reader** to create a new item. Name it, for example, *Raw Value Reader*.
4. In <tenant>/Data Access/Value Readers/Common/, on the **Folder** tab, click **Synchronization Settings Plugin Value Reader** to create a new item. Name it, for example, *Synchronization Settings Plugin Value Reader*.

5. In the **Storage Location** field, click *Source*. Save the changes.



2.5. Create a pipeline context builder

To create a context builder:

1. Navigate to <your tenant>/Tenant Service Settings/Pipeline Context Builders.
2. On the **Folder** tab, click *Pipeline Context Plugin Builder* to create a new item.
3. Set the **Value Transformer** field to *JObject from HttpRequest Content*.
4. Set the **Plugin Readers** field to *Synchronization Settings Plugin Value Reader*.
5. Save the changes.

2.6. Create a Tenant Service Endpoint

To create an endpoint:

1. Navigate to <your tenant>/Tenant Service Endpoints.
2. On the **Folder** tab, click *Pipeline Tenant Service Endpoint* to create a new item. Name it, for example, *MA Action Endpoint*.
3. Configure the endpoint with the parameters in this table:

Parameter	Content
Request Value Reader	*Value Readers/Common/Raw Value Reader*
Pipeline Context Builder	*Pipeline Context Builders/Pipeline Context Plugin Builder*

Parameter	Content
Pipeline	*Pipelines/MA Action Testing Pipeline*

4. Select the **Enabled** checkbox. Save the changes.

2.7. Add a Trigger DEF Sync process to an Engagement Plan

In order to activate the Marketing Automation, you must connect the tenant service to an engagement plan.

> **NOTE**
> This section assumes that you are familiar with Marketing Automation and Engagement Plans.

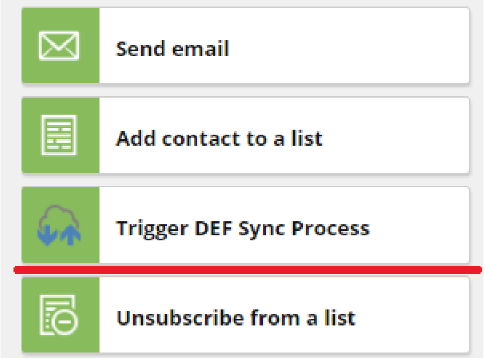
To create a connection:

1. On your CM Instance, open the `<sitename>\App_Config\Sitecore\MarketingAutomation\Sitecore.DataExchange.MarketingAutomation.Client.config` file. Add the name of the Tenant Service in the `<tenantServiceConnectionRepository>/<tenantServices>` node. For example:

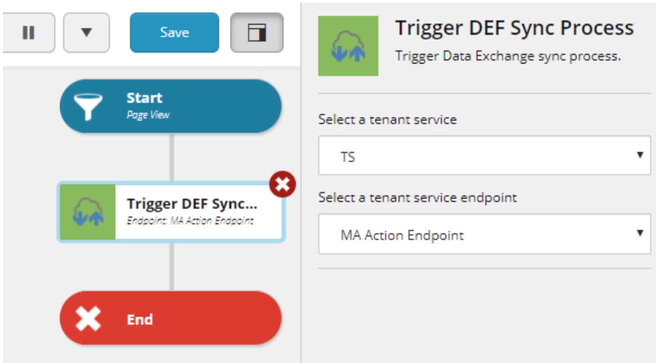
```
<dataExchange>
    <tenantServices>
        <marketingAutomation>
            <tenantServiceConnectionRepository
type="Sitecore.DataExchange.MarketingAutomation.Activity.Repositories.TenantServiceConnectionRepository, Sitecore.DataExchange.MarketingAutomation.Activity">
                <tenantServices hint="list:AddService">
                   <tenantService>my-sitecore</tenantService>
                </tenantServices>
            </tenantServiceConnectionRepository>
        </marketingAutomation>
    </tenantServices>
</dataExchange>
```

2. In Sitecore, in Launchpad, open the Marketing Automation application.
3. Create a new campaign. You can also use an existing campaign, if you already have one. Configure the start point to trigger the campaign when a customer visits a specific page or when a general PageView event happens.

4. From the toolbox, drag and drop a *Trigger DEF Sync Process* marketing action to the campaign.



5. Click the *Trigger DEF Sync Process* action. In the first dropdown menu, select a tenant service from the list of available services. In the second dropdown menu, select *MA Action Service*.



> **NOTE**
> You can configure the list of available Tenant Services in the `Sitecore.DataExchange.MarketingAutomation.Client.config` configuration file.

6. To test the service, navigate to the published Sitecore site in a browser, enroll a contact to the new campaign, and wait until the client session ends. Open the latest Tenant Service log file. If the service is working, it contains a message with a contact identifier, for example:

```
2019-09-05 10:49:06.538 +08:00 [Information] 10:49 AM : 6638f579-5e10-47c9-bef6-3bf2d2a1a240
```