Data Exchange Framework Save Action for Experience Forms 3.0

October 18, 2019

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1. Introduction

With Data Exchange Framework (DEF) Save Action for Experience Forms 3.0.0 you can trigger synchronization of data whenever a user submits a form.

1.1. Requirements

The following packages need to be installed before you install DEF Save Action for Experience Forms 3.0.0:

- Sitecore 9.2
- DEF 3.0.0
- Data Exchange Tenant Service 3.0.0
- DEF Tenant Web Service 3.0.0, deployed as a separate IIS site
- DEF Tenant Web Service Plugins 3.0.0, installed on top of the Tenant Web Service

1.2. Installation

To install the DEF Save Action for Experience Forms 3.0:

- on your Sitecore server, download and install the DEF Save Action for Experience Forms 3.0.0 package.
- on your Tenant Web Service installation, download and deploy the DEF Tenant Web Service Plugin for Forms 3.0.0 package

2. Walkthrough: creating a custom form save action

This topic shows you an example of how to set up a custom Data Exchange Framework (DEF) save action for Experience Forms.

In order to set up a custom save action, you must create:

- a form
- a tenant
- value accessors
- a pipeline
- value readers
- a pipeline context builder
- a tenant service endpoint

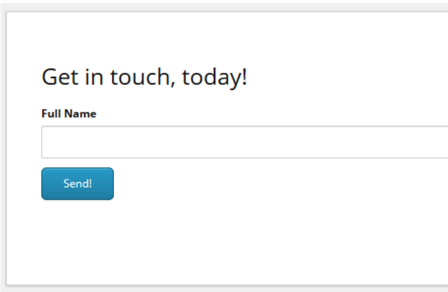
Finally, in order to enable the save action you must:

- configure the form.

2.1. Create a form

When a website visitor submits a form on the website it triggers the save action. To create a form:

1. In the Sitecore Launchpad click **Forms** to create new form.
2. Add a field and call it, for example, *Full Name*. Add a submit button.



2.2. Create a tenant

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

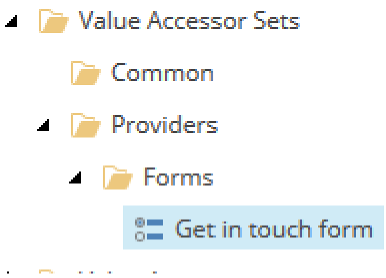
1. Open the Content Editor and navigate to `/sitecore/system/Data Exchange`.
2. Use the **Insert** option **Empty Data Exchange Tenant Branch** to create a new tenant.
3. Select the created tenant and click on the **Data Exchange SDK** tab at the top menu bar.
4. Click **Update Tenant** and select the **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=defdev;password=b;user name=sitecore\admin;timeout=20" />
</connectionStrings>
```

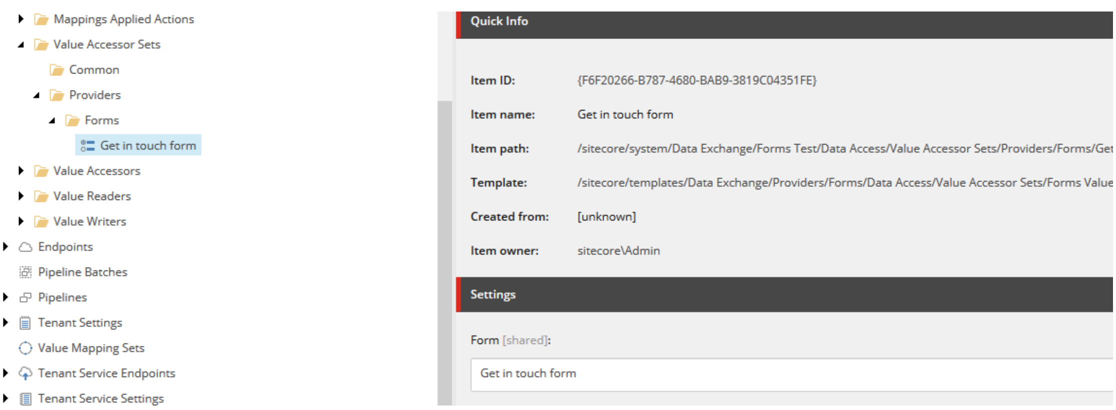
2.3. Create value accessors

Value accessors read the values of the fields in the form. To create the value accessors:

1. Navigate to `<tenant>/Data Access/Value Accessor Sets/Providers`.
2. Use the **Insert** option **Forms Value Accessor Set** to create a Form Value Accessor Set item.

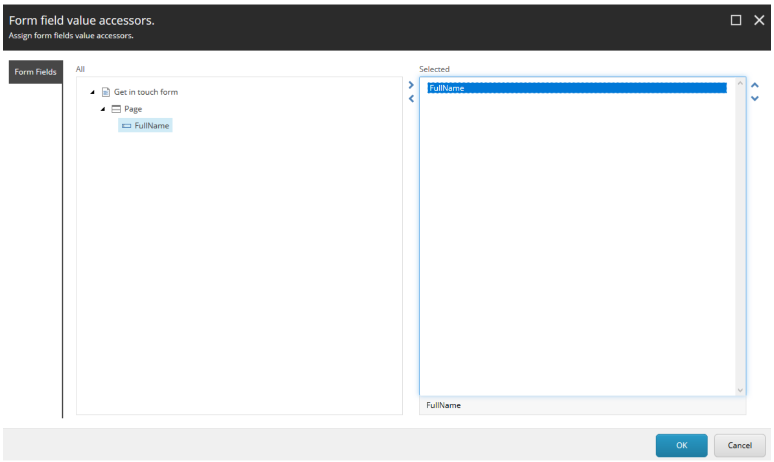


3. Select the created item and switch to the **Content** tab. Select the created form and save the item.

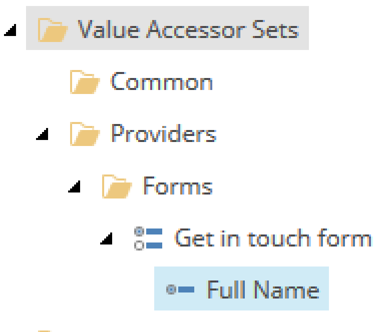


4. From top menu bar, select **Data Exchange**, and click **Add Form Fields**.

5. To create value accessors, select the form fields whose values you want to read, and click **OK**.



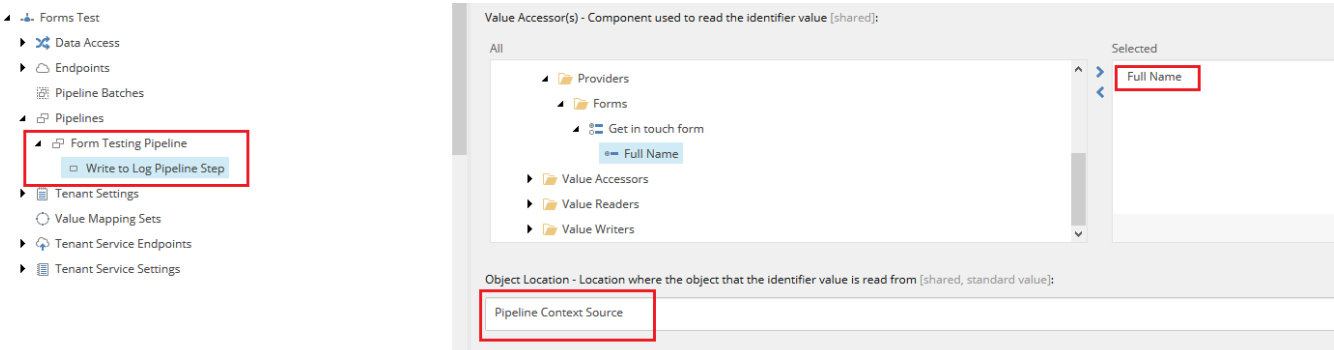
The value accessors are located under the value accessor set item.



2.4. Create a pipeline

To create a pipeline:

1. Navigate to `<tenant>/Pipelines`. Create a pipeline and name it *Form Testing Pipeline*.
2. Use the **Insert** option **Write to Log Pipeline Step** to create a new pipeline step.
3. Select the pipeline step and configure the **Full Name** value accessor as shown:

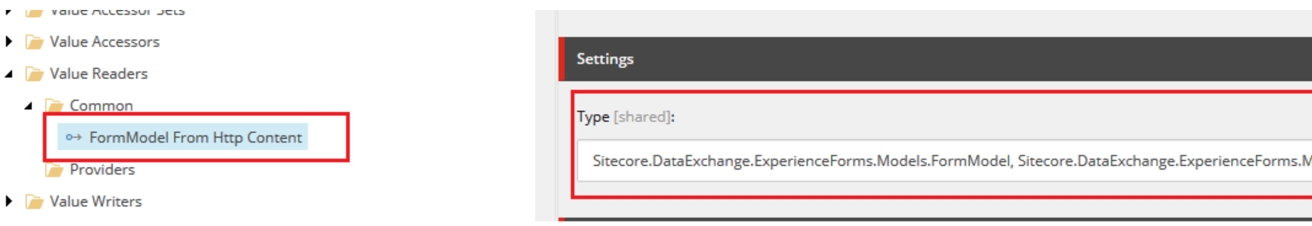


4. Save the changes.

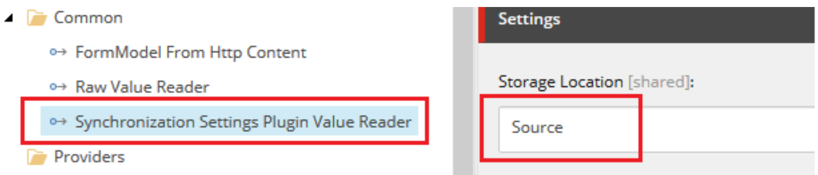
2.5. Create value readers

To create value readers:

1. Navigate to `<tenant>/Data Access/Value Readers/Common/`.
2. Use the **Insert** option **Dot Net Object from HttpRequest Content Value Reader** to create new item, and name it *FormModel From Http Content*.
3. Set the **Type** field to *Sitecore.DataExchange.ExperienceForms.Models.FormModel, Sitecore.DataExchange.ExperienceForms.Models*.



4. Navigate to `<tenant>/Data Access/Value Readers/Common/`.
5. Use the **Insert** option **Raw Value Reader** to create a new item and name it *Raw Value Reader*.
6. Navigate to `<tenant>/Data Access/Value Readers/Common/`.
7. Use the **Insert** option **Synchronization Settings Plugin Value Reader** to create a new item and name it *Synchronization Settings Plugin Value Reader*.
8. Set the **Storage Location** to *Source*.

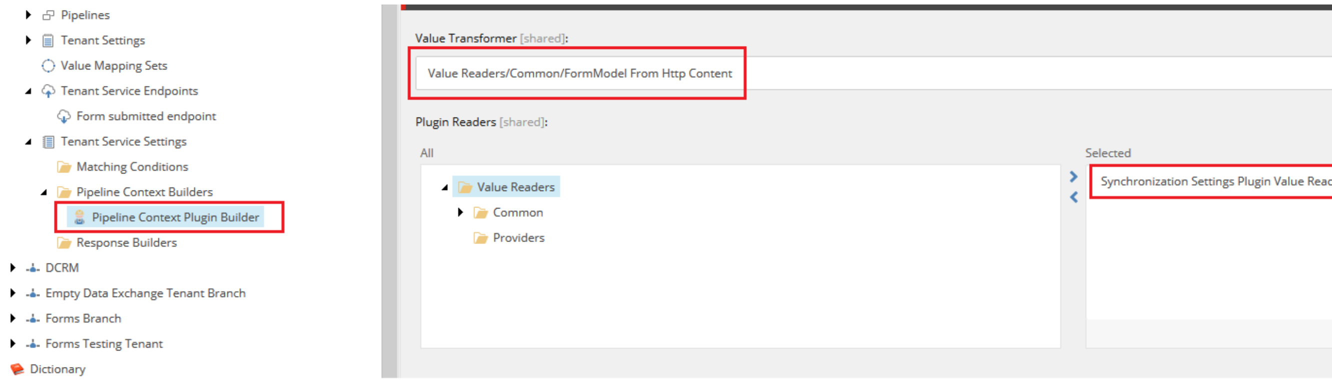


9. Save the changes.

2.6. Create a pipeline context builder

To create a pipeline context builder:

1. Navigate to `<tenant>/Tenant Service Settings/Pipeline Context Builders`.
2. Use the **Insert** option **Pipeline Context Plugin Builder** to create a new item.
3. Set the **Value Transformer** field to the http request value reader that you created in the previous step.
4. Set the **Plugin Readers** field to the synchronization settings plugin value reader that you created in the previous step.



5. Save the changes.

2.7. Create a tenant service endpoint

To create a tenant service endpoint:

1. Navigate to `<tenant>/Tenant Service Endpoints`. Use the Insert option **Pipeline Tenant Service Endpoint** to create a **Form submitted endpoint** item.
2. Configure the endpoint with the parameters in this table:

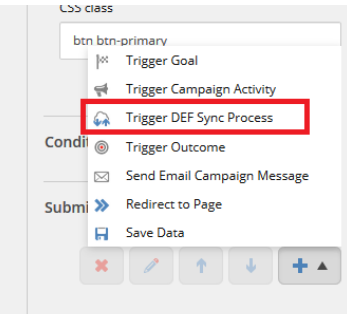
Parameter	Content
Request Value Reader	*Value Readers/Common/Raw Value Reader*
Pipeline Context Builder	*Pipeline Context Builders/Pipeline Context Plugin Builder*
Pipeline	*Pipelines/Form Testing Pipeline*

3. Check **Enabled**. Save the changes.

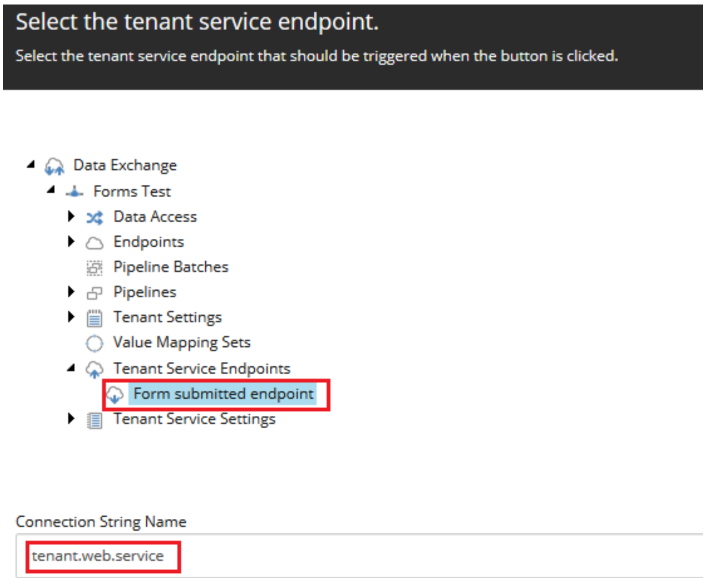
2.8. Configure the form

You must configure the form to trigger the tenant service endpoint when a user saves the form. To do so:

1. From Sitecore Launchpad, click **Forms** and select the form that you created.
2. Select the **Submit** button and add a new **Trigger DEF Sync Process** submit action.



3. In the **Select the tenant service endpoint** pop-up:
   a. Select the Tenant Service Endpoint that you want to trigger when the form is submitted.
   b. Select the connection string name that contains the tenant web service URL



4. Attach the form to a webpage and publish it. Now, whenever a user submits the form, it triggers the tenant service endpoint to run the selected pipeline.

If you need to troubleshoot the process, check the tenant web service logs.