Creatio Academy



Version 8.0



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Web-To-Object

Advanced

Web-to-Object is a mechanism for implementing simple one-way integrations with Creatio. It enables you to create records in Creatio sections (leads, cases, orders, etc.) simply by sending the necessary data to the Web-to-Object service.

The most common cases of using the Web-to-Object service are the following:

- Integrating Creatio with custom landings and web forms. The service call is performed from a landing (a customized custom page with a web form), after the visitor submits the completed web form.
- Integrating with external systems to create Creatio objects.

Using Web-to-Object will enable you to configure the registration of virtually any objects in Creatio (e.g., a lead, an order or a case).

The [*Landings and web-forms*] section is used to work with landing in Creatio. This section is available in all Creatio products, however it might not be enabled in workplaces of certain products (e.g., Sales Creatio). Each record in the [*Landing and web-forms*] section corresponds to a landing page. The record edit page features a [*Landing setup*] tab.

Implementing the Web-to-Object service

The main functionality of the Web-To-Object mechanism is contained in the webForm package and is common to all products. Depending on the product, this functionality may be extended by the Web-to-Lead (the webLeadForm package), Web-to-Order (the webOrderForm package), and Web-to-Case (the webCaseForm package) mechanisms.

To process data received from a web-form of a landing, the WebForm package implements the GeneratedObjectWebFormService Configuration service (the Terrasoft.Configuration.GeneratedWebFormService class). The data of the landing's web-form is accepted as the argument of the public string SaveWebFormObjectData(FormData formData) method. They are then passed to the public void HandleForm(FormData formData) method of the Terrasoft.Configuration.WebFormHandler Class, in which the corresponding system object is created.

External API of the Web-to-Object service

To use the service, send a POST request to

[Creatio application path]/0/ServiceModel/GeneratedObjectWebFormService.svc/SaveWebFormObjectDat

For example

```
http://mycreatio.com/0/ServiceModel/GeneratedObjectWebFormService.svc/SaveWebFormObjectData
```

The content type of the request is application/json. In addition to the required cookies, the JSON object containing the data of the web-form must be added to the content of the request. JSON object example:

```
{
    "formData":{
        "formId": "d66ebbf6-f588-4130-9f0b-0ba3414dafb8",
        "formFieldsData":[
            {"name":"Name","value":"John Smith"},
            {"name":"Email","value":"j.smith@creatio.com"},
            {"name":"Zip","value":"00000"},
            {"name":"MobilePhone","value":"0123456789"},
            {"name":"Company","value":"Creatio"},
            {"name":"Industry","value":""},
            {"name":"FullJobTitle","value":"Sales Manager"},
            {"name":"UseEmail","value":""},
            {"name":"City","value":"Boston"},
            {"name":"Country","value":"USA"},
            {"name":"Commentary","value":""},
            {"name":"BpmHref","value":"http://localhost/Landing/"},
            {"name":"BpmSessionId","value":"0ca32d6d-5d60-9444-ec34-5591514b27a3"}
        ]
   }
}
```

Using the Web-to-Object service

Integrating with custom landings and web-forms

Integrating with external systems

To integrate with external systems:

1. Create a new record in the [Landing and web-forms] section

2. Get the address to the service (serviceUrl property) and the identifier (the landingId property) from the configuration object of the created record.

3. Implement the process of sending a POST-request to the Web-to-Object service (at the received address) in the external system. Add the necessary data to the request in form of a JSON object. Set the value of the received identifier to the formId property of the JSON object.

Set up web form for a custom object

Medium

Create a custom Creatio object via a landing page web form on a third party website. Learn more about landing pages in the "[Landing pages and web forms] section" article.

The general procedure of creating a custom object via a web form is as follows:

- 1. Register a new landing page type.
- 2. Add an edit page for the web form.
- 3. Map the new landing page type to the created edit page.
- 4. Update the scripts for the web form record page.
- 5. Create and configure a landing page in the [Landing pages and web forms] section.
- 6. Deploy and set up a landing page with a web form.

Attention. Tracking website events only works for leads and does not work for custom objects.

Case description

Create a custom **[Contact]** object using a landing page web form.

Source code

You can download the package with an implementation of the case using the following link.

Case implementation algorithm

1. Register a new landing page type

To do this:

- 1. Open the System Designer by clicking 🌞. Go to the **[System setup]** block -> click **[Lookups]**.
- 2. Select the [Landing types] lookup.
- 3. Add a new record.

In the created record, specify (Fig.1):

- [Name] "Contact"
- [Object] "Contact."

Fig. 1. Setting landing page parameters

≡	• + <	Lookups	W	hat can I do for you?	Creatio ①
Marke	eting 👻	NEW CLOSE ACTIONS -			VIEW -
•		Landing types			
	Contacts	🖓 Filters/folders 🗸			
	Campaigns	Name Descrip	tion	Object	
		Order		Order	
@	Email	Contact		Contact	
Ć	Landing pages and web forms	Case		Case	
ę	Events	Event participant		Event participant	U
2	Leads	Lead		Lead	₿
=	Accounts				
al	Dashboards				
0-01					

2. Add an edit page for the web form

Run the **[Add]** -> **[Schema of the Edit Page View Model]** menu command on the **[Schemas]** tab in the **[Configuration]** section of the custom package (Fig. 2). The procedure for creating a view model schema of the edit page is covered in the <u>Create a client schema</u> article.

Fig. 2. - Adding a view model schema of the edit page

Schemas: All
Add = Edit Delete
✓ Standard –
iii Object
iii Replacing Object
Source Code
Module
Replacing Client Module
🗠 Business Process
✓ Additional
F Schema of the Edit Page View Model
🗑 Schema of the Section View Model
🗑 Schema of the Detail View Model with List
🗑 Schema of the Detail View Model with Fields
Test Module
🧒 User Task
Page
Replacing Page
🆓 Image List

Specify the following parameters for the created schema of the edit page view model (Fig. 3):

- [Title] "ContactGeneratedWebFormPage"
- [Name] "UsrContactGeneratedWebFormPage"
- [Parent object] "Edit page, landing."

Fig. 3. Setting up the mini-page view model schema

Properties		
<enter search="" td="" to<=""><td>ext></td><td>₹</td></enter>	ext>	₹
▼ General		
Title	ContactGeneratedWebFormPage	хa
Name	UsrContactGeneratedWebFormPage	
Package	sdkWebFormPackage	•
 Inheritance 		
Parent object	Edit page, landing (WebForm)	•
Replace parent		

The complete source code of the module is available below:

```
// UsrContactGeneratedWebFormPage - unique schema name.
define("UsrContactGeneratedWebFormPage", ["UsrContactGeneratedWebFormPageResources"],
   function() {
        return {
            details: /**SCHEMA_DETAILS*/{}/**SCHEMA_DETAILS*/,
            methods: {
                /**
                 * @inheritdoc BaseGeneratedWebFormPageV2#getScriptTemplateFromResources
                 * @overriden
                 */
                getScriptTemplateFromResources: function() {
                    var scriptTemplate;
                    if (this.getIsFeatureEnabled("OutboundCampaign")) {
     // ContactScriptTemplate - localizable string name.
                        scriptTemplate = this.get("Resources.Strings.ContactScriptTemplate");
                    } else {
                        scriptTemplate = this.get("Resources.Strings.ScriptTemplate");
                    }
                    return scriptTemplate;
                }
            },
            diff: /**SCHEMA_DIFF*/[]/**SCHEMA_DIFF*/
        };
   });
```

Save the schema after making the changes.

Add the ContactScriptTemplate localizable string. Specify <div>Test</div> as the string value (Fig. 4).

Fig. 4. Setting up a localizable string

Propert	ties	
<enter se<="" td=""><td>earch text></td><td>Ŧ</td></enter>	earch text>	Ŧ
▼ General	I	
Name Co	ontactScriptTemplate	
Value <	div>Test	хa

Save the schema after making the changes.

3. Map the new landing page type to the created edit page

To do this, add the record to the **[dbo.SysModuleEdit]** DB table. Execute the following SQL script to add the record:



MSSQL

```
-- Parameters of new landing page
DECLARE @editPageName nvarchar(250) = N'UsrContactGeneratedWebFormPage'; -- declare the name of
DECLARE @landingTypeName NVARCHAR(250) = N'Contact'; -- the type name of the landing
DECLARE @actionCaption NVARCHAR(250) = N'Contact form'; -- declare the type name for the landing
-- Set system parameters based on new landing page
DECLARE @generatedWebFormEntityUId uniqueidentifier = '41AE7D8D-BEC3-41DF-A6F0-2AB0D08B3967';
DECLARE @cardSchemaUId uniqueidentifier = (select top 1 UId from SysSchema where Name = @editPage
DECLARE @pageCaption nvarchar(250) = (select top 1 Caption from SysSchema where Name = @editPage
DECLARE @sysModuleEntityId uniqueidentifier = (select top 1 Id from SysModuleEntity where SysEnt
DECLARE @landingTypeId uniqueidentifier = (SELECT TOP 1 Id FROM LandingType WHERE Name = @elandir
```

```
-- Adding new Landing page variant to application interface
INSERT INTO SysModuleEdit
(Id, SysModuleEntityId, TypeColumnValue, UseModuleDetails, CardSchemaUId, ActionKindCaption, Act
VALUES
(NEWID(), @sysModuleEntityId, @landingTypeId, 1, @cardSchemaUId, @actionCaption, @editPageName,
```

```
PostgreSQL
```

```
D0 $$
DECLARE
    v_editPageName VARCHAR(250) := N'ContactGeneratedWebFormPageV2';
    v_landingTypeName VARCHAR(250) := N'Contact';
    v_actionCaption VARCHAR(250) := N'Contact form';
    v_pageCaption varchar(250) := (select "Caption" from "SysSchema" where "Name" = v_editPageNa
    v_generatedWebFormEntityUId UUID := '41AE7D8D-BEC3-41DF-A6F0-2AB0D08B3967';
    v_cardSchemaUId UUID := (select "UId" from "SysSchema" where "Name" = v_editPageName);
    v_sysModuleEntityId UUID := (select "Id" from "SysSchema" where "Name" = v_editPageName);
    v_landingTypeId UUID := (SELECT "Id" FROM "LandingType" WHERE "Name" = v_landingTypeName);
BEGIN
    INSERT INTO "SysModuleEdit"
    ("SysModuleEntityId", "TypeColumnValue", "UseModuleDetails", "CardSchemaUId", "ActionKindCap
    VALUES
    (v_sysModuleEntityId, v_landingTypeId, true, v_cardSchemaUId, v_actionCaption, v_editPageNam
```

END;

```
$$ LANGUAGE plpgsql;
```

Attention. 41AE7D8D-BEC3-41DF-A6F0-2AB0D08B3967 — non-editable identifier of the *GeneratedWebForm* entity schema in the **[dbo.SysSchema]** DB table. The ID is relevant for any case featuring adding a landing page for a custom entity.

Clear the browser cache after running the script. As a result, you will be able to add the new **[Contact form]** landing type in the **[Landing pages and web forms]** section. However, the script that must be added to the source code of the landing page will not be immediately available on the landing record page (Fig. 6).

Landing pages and web forms (III) (III) \bigcirc +< Creatio > What can I do for you? VIEW -NEW - ACTIONS -Marketing -Event participant registration form 2 Contacts Order registration form Leads Type rsion Lead 6/3/2015 12:30 PM 0 Lead registration form Campaigns \sim Case registration form The page gives access to the demo version of Active ing bpm'online marketing Contact form @ Email Type Leads Bpm'online marketing – free trial 12/2/2015 8:28 AM Lead 0 Landing pages Website URL Status Description ø and web forms http://www.terrasoft.ru/demo/ru-marketing-trial/redirect Form under construction Inactive Events ġ. Leads Accounts Dashboar

Fig. 5. The record list of the [Landing pages and web forms] section

Fig. 6. Landing edit page

≡	• + <	New record	What can I do for you? > Creatio
Marke	eting 👻	SAVE CANCEL ACTIONS -	÷ e
:	Contacts	Name* < LA	NDING SETUP ATTACHMENTS AND NOTES DEFAULT VALUES HISTORY FEED >
	Campaigns	Website domains*	IEP 1. Set up a redirection URL (optional)
@	Email	Description	Redirection URL
Ć	Landing pages and web forms	Status*	IEP 2. Copy the code and configure and map the fields U
ę	Events	Active	
	Leads	PREQUENTLY ASKED QUESTIONS	
	Accounts	Typical setup errors How to set up the transfer of lookups and special fields	
al	Dashboards	How to set up the transfer of custom fields	TEP 3. Insert the customized code into the landing page source code. Set up a function to create
	Marketing plans	How to setup form prepopulation the Place of	<pre>ie object on form submit he edited code on your landing page. Insert the following code into the <form> tag of your form. ibmit="createObject(); return false"</form></pre>

4. Update the scripts for the web form record page

The value of the variable contains an escaped HTML string with *<script>* tags and other information for setting up web form field clusters – the columns for the created entity. This value must be localizable. To do so, execute the following SQL script:

```
-- Landing edit page schema name
DECLARE @editPageName nvarchar(250) = N'UsrContactGeneratedWebFormPage'; -- declare the name of
-- region Scripts' structure
DECLARE @sqriptPrefix nvarchar(max) = N'<div style="font-family: "Courier New", monospace; font-
DECLARE @sqriptDelimiter nvarchar(max) = N'<br>
DECLARE @sqriptSuffix nvarchar(max) = N'<br> },<br>
                                                         landingId: ##landingId##,<br>
                                                                                           servi
-- endregion
-- region Scripts' variables
DECLARE @sqriptNameColumn nvarchar(max); -- declare column variables to map to the landing
DECLARE @sqriptEmailColumn nvarchar(max);
DECLARE @scriptResult nvarchar(max);
-- endregion
-- Adding entity columns.
SET @sqriptNameColumn = N'"Name": "css-selector", // Name of a contact';
SET @sqriptEmailColumn = N'"Email": "css-selector", // Email';
-- Concat result scripts.
SET @scriptResult = @sqriptPrefix + @sqriptNameColumn + @sqriptDelimiter + @sqriptEmailColumn +
-- Set new localizable scripts value for resource with name like '%ScriptTemplate'
UPDATE SysLocalizableValue
SET [Value] = @scriptResult
WHERE SysSchemaId = (SELECT TOP 1 Id FROM SysSchema WHERE [Name] = @editPageName)
and [Key] like '%ScriptTemplate.Value'
```

In the *Adding entity columns* block, add the names of the entity columns to be filled with the values from the web form.

Attention. Replace the double quote (") and space () characters with the *"*; and * *; HTML character entity references.

Attention. Add the (*@scriptVariableNameColumn*) variable and <u>concatenate</u> it to *scriptResult* for adding a field.

If the values of other fields (except for *Name* and *Email*) are required after completing the setup, re-run the script from this paragraph after registering all of the required columns, including the existing ones, in the *Adding entity columns* block. When the script is re-run, the settings created earlier are updated.

After the script execution completes, open the schema created in the configuration and re-save it to re-save the resources as well. As a result, when selecting **[Contact form]** in the **[Landing pages and web forms]** section, Creatio will display the landing edit page (Fig. 6) combined with the script to copy to the landing page source code.

Fig. 7. Landing edit page



The script contains the config configuration object, which has the following properties defined:

- *fields* contains the *Name* and *Email* properties. Their values must match the selectors of the *id* attributes of the corresponding field of the web form.
- landingId the landing page ID in the database.
- serviceUrl the URL of the service to which the web form data will be sent.
- onSuccess the handler function to process a successful contact creation. Optional property.
- onError the handler function to process a contact creation error. Optional property.

The configuration to be formed is displayed below.

```
var config = {
   fields: {
        "Name": "css-selector", // Contact name
        "Email": "css-selector", // Email name
   },
   landingId: "b73790ab-acb1-4806-baea-4342a1f3b2a8",
   serviceUrl: "http://localhost:85/0/ServiceModel/GeneratedObjectWebFormService.svc/SaveWebFor
   redirectUrl: ""
};
```

5. Create and configure a landing page in the [Landing pages and web forms] section

To do this, go the [Landing pages and web forms] section and click [Contact form].

In the created record, specify (Fig. 8):

- [Name] "Contact"
- [Website domains] "http://localhost:85/Landing/LandingPage.aspx"
- [Status] "Active".

Fig. 8. Landing edit page



Save the page to apply the changes.

6. Deploy and set up a landing page with a web form

Create a landing page with a web form using HTML markup in any text editor. Learn more about creating a landing page and adding the landing script in the "<u>How to connect your website landing page to Creatio</u>" article.

To register contact data sent via the web form in Creatio, add the following fields (*<input>* HTML element) to the source code of the landing page:

- Contact name.
- Contact email.

Specify the name and id attributes for each field.

To create a new **[Contact]** object when sending web form data to Creatio, add the JavaScript code to the landing page. Copy the source code from the **[STEP 2. Copy the code and configure and map the fields]** field on the landing record page (fig 8.).

The config object is passed as an argument of the createObject() function, which is executed upon submitting

the web form.

Ensure that the *createObject()* function is called upon submitting the web form. To do this, add the *onSubmit="createObject(); return false"* attribute to the *<form>* element. You can retrieve the required attribute value from the **[STEP 3. Insert the customized code into the landing page source code. Set up a function to create the object on form submit]** field on the landing edit page (Fig. 8).

The complete source code of the landing page is available below:

```
<!DOCTYPE html>
<html>
<head>
               <meta charset="utf-8"><!--STEP 2--> <!--Copy this part from the STEP 2 field of the landing</pre>
              <script src="https://webtracking-v01.bpmonline.com/JS/track-cookies.js"></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></scrip
              <script src="https://webtracking-v01.bpmonline.com/JS/create-object.js"></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></scrip
              <script>
              /**
              * Replace the "css-selector" placeholders in the code below with the element selectors on yc
              * You can use #id or any other CSS selector that will define the input field explicitly.
              * Example: "Email": "#MyEmailField".
              * If you don"t have a field from the list below placed on your landing, leave the placeholde
              */
              var config = {
                             fields: {
                                              "Name": "#name-field", // Name of a contact
                                             "Email": "#email-field", // Email
                              },
                              landingId: "b73790ab-acb1-4806-baea-4342a1f3b2a8",
                              serviceUrl: "http://localhost:85/0/ServiceModel/GeneratedObjectWebFormService.svc/SaveWe
                              redirectUrl: "",
                              onSuccess: function(response) {
                                             window.alert(response.resultMessage);
                              },
                              onError: function(response) {
                                             window.alert(response.resultMessage);
                              }
              };
               /**
              * The function below creates a object from the submitted data.
              * Bind this function call to the "onSubmit" event of the form or any other elements events.
              * Example: <form class="mainForm" name="landingForm" onSubmit="createObject(); return false"
              */
              function createObject() {
                              landing.createObjectFromLanding(config)
              }
              /**
              * The function below inits landing page using URL parameters.
               */
```

```
function initLanding() {
    landing.initLanding(config)
  }
  jQuery(document).ready(initLanding)
    </script><!--STEP 2--></head>
  <body>
  <h1>Landing web-page</h1>
  <div>
    <h2>Contact form</h2>
    <form method="POST" class="mainForm" name="landingForm" onSubmit="createObject(); return fal
        </form>
  </div>
  </div>
  </div>
  </div>
  </dots</pre>
```

Open the landing page Specify the values for the created contact (Fig. 9):

- [Name] "New User"
- [Email] "new_user@creatio.com".

Fig. 9. Landing page

Landing web-page
Contact form
Name: New User Email: new_user@creatio.com
Submit

Click [Submit] to create the contact.

Attention. The contact from the landing page will only be added if the domain of the landing page is specified in the **[Website domains]** field on the landing record page.

If you place the page on the local server available via the <u>"localhost" reserved domain name</u> (as specified in the landing page setup, Fig. 8), then the script for creating a contact from the landing page will work correctly (Fig. 10).

Fig. 10. /	A message	about	successful	data	addition
------------	-----------	-------	------------	------	----------



As a result, Creatio will create contact with the specified parameters (Fig. 11).

≡ ⊙ + <	Contacts 🔳 📶	What ca	an I do for you?	Creatio ()
Marketing -	NEW CONTACT ACTIONS -			VIEW - 🍄
L Contacts	Filters/folders - 🧷 Tag	lob title	Business phone	
Campaigns	Andrew Baker (sample) Account Accom (sample)	Specialist Email a.baker@ac.com	+1 617 440 2031 Mobile phone +1 617 221 5187	
@ Email	Email Supervisor			
Landing pages and web forms	New User	Email new_user@creatio.com		2
P Events	Supervisor			0
Leads	Our company SysPortalConnection			
Ha Accounts	Syst of the connection			

Fig. 11. Automatically created contact

Implement a handler to create an entity using a web form

Advanced

The contact entity contains the CustomRequiredTextColumn required text column. When an event participant (EventTarget) is created via a web form, Creatio searches for the corresponding contact. By default, if Creatio cannot find the contact, a new contact is created. Saving the contact leads to an error since the CustomRequiredTextColumn required field is not populated. To ensure the contact is **saved successfully**, implement a custom handler and call it before an event participant is created.

Example. Implement a custom handler that runs before an event participant is created.

Before you implement the example, set up a web form that creates a custom object. Add a CustomRequiredTextColumn required custom field to the web form. To do this, follow the instructions in a separate article: <u>Set up web form for a custom object</u>.

1. Implement a custom handler

- 1. <u>Go to the [Configuration] section</u> and select a custom <u>package</u> to add the schema.
- 2. Click [Add] \rightarrow [Source code] on the section list toolbar.



- 3. Go to the Schema Designer and fill out the schema properties:
 - Set [Code] to "UsrCustomWebFormEventTargetPreProcessHandler".
 - Set [*Title*] to "CustomWebFormEventTargetPreProcessHandler".

Source code	\times
Code *	
UsrCustomWebFormEventTargetPreProcessHandler	
Title *	
CustomWebFormEventTargetPreProcessHandler	ΧA
Package sdkCustomHandlerPackage	
Description	Ī. Ī
CANCEL	PPLY

Click [Apply] to apply the properties.

4. Implement a custom handler that runs before an event participant is created.

- a. Add a Terrasoft.Configuration namespace in the Schema Designer.
- b. Add namespaces whose data types to utilize in the class using the using directive.
- c. Add a class name that matches the schema name (the [Code] property).
- d. Specify the WebFormEventTargetPreProcessHandler class as a parent class.

View the source code of the UsrCustomWebFormEventTargetPreProcessHandler schema of the [Source code] type below.

UsrCustomWebFormEventTargetPreProcessHandler

```
namespace Terrasoft.Configuration
{
   using System;
   using System.Linq;
   using Core.Entities;
   using Core;
   using GeneratedWebFormService;
   #region Class: UsrCustomWebFormEventTargetPreProcessHandler
   /// <summary>
   /// Call the custom handler before the event participant is saved.
   /// </summary>
   /// <seealso cref="Terrasoft.Configuration.IGeneratedWebFormPreProcessHandler" />
   public class CustomWebFormEventTargetPreProcessHandler: WebFormEventTargetPreProcessHandl
   {
        #region Properties: Private
        private UserConnection _ userConnection { get; set; }
        private FormData _ formData { get; set; }
```

```
#endregion
#region Methods: Private
private string GetCustomRequiredColumnValue(string customColumnName) {
   var customFormField = this._formData.formFieldsData
        .FirstOrDefault(x => x.name == customColumnName);
   if (customFormField == null) {
        throw new Exception($"There is no required form field {customColumnName}");
   }
   if (string.IsNullOrEmpty(customFormField?.value)) {
        throw new Exception($"Required value is empty for field {customColumnName}");
   }
   return customFormField.value;
}
#endregion
#region Methods: Protected
/// <summary>
/// Create a contact entity whose custom required text column is populated with the f
/// </summary>
/// <param name="contactId">The unique contact ID.</param>
/// <param name="contactNameField">The required contact name field of the form.</para
protected override void CreateContactEntity(Guid contactId, FormFieldsData contactNam
    EntitySchema contactSchema = userConnection.EntitySchemaManager.GetInstanceByNam
    Entity contact = contactSchema.CreateEntity(_userConnection);
    contact.SetDefColumnValues();
    contact.SetColumnValue("Id", contactId);
    contact.SetColumnValue("Name", contactNameField.value);
   // Set the value of the custom required column.
   var customRequiredColumnName = nameof(Contact.CustomRequiredTextColumn);
   var customRequiredColumnValue = GetCustomRequiredColumnValue(customRequiredColumn
    contact.SetColumnValue(customRequiredColumnName, customRequiredColumnValue);
   contact.Save(false);
}
#endregion
#region Methods: Public
/// <inheritdoc/>
/// Overload the inherited method so that it initiates the <see cref="UserConnection"
public new FormData Execute(UserConnection userConnection, FormData formData,
        IWebFormImportParamsGenerator paramsGenerator) {
   _userConnection = userConnection;
   _formData = formData;
    return base.Execute(userConnection, formData, paramsGenerator);
}
#endregion
```

```
}
#endregion
}
```

5. Click [Save] then [Publish] on the Designer's toolbar.

2. Register a custom handler in the database

To implement the custom handler, register it in the [WebFormProcessHandlers] database table.

You can register the custom handler in the database in several ways:

• using a lookup

To register the custom handler in the database **using a lookup**:

- Click ^{\$\$} to open the System Designer.
- Go to the [System setup] block \rightarrow [Lookups].
- Add a new handler record to the [*Web form process handlers*] entity lookup. By default, this lookup is absent from the index of Creatio lookups. To add the [*Web form process handlers*] lookup to Creatio, create a lookup and select the [*Web form process handlers*] object as the lookup object.
- Fill out the lookup fields:
 - Set [Entity name] to "EventTarget".
 - Set [*FullClassName*] to "Terrasoft.Configuration.CustomWebFormEventTargetPreProcessHandler, Terrasoft.Configuration".
 - Select the [*Is active*] checkbox.
- using an SQL query

To register the custom handler in the database **using an SQL query**, execute the following SQL query.

```
SQL query
```

```
INSERT INTO WebFormProcessHandlers (Id, EntityName, FullClassName, IsActive)
VALUES (NEWID(), N'EventTarget', 'Terrasoft.Configuration.CustomWebFormEventTargetPreProc
```

Since the schema inherits from the out-of-the-box handler and the custom schema calls the base logic, you must disable the out-of-the-box handler.

You can disable the out-of-the-box handler in the following **ways**:

• using a lookup

To disable the out-of-the-box handler using a lookup:

- Click 🏁 to open the System Designer.
- Go to the [System setup] block \rightarrow [Lookups].
- Open the lookup and clear the [*Is active*] checkbox for the [*EventTarget*] entity that has the "Terrasoft.Configuration.CustomWebFormEventTargetPreProcessHandler, Terrasoft.Configuration"

value in the [FullClassName] field.

• using an SQL query

To disable the out-of-the-box handler **using an SQL query**, execute the following SQL query.

SQL query

```
UPDATE WebFormProcessHandlers
SET IsActive = 0
WHERE FullClassName = 'Terrasoft.Configuration.WebFormEventTargetPreProcessHandler, Terrasoft
```

The outcome of the example

To view the outcome of the example, restart the application pool.

As a result, Creatio will add a new contact when a form is submitted with required fields populated, including the CustomRequiredTextColumn field.

Web-to-Case

Advanced

Web-to-Case functionality implements the ability to create cases in the Creatio by filling the required form fields embedded in a third-party site - landing.

The ProductCore package depends on the WebForms package, that contains Web-to-Case functionality. This means that landings can be used in all products. Pre-configured base functionality is implemented in the service enterprise, customer center, marketing products and all bundles that these products are part of.

More information about landings can be found in the [<u>Landings</u>] section articles of the corresponding products (such as Marketing Creatio).

Web-to-Case configuration can be done in the system interface. To implement generated JavaScript to a thirdparty site, you need the basic Web development skills.

The Web-to-Case base functionality allows to configure the following features without programming (using minor improvements on a third-party site):

- The form interface and styles.
- List of the additionally passed fields.
- List of default values for the fields that are not displayed in the form.
- The list of domains from which the case registration for each landing will be possible.
- The address to which the user will be redirected after submitting the form.
- JavaScript event handlers of successful/unsuccessful case registration.
- Additional landings, that can be configured in different way. That makes it possible to distinguish cases created from different sites.

You can modify the project to set up a preliminary handler of case registration through the Web-to-Case with the

data validation, correction, creation of related entities and etc. The automatic creation of contact for the registered case is configured in the Creatio base configuration in the handler of case registration through the Web form.

The logic of the automatic filling of case fields.

In the process of case registration through the Web form, the following fields are recommended for filling: [*Name*], [*Email*], [*Phone*], [*Case subject*]. The [*Case subject*] value will be passed to the new case.

The Creatio will identify the contact by [*Name*], [*Email*] and [*Phone*] fields. The search is performed in a following way:

- 1. If contact fields matches the [Name], [Email] and [Phone] fields from the filled form, they will be added to the created case.
- 2. If contact fields matches only the [Name] and [Email] fields from the filled form, they will be added to the created case.
- 3. If contact fields matches only the [Email] field from the filled form, it will be added to the created case.
- 4. Otherwise, a new contact is created and the [Name], [Email] and [Phone] fields will be filled in. The created contact is added to the registered case.

If more than one contact are found, then the first contact will be used as contact of the case. Also the case registration date (Registeredon column) will be automatically filled with the current date and time.

Recommendations for the execution of project solutions

If you need to customize the Web-to-Case, use its base functionality as an example.

To execute the project solution:

- 1. Create a page schema that is inherited from the CaseGeneratedWebFormPageV2. The page should not be a replacement page.
- 2. Add a record of the new type of landing to the LandingType table and localization to the SysLandingTypeLcz table.
- 3. Register the typed page created in the first step (the value of the type is new).
- 4. If you need preliminary processing of the form data before saving the record in the database, you need to create a class that implements the IGeneratedWebFormPreProcessHandler interface. This class is a preliminary handler for case registration. Implement the Execute() method. This method is the entry point to the handler. Additional actions are implemented in this method. You can take the WebFormCasePreProcessHandler schema as an example.
- 5. If you need to perform actions after saving the record in the database, you need to create a class that implements the IGeneratedWebFormPreProcessHandler interface. This class is a preliminary handler for case registration. Implement the Execute() method and perform necessary actions.
- 6. If you created the registration handlers of the case, register them in the WebFormProcessHandlers table. Use an existing record as an example of registration.
- Edit the script template that forms the configuration JavaScript object of the landing, and place it in the ScriptTemplate localized string of the created page. Specify the similar script for all localizations used. You can

find an example of the script in the CaseGeneratedWebFormPageV2 schema.

8. Bind all created data to the package.

Create Web-to-Case landing pages

Advanced

Steps to create Web-to-Case landing

1. Create new landing record in the Creatio

To create a new landing record, execute the [*Add*] action in the [*Landing pages and web forms*] section. Fill in the following fields on the opened page (Fig. 1):

- [Name] landing page name in Creatio.
- [Website domains] your landing page URL.
- [Status] landing status.
- [Redirection URL] the URL that is opened after the landing page form is completed.

Fig. 1 Landing edit page

$\equiv \odot + <$	 MyLanding SAVE CANCEL ACTIONS - Name* MyLanding Website domains* localhost Description Status* Active Active What can I do for you? > Crection Status* Crection Crection	
Service –	SAVE CANCEL ACTIONS -	
≟ ≧ Queues	Name* MyLanding	< LANDING SETUP ATTACHMENTS AND NOTES DEFAULT >
≟ Queues settings	Website domains*	STEP 1. Set up a redirection URL (optional)
Landing pages and web forms	Description	
Feed	Status* Active	STEP 2. Copy the code and configure and map the script src="http://ajax.googleapis.com/ajax/libs/j script src="https://webtracking-v01.bpmonline.com/ script src="https://webtracking-v01.bpmonline.com/
Dashboards		<script></script>

Attention.

When creating a case, you can receive only four fields ("Subject, "Email", "Name" and "Phone") from the landing page. Therefore, you must set the default values for the new landing record(Fig. 2).

Fig. 2 Values by default

MyLanding			What can I do for you?	>	Creatio	
CLOSE ACTIONS -						
Name*	<	LANDING SETUP	ATTACHMENTS AND NOTES	DEFAULT VALUES	FEED >	
MyLanding		Default values fo	or fields 🕂 🗄			
Website domains*		E. LL	· · · · · · · · · · · · · · · · · · ·			
localnost		Field	Value			· C
Description		Account	Axiom			
		Category	Incider	it		
Status*						
Active						
	STIONS					

Save the page to apply the changes.

2. Create a landing page

To create landing page, you need to create a standard HTML page containing a Web form in any text editor using HTML markup.

To register the data sent via the web-form, add four fields to the form (using <input> element) that define the case:

- Case subject
- Contact email
- Contact name
- Contact phone

Specify the name and id attributes for each field.

To send a form data to Creatio when creating a new [*Case*] object, you need to add a JavaScript script to the HTML page. Copy the script source code from the [*STEP 2. Copy the code and configure and map the fields*] field of the landing edit page (Fig. 1).

Note.

The script must be copied from the already saved landing.

The script contains the config configuration object that has following properties:

• fields - contains the object with "Subject, "Email", "Name" and "Phone" values that must match the id
attribute selectors of the corresponding web form fields.

- landingId contains the landing Id in the database.
- serviceUrl contains URL of the service to which the form data will be sent.
- redirectUr1 contains redirection URL specified in the [Redirection URL] field of the landing.
- onSuccess contains a function that handles the successful creation of a case. Optional property.
- **onError** contains a function that handles the error of the case creation. Optional property.

The config configuration object is passed as an argument of the createObject() function that must be executed when the form is submitted.

To call the createObject() function when sending a form, add the onSubmit = "createObject(); return false" attribute to the

tag of the HTML page of the Landing page (see STEP 3, Fig. 1).

An example of the complete landing page source code for the case registration:

```
<!DOCTYPE html>
<html>
<head>
          <meta charset="UTF-8">
          <!--STEP 2-->
          <!--This part needs to be copied from the STEP 2 field of the lending edit page-->
          <script src="http://ajax.googleapis.com/ajax/libs/jquery/1.11.2/jquery.min.js"></script>
          <script src="https://webtracking-v01.creatio.com/JS/track-cookies.js"></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script>
          <script src="https://webtracking-v01.creatio.com/JS/create-object.js"></script>
          <script>
                     /**
                        * Replace the "css-selector" placeholders in the code below with the element selectors
                       * You can use #id or any other CSS selector that will define the input field explicitly
                       * Example: "Email": "#MyEmailField".
                       * If you don't have a field from the list below placed on your landing, leave the place
                       */
                     var config = {
                               fields: {
                                           "Subject": "#subject-field", // Case subject
                                          "Email": "#email-field", // Visitor's email
                                          "Name": "#name-field", // Visitor's name code
                                          "Phone": "#phone-field", // Visitor's phone number
                               },
                               landingId: "8ab71187-0428-4372-b81c-fd05b141a2e7",
                               serviceUrl: "http://localhost/creatioservice710/0/ServiceModel/GeneratedObjectWebFor
                               redirectUrl: "http://creatio.com",
                               onSuccess: function(response) {
                                          window.alert(response.resultMessage);
                               },
                               onError: function(response) {
```

```
window.alert(response.resultMessage);
            }
        };
        /**
         * The function below creates a object from the submitted data.
         * Bind this function call to the "onSubmit" event of the form or any other elements ev\epsilon
         * Example: <form class="mainForm" name="landingForm" onSubmit="createObject(); return f
         */
        function createObject() {
            landing.createObjectFromLanding(config)
        }
    </script>
    <!--STEP 2-->
</head>
<body>
<h1>Landing web-page</h1>
<div>
    <h2>Case form</h2>
    <form class="mainForm" name="landingForm" onSubmit="createObject(); return false">
        Subject:<br>
        <input type="text" name="subject" id="subject-field"><br>
        Email:<br>
        <input type="text" name="Email" id="email-field"><br>
        Name:<br>
        <input type="text" name="Name" id="name-field"><br>
        Phone:<br>
        <input type="text" name="Phone" id="phone-field"><br><br>
        <input type="submit" value="Submit">
        </font>
   </form>
</div>
</body>
</html>
```

3. Add the page to the website.

A case from the landing page will be added to the Creatio only if the page is hosted on the site whose name is listed in the [*Website domains*] field of the landing page record in Creatio. If you open the page in the browser locally, then an empty message will be displayed when the case is created.

Fig. 3 Empty message

Apps 🕨		×	nunity
	This page says:		
Tand	null		
Land			
		ОК	
Case fo			
Subject:			
Test Case			
Email:			
some@mail.	com		
Name:			
Test name			
Phone:			
123/66780			

Note.

The output of an empty message is configured in the <code>onError()</code> method of the configuration object.

If you place the page on the local server of the computer that serves as the <u>reserved domain name localhost</u> (as specified in the landing setting , Fig. 1), then the script that adds the address from the web page of the landing will work correctly (Fig. 4)

Fig. 4 The correct adding of data

Land Data successfully saved OK Case fo Subject: Test Case Email: some@mail.com Name: Test name Phone: 123456789 Submit	Apps Iccalhost says:	x	ਸ : nunity »
Саse fo	Land		
Subject: Test Case Email: some@mail.com Name: Test name Phone: 123456789 Submit	Case fo	ОК	
Test Case Email: some@mail.com Name: Test name Phone: 123456789 Submit	Subject:		
Email: some@mail.com Name: Test name Phone: 123456789 Submit	Test Case		
some@mail.com Name: Test name Phone: 123456789 Submit	Email:		
Name: Test name Phone: 123456789 Submit	some@mail.com		
Test name Phone: 123456789 Submit	Name:		
Phone: 123456789 Submit	Test name		
123456789 Submit	Phone:		
Submit	123456789		
	Submit		

As a result, a case with specified parameters will be automatically created.

Fig. 5 Automatically created case

≡	• + <	Case #SR00000008: Test (Case What can I do for you? > Creatio					
Servio	ie 👻	SAVE CANCEL ACTIONS -	TAKE IT 🛛 🔹 VIEW 👻	¢ 0				
:	Contacts	Resolution time	New					
	Accounts	Priority	NEXT STEPS (0) 🐛 💌 🖡 🖡 🌐 🔨					
	Cases	↑ Medium Contact	< PROCESSING CLOSURE AND FEEDBACK CASE INFORMATION ATTACHMENTS >					
F	Activities	User Test Account History						
- 7-	Services	Axiom SLA	John Best to: test@gmail.com 5/5/2017 at 10:58 AM	J				
炅	Service agreements	4 — Axiom Category	Hello, User Test!	•				
7-	Configuration items	Incident Service	According to your request, we have registered the Incident #SR00000008 "Test Case".					
P	Problems	Configuration item	Description: Test Case. Created on: 5/5/2017 7:58:14 AM;					
-	Changes	Assignees group	Read more Draft					