



eZ Recommendation Extension Manual

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About eZ Recommendation extension

The eZ Recommendation extension enables the administration of the eZ Recommendation service and simplifies the integration into existing eZ Publish platforms.

The main value of the extension is to automatically create tracking events from user activities and export relevant content to the eZ Recommendation service. It feeds the cloud-based recommender engine with these data and retrieves on-demand recommendations to be rendered in the eZ Publish frontend.

It contains the following functions:

1. Accesses the YOOCHOOSE cloud-service APIs to retrieve recommendations on demand from the recommendation service
2. Supports publisher as well as online shop recommendations
3. Creates a workflow to export content to recommendation
 - a. By default this workflow is triggered after publishing objects marked as recommendable
4. Provides a script to trigger a full export of all existing content marked as recommendable
5. Defines a new Recommendation datatype with a recommend flag
6. Creates tracking events from user activities on objects that are marked as recommendable
7. Creates a workflow for purchase events when products are bought in the web shop
8. Creates a workflow for delete content when a node is deleted
9. Creates a recommendation entry in the support panel to show *statistics*

Installation

Requirements

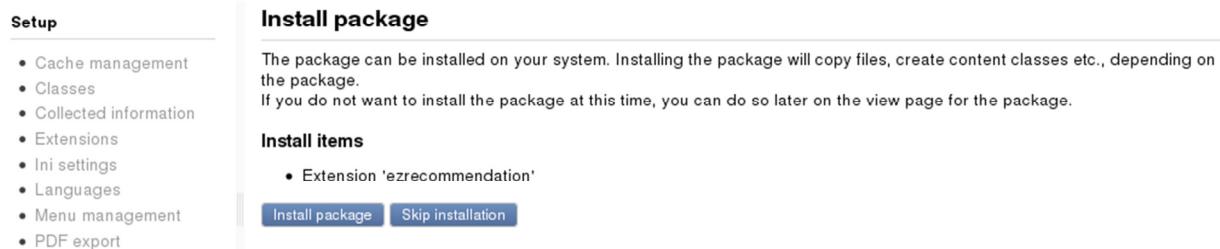
The extension has been tested with eZ Publish 4.3, 4.4, 4.5 and 4.6. It has been certified and is expected to work with 4.6 and also 4.7.

Installation procedure

1. Import and install package

The eZ Recommendation extension comes as a standard extension install package. Download the file and install the package in the 'Setup->Packages->Install'.

You are here: Packages / Install



Setup

- Cache management
- Classes
- Collected information
- Extensions
- Ini settings
- Languages
- Menu management
- PDF export

Install package

The package can be installed on your system. Installing the package will copy files, create content classes etc., depending on the package.
If you do not want to install the package at this time, you can do so later on the view page for the package.

Install items

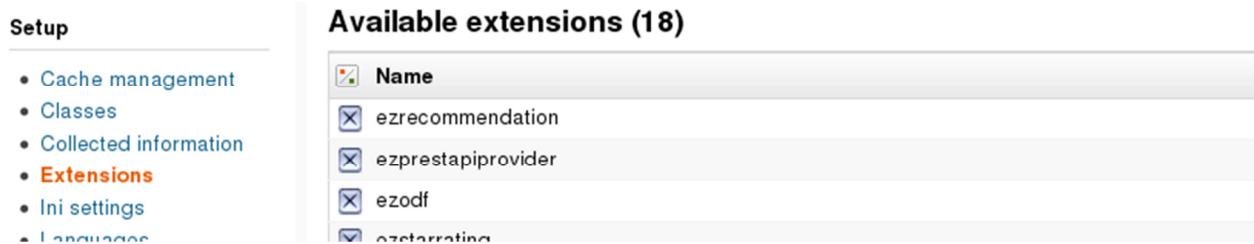
- Extension 'ezrecommendation'

Install package **Skip installation**

2. Activate ezrecommendation

In the administrator interface, click 'setup' tab->'extensions' menu,

You are here: Extension configuration



Setup

- Cache management
- Classes
- Collected information
- Extensions
- Ini settings
- Languages

Available extensions (18)

Name
<input checked="" type="checkbox"/> ezrecommendation
<input checked="" type="checkbox"/> ezprestashopprovider
<input checked="" type="checkbox"/> ezodf
<input checked="" type="checkbox"/> ezstaging

or in *settings/override/site.ini.append.php*, activate the extension in the 'ExtensionSettings' section:

```
[ExtensionSettings]
ActiveExtensions []=ezrecommendation
```

3. Regenerate autoloads

In the administrator interface, click 'setup' tab->'extensions' menu, select 'ezrecommendation', Click 'Regenerate autoload arrays for extensions'.

or in eZ Publish installation folder, execute:

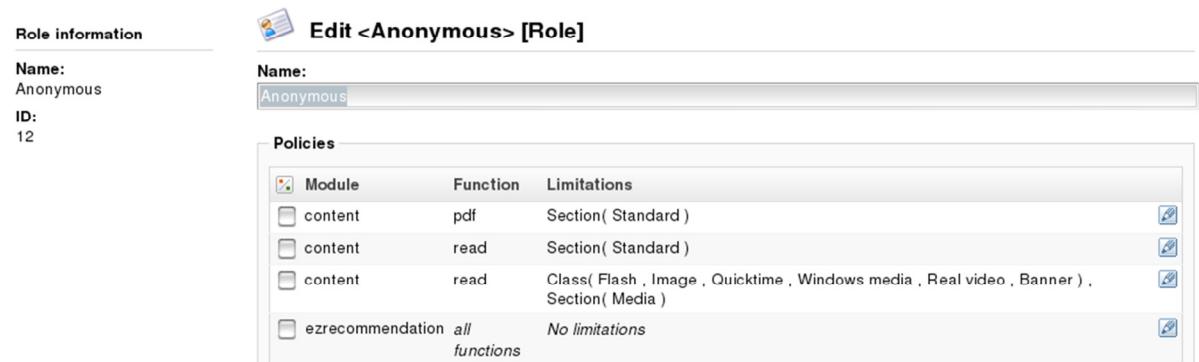
```
php bin/php/ezpgenerateautoloads.php -e
```

4. Grant access for the ezrecommendation module

In the administrator interface, click 'User accounts' -> 'Roles and policies' then select 'Anonymous'. Click on *role* and edit the *policies*.

Add new policy. Choose the module 'ezrecommendation' and the function 'request', and then grant access to all functions.

You are here: Role / Anonymous



Module	Function	Limitations
content	pdf	Section(Standard)
content	read	Section(Standard)
content	read	Class(Flash , Image , Quicktime , Windows media , Real video , Banner) , Section(Media)
ezrecommendation	all functions	No limitations

Do the same for the role 'Members' if you have a login area on your site and for all other user groups using recommendations.

5. Clear cache

Clear INI and template caches. (in the administrator interface use 'Setup' tab or commandline).

Settings in ezrecommendation.ini

[SolutionSettings]

The user has to specify here the type of recommendations he wants to use (options are 'shop' or 'publisher').

[ShopPriceCurrency]

The default currency code of the web shop (e.g. EUR or USD)

[ClientIdSettings]

Customer ID and License Key you received for your eZ instance from YOOCHOOSE (see chapter 'Configuration Portal (<https://admin.yoochoose.net>)').

[RequestSettings]

If enabled, the answer from the eZ recommendation service will be logged in debug.log.

The following settings should only be modified in consultation with eZ Systems or YOOCHOOSE.

[URLSettings]

Settings for the YOOCHOOSE Server URLs.

[ParameterMapSettings]

Maps the ez attribute names to the ezrecommendation parameters.

[SolutionMapSettings]

Maps the type of the site to ezrecommendation product IDs of YOOCHOOSE.

[ExtensionSettings]

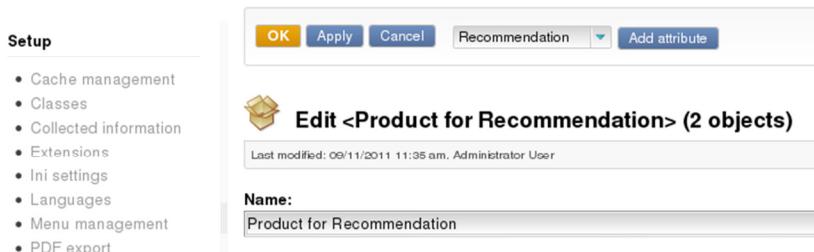
Defines the response form. Json is supported until now.

Class definition and datatype

New datatype for recommendation

A new datatype has been created for the recommendation service. When you install the eZ Recommendation extension the datatype *Recommendation* is available. You can see it when you edit an existing/new class in the backend of your eZ Publish installation:

You are here: Class groups / Content / Product for Recommendation



Setup

- Cache management
- Classes
- Collected information
- Extensions
- Ini settings
- Languages
- Menu management
- PDF export

Edit <Product for Recommendation> (2 objects)

Last modified: 09/11/2011 11:38 am, Administrator User

Name:
Product for Recommendation

You can edit any existing class and add a *Recommendation* entry. This enables this class to be tracked and recommended by the eZ recommender service in the future.

We provide you with new classes already including the *Recommendation* datatype for demonstration purposes. The new classes are copied from *article (main-page)*, *product* and *image* except that they have additional *Recommendation* data entries. A package with these classes is located in the extensions doc folder. We created one more class named *folder for recommendation*. This class is a copy of the folder class without changes. This shall be used to create dedicated templates overrides for this class, as described later.

You can see the new recommendation classes the available classes list.

Recently modified classes

Name	ID	Identifier	Modifier	Modified	Objects
Product for recommendation	51	product_for_recommendation	Administrator User	02/10/2011 2:23 pm	6
Article for recommendation	48	article_for_recommendation	Administrator User	01/10/2011 4:41 pm	9
Folder for recommendation	52	folder_for_recommendation	Administrator User	30/09/2011 6:27 pm	3
Image for recommendation	49	image_for_recommendation	Administrator User	30/09/2011 6:18 pm	7
Article	16	article	Administrator User	29/09/2011 7:15 pm	29
Article (main-page)	17	article_mainpage	Administrator User	29/09/2011 7:15 pm	0
Article (sub-page)	18	article_subpage	Administrator User	29/09/2011 7:15 pm	0

Now edit e.g. *Article for recommendation* and scroll down until you find the recommendation entry in this class.

Comment: The fields in the recommendation entry vary according to the solution you selected in the ezyochoose.ini settings (solution=shop or

solution=publisher, see below). The screenshot below was taken with a *publisher* account.

13. Recommendable [Recommendation] (id:359)

Name:
Recommendable

Identifier:
recommendable

Description:
Recommendable with eZ Recommendation service

Required Searchable Information collector Disable translation Default (Content) Category
 Recommend Export content (for recommendation)

Item type (for recommendation):
2

Time to trigger consumption event:
60 sec.

Export attributes mapping:

Publisher solution (required)

Valid from Valid from
Valid to Valid to

Optional attributes for content export

There are several entries defining how the extension operates, tracks user activities and delivers content information to the eZ Recommender engine. The lower part of the *Recommendation* entry (see below) defines which information about a content object is transmitted to the eZ Recommender engine and how the data is mapped between the eZ Publish class and the datatypes that can be interpreted by the eZ Recommendation service.

'Recommend' check box

It is strongly recommended to check this box in the class definition and make *Recommend* the default for any object in this class. You can later change this flag for each individual object if you do not want to include a specific node into the recommendation service.

Check this box to enable recommendations for all objects of the class as a default. After an object is enabled for recommendation each user activity on this object creates a tracking event. This means that you can only see tracking events after you included recommendation into at least one class and created objects of this class.

If you want to test this you now either create objects of the class *Article for recommendation* or include the *recommendation* datatype into an existing class of yours e.g. *article (main-page)*.

'Export content (for recommendation)' check box

It is strongly recommended to check this box in the class definition and make 'Export content' the default for any object in this class.

Check this box to enable the transmission of content information like 'title', 'author', 'publish date' to the eZ Recommendation service. Each time you publish a recommendable object, an eZ Publish workflow will be triggered (see 'Export content after publishing') checking whether the export content flag is set. If 'yes' it will export the defined meta-data (below) to the eZ Recommendation service.

Item type (for recommendation) selection

The *Item type (for recommendation)* is similar to a class ID in eZ Publish. It defines a number corresponding to a given *type* of content. If you attribute the number "2" as Item type for recommendation to multiple classes e.g. *article (main-page)* and *article (sub-page)* then both classes are treated as one type by the recommendation service.

When the extension tracks the user activities it will tell the eZ Recommendation service that all articles are type "2" and should be treated in the same way. And when you ask for recommendations of the same type you will get node IDs from both classes as an answer.

We recommend the use of the following list to choose a suitable number Item type (for recommendation). But it is not required to strictly follow this list:

Number	Item type
1	Product
2	Article
3	Image
4	Media
5	User generated content

Time to trigger consumption event value

This parameter is relevant when you want to track if a user reads an article, watches a video or studies a picture. A default value of 20 sec is a good starting point to define the typical consumption time of an article.

When a user stays more than 20 sec on the same page the page will send a so-called 'consume'-event with the next click of the user (see 'Consume'-event). There is some analogy to a 'purchase'-event in an online shop regarding the relevance of such an event to the user profile.

Change this value to a value that suits your content class. You may want to change this value to 5 sec for images and 60 sec for videos. Choose 0 sec to disable 'consume'-events completely for a given class.

Content export mapping

We stated earlier that the recommendation service is a cloud-based service. It uses pre-calculated models that are based not only on the user's activities but also on information about the content of your eZ Publish installation.

Each time you publish some content and the content is marked with 'Export content (for recommendation)' in the class definition, the extension sends the defined metadata to the recommender engine in the cloud. With the content export mapping you define which information is sent to the recommender engine/used for future model calculation.

There are 10 content attributes that are extremely valuable for the calculation of recommendations and filtering of the results. You find the keys to these attributes on the left-hand side of the attribute mapping in your class definition. Two of these attributes are mandatory, but exporting more content information may significantly improve the quality of the results.

Example:

When your individual article class has a number of date/time entries like *publish date*, *unpublish date*, *created on*, *validated on* it is important to tell the recommender engine the time window for recommendation of each article (probably between *publish date* and *unpublish date*). In this case you map *publish date* with *Valid from* and *unpublish date* with *Valid to*.

Export attributes mapping:

Publisher solution (required)

Valid from	Valid from
Valid to	Valid to

Optional attributes for content export

Title	
Abstract	Short title
Author	Author
Newsagency	
Vendor	
Geolocation	
Date	
Tags	Tags

On the right-hand side you can choose, from a selection box, which of your class attributes you want to map to these recommendation keys.

You may have additional content information that is not interpreted by default, like the color or size of a product, the category of an article or the resolution of an image. Such information can be useful to create filters on recommendation results prior to presentation.

In the *Advanced* version of the eZ Recommendation service you can make use of the additional information for such filter purposes. The *Recommendation* datatype therefore allows defining *Additional attributes for content export*.

Additional attributes for content export

Check only if not already selected in the attribute mapping

- Title
- Short title
- Author
- Summary
- Body
- Image
- Caption (Image)
- Tags
- Valid from
- Valid to
- Enable comments
- Star rating

The user interface shows all class attributes on the list. Please do not check twice the attributes you have already mapped to other attributes above. This creates more traffic from redundant content export information only.

Implement tracking

Enable 'Click'-events

After installing the ezrecommendation extension, the global pagelayout.tpl is overridden to track events automatically.

If you have customized your global pagelayout.tpl, you can do these changes manually, following the steps below:

The first step is to include the following code in your pagelayout.tpl. The code must be included in the body of the pagelayout.tpl but outside of any caching block. You can place it e.g. right before the </body> tag:

```
{* enable tracking of click events in pagelayout.tpl *}

{include uri='design:content/ezrecommendation_html.tpl'
content=$module_result track=true() }
```

After this step you will see that 'click'-events will be created for any node that is marked as recommendable through the class definition. In our case all content of the classes 'Article for recommendation', 'Product for recommendation' and 'Image for recommendation'.

'Click'-events are created in the moment you click on the link to a recommendable object.

You can verify whether an event has been created by checking the 'debug.log' in the directory '<eZ publish root directory>/var/log'. You will find entries like the following for each tracking event being sent to the eZ recommender engine depending on the event chosen:

```
[ Sep 11 2011 14:17:52 ]
event.yoochoose.net/news/<CustomerID>/click/
131574345055084112/2/110?categorypath=%2F%2F107%2F110
```

If you change from track=true() to track=false() in the above include you will obviously disable tracking for any page.

Create other common events ('owns', 'consume', 'blacklist')

You can create 'click', 'consume' and other common events also manually by including the corresponding function call in selected view templates:

Example:

We copied the full view templates of an article ('/full/article.tpl') into our own design and created an override for the class 'Article for recommendation'. Then we added the following code at the beginning of the .tpl file:

```
{* Article for recommendation - full view *}
```

```

<div {generate_common_event($node, 'click')}>
click here to create CLICK event </div>

<div {generate_common_event($node, 'blacklist')}>
click here to create BLACKLIST event </div>

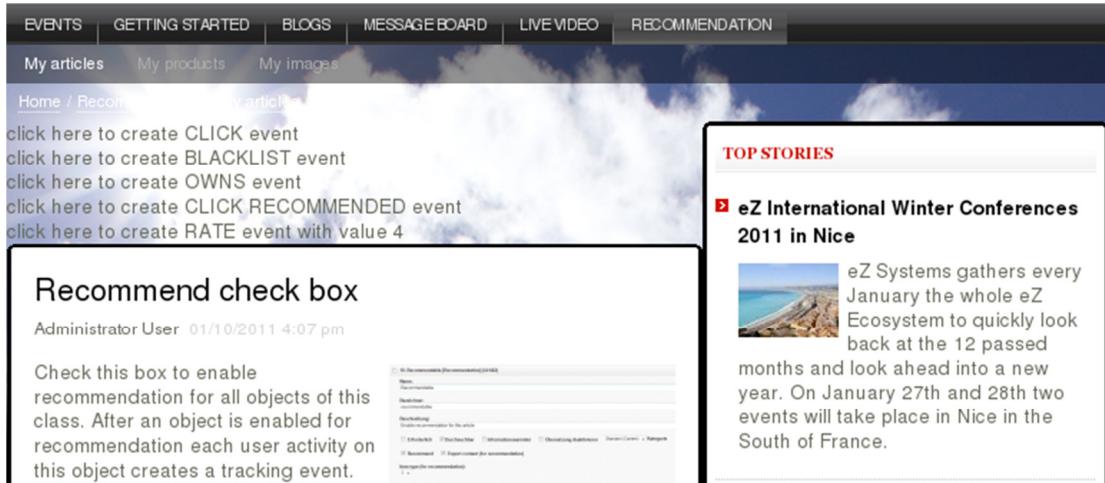
<div {generate_common_event($node, 'owns')}>
click here to create OWNS event </div>

<div {generate_common_event($node, 'clickrecommended')}>
click here to create CLICK RECOMMENDED event </div>

<div {generate_rate_event($node, 4)}>
click here to create RATE event with value 4</div>

```

After clearing caches and visiting the content of the class 'Article for recommendation' in full view you will find a slightly changed view that you can use for temporary testing:



The screenshot shows a navigation bar with links: EVENTS, GETTING STARTED, BLOGS, MESSAGE BOARD, LIVE VIDEO, and RECOMMENDATION. Below the navigation, there are links for My articles, My products, and My images. The main content area has a breadcrumb path: Home / Recommendation / Article. It displays five links for creating events: 'click here to create CLICK event', 'click here to create BLACKLIST event', 'click here to create OWNS event', 'click here to create CLICK RECOMMENDED event', and 'click here to create RATE event with value 4'. To the right, a sidebar titled 'TOP STORIES' features a thumbnail image of a coastal scene and the text: 'eZ International Winter Conferences 2011 in Nice'. The text describes the conferences as gathering the eZ ecosystem every January to look back at the year and look ahead to the new one.

Again you can initiate and test an event type by clicking e.g. on 'BLACKLIST' and check the result in '<eZ publish root directory>/var/log/debug.log':

```

[ Sep 11 2011 15:07:05 ]
event.yoochoose.net/news/<CustomerID>/blacklist
/131574611641487835/1/239?categorypath
=%2F2%2F228%2F241%2F

```

...

'Consume'-event

When you want to be notified about consumption of content (e.g. reading an article for more than 20 seconds, watching a video for more than 60 seconds) you need to generate consume events.

To do this you must include the following code into each page that shall be enabled to trigger such an event, e.g.: an article for recommendation full view template:

```
<div> {generate_consume_event($node)} </div>
```

This will just create a hidden div with some information on it. After this, go to the backend to the *setup* tab and then click on *classes*.

‘Consume’-events are created only when you stay on the page for the pre-defined ‘Time to trigger consumption event’ from the class definition.

Choose the class where you want to configure the *Time to trigger consumption event* attribute and click on edit. Search the recommendation attribute and insert the preferred time in the ‘Time to trigger consumption event’ field.

From now on, every time a user uses more than the time set to trigger value on a site, the ‘consume’-event will be sent to the eZ Recommendation service with the next click.

‘Rate’-event

The ‘rate’- and the ‘purchase’-event need additional parameters to work.

‘Rate’ requires an integer rating value between 0 and 100. An exemplary function call looks like this:

```
< {generate_rate_event($node, 4)}>  
click here to create RATE event </div>
```

In the future we will integrate it with the ‘ezstarrating’ extension. Today you have to trigger such an event manually.

‘Purchase’-event

The ‘purchase’-event is triggered after an order has been checked out. Therefore you need to configure the buy event workflow. Follow the chapter ‘Create purchase event’ to create the workflow and set the triggers.

From now on, every time an order is checked out the Recommendation extension will track each product purchased in this order.

‘Purchase’-events require a volume, price and currency. The price must be the smallest unit of a currency and can only be an integer. An exemplary function call (in case you do not use the above described workflow) looks like this:

```
<div {generate_buy_event($node, 1, 1199, 'EUR')}>  
click here to create BUY event </div>
```

It will send out an event which informs the recommender engine that one item defined by the node id was bought for 1199 cents, which means 11,99 EUR.

'Delete'-event

The information that the object is removed in eZ Publish can be automatically sent to the eZ Recommendation service. If this is done, the content will not be recommended in the future, after deletion.

Therefore you have to define a workflow and a trigger that initiates the workflow. Follow the chapter 'Remove content before delete' to create the workflow and set the triggers.

'Rendered'-event

When you present a recommendation more than e.g. 3 times to a user but he never clicks on it he may not be interested in the recommendation. The Recommendation services 'frequency'-filter allows not showing recommendations more than 3 times to a user.

How often a recommendation was already rendered is counted by 'rendered'-events. If you enable the creation on 'rendered'-events, the eZ Recommendation service is informed about each rendering.

No additional code needs to be integrated for sending rendered events. It only has to be enabled in the get recommendation call (see 'The get recommendation call').

'Transfer user'-event

This is another special event that is automatically transmitted when a user logs in. This helps collecting data from anonymous users that belong to one account of a member in an online shop or portal. Without such an event all information about an anonymous user is lost when he clears his cookies.

'Click recommended'-event

This event is of outmost importance if you want to measure the acceptance of your recommendations. In the statistics we use the ratio of 'Click recommended'-events" divided by the total number of recommendation calls to calculate the so-called conversion rate:

$$\text{conversion rate} = \# \text{ of 'click recommended'-events} / \# \text{ recommendation calls}$$

The 'click recommended' event is sent by default, if a recommended object was clicked.

If you want to customize or use it differently, you can also add it manually. All you need to do is the following:

- 1) When you retrieve recommendations (see chapter 'The get recommendation call') you set the parameter

```
create_clickrecommended_event=true()
```

- 2) The following code must be included into an <a>-tag of the templates that you use to show the recommendations (usually the line-view):

```
{if eq($create_clickrecommended_event, true()) }  
{generate_common_event($node, 'clickrecommended')}{/if}
```

Example (article line view):

```
<div class="content-view-line">  
  
    <div class="class-article float-break">  
  
        <h2><a {if eq($create_clickrecommended_event, true()) }  
        {generate_common_event($node, 'clickrecommended')}{/if}  
        href={$node.url_alias|ezurl}>{$node.data_map.title.content|wash}  
        </a></h2>  
  
        ...  
  
    </div>
```

- 3) In many cases you include an image into the view. In this case you have to inherit the *create_clickrecommended_event* variable and the *node* to the corresponding image.tpl.

Example (article line view):

```
...  
  
    {section show=$node.data_map.image.has_content}  
  
        <div class="attribute-image">  
  
            {attribute_view_gui image_class=articlenthumbnail  
            href=$node.url_alias|ezurl  
            attribute=$node.data_map.image  
            create_clickrecommended_event=  
            $create_clickrecommended_event ycnode=$node}  
  
        </div>  
  
    {/section}  
  
    ...
```

- 4) Finally you have to modify your override of the 'ezimage.tpl' in an <a>-tag similar to step 2) and include the code to generate the 'click recommended'-event. Note that we used the additional variable 'ycnode' to inherit the node.

Example (ezimage override):

```
...
```

```
{if $href} <a
{if eq($create_clickrecommended_event, true())}
{generate_common_event($ycnode, 'clickrecommended')}{/if}
href={$href}
{if and( is_set( $link_class ), $link_class )}
class="{{$link_class}}{/if}
{if and( is_set( $link_id ), $link_id )}
id="{{$link_id}}{/if}
{if $target} target="{{$target}}{/if}
{if and( is_set( $link_title ), $link_title )}
id="{{$link_title|wash}}{/if}>
{/if}

...

```

Content export

The capability of content export for recommendable content has been enabled in the class definition.

To this get into effect we must establish an incremental content export that is triggered with each publishing activity and we must initiate a one-time export of the whole content when the export conditions of a class are changed within the class definition (e.g. you decide to export tags for all *articles for recommendation* and therefore change the class definition).

Incremental content export

Step one is to create a workflow to export content. You can find a detailed description about the implementation of the incremental content export workflow in the chapter 'Incremental content export'.

Initial content export

When you have an eZ Publish installation with many content objects prior to the installation of the eZ Recommendation extension you need to export the content once. This is done once after you add the *Recommendation* datatype to an existing class. New content is automatically exported incrementally as described above.

Before you can start the initial export, go to the 'ezrecommendation.ini' and fill in the field "SiteURL" in the block "BulkExportSettings". There you have to fill in the url of your site. If you use a www-dir, than it should be also entered (e.g. SiteURL=http://example.com/wwwdir and BulkPath=extension/ezrecommendation/design/standard/images/).

The second important thing is to make sure you added the *Recommendation* datatype in every class you want to export to the eZ recommender engine. Otherwise the objects from those classes won't be exported.

In the shop solution you should enter the price in every node you want to be exported. In the publisher solution the mapping of a datetime-field to the 'valid-from' and 'valid-to' attributes is mandatory. Nodes which do not fulfill these specifications, will not be exported.

The initial export is executed in the terminal. Go to your ez root directory and type in:

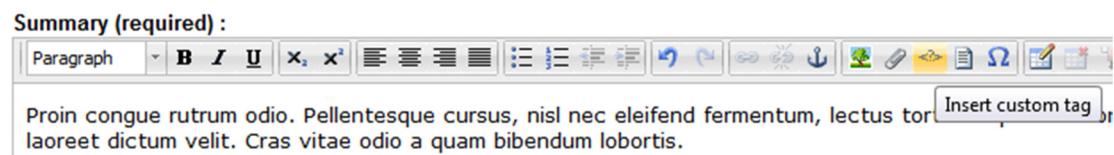
```
php extension/ezrecommendation/bin/initialdataexport.php
```

Observe the output of the script for errors or warnings. If the script finishes successfully open the 'debug.log' and search for the answer of the eZ Recommendation extension. If you get an error, e.g.: a 404 answer, make sure that the folder in which the XML was saved (standard is the image folder in the standard design extension/ezyoochoose/design/standard/images/bulkexport.xml), can be accessed from your browser.

Retrieving recommendations

In order to get recommendations, a custom tag needs to be inserted in an article. This can be done in the editor view of an article by simply adding it in the WYSIWIG Editor.

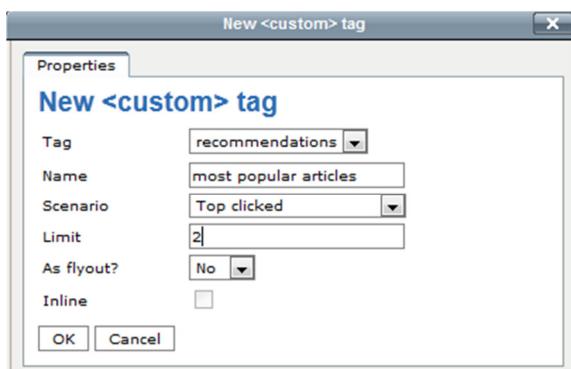
While editing an item click on “insert custom tag”



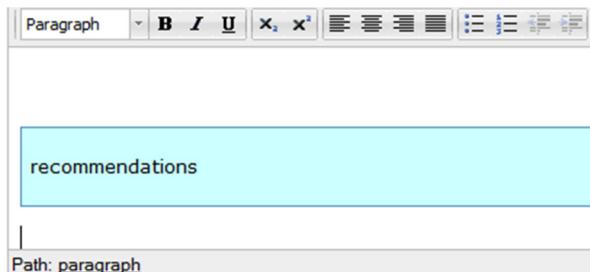
and select “recommendations” from the option-box.



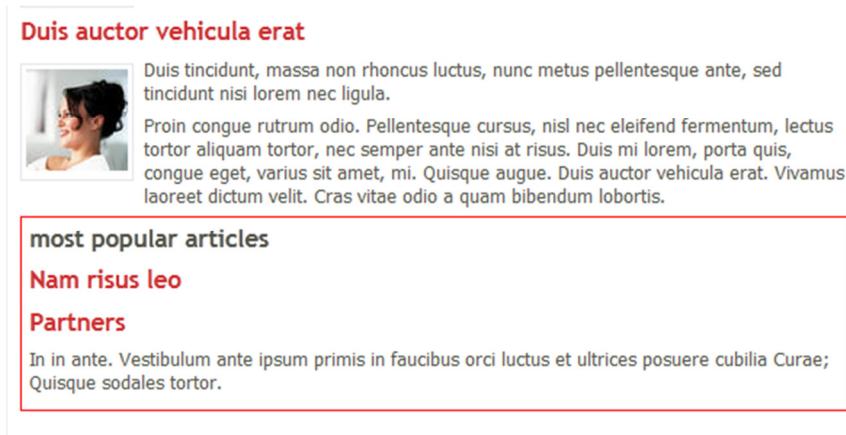
Select the corresponding recommendation scenario (see also under <https://admin.yoochoose.net>) and if you want it to be rendered inside the article or as a flyout.



The following placeholder should appear in the editor window



After publishing and reloading the page you will see recommendations if there's enough tracking events available.

A screenshot of a published page from the eZ Platform. The page features a red header with the text "Duis auctor vehicula erat". Below the header is a sidebar containing a profile picture of a woman and two sections: "most popular articles" and "Partners". The main content area contains several paragraphs of text and a red-bordered box containing the text "In in ante. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Quisque sodales tortor.".

If you want to customize the embedding of recommendations you can also follow these steps:

Include the following code wherever you want to see the recommendations

```
{include uri='design:content/recommendations.tpl'  
node=$node scenario='top_clicked' limit=3  
category_based=false() track_rendered_items=true()  
create_clickrecommended_event=true()}
```

As an example, we included the code in our full view template of 'articles for recommendation' between the star rating and the related content.

```
...  
  
<div class="attribute-star-rating">  
    {attribute_view_gui  
    attribute=$node.data_map.star_rating}  
  
</div>  
  
{* Start of ez Recommendation service *}
```

```

<div class="attribute-recommendations">
    <h1>{"Also clicked articles"}</h1>
    {include uri='design:content/recommendations.tpl'
        node=$node scenario='also_clicked_article' limit=3
        category_based=false() track_rendered_items=true()
        create_clickrecommended_event=true()}
</div>
{* End of eZ Recommendation service *}
{include uri='design:parts/related_content.tpl'}
...

```

After reloading the page we see the following:

Check this box to enable the transmission of content information like title, author, publish date to the recommendation service. Each time you publish a recommendable object an eZ Publish workflow will be triggered checking the export content flag and exporting the below defined meta-data to the recommendation services. It is strongly recommended to check this box in the class definition and make Export content the default for any object in this class.



Rating: 0/5 (0 votes cast)

[Log in](#) or [create a user account](#) to rate this page.

Also clicked articles

Enable "Click"-events



Enable "Click"-events In order to create tracking events you need to do some changes in your template files.

About eZ Recommender extension



The eZ Recommender extension enables administration of the eZ Recommendation services and simplifies implementation into existing eZ Publish platforms.

Item type (for recommendation) selection



The Item type (for recommendation) is similar to a class ID in eZ Publish. It defines a number corresponding to a given type of content.

The top of the above screenshot shows the article full view followed by a star rating and recommendations from the eZ Recommendation service.

To analyze the recommendation workflow in more detail, we check again the latest entries in <eZ publish root directory>/var/log/debug.log.

We start with the request for recommendations:

```
debug.log:  
  
[ Sep 17 2011 16:20:23 ] [ezyochoose] Trying request  
reco.yoochoose.net/ebl/<CustomerID>/top_clicked.json?item  
id=246&numrecs=3&itemtypeid=2  
  
[ Sep 17 2011 16:20:24 ] [ezyochoose] Sending request  
reco.yoochoose.net/ebl/<CustomerID>/top_clicked.json?item  
id=246&numrecs=3&itemtypeid=2  
  
[ Sep 17 2011 16:20:24 ] [ezyochoose] Received answer  
'HTTP/1.1 200 OK'  
  
...
```

If the installation is working properly and recommendations are available you will also see an answer in the following form:

```
[ Nov 17 2011 18:59:29 ] [ezrecommendation] Received  
recommendations  
  
{"recommendationResponseList": [{"reason": "CF_I2I_CLICK  
(context: ITEM(s))", "itemType": 2, "itemId": 179, "relevance":  
93}, {"reason": "CF_I2I_CLICK (context: ITEM(s))",  
"itemType": 2, "itemId": 175, "relevance": 91}, {"reason":  
"CF_I2I_CLICK (context:ITEM(s))", "itemType": 2,  
"itemId": 177, "relevance": 76}]}...
```

Scrolling down you will see tracking events showing that some of the recommendations have been rendered:

```
[ Nov 17 2011 18:59:29 ] [ezrecommendation] Sending  
request  
event.yoochoose.net/news/mycustomerID/rendered/mycookie/2  
/179,175,177
```

The get recommendation call

The get recommendation request has been triggered in the above include from recommendations.tpl. This include comes with six parameters. These parameters control the way recommendations are created. They also control what happens after a recommendation is delivered to a portal:

```
node=$node
```

the node is obviously the node of the currently rendered content. The recommender engine required this information to define the context of the recommendation e.g. for “users who clicked this also clicked ...”

```
scenario='top_clicked'
```

the scenario string must exactly match with the scenario ID in the configuration portal. A detailed description of the portal and how you find out all available scenarios is described in chapter ‘Configuration Portal

(<https://admin.yoochoose.net>)'. 'top_clicked' represents the most popular clicked (recommendable) content. For a complete default list of scenarios check the configuration portal.

limit=3

Tells the eZ Recommendation service to deliver 3 recommendations if possible. Depending on the scenario it is possible that the number of requested recommendations cannot always be fulfilled.

category_based=false()

This parameter allows you to limit the results to the current branch of the node tree. In the example we set this parameter to false(). In this case the category path (node path) is not sent to the eZ Recommendation service. The current context/position of the user in the website is ignored. Top-clicked articles for example take into account the whole website. If you change this parameter to true() you will see only those objects that are in the same folder or below.

track_rendered_items=true()

This parameter defines what happens when one or more of the recommendations have been rendered. If defined as true() an additional 'rendered'-event is sent to the eZ Recommendation service. If you want to apply a filter to show recommendations no more than e.g. 5 times to the same user you must set this to true() and provide this information to the eZ Recommendation service. The three rendered events in our example vanish if you set this parameter to false().

create_clickrecommended_event=true()

When this is defined as true() the template will create a 'click recommended'-event if one of the rendered recommendations is clicked by a user. This allows measuring conversion rates and filling the statistics information with usage and acceptance of recommendations.

Rendered vs. requested recommendations

You may see only two recommendations although three were requested?

There are two possibilities why this typically happens:

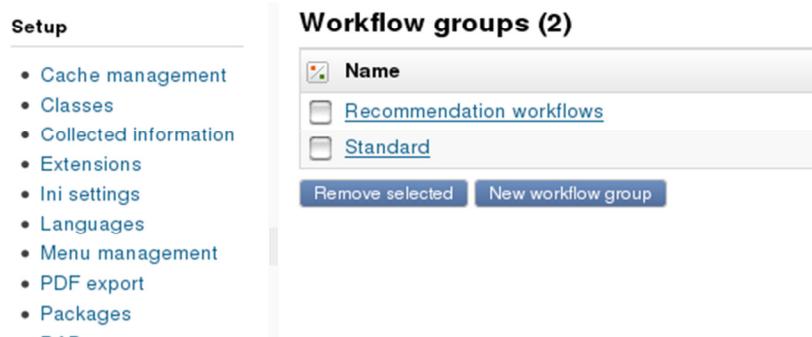
- 1) The eZ Recommendation service cannot provide enough good recommendations for a given scenario
- 2) The resulting node ID cannot be rendered in the current view

Workflows

Export content after publishing

Step one is to create a workflow to export content to the eZ Recommendation service. To do so you have to create a new Workflow group in Workflows of the Setting-tab in the Admin Interface. In our example we named it 'Recommendation workflows':

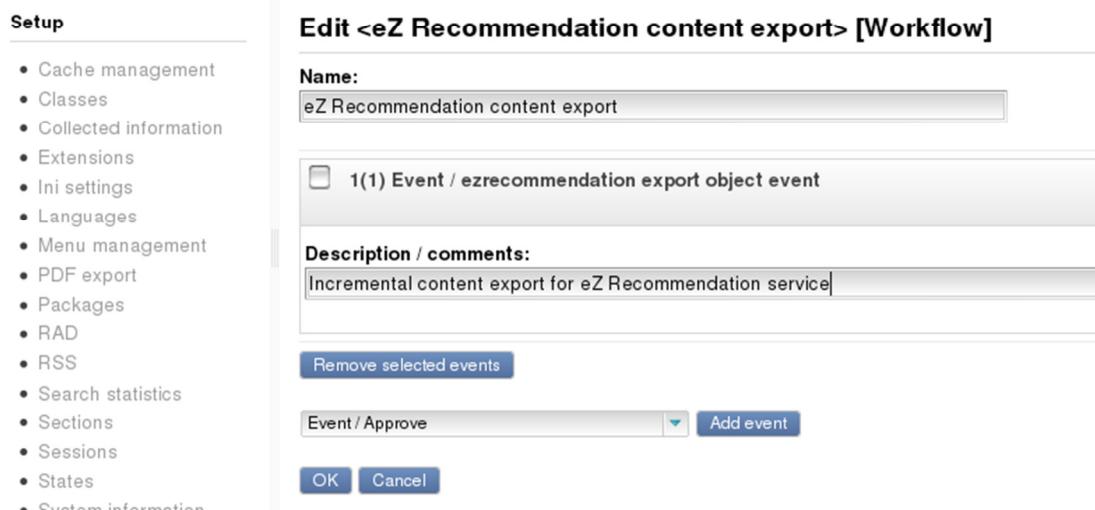
You are here: Workflow / Group list



The screenshot shows the 'Workflow groups' section of the Admin Interface. On the left, there is a sidebar with a 'Setup' menu containing various configuration options. The main area displays a list titled 'Workflow groups (2)' with two entries: 'Recommendation workflows' and 'Standard'. Below the list are two buttons: 'Remove selected' and 'New workflow group'.

Open the workflow group and create a new workflow. In our example we name it 'eZ Recommendation content export' and add the event 'Event / ezrecommendation export object event' from the drop-down menu.

You are here: Workflow / Edit



The screenshot shows the 'Edit <eZ Recommendation content export> [Workflow]' dialog. The 'Name:' field contains 'eZ Recommendation content export'. Below it, under 'Events / comments:', there is a list with one item: '1(1) Event / ezrecommendation export object event'. A note below says 'Incremental content export for eZ Recommendation service'. At the bottom, there are buttons for 'Remove selected events', 'Event / Approve', 'OK', and 'Cancel'.

Now that we have created a new workflow we can use it in the *Triggers* and apply them each time when content is published. To do so select 'eZ Recommendation content export' in the row '*content – publish – before*' and apply the changes.

You are here: Trigger / List

Workflow triggers (11)			
Module	Function	Connection type	Workflow
content	publish	before	eZ Recommendation content export
content	publish	after	No workflow
shop	confirmorder	before	eZ Recommendation purchase event
shop	checkout	before	No workflow
shop	checkout	after	No workflow
shop	addtobasket	before	No workflow
shop	addtobasket	after	No workflow
shop	updatebasket	before	No workflow
shop	updatebasket	after	No workflow
content	delete	before	eZ Recommendation delete content
content	delete	after	No workflow

[Apply changes](#)

Remove content before delete

We do not want to receive recommendations for content that has already been removed from eZ Publish. The next workflow informs the eZ recommender about each deletion of content in eZ Publish.

Open the workflow group ‘Recommender workflows’ and create a new workflow. In our example we named it ‘eZ Recommendation delete content’ and select ‘Event / ezrecommendation delete object event’ from the drop-down menu.

You are here: Workflow / Edit

Setup	
<ul style="list-style-type: none"> Cache management Classes Collected information Extensions Ini settings Languages Menu management PDF export Packages RAD RSS Search statistics Sections Sessions States System information Upgrade check Triggers 	
Edit <eZ Recommendation delete content> [Workflow]	
Name: <input type="text" value="eZ Recommendation delete content"/>	
<input checked="" type="checkbox"/> 1(1) Event / ezrecommendation delete object event	
Description / comments: <input type="text" value="Create delete event for eZ Recommendation service"/>	
Remove selected events	
<input type="button" value="Event / Approve"/> <input type="button" value="Add event"/>	
<input type="button" value="OK"/> <input type="button" value="Cancel"/>	

Now that we have created a new workflow we can use it in *Triggers* and use it each time when content is deleted. To do so, select ‘eZ Recommendation delete content’ in the row *content – delete – before* and apply the changes.

Create purchase event

This workflow is relevant only if you want to create purchase events each time a shop activity takes place.

Open the workflow group ‘Recommender workflows’ and create a new workflow. In our example we name it ‘eZ Recommendation purchase event’ and select ‘Event / ezrecommendation buy object event’ from the drop-down menu.

You are here: Workflow / Edit

Setup

- Cache management
- Classes
- Collected information
- Extensions
- Ini settings
- Languages
- Menu management
- PDF export
- Packages
- RAD
- RSS
- Search statistics
- Sections
- Sessions
- States

Edit <eZ Recommendation purchase event> [Workflow]

Name:

1(1) Event / ezrecommendation buy object event

Description / comments:

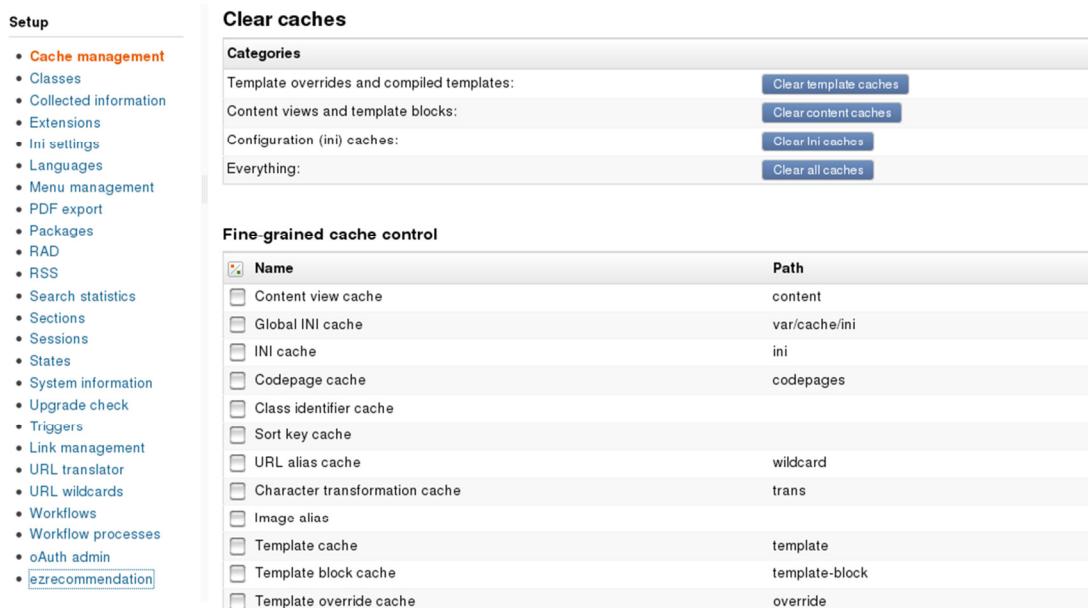
[Remove selected events](#)

Now that we have created a new workflow, we can use it in *Setup->Triggers* and apply it each time a product is purchased. To do so, select ‘eZ Recommendation purchase event’ in the row *shop – confirmorder – before* and apply the changes.

Statistics

You can get brief statistical information about the eZ Recommendation services usage and results. To see this information in the backend, open the new ezrecommendation entry in the left row of the Setup tab.

You are here: Cache admin



The screenshot shows the 'Cache admin' section of the eZ Platform backend. On the left, a sidebar menu under 'Setup' includes items like 'Cache management', 'Classes', 'Collected information', 'Extensions', 'Ini settings', 'Languages', 'Menu management', 'PDF export', 'Packages', 'RAD', 'RSS', 'Search statistics', 'Sections', 'Sessions', 'States', 'System information', 'Upgrade check', 'Triggers', 'Link management', 'URL translator', 'URL wildcards', 'Workflows', 'Workflow processes', 'oAuth admin', and 'ezrecommendation'. The 'ezrecommendation' item is highlighted. The main content area has two sections: 'Clear caches' and 'Fine-grained cache control'. The 'Clear caches' section contains four categories with clear buttons: 'Template overrides and compiled templates' (Clear template caches), 'Content views and template blocks' (Clear content caches), 'Configuration (ini) caches' (Clear ini caches), and 'Everything' (Clear all caches). The 'Fine-grained cache control' section lists various cache types with their corresponding paths: content (Content view cache), var/cache/ini (Global INI cache), ini (INI cache), codepages (Codepage cache), trans (Class identifier cache), wildcard (Sort key cache), template (URL alias cache), template-block (Character transformation cache), override (Image alias), template (Template cache), template-block (Template block cache), and override (Template override cache).

It provides absolute numbers about:

- 1) Click events that were triggered
- 2) Purchase events that were triggered (online shop)
- 3) Delivered recommendations (i.e. number of recommendation calls)
- 4) Recommendations that were clicked by users
- 5) Recommendations that were purchased
- 6) Revenue that can be calculated from purchased recommendations and the price of each individual product if the shop solution is used

The following screenshots are examples that provide statistics for a publisher and a shop solution. Instead of consume events, you have three additional columns in the shop solution named 'Revenue', 'Purchased-Recommended' and 'Purchase-Events'.

You are here: [ezrecommendatio...](#)

[Dashboard](#) [Content structure](#) [Media library](#) [Webshop](#) [User accounts](#) [Setup](#) [...](#)

You are here: [ezrecommendatio...](#)

eZ Recommendation Service Statistics

Date	Click-Events	Consume-Events	Delivered-Recommendations	Clicked-Recommended
17.04.2012	12	9	0	0
18.04.2012	6	0	0	0
19.04.2012	46	11	68	9

You are here: [ezrecommendatio...](#)

[Dashboard](#) [Content structure](#) [Media library](#) [Webshop](#) [User accounts](#) [Setup](#) [...](#)

You are here: [ezrecommendatio...](#)

eZ Recommendation Service Statistics

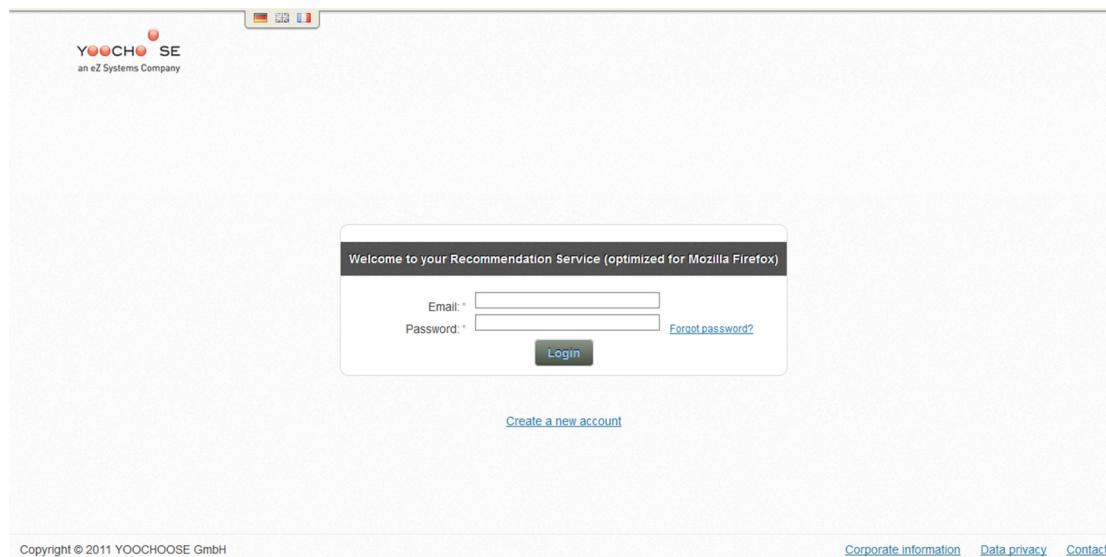
Date	Click-Events	Delivered-Recommendations	Clicked-Recommended	Purchase-Events	Purchased-Recommended	Revenue
17.04.2012	12	0	0	0	0	0
18.04.2012	6	0	0	0	0	0
19.04.2012	46	68	9	0	0	0

Configuration Portal (<https://admin.yoochoose.net>)

Manage account details

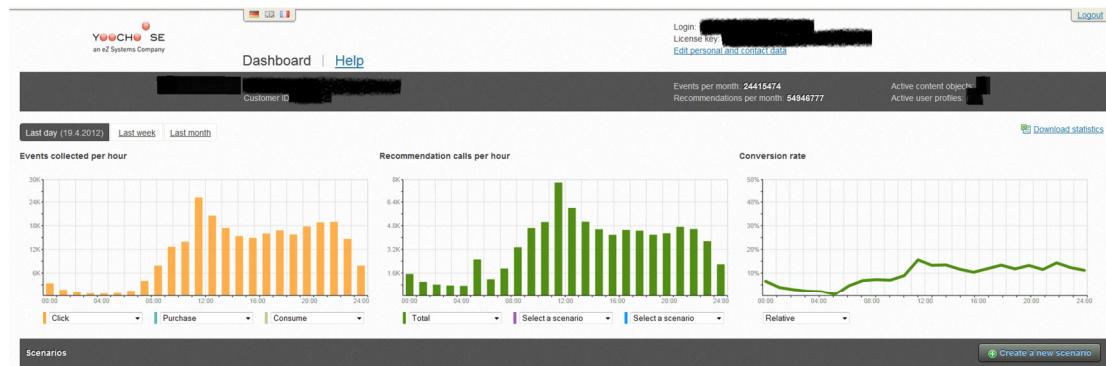
To manage your account details for the eZ Recommender Service visit the URL
<https://admin.yoochoose.net>

You will find the following screen:



To get access to the configuration Portal, fill out the required fields *Email* and *Password* with the data you created during registration and click *Submit*. If not registered, simply add a new account.

You will be redirected to the Welcome page showing available *Recommendation Scenarios* and *Account Data*.



On the upper right part of the screenshot you will find your account detail information:

- **Login:** Your Email address used for registration
- **Webpage URL:** Your website the eZ Recommender service will be connected to.
- **Customer ID:** Your Customer ID
- **License Key:** Your personal authentication code

You need the *Customer ID* and den *License Key* to connect eZ Publish with your Recommendation service account.

Please edit the `ezrecommendation.ini` file located in the directory `<eZ publish root directory>/extension/ezrecommendation/settings`:

```
# Insert here your ezrecommendation customer id and your license key.
```

```
[ClientIdSettings]
```

```
CustomerID= your customerID (Webpage Code)"
```

```
LicenseKey= your license key
```

Below you will find a list of the scenarios which are provided for your recommendation calculation. Most scenarios are self-explanatory e.g.:

<input checked="" type="radio"/> On <input type="radio"/> Build only <input type="radio"/> Off Category page <p>0 Delivered recommendations</p> <p>Popular content best shown on category pages</p> <p>• • •</p>	<input checked="" type="radio"/> On <input type="radio"/> Build only <input type="radio"/> Off Cross-consume to articles in category <p>0 Delivered recommendations</p> <p>Cross-consumed content (in category) is best shown e.g. on article detail pages</p> <p>• • •</p>	<input checked="" type="radio"/> On <input type="radio"/> Build only <input type="radio"/> Off Cross-consume to articles global <p>0 Delivered recommendations</p> <p>Cross-consumed articles are best shown e.g. on article detail pages</p> <p>• • •</p>
<input checked="" type="radio"/> On <input type="radio"/> Build only <input type="radio"/> Off Cross-consume to ugc global <p>0 Delivered recommendations</p> <p>Cross-consumed user generated content is best shown e.g. on article detail pages (user comments)</p> <p>• • •</p>	<input checked="" type="radio"/> On <input type="radio"/> Build only <input type="radio"/> Off Cross-consume to images in category <p>0 Delivered recommendations</p> <p>Cross-consumed images (in category) are best shown e.g. on image galleries</p> <p>• • •</p>	<input checked="" type="radio"/> On <input type="radio"/> Build only <input type="radio"/> Off Cross-consume to media in category <p>0 Delivered recommendations</p> <p>Cross-consumed media (in category) is best shown e.g. on video galleries</p> <p>• • •</p>

- also_clicked

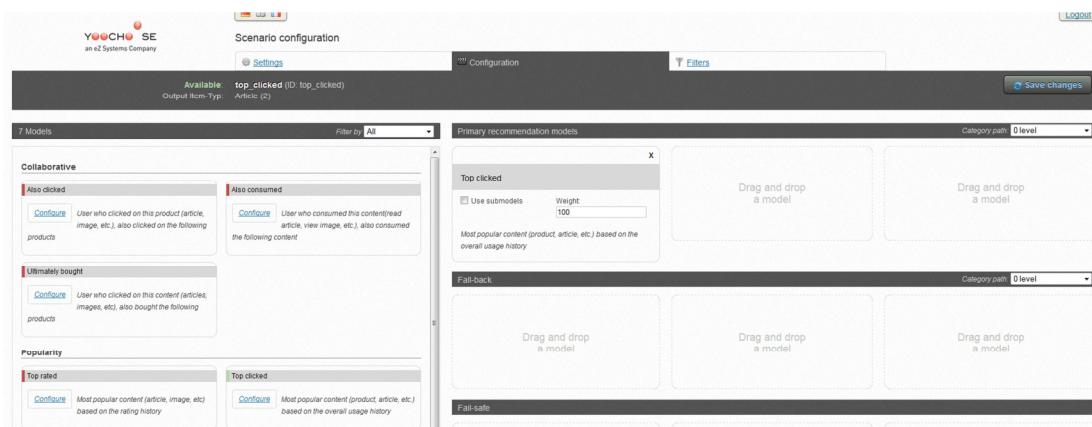
“Customers who clicked this item, also clicked ...”

- `also_purchased`
“Customers who bought this product, also bought ...”
- `top_clicked`
“Most clicked items” / “Most popular items”
- `top_consumed`
“Most bought products” / “Most popular products bought”
- `ultimately_bought`
“Customers who clicked this item, ultimately bought the following products with probability of e.g. 53% (product 1), 22% (product 2) and 9% (product 3)”

The list of scenarios depends on your type of account. The Recommendation service differentiates between online shops and publishers. It also varies from *Basic* to *Advanced* license.

Create new scenarios

The *Basic* license allows only the changing of some parameters in your existing scenarios. With the *Advanced* license you can create new scenarios for later use and reference them in eZ Publish. The screenshot shows an out-of-the-box publisher client with *Basic* license.

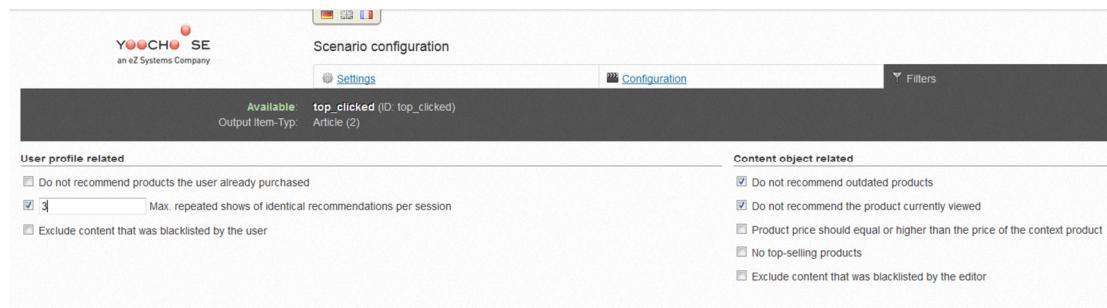


You can configure your scenarios comprising the available models as you like it via drag&drop functionality.

Remember: The scenario ID (scenario code) is the link between the scenarios shown here and the eZ Publish recommendation call in your templates.

Apply filter rules to scenarios

Try out the standard filters that you can apply with each of your scenarios. Again, most of the filters are self-explanatory.



The screenshot shows the 'Scenario configuration' interface for a 'top_clicked' scenario. At the top, there are language selection buttons (German, English, French) and tabs for 'Settings' (selected), 'Configuration', and 'Filters'. Below the tabs, it says 'Available' and 'top_clicked (ID: top_clicked)' with 'Output item-Type: Article (2)'. The main area is divided into two sections: 'User profile related' and 'Content object related'. In 'User profile related', there are three checkboxes: 'Do not recommend products the user already purchased' (unchecked), 'Max. repeated shows of identical recommendations per session' (checked with value '3'), and 'Exclude content that was blacklisted by the user' (unchecked). In 'Content object related', there are four checkboxes: 'Do not recommend outdated products' (checked), 'Do not recommend the product currently viewed' (checked), 'Product price should equal or higher than the price of the context product' (unchecked), and 'No top-selling products' (unchecked). There is also a checkbox 'Exclude content that was blacklisted by the editor' (unchecked).

Frequently asked Questions

Content-delete-after not triggering delete workflow

Question: I created a workflow to trigger a delete event for the recommendation service after each delete in eZ Publish. This workflow seems not to be working. What can I do?

Answer: The delete workflow requires the trigger content-delete-before. Then it should work.

How-to reset recommender statistics

Question: I played around with the eZ Recommendation service on a test environment. Now I would like to flush all collected events and reset the recommendations. How can I do that?

Answer: Currently the YOOCHOOSE staff can do a reset only. So please send us an e-mail with the customer ID that you want to reset. Then we will remove all your past events and inform you. Afterwards you need to create new events to model new recommendations. You will receive new recommendations as soon as the new models replace your old models.

Initial content export not exporting all recommendable content

Question: Some of my articles are not exported in the initial export although they are marked as recommendable. Why does that happen?

Answer: Some fields are mandatory when you want to export an object to the eZ Recommendation service. In the publisher solution it is mandatory to have a *valid from* and a *valid to* (often mapped to publish date/unpublish date) different from 0. In the shop solution the *price* must be different from 0. Fill the *price* or the *valid from/to* fields and the content export should work also for this object.

Possible conflict with ezstyleeditor extension

Question: Tracking does not seem to work in my eZ Publish installation although I followed the installation guide and implemented tracking in the pagelayout.tpl.

Answer: There seems to be a conflict with the ezstyleeditor extension. Try to disable the extension and check the debug.log for click events.

Recommendation in multiple eZ publish installations

Question: I installed the eZ Recommendation extension on my development installation as well as on my productive environment. I get recommendations from my development installation on the productive system and vice versa. How can I change that?

Answer: You should not use one YOOCHOOSE customer ID with multiple installations. If you have a development installation besides a productive installation, ask YOOCHOOSE for two separate customer IDs to avoid interference between recommendations.

The second option is to reset the recommender engine after finishing the testing and then use the customer ID for the productive installation only.

Processing requests for statistics data through a *.csv-file

Question: Can I get more statistical information about the eZ Recommendation service usage than provided in the backend?

Answer: It is possible to retrieve your statistical data with a configurable interval through a *.csv file which can be downloaded in the way it is described below. To do so, replace your customer ID in the link, determine the starting/ending time and the granularity that should be used for the time slices. After you have edited the link, copy/paste it to your browser and confirm your entry.

Example:

https://admin.yoochoose.net/<solution>/v3/<CustomerID>/revenue/statistic.xlsx?from_date_time=2012-04-17T00:00:00&to_date_time=2012-04-20T00:00:00&granularity=PT1H

In the above example the granularity is set up to 60 minutes which can be changed to a minimum value of 15 minutes. The format of the request looks like:

[https://admin.yoochoose.net/<solution>/v3/<CustomerID>/revenue/statistic.xlsx?from_date_time=\[start_time\(ISO8601\)\]&to_date_time=\[end_time\(ISO8601\)\]&granularity=PT\[Steps in minutes\]M](https://admin.yoochoose.net/<solution>/v3/<CustomerID>/revenue/statistic.xlsx?from_date_time=[start_time(ISO8601)]&to_date_time=[end_time(ISO8601)]&granularity=PT[Steps in minutes]M)