

TCAI search hints mechanism

Screenshot_2020-04-29_at_19.1 Getting started

In this article, you will find information about the TCAI search hints mechanism (1). TCAI is standalone and separate from the TC administration panel platform that collaborates with the Elastic engine. The search engine was developed to address the need for quick access to relevant and more accurate query results. The TCAI search hints mechanism is a feature that helps users refine their search queries and find the desired product they need more efficiently. The search engine additionally checks for misspellings and searches for similar words in case there is a mistake. The engine itself performs two searches at the same time using different phrase weights, which allows us to make sure the customer gets the best and most accurate results. This new version of the TC search engine allows for fast, scalable, and flexible full-text search and analytics.

It is worth emphasizing that the mechanism allows for advanced analysis of what the customer is searching for.

info2.svg **Remember**

Elasticsearch is an external integrated engine that helps optimize, manage, and analyze search results.

Screenshot_2023-04-05_at_17.57.28.png

Visualization of the TCAI search mechanism UI (desktop)

Screenshot_2023-04-04_at_15.36.07.png

Visualization of the TCAI search mechanism UI (mobile)

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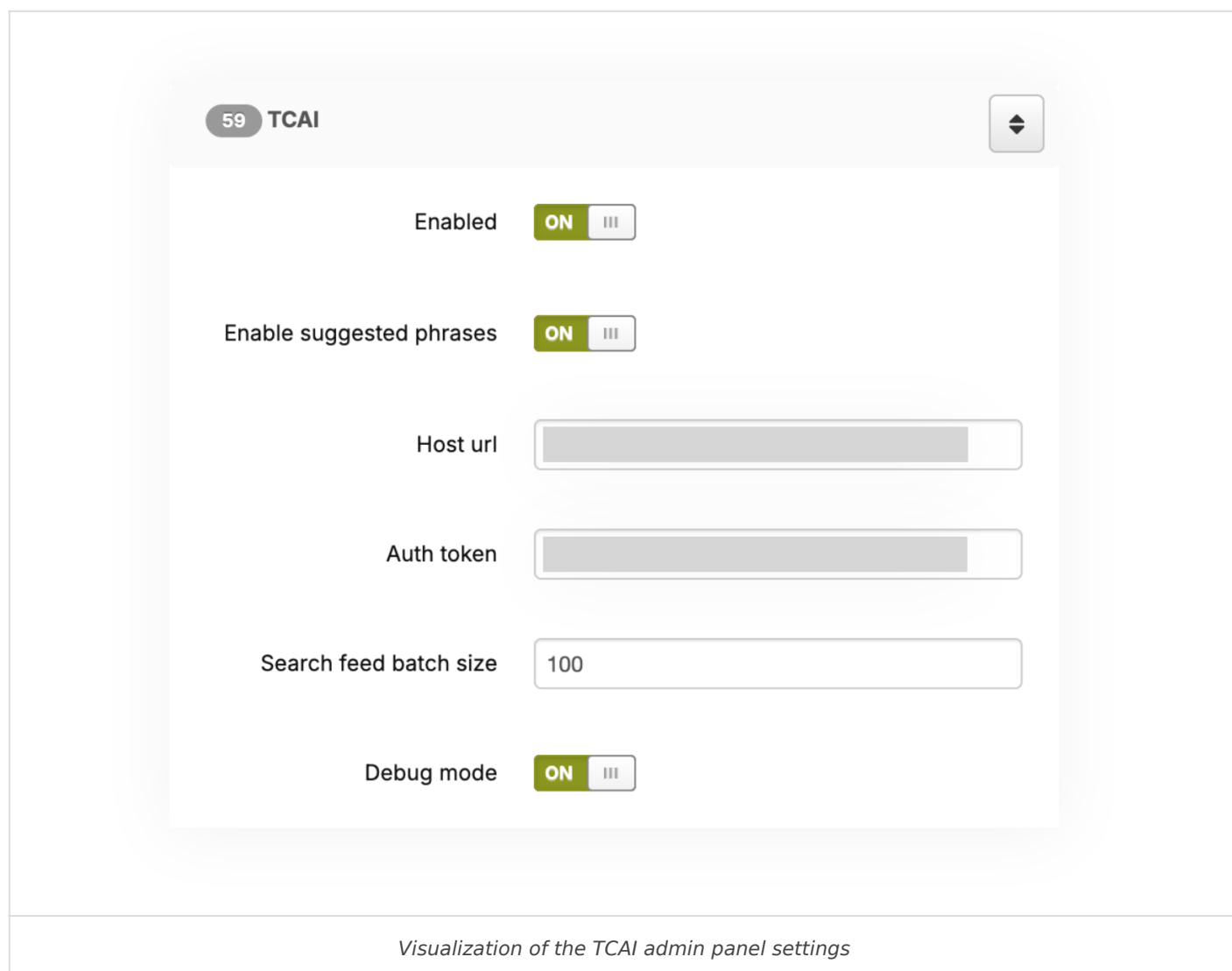
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TCAI search engine configuration

All settings regarding TCAI you'll find in the admin panel, navigating to:

System > System / settings > Integrations tab > TCAI

You can easily search for TCAI settings by typing a dedicated phrase into the system settings browser (as shown in the screenshot). Below you will find a description of all visible settings:



- **Enabled** - a switch that decides if the TCAI function is enabled and whether TCAI is the primary search engine.

TC platform provides three types of search engines. TCAI has the highest priority, which means it works as the main search engine and ignores the SLI mechanism, which has a lower priority than TCAI. The standard version of the TC search engine has the lowest priority, which means it is ignored when any of the above two browsers are enabled.

- **Enabled suggested phrases** - switch which enables the phrase suggestions during the search.
- **Host url** - the URL where TCAI can be found.
- **Auth token** - the identifier used to authenticate the TCAI platform to ensure proper collaboration with the TC admin panel. **The parameter is sensitive, and any changes should be consulted with the TC team.**
- **Search feed main category name** - a parameter indicating the category based on which the search will be conducted. The parameter that is taken into consideration is the `url_name`. It's the parameter, which appears, among others, in the mass import of products. You can find more information on the topic of mass import of products at [Product catalog export and import](#). **The parameter is sensitive, and any changes should be consulted with the TC team.**
- **Search feed batch size** - the parameter determining the number of products that are sent to TCAI at once, in one batch. The functionality is currently being expanded. **The parameter is sensitive, and any changes should be consulted with the TC team.**
- **Debug mode** - a mode of operation for identifying and correcting errors in a program, allowing programmers to observe program behavior and track variable values. The parameter should be disabled in the production environment unless it is necessary for debugging purposes.

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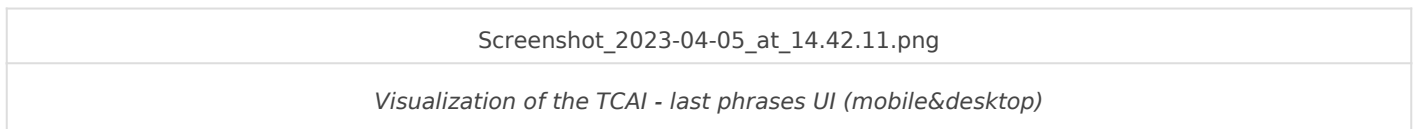
TCAI description of operation - front-end and business perspective

In the following section, you will find a description of the mechanism's behavior from the frontend user's perspective and the main features of the search engine from the Yves Rocher business point of view.

Front-end perspective

The search engine saves the user's last searches **(1)** in local storage. The view with the last searches is visible when the user clicks on the search field for the product.

These are searches that ended with the user pressing the enter key or clicking on the search button.



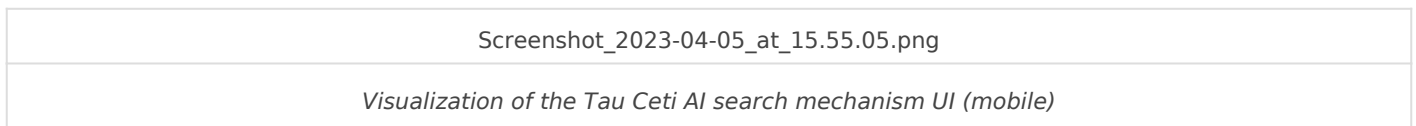
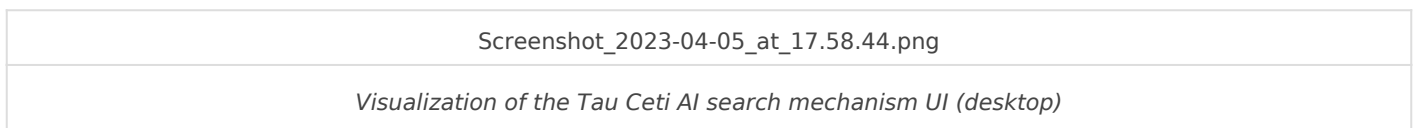
TCAI intelligently matches search results based on the entered query. The search is performed by the main category **(2)** (defined in the **Search feed main category name** parameter), product name and properties. In the main search results **(3)**, we will find a maximum of 8 products that have the best scoring. The mechanism also helps the user by predicting and generating suggested clickable phrases **(4)**.

Clicking on the cart button (located in the product box) adds the product to the cart, while clicking on the product name will redirect the user to the page with the details of the selected product.

TCAI is able to track user clicks and group them accordingly for analysis purposes. For example, each click on a product name or image in the main search results **(3)** will be counted for the **"hints_product_tile"** tag, while a click on the cart icon will be counted for the **"add_to_cart"** tag.

Tracking and analysis of clicks also occur after submitting the search form on the target product list. In this case, clicking on the product name, image, or review will record a click for the **"product_tile"** tag, while clicking on the cart will increase the value for the **"add_to_cart"** tag.

These tags are present in the TCAI analytics module.



Business perspective

- The user experience is equivalent to that of current solutions on CEE websites

- The TCAI platform is standalone and separate from the TC e-commerce platform.
 - It has the capability to integrate with various production and non-production sites.
 - It's compatible with the current multi-language catalog product content obtained from different sources.
 - Open architecture allows for adaptation to future changes such as new catalog product schemas, additional dictionaries, and new sources.
 - Search functionality based on Elasticsearch.
 - In terms of appearance and user experience, we are basing on the current layout and behavior of the existing Persoo solution for YR, allowing for minor improvements (among other things):
 - TCAI mechanism includes search phrase suggestions
 - The ability to add products to the cart directly from the suggestion window.
 - Business users have access to statistical information, it allows among other things:
 - how the search volume is distributed over weeks
 - when the highest traffic occurs during the day
 - which products and what phrases lead to which user clicks
 - Ability to add synonyms (there is a possibility of bulk importing synonyms (up to a maximum of 256 synonym groups).
 - The data of the search tool is based and recognized on: altshops, category, name, tag, property, keywords, EAN, SKU, and colors as search keywords.
 - The search tool results are passed to the native results page.
 - Suggested categories will be displayed by the search box based on the identified keyword.
 - Products with zero stock aren't excluded from the search results as the user may be interested in seeing the details of the product. Such results are placed at the very end of the product list.
 - Ability to manually optimize the results directly in the search platform. The platform allows optimization based on the following parameters:
 - *Product is new*
 - *Product is bestseller*
 - *Product is green point*
 - *Product is limited edition*
 - *Product is outlet*
 - *Product capacity*
 - *Product reviews rating*
 - *Product reviews count*
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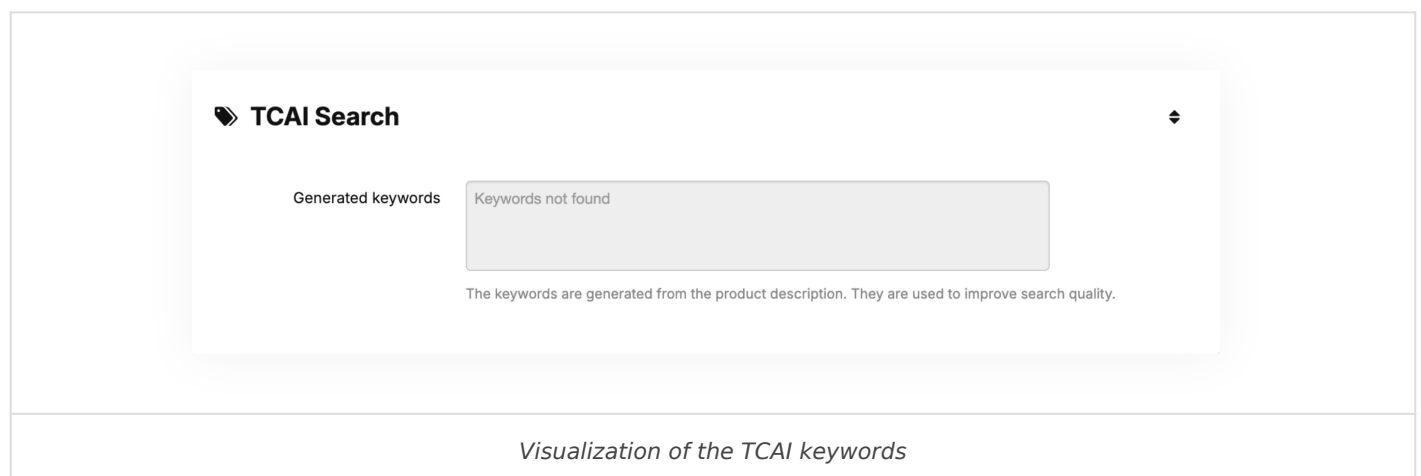
TCAI keywords

TCAI keywords functionality uses AI to generate product keywords that can be searched in the TCAI search. The keywords are generated based on the product description, and this process is fully automated and keywords are generated once a day, even when the product description has been updated.

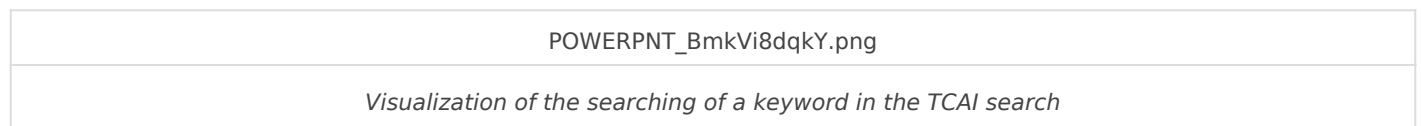
High-quality product descriptions aid in generating significantly better quality keywords, directly related to the product. Additionally, if keywords generated for a particular product aren't strictly related to it, the user doesn't lose anything. They may only gain the advantage that by entering one of the generated keywords, the product will still be found.

Generated keywords can be found in

Catalog > Products / list > Edit on the desired product > TCAI Search



These keywords are added to the keywords in the **Description > Keywords** field, so when customers are searching by non-standard phrasing like "Anti-age global" (to find all of the anti-age global products) they will find all of the products that have "Anti-age Global" keyword generated.



Revision #3

Created 27 November 2024 21:06:06 by Tau Ceti

Updated 11 February 2025 10:02:45