Bitrix Framework

Localization Guide

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Localizing the Bitrix Products Using the Translation Module

The **Translation** module will help you translate the system user interface, including the **Control Panel** forms and messages, into languages of your choice.

The Translation module provides convenient interface to view the <u>language files</u> and their relationship with the system files. It also shows messages that require translation and helps localize these messages in each language file individually or by downloading a language pack using the update system. However, before you start browsing and editing the files you have to configure language parameters and module settings.

Adding a New Language to the System

Before you start translating the files, you have to add a target language into which you will translate the system forms and messages.

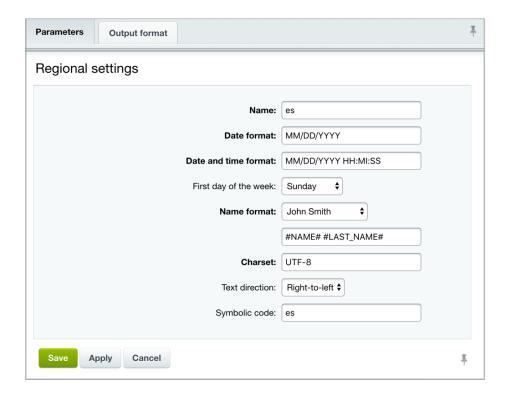
First, create profiles for the language cultural settings and the language itself.

Open the form **Desktop** > **Settings** > **System settings** > **Language Parameters** > **Regional Options and Culture** to add language parameters.



Click **Add** and enter the regional parameters of the new language.

Note: The fields marked in bold are mandatory.

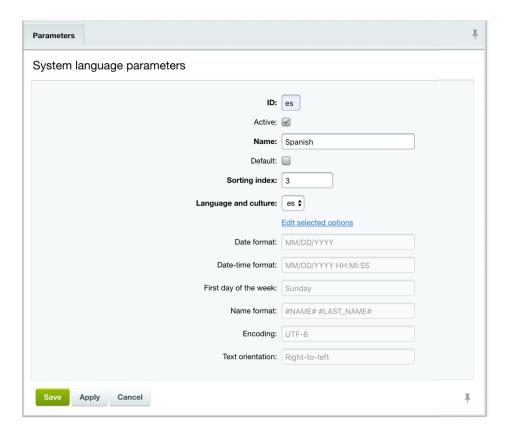


- Name the name of the regional settings record.
- **Date format** specifies format in which the date is represented in the new language.
- **Date-time format** specifies format for the date and time combined.
- **First day of the week** specifies the first day of the week.
- Name format specifies format for the human names.
- **Charset** specifies encoding in which the language messages are stored and displayed.
- **Text direction** specifies direction in which text is rendered.
- **Symbolic code** a two-character code for this set of regional parameters.

Go to the form **Desktop** > **Settings** > **System settings** > **Language Parameters** > **Interface languages** to add a new language profile:



Click **Add language** and enter the language parameters and format.



Here, the **ID** identifies the new language as per entry in the previous form.

<u>↑ Important!</u> The system language identifier (ID) is used to locate and download the language files. The ID must have the same name as the language ID on the server.

For example, the server expects the ID **de** for the German language files. Therefore, you have to create a language that specifies the ID 'de' before downloading German language files.

Use the national language encoding as an interface language encoding or UTF- 8 if the entire project is in Unicode. You will find a complete list of language identifiers and encodings for different languages in the <u>documentation</u>.

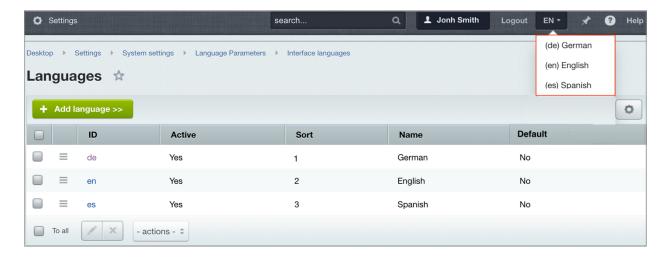
- **Active** if checked, specifies that the language is shown in the language menu and can be selected for viewing the site.
- **Name** the name of the language as shown to a user.
- **Default** if checked, specifies that the language is used by default.
- **Sorting index** the position of the language in the list of available languages.
- Language and culture select here one of the previously created regional setting.

If so required, you can override the cultural settings by clicking the *Edit selected options* link:

- **Date format:** specifies the date format, e.g. DD.MM.YYYY
- **Date-time format:** the date and time format, e.g. DD.MM.YYYY HH:MI:SS
- **First day of the week:** a day that initiates the week In our example above it is Sunday.

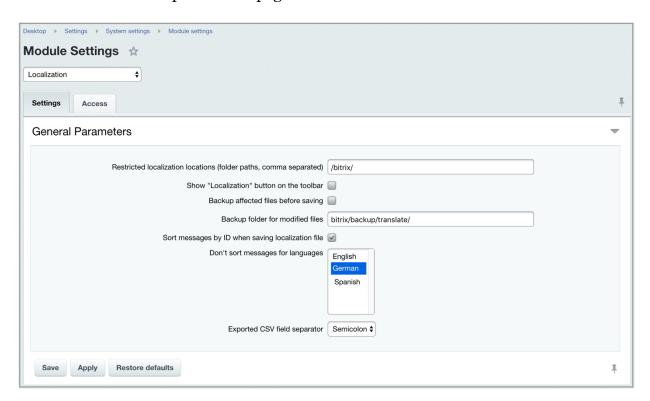
- **Name format:** specifies the human name format, for example: #NAME# #LAST_NAME#;
- **Encoding:** UTF-8 or other encoding of your choice.
- **Text orientation:** specifies the direction in which text is rendered.

Click **Save**. The new language is now added to the list of available system languages in the public area and the **Control Panel** toolbar.



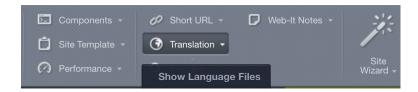
The Translation Module Settings

Click **Settings > System settings > Module settings > Localization** to open the **Translation** module parameters page.

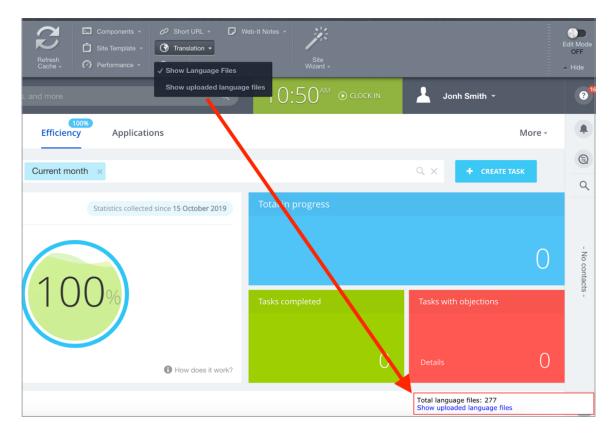


The Module Settings page contains the following parameters:

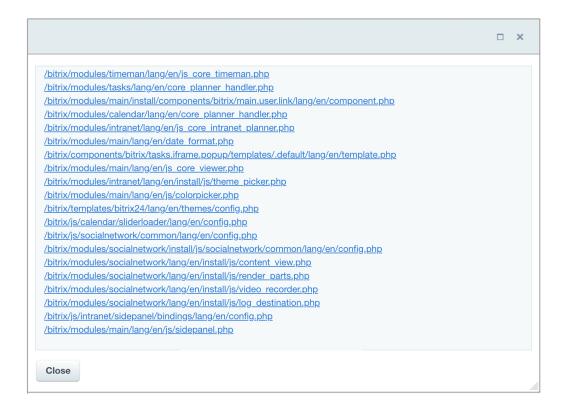
- Restricted localization locations (folder paths, comma separated) Specifies a directory to tunnel to when opening the Browse Files form (**Desktop** > **Settings** > **Localization** > **Browse Files**).
- Show "Translation" button on the toolbar if selected, shows the Translation button and the "Show Language Files" option, as shown below:



Enabling this option also shows the **Total language files** used by the page:

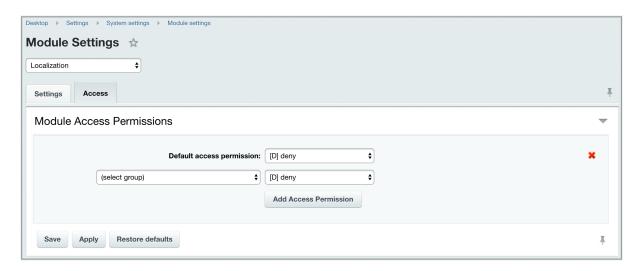


Now, you click this *Show*... link to show paths to all language files for the current page:



- **Backup affected files before saving** with this option checked, the system creates a backup copy of all modified language files.
- **Backup folder for modified files** specifies a second directory for backup files that might be useful during localization process.
- **Sort messages by ID when saving localization file** check this option to have all the messages in a file sorted by the ID.
- **Don't sort messages for languages** if the previous option is selected, and a file contains messages in at least one of the selected languages, the messages will not be sorted.
- **CSV field separator** this character will be used to separate fields when exporting CSV files.

Click the second tab to modify access permissions for the Translation module:



- **Default access permission** selects access level for user groups with **default** access permissions.
- **(select group)** allows to assign individual access permissions for the **Translation module** to a selected user group:

```
    [D] deny – any access is denied;
    [R] read (view all module data) – view only; no modification is allowed;
    [W] write – full access to module resources.
```

Once the basic configuration setup is complete, you can access, browse, edit, import or export localization files in your system.

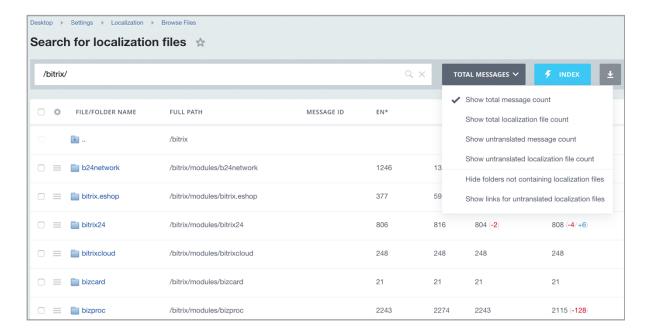
The Localization Browser

A localization package includes a set of files containing messages translated into the target language. The Translation module user interface provides access to these files. The main form you will use to handle the localization files is located at **Desktop** > **Settings** > **Localization** > **Browse Files**. It shows the structure of catalogs containing language files in the system.

The page shows the statistics of translated and untranslated language messages for each file and folder. The number of untranslated messages for the target language is highlighted in red.



The **Total Messages** button beside the search bar opens a drop-down menu showing options to view the localization files and messages:



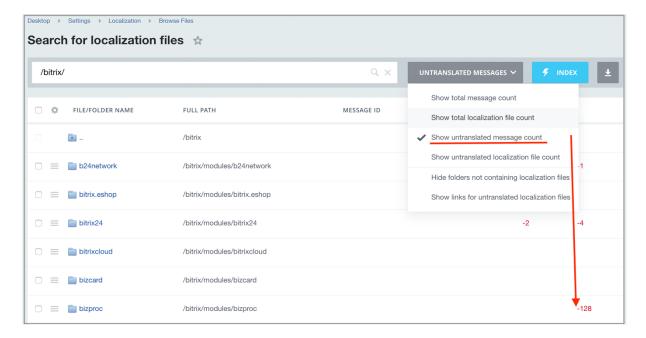
By default, the "Show total message count" option is selected to show all the untranslated and translated messages sorted by files, paths and languages.

Accordingly, the "Show total localization file count" option shows the total number of localization files.

The "Show untranslated message count" option shows the total number of untranslated messages for each file path and language.

The "Show untranslated localization file count" option shows the total number of files that remain untranslated, for each path and language.

For example, to see how many messages remain untranslated for the languages defined in the system, select "**Show untranslated message count**".



The two last options in the menu can be selected to unclutter the list and make it more manageable. The **Show links for untranslated localization files** option shows the numbers of translated and untranslated messages as links to view these messages:



The **Browse Files** form, along with the files and folders, shows the paths to these files, message ID's and the count of messages for each of the system languages. Asterisk (*) indicates the currently selected user interface language:



Use the **Checkbox** column to select multiple entries to apply a rule or action by clicking the **Select Action** button (discussed in the next chapter).

The following actions are available:



Folders: Open Folder

Files: Edit Strings, View PHP Code and Edit PHP Code.

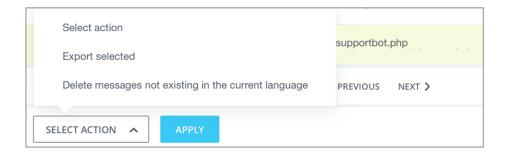
Performing the Translation: Basic Actions

You can translate the user interface by editing individual files and messages one by one, or by importing full translations. The latter option is preferred by most translators; they find it much easier to export the messages to a CSV file ("Export to CSV"), translate the files using a specialized translation software and then upload the files back to the system ("Import from CSV").

To aid the translation process, a number of group actions are available:

- **Export selected** exports the selected files and folders to a CSV file.
- **Delete messages not existing in the current language** removes messages that do not exist in the currently selected language.

After one of these options is selected, it can be **Applied** by clicking the corresponding button (see the figure below):



There are several options available when opening an individual message. The options are available in the drop-down menu as shown below.

- Show all messages
- Show untranslated messages only
- **View PHP Code** opens a page showing the raw PHP code for the messages.
- Edit PHP Code allows the user to edit the raw PHP code.

Message text for each language can be edited, saved or deleted by checking the **"Delete"** box located next to the message ID:



The **View PHP Code** form shows PHP code for a selected message.



Respectively, the **Edit PHP Code** form allows the user to edit the PHP code:



<u>↑ Important!</u> PHP commands are prohibited here. However, it is permitted to use HTML tags.

To delete one or more messages, there are two options available:

- **Delete all messages** deletes all messages in the file.
- **Delete messages not existing in the current language** deletes only the messages unavailable in the current language used for the current interface.



To save the changes you have made, click the **Apply** button.

⚠ **Note:** When performing the translation for several languages simultaneously, their respective language encodings may not match which may show some of the language specific characters incorrectly. See the figure below for an example. This note is irrelevant if the target language uses UTF-8 encoding.



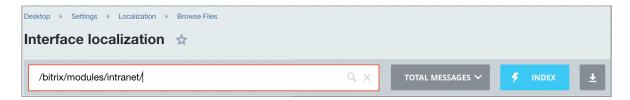
⚠ **Note:** This form shows translations into the languages of the same encoding.

On the other hand, German and Spanish encodings are not compatible, that is why they won't be displayed correctly together. To see German or Spanish message, the Localization module interface must be switched to this language in the Control Panel language menu.



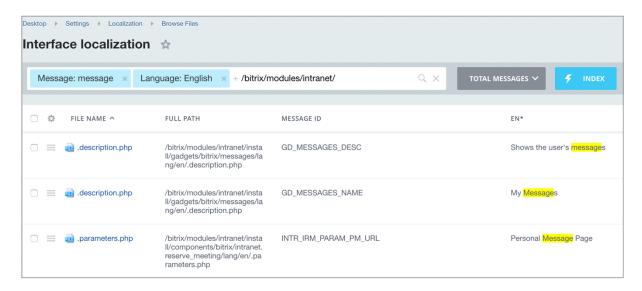
Searching Language Messages and Files

The Localization module provides Filter and Search features to search for a required message or a file. The available search parameters can be easily used to find localization files and messages you want to translate.

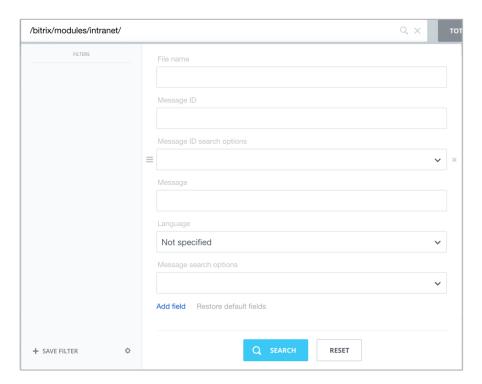


As shown in the image above, the search bar is set to search for messages in the *intranet* module. For example, you can find the "*message*" phrase in the *intranet* module by clicking on the search input window and entering the required search query and search

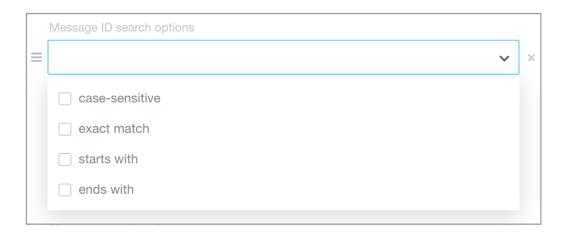
parameters. The search brings forth links to the files containing the target phrase, which in our example is "message".



However, if you need a specific part of a phrase, message or a character, you have to filter the search results by using the following search parameters, expanding or narrowing your search results as required:

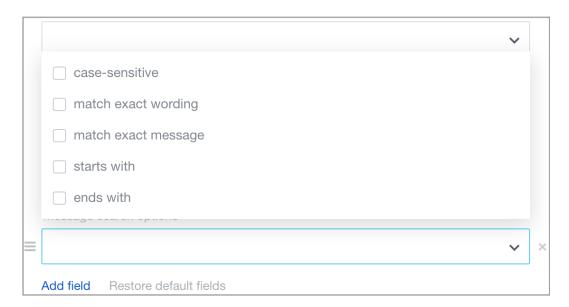


- **File name** you can enter here the name of a specific language file to search.
- **Message ID** use this option to find the message by the ID. You don't have to enter the message text if you use this option.
- The **Message ID search options** field opens a menu of options:



Use this pane to select how you want to search for the required ID(s).

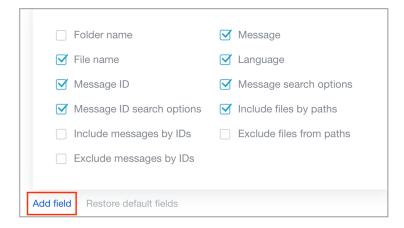
- "case-sensitive" found entries must match the case of the specified ID, or portion thereof, exactly.
- **"exact match"** searches only for the message ID that exactly matches the search query.
- "starts with" finds all occurrences of the ID's that start with the specified text.
- "ends with" finds all occurrences of the ID's that end with the specified text.
- Language select the language you want to search in.
- **Message** enter the message text you want to look for.



- "case-sensitive" found entries must match the case of the specified text exactly.
- "match exact wording" finds the specific spelling of a word or phrase without the surrounding context.
- "match exact message" finds the message that matches the search text exactly.

- "ends with" finds all occurrences that start with the specified text.
- "starts with" finds all occurrences that end with the specified text.

If you need more search options, click the "Add field" link and select the required search criteria:



Each option will add a search box similar to the **Message** or **Message ID** fields. Additional search options include:

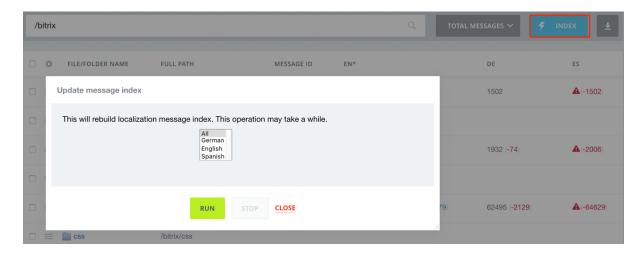
- **Include messages by IDs** specify here one or more message ID's to be scanned for a match.
- **Exclude messages by IDs** specify here one or more message ID's to skip when searching.
- **Include files by paths** use this option to search language files whose paths match the specified text.
- **Exclude files by paths** inverse to the previous option; use this option to exclude files that match the specified path.

^ **Note:** All the search parameters described above can be left empty or combined to look up the required message.

Finally, "Restore default fields" option rolls back all selected search fields to their default values.

Localization Indexing

Localization message indexing is a new feature that incrementally updates the database index for all localization messages inside a selected path. Indexing can be started by clicking the "Index" button in the search bar. The Update Message Index form shows the existing localization languages. You can select one or more languages to index.



After indexing is complete, the localization message database index is updated, and all the latest versions of localization messages are shown in the **Browse Files** menu.

Note that updating the index can take a significant amount of time which is usually a matter of available computing power and the number of files to be indexed.

You can abort indexing at any time by clicking the "Stop" button. It can, however, cause incomplete file transfer and may leave random copies of old localization files.

Language Message Location

The system modules, components, templates, gadgets, and workflow activities can be found in the following file system directories:

Product modules	/bitrix/modules/
Components	/bitrix/components/bitrix/
Workflow activities	/bitrix/activities/bitrix/
Templates	/bitrix/templates/
Bitrix24 site blocks	/bitrix/ blocks /bitrix/
JS components	/bitrix/ js //lang/

When a module is installed, its components, gadgets, blocks and activities are saved to their respective locations. These components, gadgets and activities are displayed in the system public area and have to be translated separately.

The components, gadgets, landing pages, blocks and activities are saved to these locations:

```
/bitrix/modules/<module_folder>/install/components/bitrix/
/bitrix/modules/<module_folder>/install/activities/bitrix/
/bitrix/modules/<module_folder>/install/templates/
/bitrix/modules/<module_folder>/install/blocks/bitrix/
/bitrix/modules/<module_folder>/install/js/
```

Messages in these directories also have to be translated (or replaced by copying already translated phrases from the sections */bitrix/components/bitrix/*, */bitrix/gadgets/bitrix/*, */bitrix/activities/bitrix/ etc.*) if a translation archive is to be set

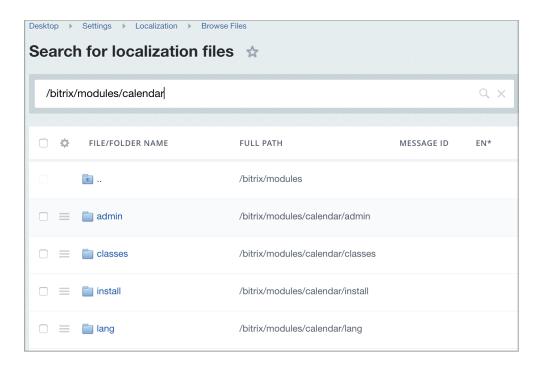
up for its subsequent use in other units. For more information, see **Localization Archive Import/Export**.

Messages used in the component templates may vary depending on a site template used for a certain instance of the system. These messages are subject to change when the system is customized according to a client's requirement. The component templates are stored in the folders of the corresponding site templates. The following locations have to be translated separately in a customized system:

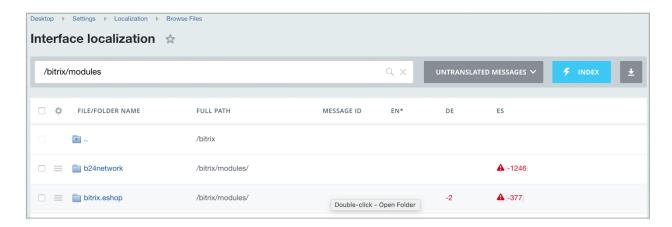
```
/bitrix/templates/<site_template_1>/
/bitrix/templates/<site_template_2>/
/bitrix/templates/<site_template_3>/, etc.
```

Exporting Language Messages to CSV

In the **Localization** > **Browse Files** form, open a directory for the module whose messages you want to export. In the following figure, the file browser shows the **Calendar** module's files.

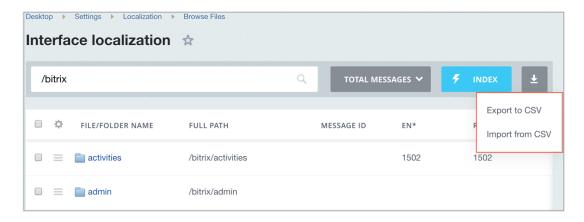


Select Show untranslated message count.

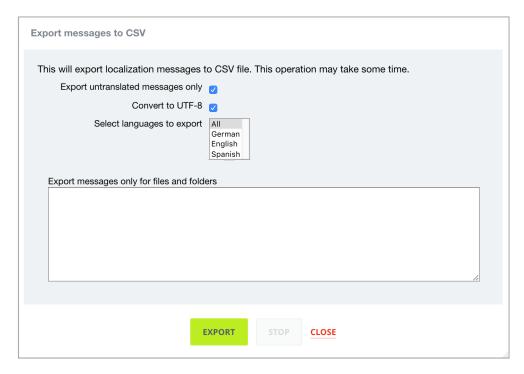


Now, open the dropdown menu (click the down arrow button). It has only the two options:

- Export to CSV saves messages to a CSV file.
- Import from CSV loads messages from a CSV file.



Select **Export to CSV** and set the export options.



You can opt to export only the messages that remain untranslated.

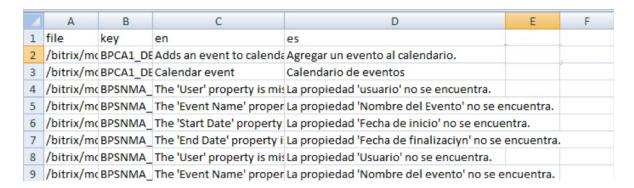
When exporting more than one language, it is highly recommended to enable the UTF-8 option.

Finally, you can manually specify files and folders whose messages you want to place in the exported file.

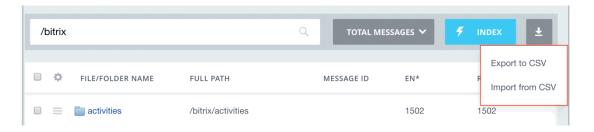
Click **Export to CSV** to complete the operation. You can now translate the messages using any translation software of your choice.

Importing Language Messages from CSV

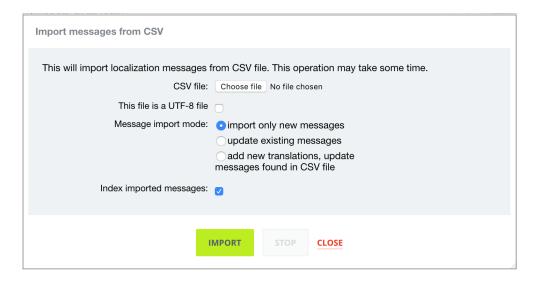
Before importing the CSV file with the translated messages, make sure the file has *File*, *key*, and *language ID* columns:



To import the file, open the **Browse Files** page and select **Import from CSV** from the drop-down menu:



Select import options:



- **CSV file:** select a file you want to import.
- **This file is a UTF-8 file** if checked, the system will assume the file was saved in UTF-8 encoding and process it accordingly.

The three modes exist to help you handle the messages that already exist in the system:

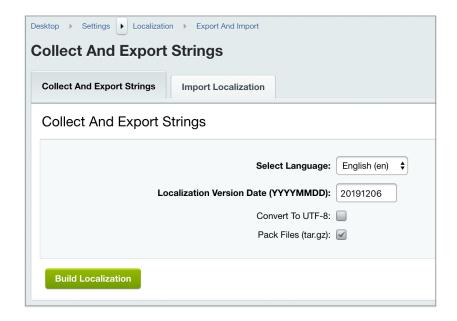
- **Import only new messages** only adds new messages; the existing messages are ignored.
- **Update existing messages** only updates the messages that exist in the system; no new translations are added.
- Add new translations, update messages found in the CSV file adds new messages and updates existing files and messages.

Repeat this procedure for the remaining modules.

<u>Importing and Exporting the Localization Archive</u>

The system localization can be archived, exported and subsequently imported into another project, or uploaded to the Bitrix server if you want to share your localization with other users.

Go to **Desktop > Settings > Localization > Export And Import > Collect And Export Strings** to create a localization archive file.



- **Select Language** select the language you want to export.
- Localization Version Date (YYYYMMDD) the archive date. This will be used as the archive version.
- **Convert To UTF-8** converts messages into UTF-8 encoding. Select the option if the project has language specific characters (it usually does) and the archive must be setup as UTF-8.
- Pack Files (tar.gz) saves the files as a tar.gz archive.

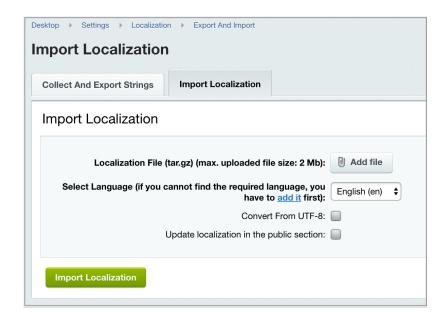
Click the **Build Localization** button to start the export procedure. When done, the system will show a path to the archived localization.

Note 1: If the localization archive is supposed to be sent to Bitrix, export phrases in a national encoding and compress them in tar.gz format.

⚠ **Note 2:** The product localization export script collects messages from /bitrix/modules/ only. If your project has messages used by the components, gadgets or workflow activities inside their respective folders (e.g. /bitrix/modules/components/bitrix/), they should be copied to the following directories:

/bitrix/modules/<module_folder>/install/components/bitrix/ /bitrix/modules/<module_folder>/install/gadgets/bitrix/ /bitrix/modules/<module_folder>/install/ activities/bitrix/

To import the localization, go to **Desktop > Settings > Localization > Export And Import > Import Localization**.



- **Select Language** select here the language that the localization will be imported into.
- **Convert From UTF-8** select this option if the imported localization is in UTF-8 encoding.
- **Update Localization in the public section** if checked, the language messages in the public area of your project will be updated as well.

Click the **Import Localization** button to import the localization.

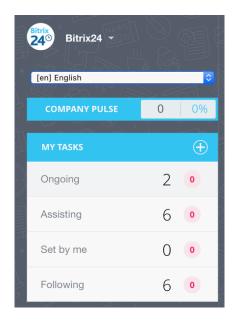
Downloading a Language Pack Using the Update System

Professional Bitrix developers and qualified Bitrix Partners are continuously updating the localizations for Bitrix24 Self-hosted version.

You can download a required language pack through the update system (**Desktop** > **Marketplace** > **Platform Update**).



Adding a Language Selector in the Public Area



Giving your visitors an option to choose a site language is certainly a leap forward in user experience. Besides, it will only take you a few moments to implement.

• Add the following code to the */bitrix/php_interface/dbconn.php* file:

```
<?
$arLang = array("en", "pl", "la");
if (isset($_GET["user_lang"]) && in_array($_GET["user_lang"], $arLang))
{
    setcookie("USER_LANG", $_GET["user_lang"], time()+9999999, "/");
    define("LANGUAGE_ID", $_GET["user_lang"]);
}
elseif (isset($_COOKIE["USER_LANG"]) && in_array($_COOKIE["USER_LANG"], $arLang))
{
    define("LANGUAGE_ID", $_COOKIE["USER_LANG"]);
}
</pre>
```

• Add the following code to the <head> tag of the header file (/bitrix/templates/<template>/header.php) of the site template you use for your site:

```
<script>
function replaceQueryParam(param, newval, search)
{
    var regex = new RegExp("([?;&])" + param + "[^&;]*[;&]?");
    var query = search.replace(regex, "$1").replace(/&$/, '');
    return (query.length > 2 ? query + "&" : "?") + (newval ? param + "=" + newval
: '');
}
function action_lang()
{
    window.location = replaceQueryParam('user_lang',
document.getElementsByName('Lang')[0].value, window.location.search);
}
</script>
```

• Finally, add the language selector to the template using this code:

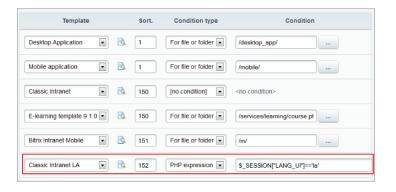
```
<?echo CLanguage::SelectBox('Lang', LANGUAGE_ID,'','action_lang()');?>
```

You can add the selector to the header or footer of the template, depending on the design. More details can be found in the <u>Template management</u> topic.



The language selector does not translate content. All it does is change the UI messages to the selected language. However, the selector can change the menu language and message template. To do that, use another site template (in this case, a second template) to activate the menu that is translated into another language. This template also has to use language-dependent messages. A new set of TYPE and menu files are required to define menu items of the new language. Here's how you will do it.

- Create a copy of the site template. To do that, simply copy the folder with the template to /bitrix/templates/. For the sake of an example, the site template will be in the folder /bitrix/templates/light/, and we make a copy in /bitrix/templates/light_la/
- 2. For convenience and to tell the two apart, we can change the description of the <code>light_la</code> template in the file <code>/bitrix/templates/light_la/description.php</code> :



To make the selector work, we have to specify a condition to activate the template in the site settings (e.g. $\$_SESSION["LANG_UI"] == 'la'$).

Make sure you call the *session_start()* before adding items to the \$_SESSION variable.

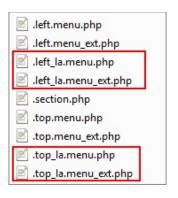
3. For example, if you are using the top and left menu types in your site (the menu types are defined in the settings of the Site Explorer module), add a new menu type to describe the menu for the new language, like top_la and left_la:



4. In the *light_la* template, find the activation code for the menu components (in the files */bitrix/templates/light_la/header.php* and */bitrix/templates/light_la/footer.php*) and change their menu type:

```
<?$APPLICATION->IncludeComponent("bitrix:menu", "horizontal_multilevel", array(
    "ROOT_MENU_TYPE" => "top_la",
    "MENU_CACHE_TYPE" => "N",
    "MAX_LEVEL" => "3",
    "CHILD_MENU_TYPE" => "left_la",
    "USE_EXT" => "Y",
    "DELAY" => "N",
    "ALLOW_MULTI_SELECT" => "N"
    ),
    false
);?>
```

5. Finally, create a copy of these menu files in the site structure and translate them into the target language.



^ Note: When translating the menu in the Social Intranet template, in the .left_la.menu_ext.php and .top_la.menu_ext.php files, change the template ID in the condition:

```
if (SITE_TEMPLATE_ID !== "bitrix24")
```

In our case, the condition will look like this:

```
If (SITE TEMPLATE ID !== "bitrix24 la")
```

Your template ID can be found in the list of templates here: **Desktop > Settings > System settings > Websites > Site templates.**

Showing Different Content for Different Languages

If you need to have different content for different languages, you have two options. The first option is create a 'language mirror' of the site. The second option is use the Bitrix multi-site feature.

If you're going with the first option, create a copy of the content in the second language. Static content (pages and sections) in this case has to be saved in different folders, for example:

En ...About ...Company ...News De ...Überuns ...Mitarbeiter ...News

To have dynamic content rendered from a proper source folder, separate sources in each language need to be established. For example, to show a News page in the selected language, the component needs to point to an information block containing news items written in that language.

The language selector has to point to a folder with content in the other language.

When using the multi-site feature of the Bitrix platform, create a new site with its own content and objects (information blocks, polls, banners, training courses, etc.) in the target language.