

Formulize 3.1 Final

Getting Started Guide

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Table of Contents

Overview.....	3
Installation.....	3
Fresh Install.....	3
Upgrade Install.....	4
How can you help? How can you get help?.....	5
What's New in Formulize 3.1.....	6
Creating a Form.....	7
Configuring Formulize and Accessing Forms.....	7
Other Ways of Accessing Forms.....	8
Through the URL.....	8
Through PHP code.....	8
How do I change the way the "list of entries" screen looks?	9
Why do I see a list of entries instead of my form, or vice versa?.....	10
How can I search through my entries?.....	10
The basics.....	10
Numbers.....	11

More than one search on the same column.....	11
Wildcard terms {TODAY}, {USER} and {BLANK}.....	12
“OR” searches on multiple columns.....	13
Advanced developer-focused search terms.....	13
Saving and Loading Views of Your Data.....	14
Troubleshooting Tips.....	14
I'm getting some strange database errors, any suggestions?	14
Help, my page is blank, or not drawn completely on the screen!.....	14
I've changed my derived value formula, but the actual values aren't changing. Why?....	15
My {TODAY} search isn't working. Why?.....	15
I have marked some elements as “disabled” for some groups, but some of those people still see the elements. Why?.....	15

Overview

Formulize is a tool that lets you create forms in your website, users can fill them in, and you can then view, search, sort and analyze the data afterwards. There is also a report writing feature which lets you save “views” of the data for future reference, or even publish views to other users in your site.

Formulize also has a "screen" system that lets you customize the appearance of the module, to suit whatever applications you are trying to build. Read the section below on changing the "list of entries" screen to get started.

Formulize includes several functions that can be included from outside the module. So if you are a developer or webmaster, and you want to create a form-driven, custom application in your website, and the screen system is not enough for you, then this “API” lets you rapidly create an application on top of a standard Formulize form. For more information about this, please see the PDF called *Using Formulize and Pageworks to Make Custom Applications* available from: <http://www.freeformsolutions.ca/formulize>

Essentially, if there is no existing tool specifically made to solve your problem, and your problem can be boiled down to a data input/data output description, then you can probably create an application with Formulize that will meet your needs more than adequately.

This release requires version 2.x of XOOPS or version 1.x of ImpressCMS in order to work. Install that core software first, and then install Formulize as a module within it. A standalone Formulize release is forthcoming.

Installation

Fresh Install

1. Install XOOPS or ImpressCMS on your website if you haven't already.
2. Extract the module files and upload them to the /modules/ folder on your server.
3. Change the permission on the /export/ folder in the Formulize module so that it is writable (777 in Unix/Linux).
4. Install the core patch that is used by Formulize. Extract the files in the patch to the same relative folder locations on your website. The patch has one file for the /include/ folder and one file for the /class/xoopsform/ folder.

Note: You don't have to install the patch (Formulize will work without it) but it is recommended that you do install it since it improves the behaviour of datebox elements a lot. If you do install it, then you will have to add one Smarty tag to the main theme.html file for your site. Add `<{$calendarjs}>` to the `<head></head>` section of the theme.html file. Just after the `<title></title>` tags is the recommended spot. You should clear your templates_c folder after doing this.

For more details on the core patch, check out this Sourceforge tracker item:

http://sourceforge.net/tracker/index.php?func=detail&aid=1077123&group_id=41586&atid=430842

5. Install the module like normal from System Admin—Modules in the administration side of your site.
6. Set the module preferences, particularly the number formatting options if you are not in North America.

Upgrade Install

If you are upgrading from version 1.6RC or earlier, do not follow the instructions below. Please contact Freeform Solutions for assistance. You can do so at: formulize@freeformsolutions.ca

If you are upgrading from version 2.x, do this:

1. Extract the module files and upload them to your server. Overwrite the existing files.
2. Make sure the permission on the export folder in the Formulize module is writable (777 in Unix/Linux).
3. In System Admin—Modules, update the Formulize module.
4. **BACKUP YOUR DATABASE.** Make sure you have a backup of your database, or at least your Formulize tables, before continuing.

In System Admin—Formulize, ie: the main admin page of Formulize, change the URL to this:

<http://www.yoursite.com/modules/formulize/admin/formindex.php?op=patch31>

A button will appear at the very bottom of the screen. Click it to update the module's database structure.

5. **If you are upgrading from version 2.1 or earlier**, then change the URL to this:
`http://www.yoursite.com/modules/formulize/admin/formindex.php?op=patch22convertdata`
A button will appear at the very bottom of the screen. Click it to sanitize your data and convert it to the new storage format used since version 2.2. **Do not run this patch twice!**
6. Run the upgrade patch for the new data structure in Formulize 3.0: change the URL to this:
`http://www.yoursite.com/modules/formulize/admin/formindex.php?op=patch30datastructure`
7. Set the module preferences, particularly the number formatting options if you are not in North America.

If you are upgrading from Formulize 3.0, do this:

1. Extract the module files and upload them to your server. Overwrite the existing files.
2. Make sure the permission on the export folder in the Formulize module is writable (777 in Unix/Linux).
3. In System Admin—Modules, update the Formulize module.
4. **BACKUP YOUR DATABASE.** Make sure you have a backup of your database, or at least your Formulize tables, before continuing.
In System Admin—Formulize, ie: the main admin page of Formulize, change the URL to this:
`http://www.yoursite.com/modules/formulize/admin/formindex.php?op=patch31`
A button will appear at the very bottom of the screen. Click it to update the module's database structure.
5. Set the module preferences, particularly the number formatting options if you are not in North America.

How can you help? How can you get help?

Freeform Solutions is actively developing Formulize, with support from the community. You can post issues, questions, feedback, problems, etc on support forums at <http://www.freeformsolutions.ca/formulize>. We will attempt to respond to all postings as soon as possible. Further documentation is available at that website.

What's New in Formulize 3.1

- **Major performance improvements**, since the data extraction layer now uses proper SQL limit statements to optimize its queries. This was only possible since the new data structure in version 3.0.
- **Full number formatting is now possible**. You can specify the number of decimal points, a prefix, such as \$, and the thousands and decimal characters. These are specifiable as a module preference, and also can be overridden for individual textboxes.
- **Derived values are now stored in the database**. This means that searches, sorts, and calculations are all possible on derived values. They can even be referred to by linked selectboxes; they behave like any regular value in the database. They are updated each time an entry is saved.
- **MySQL data types are exposed through Formulize**. This is necessary in the new data structure and query system, so that numeric fields sort properly and give the right results on certain calculations. Be careful to specify that your form elements that should only have numbers, have a numeric element type, if sorting and calculations on those fields matter.
- **Advanced search is deprecated, for now**. The advanced search feature was tied to the old query architecture, and it doesn't function well with the new data structure and query system. Advanced searches are still possible, and will limit the results you see on screen, but they can cause odd behaviours because they are applied after the database query has been run. Therefore, some or all of the entries on a page can be suppressed by the advanced search, so it looks like you have a blank page. They also are not taken into account in calculations. With all the options available now in the Quicksearch boxes at the top of each column, most advanced searches can be expressed as a series of Quicksearch options.
- **There are many other new features**, including more calculation options, more screen controls, and an API function for custom formatting of calculations in a saved view.

Creating a Form

The most basic thing you can do is create a form. You can do this easily by going to the Administration Menu, then clicking the Formulize icon, and then clicking the icon beside where it says “Create a Form.”

At that point, you will be asked for the name of the form and also how many entries people are allowed to make in it.

Next, specify the elements that you want in the form, such as text boxes, radio buttons, dropdown lists, etc. There are a lot of configuration options for each element. Most of them are explained with extensive descriptive text on the left side of the administration screens. Read it carefully to learn about all the options.

Lastly, you must specify the permissions for the form so that people can access it. On the front of the Formulize admin area, click on the icon beside where it says “Modify Form Access Permissions.” Then you can specify the group or groups you want to modify permissions for, and the form or forms you want to modify permissions for. Click the button at the bottom and then specify the permissions for each group and form. If you are using Firefox, you can hover your mouse over a permission to get a tooltip popup explaining what it is for.

Your form is now ready for use. Simply go to the front page of the site and click on the form in the Form Menu, or wherever else you have setup navigation to your forms.

Configuring Formulize and Accessing Forms

Formulize 3.1 does not require much configuration. In the System Admin—Groups area, you should make sure that all groups that need to access forms have Module Access permission for Formulize.

Formulize also has some preferences that you can use to control the default settings for various form elements, as well as the default number formatting options for displaying numbers that people type into textboxes.

If you are using the Main Menu, then a link will appear there and it should provide a list of "General Forms" that includes all the forms you have created in your site. You can customize this list (hide certain forms from it) using the "Modify entries in the Form Menu block" link in the admin side of the module. You can also create other categories of forms besides the default "General Forms".

To access these other categories, you need to use the Form Menu block. The Form Menu block is configured like any other block (control its appearance through System Admin—Blocks, and control who has access to it through System Admin—Groups). The Form Menu block will provide a link to each category and will list each form in the category as a sub entry in the menu.

Other Ways of Accessing Forms

Through the URL

You can access forms via the URL simply by adding a "fid" parameter to the end of the URL and including a valid form ID. You can learn the form ID numbers by looking on the main form administration page, where they're listed in () after each form. This URL will access form 5:

<http://www.yoursite.com/modules/formulize/index.php?fid=5>

You can access specific entries in a form by adding a "ve" parameter to the end of the URL (view entry). You can learn the correct value for the "ve" parameter by looking in the standard List of Entries page for a form, and hovering the mouse over the page and magnifying glass icon. The status bar of your web browser will show a URL for the entry, including a "ve" parameter. Use that number to access that entry directly. ie, this URL will access entry number 99 from form 5:

<http://www.yoursite.com/modules/formulize/index.php?fid=5&ve=99>

If you create frameworks of forms (see the *Using Formulize and Pageworks to Make Custom Applications* PDF for more details), then you can access a framework through the URL, by adding a "frid" parameter and including the ID number of the framework. You can learn the ID number of the framework by modifying the framework in the admin side of Formulize, and looking in the URL for the "cf" parameter. That is the ID number to use. ie, this URL will show framework 2 with form number 5 as the primary form:

<http://www.yoursite.com/modules/formulize/index.php?fid=5&frid=2>

Through PHP code

You can also refer to certain things in PHP code, which gives you a whole lot of flexibility for controlling how people interact with different parts of your Formulize applications.

You can use PHP to include any “screen” in a page. See the section called *The "list of entries" screen is too much like a database backend. How do I change it?* below for more information on what screens are and how to create them. You can also include any Pageworks page, if you are using the companion Pageworks module (Pageworks is useful for creating highly custom interfaces and systems based on Formulize data structures, since it gives you an easy way of managing PHP pages in your website, and it provides easy access to the Formulize API).

To include a screen using PHP, just add this PHP code to your page:

```
$formulize_screen_id = 1;  
include XOOPS_ROOT_PATH . "/modules/formulize/index.php";
```

That will cause screen number 1 to appear in your webpage.

To include a Pageworks page using PHP, just add this PHP code to your page:

```
$page = 1;  
include XOOPS_ROOT_PATH . "/modules/pageworks/index.php";
```

That will cause Pageworks page number 1 to appear in your webpage.

How do I change the way the "list of entries" screen looks?

Since Formulize 2.3, you can control the appearance and behaviour of the "list of entries" screen through the new "Defined Screens for this Form" feature. To use this feature, go to the administration side of Formulize, and click on where it says "Edit this form's settings" with an envelope and @ symbol icon.

At the bottom of this page, you can add a new screen for this form. A screen is simply a series of options that control how you want the form to appear. You can have multiple screens for any form, essentially variations on a theme.

There are two kinds of screens currently available: multi-page versions of forms, which are a useful way of presenting really long forms, and list of entries screens, which are customized versions of the default list of entries screen.

Add a new list of entries screen, and try changing the number of entries shown on each page. Try changing the text for certain buttons, or removing the buttons altogether by leaving the text blank.

Save your screen, and then note its SID number. With that, you can access your screen by going to this URL:

<http://www.yoursite.com/modules/formulize/index.php?sid=1>

You can go back and make more changes to the screen and they will be reflected at that URL, after you have saved the changes.

You can completely alter the appearance of the screen by using the custom template options near the bottom of the screen admin interface. You can customize where you want buttons and search boxes to appear, by using the variables listed and using PHP code to print them out wherever you wish on the screen.

You can even customize the appearance of each row in the list, so that it doesn't look like a table at all. Use the "display" function to print out specific values from each entry in each row. For more information on the display function, consult the *Using Formulize and Pageworks to Make Custom Applications* PDF, available on the Freeform Solutions website.

Why do I see a list of entries instead of my form, or vice versa?

It all depends on the permissions you have on the form, and how many entries the form is configured to allow.

For instance, if you make a form that is set up to allow more than one entry per user, then when you go to that form, the default screen that you see will be a list of entries in the form.

If you make a form that is setup to allow only one entry per user, then when most people go to that form, they will see the form itself and not a list. However if someone has `view_groupscope` or `view_globalscope` permission on the form, that will allow them to see multiple entries not just their own. In those cases, people will see the list of entries by default instead. The webmaster account has all permissions, so it should always see a list of entries by default, no matter what.

How can I search through my entries?

Since Formulize 3.0, you have a lot of options for search terms that you can type in the “quicksearch” boxes at the top of each column in the list of entries pages. Here is a brief summary:

The basics

This search term:	Means this:	It will find:
orange	find “orange” by itself or inside something else	orange orange peels apples and oranges
=orange	find the exact text “orange”, no more, no less	orange (it won't find “oranges”)
!orange	find entries that do not have orange in them	red purple banana peels
!=orange	find entries that do not match the exact text “orange”	red apples and oranges orange peels

This search term:	Means this:	It will find:
15	find the text “15” by itself or inside something else	15 baseballs 127 15 15
=15	find the exact number 15	15
!15	find text that does not contain “15”	1848 3 strikes etc
!=15	find anything except the exact number 15	14 16 15 baseballs

Numbers

This search term:	Means this:	It will find:
>10	find numbers greater than 10	11, 12, 1485
>=1000	find numbers greater than or equal to 1000	1000, 1001, etc
<65	find numbers less than 65	64, 10, -401
<=65	find numbers less than or equal to 65	65, 64, etc

More than one search on the same column

This search term:	Means this:	It will find:
>10//<100	find numbers between 11 and 99	11, 12, etc
>10//<10	find entries that are both greater than 10 and less than 10	it will find nothing...the search condition is logically impossible

This search term:	Means this:	It will find:
santa/!/monica	find entries that contain “santa” and not “monica”	Santa Claus Santa Cruz
>=2008-10-01//<=2008-10-31	find dates within October 2008	2008-10-01 2008-10-15
red//orange//blue	find those three values. You can have as many terms as you want in a single column.	Searches like this will usually only find matches if the field you're searching accepts multiple selections (ie: checkboxes), and red, orange and blue were three of the options.

Wildcard terms {TODAY}, {USER} and {BLANK}

This search term:	Means this:	It will find:
{TODAY}	find today's date	the text of today's date, in YYYY-mm-dd format
>={TODAY-30}	find dates anytime from the past 30 days into the future	you get the idea
>={TODAY+30}//<={TODAY}	find dates between 30 days ago and today	
>{TODAY+14}	Find dates more than 14 days in the future	
{USER}	Find entries that match the current user's full name, or if no full name is in their profile, then match on their username	
{BLANK}	Find entries that are blank or empty	

“OR” searches on multiple columns

This search term:	Means this:	It will find:	
<i>on the fruit column:</i> ORapples <i>and at the same time on the vegetable column:</i> ORcarrots	Find entries that match either apples in the fruit column, or carrots in the vegetable column (normally, search terms on multiple columns must all be matched)	Fruits	Vegetables
		Apples	Spinach
		Oranges	Carrots

Advanced developer-focused search terms

This search term:	Means this:
{order}	Find entries that match whatever is in \$_POST['order'] or if that's empty, \$_GET['order']. This is meant for use in a complex application where a certain screen might need to show different things at different times. You can save one view with this kind of search term and then make some kind of architecture (with javascript maybe?) to populate \$_POST or \$_GET with the values you need at the right time.
!{order}	Find entries that do not match whatever is in \$_POST['order'] or \$_GET['order']
!orange!	Persist this search term even if this column is not included in the view. Certain columns are visible only to certain groups of users. You might want to use a search term on a certain column that only webmasters have access to, in order to limit the list of entries. Then you could publish that view to other users who do not have that column available, but the list of entries would still be limited by this search term.
!!monica//santa!	When persisting a search that includes multiple terms, put the !! at the very beginning and very end of the terms. Don't get confused by “not” operators (!) that may be part of the terms (as in “not monica” at the beginning of this set of terms).

Saving and Loading Views of Your Data

You can use the *Save current view* button on the "list of entries" screen to save all the search, sort, calculations and any other selections you have made. Your saved view will show up in the *Current view* drop down list as an available view that you can return to at any time.

Webmasters and other users with sufficient permissions on the form, can publish saved views to other groups of users. This can be a useful way to make reports available to people.

When you make custom screens, any published view can be used as the default set of entries that shows up in the screen. Also, when you are using screens, you can cause certain views to be used as the default view on a page, by putting the view number in the URL like this:

`http://www.yoursite.com/modules/formulize/index.php?sid=1&loadview=12`

That will cause screen number 1 to appear, and saved view number 12 will be the default view.

Unfortunately the only place to identify the view numbers currently, is in the MySQL database. Look in the `formulize_saved_views` table for the `sv_id` parameter.

Troubleshooting Tips

I'm getting some strange database errors, any suggestions?

If you are using MySQL 5, you may need to run in "traditional" mode. To set this mode, run the following SQL statement once:

```
SET @@global.sql_mode='';
```

Help, my page is blank, or not drawn completely on the screen!

This kind of error is most often caused by having the memory limit and/or max execution time of PHP set too low. If you change these values in your PHP ini file, or through other means, it may solve the problem. On a Linux web server running Apache, you can often override them by putting a `.htaccess` file in the root folder of your website with the following lines in it:

```
php_value memory_limit 128M
php_value max_execution_time 120
```

I've changed my derived value formula, but the actual values aren't changing. Why?

As of Formulize 3.1, derived values are stored in the database, and they are normally only updated when an entry is saved. If you create a derived value formula, load a list of entries to inspect the values that are created, and then change the formula, the values will not normally be updated again until the entries are saved. This is a performance precaution, since updating derived values can take some time.

If you are making changes to a derived value formula and need to force the derived values to be updated every time you reload the list of entries, so you can see if your formula is working, then change your URL so it has an extra parameter on the end like this:

<http://www.yoursite.com/modules/formulize/index.php?fid=1&forceDerivedValueUpdate=1>

When that special parameter is on the end, it will force the derived values to be updated using the latest formula.

My {TODAY} search isn't working. Why?

If you are using a + or - number as part of your {TODAY} search, ie: {TODAY+30}, make sure the number is inside the { }. Although it does work in some places to type {TODAY}+30, that will not work in all cases, so you should always include the number inside the { }.

I have marked some elements as "disabled" for some groups, but some of those people still see the elements. Why?

If a user is a member of a group for which the element is not disabled, then the element will not be disabled for that user. All the user's groups must be specified in order for the element to be disabled for that user. The logic for this feature may be inverted at some point in the future, so you would then specify only the groups for which the element should not be disabled.