

THE LEADER IN DRUPAL PLATFORM DESIGN AND DEVELOPMENT

# CUSTOMIZING VIEWS FILTERS



# WHY USE A CUSTOM VIEWS FILTER?

- Complex filters
- To reduce data set appearing in filter
- Because the native filters in Views are just not cutting it.



# THINGS TO KNOW

- Easiest to produce an override of an existing filter.
- Filters are built before the query result sets are returned, so they don't have access to the data set yet.
- All filters act on a database field.
- Filters are objects (classes).



# VIEWS OUTPUT - THE PROBLEM WE'RE TRYING TO SOLVE



### Drupal API

API Homepage

Log in / Register

#### views\_handler\_filter

Views 6 handlers/views\_handler\_filter.inc 7 handlers/views\_handler\_filter.inc

Base class for filters.

#### Hierarchy

```
views_object
     views_handler
           views handler area
           views_handler_argument
           views handler field
           views_handler_filter
                 views_handler_filter_boolean_operator
                 views_handler_filter_broken
                 views_handler_filter_equality
                 views_handler_filter_history_user_timestamp
                                                                                   Most Useful
                 views_handler_filter_in_operator 	
                 views_handler_filter_node_access
                 views handler filter node status
                 views_handler_filter_node_tnid
                 views_handler_filter_node_tnid_chil
                 views_handler_filter_numeric
                 views_handler_filter_search
                 views_handler_filter_string
```



### WHERE TO START: FILTER CLASS LISTING ON API.DRUPAL.ORG

#### views\_handler\_filter\_in\_operator

Views

6 handlers/views\_handler\_filter\_in\_operator.inc 7 handlers/views\_handler\_filter\_in\_operator.inc

Simple filter to handle matching of multiple options selectable via checkboxes

#### Definition items:

- options callback: The function to call in order to generate the value options. If omitted, the
  options 'Yes' and 'No' will be used.
- options arguments: An array of arguments to pass to the options callback.

#### Hierarchy

```
views_bandler
views_handler_filter
views_handler_filter_boolean_operator
views_handler_filter_broken
views_handler_filter_equality
views_handler_filter_history_user_timestamp
views_handler_filter_in_operator
views_handler_filter_aggregator_category_cid
views_handler_filter_entity_bundle
views_handler_filter_field_list
```

views\_handler\_filter\_in\_operator handles "IN" clauses on filters.

Select a term to restrict the views query.

Output formats as checkboxes (in views admin) or a drop-down menu (as an exposed filter).

#### **Properties**

Name	Description
views_handler::\$table_alias	The alias of the table of this handler which is used in the query.

#### **Functions & methods**

Name	Description
views_handler::access	Check whether current user has access to this handler.
views_handler::broken	Determine if the handler is considered 'broken', meaning it's a a placeholder used when a handler can't be found.
views_handler::case_transform	Transform a string by a certain method.
views_handler::ensure_my_table	Ensure the main table for this handler is in the query. This is used a lot.
views_handler::exposed_submit	Submit the exposed handler form
views_handler::exposed_validate	Validate the exposed handler form
views_handler::expose_submit	Perform any necessary changes to the form exposes prior to storage. There is no need for this function to actually store the data.
views_handler::extra_options	Provide defaults for the handler.
views_handler::extra_options_form	Provide a form for setting options.
views_handler::extra_options_submit	Perform any necessary changes to the form values prior to storage. There is no need for this function to actually store the data.
views_handler::extra_options_validate	Validate the options form.
views_handler::get_field	Shortcut to get a handler's raw field value.
views_handler::get_join	Get the join object that should be used for this handler.
views_handler::groupby_form	Provide a form for aggregation settings.
views_handler::groupby_form_submit	Perform any necessary changes to the form values prior to storage. There is no need for this function to actually store the data.
views_handler::has_extra_options	If a handler has 'extra options' it will get a little settings widget and another form

### VIEWS\_HANDLER\_FILTER\_IN\_OPERATOR



# LET'S GET STARTED



Create module files as normal - .module and .info at minimum. Code could also be added to an existing module if you like.

```
<?php
/**
  * @file
  * demo_view_filter.module
  */

/**
  * Implements hook_views_api().
  */
function demo_view_filter_views_api() {
  return array(
    'api' => 3,
  );
}
```

.module consists solely of hook\_views\_api function.
This tells it to look for .views.inc file.



# .VIEWS.INC



# IMPORTANT LINKS

- http://api.drupal.org/api/views/handlers!
   views handler filter.inc/class/views handler filter/7
   Full listing of all default filter classes.
- https://github.com/srjosh/drupal\_demos github repo with demo code



# QUESTIONS?



### **JOSHUA TURTON**

Senior Developer
jturton@phase2technology.com
@sjinteractive
srjosh on drupal.org and github





phase2technology.com @phase2tech