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THE VIRTUAL DEVELOPER CONFERENCE

Seven things you didn't know you could do with Advanced Custom Fields



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The VHS Awards

Brief:

- Celebrate the best movies of the 90s
- Audience voting with live ranking
- Cut-off date for voting
- Unique design



The VHS Awards

A celebration of the greatest films from the greatest decade (the 90s) of film.

<p>1</p> A scene from the movie 'Goodfellas' showing three men in suits looking at a document. <p>'Goodfellas' (1990)</p> <p>READ REVIEW</p>	<p>2</p> A scene from 'Starship Troopers' showing a soldier in a helmet and armor. <p>'Starship Troopers' (1997)</p> <p>READ REVIEW</p>	<p>3</p> A scene from 'Fight Club' showing two men in a car. <p>'Fight Club' (1999)</p> <p>READ REVIEW</p>
<p>4</p> A scene from 'The Matrix' showing a man in a suit being thrown through the air. <p>'The Matrix' (1999)</p> <p>READ REVIEW</p>	<p>5</p> A scene from 'Pulp Fiction' showing two men in suits talking. <p>'Pulp Fiction' (1994)</p> <p>READ REVIEW</p>	<p>6</p> A scene from 'Schindler's List' showing a man in a suit working at a desk. <p>'Schindler's List' (1993)</p> <p>READ REVIEW</p>
<p>7</p> A scene from 'Toy Story' showing Buzz Lightyear and Woody. <p>'Toy Story' (1995)</p> <p>READ REVIEW</p>	<p>8</p> A scene from 'The Shawshank Redemption' showing two men sitting on a bench. <p>'The Shawshank Redemption' (1994)</p> <p>READ REVIEW</p>	<p>9</p> A scene from 'The Lion King' showing Simba on a rock. <p>'The Lion King' (1994)</p> <p>READ REVIEW</p>

#1 Install ACF PRO with Composer

How to Install With Composer

Step 1: Add our Composer repository URL to your composer.json file:

```
composer.json

"repositories": [
  {
    "type": "composer",
    "url": "https://connect.advancedcustomfields.com"
  }
]
```

How to Install With Composer

Step 2: Create an auth.json credentials file to place in the root of your site (locally and on the live server) from the My Account section of the ACF site, looks like:

```

auth.json
{
  "http-basic": {
    "connect.advancedcustomfields.com": {
      "username": "Dv12P9fLovYy2oJkdY0PiCrHXcRgGrmk9WR62HdErPasPsV43C0x0anwTizc9XFrY8qysqqZ",
      "password": "https://mysite.com"
    }
  }
}

```

The screenshot shows the ACF Pro Licenses page. At the top, there's a navigation bar with 'ACF', 'Documentation', 'PRO', 'Blog', 'Support', 'Purchase', and 'Account'. The main heading is 'Licenses'. Below that, there's a navigation bar with 'Dashboard', 'Licenses', 'Subscriptions', 'Orders', 'Account', and 'Support'. The user is logged in as 'Iain'. The main content area shows the 'ACF PRO - Personal License' with a subscription ID of '#123456'. The license key is 'Dv12P9fLovYy2oJkdY0PiCrHXcRgGrmk9WR62HdErPasPsV43C0x0anwTizc9XFrY8qysqqZ'. There's a 'Copy license key' button. Below that, there's a 'Downloads' section with a dropdown for 'Latest Version (6.0.7)' and a 'Download' button. The version is '6.0.7' released on 'January 18, 2023'. There's also an 'Activations' section showing '1 of 2 activations' and a 'Manage activations' link. The 'Install using Composer' section has a dropdown for 'Use existing site' with 'https://mysite.com' selected and a text input for 'Or enter site URL' with 'e.g. https://example.com'. Below that, there's a section for 'auth.json' and 'composer.json' with a 'Download' and 'Copy' button. The 'auth.json' content is shown in a code block:


```

{
  "http-basic": {
    "connect.advancedcustomfields.com": {
      "username": "Dv12P9fLovYy2oJkdY0PiCrHXcRgGrmk9WR62HdErPasPsV43C0x0anwTizc9XFrY8qysqqZ",
      "password": "https://mysite.com"
    }
  }
}

```

 There's a link 'Learn more about installing ACF PRO with Composer' at the bottom.

How to Install With Composer

Step 3: Then run the Composer command to install ACF PRO:

```
$ composer require wengine/advanced-custom-fields-pro
```

Read more:

advancedcustomfields.com/resources/installing-acf-pro-with-composer

#2 Custom Post Types & Taxonomies

WP + CPTs = CMS

- Custom post types are an essential part of building WordPress sites
- Register with code or a plugin
- Typically it's the first thing developers do before adding fields with ACF

Joined up process for creating CPTs, taxonomies and custom fields in ACF 6.1 🎉

VHS Awards Site Data Model

- Custom Post Type: Movie
- Taxonomy: Genre
- Fields:
 - Director (text)
 - Year (number)
 - Related Movies (relationship)
 - Votes (number)

Registering Custom Post Types

VHS Awards 0 + New Howdy, iain

ACF Field Groups Post Types Taxonomies Tools Updates

Add New Post Type Save Changes

Screen Options Help

Basic Settings

Singular label *

Name for one item of this post type

Plural label *

Plural name for items of this post type

Post Type Key *

Single word, no spaces. Underscores and dashes allowed

Public
Visible on the frontend and in the admin dashboard

Hierarchical
Hierarchical post types can have descendants (like pages)

Advanced configuration
I know what I'm doing, show me all the options

Thank you for creating with [WordPress](#) and [ACF](#). Version 6.1.1

Registering Fields for the Post Type

The screenshot shows the WordPress Admin Dashboard with the ACF (Advanced Custom Fields) plugin interface. The left sidebar is expanded to show the ACF menu, with 'Post Types' selected. The main content area is titled 'Edit Post Type' and displays the configuration for a new post type named 'Movies'. A green notification banner at the top indicates 'Movies post type created' with links to 'Add fields to Movies', 'Link existing field groups', and 'Create new taxonomy'. Below this, the 'Basic Settings' section is visible, containing the following fields and options:

- Singular label ***: A text input field containing 'Movie'. Below it, the text reads 'Name for one item of this post type'.
- Plural label ***: A text input field containing 'Movies'. Below it, the text reads 'Plural name for items of this post type'.
- Post Type Key ***: A text input field containing 'movie'. Below it, the text reads 'Single word, no spaces. Underscores and dashes allowed'.
- Public**: A toggle switch that is turned on. Below it, the text reads 'Visible on the frontend and in the admin dashboard'.
- Hierarchical**: A toggle switch that is turned off. Below it, the text reads 'Hierarchical post types can have descendants (like pages)'.
- Advanced configuration**: A toggle switch that is turned off. Below it, the text reads 'I know what I'm doing, show me all the options'.

At the bottom of the page, there is a footer that reads 'Thank you for creating with [WordPress](#) and [ACF](#).' and 'Version 6.1.1'.

Registering Fields for the Post Type

The screenshot displays the WordPress Admin interface for the ACF (Advanced Custom Fields) plugin. The main heading is "Add New Field Group" with the name "Movie Details" entered in the input field. There are buttons for "+ Add Field" and "Save Changes".

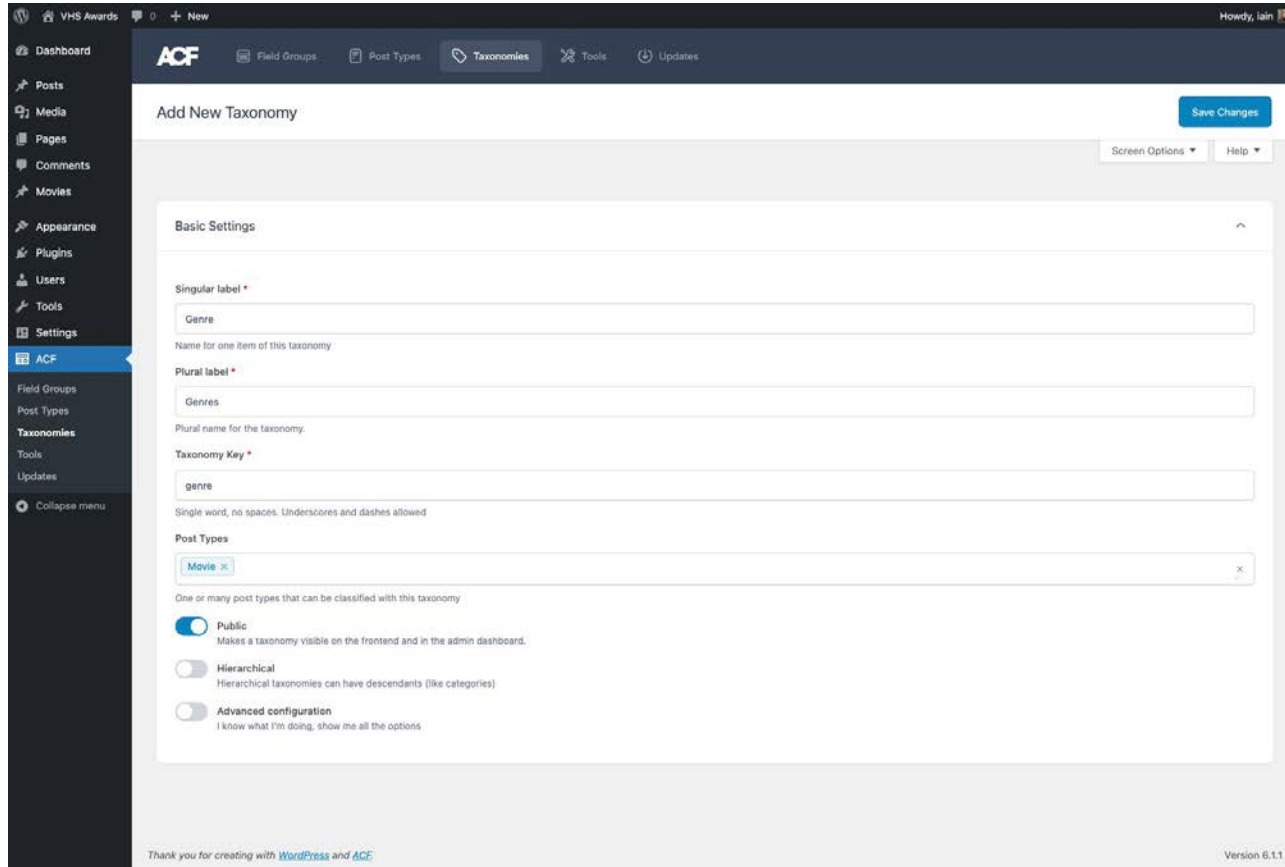
The "Fields" section contains a table with the following data:

#	Label	Name	Type
1	Director	director	Text
2	Year	year	Number
3	Votes	votes	Number
4	Related Movies	related_movies	Relationship

The "Settings" section shows the "Location Rules" tab. The rule is: "Show this field group if Post Type is equal to Movie".

Thank you for creating with [WordPress](#) and [ACF](#). Version 6.1.1

Registering Custom Taxonomies



The screenshot displays the WordPress Admin Dashboard with the ACF (Advanced Custom Fields) plugin interface. The left sidebar shows the navigation menu with 'ACF' highlighted. The main content area is titled 'Add New Taxonomy' and contains a form for creating a new taxonomy. The form is divided into sections: 'Basic Settings', 'Post Types', and 'Advanced configuration'. The 'Basic Settings' section includes fields for 'Singular label' (Genre), 'Plural label' (Genres), and 'Taxonomy Key' (genre). The 'Post Types' section shows 'Movie' selected. The 'Advanced configuration' section has three toggle switches: 'Public' (checked), 'Hierarchical' (unchecked), and 'Advanced configuration' (unchecked).

ACF Field Groups Post Types Taxonomies Tools Updates

Add New Taxonomy Save Changes

Screen Options Help

Basic Settings

Singular label *
Genre

Name for one item of this taxonomy

Plural label *
Genres

Plural name for the taxonomy.

Taxonomy Key *
genre

Single word, no spaces. Underscores and dashes allowed

Post Types
Movie

One or many post types that can be classified with this taxonomy

Public
Makes a taxonomy visible on the frontend and in the admin dashboard.


Hierarchical
Hierarchical taxonomies can have descendants (like categories)

Advanced configuration
I know what I'm doing, show me all the options

Thank you for creating with [WordPress](#) and [ACF](#). Version 6.1.1

#3 Global Fields with the Options Page

The Notification/Promo Bar

 Voting Closes on the 3rd of March

[VOTE NOW!](#)



The VHS Awards

A celebration of the greatest films from the greatest decade (the 90s) of film.

1



'Goodfellas' (1990)

[READ REVIEW](#)

2



'Starship Troopers' (1997)

[READ REVIEW](#)

3



'Fight Club' (1999)

[READ REVIEW](#)


4



5



6



Step 1


```
functions.php






add_action('acf/init', 'my_acf_op_init');
function my_acf_op_init() {

    // Check function exists.
    if( function_exists('acf_add_options_page') ) {

        // Register options page.
        $option_page = acf_add_options_page(array(
            'page_title'    => __('Site Settings'),
            'menu_title'    => __('Site Settings'),
            'menu_slug'     => 'site-settings',
            'capability'    => 'edit_posts',
            'redirect'      => false
        ));
    }
}
```


Step 2

 Fields ^

#	Label	Name	Type
1	▼ Promo Bar Active	active	 True / False
2	▼ Message	message	 Text
3	▼ Button Text	button_text	 Text
4	▼ Button Link	button_link	 Url
5	▼ Notice Type	notice_type	 Button Group

[+ Add Field](#)

Step 3

 Settings ^

[Location Rules](#) [Presentation](#) [Group Settings](#)

Rules ?

Show this field group if

or

Done!

The screenshot shows the WordPress admin interface for a site named 'VHS Awards'. The user is logged in as 'Howdy, rob'. The left sidebar contains a navigation menu with items: Dashboard, Posts, Media, Pages, Comments, Movies, Appearance, Plugins, Snippets, Users, Tools, Settings (highlighted), Custom Fields, CPT UI, and Collapse menu. The main content area is titled 'Site Settings' and is divided into two panels. The left panel, 'Promo Bar Fields', contains the following settings: 'Promo Bar Active' is set to 'Yes' with a toggle switch; 'Message' is 'Voting Closes on the 3rd of March'; 'Button Text' is 'Vote Now'; 'Button Link' is 'https://vhsawards.com/vote'; and 'Notice Type' is set to 'Alert' with a radio button selected. The right panel, 'Publish', contains an 'Update' button. A 'Screen Options' dropdown is visible in the top right corner of the settings area.

WordPress Admin Interface: VHS Awards

User: Howdy, rob

Site Settings

Screen Options

Promo Bar Fields

Promo Bar Active: Yes

Message: Voting Closes on the 3rd of March

Button Text: Vote Now

Button Link: <https://vhsawards.com/vote>

Notice Type: Alert Promo

Publish

Update

#4 Programmatically Registering Fields

Creating Fields with ACF

Field Editor UI

JSON files

PHP code

ACF Builder Package

StoutLogic/acf-builder

<https://github.com/StoutLogic/acf-builder>

**Fluent PHP API for
defining fields**

**Reusable, portable,
commit to version
control**

**Stop clients from
editing fields in the
UI**

Installing the ACF Builder package

```
$ composer require stoutlogic/acf-builder
```


Using the ACF Builder package

```
acf_builder.php

$movie_details = new StoutLogic\AcfBuilder\FieldsBuilder('movie_details');
$movie_details
    ->addText('Director')
    ->addNumber('Year')
    ->setLocation('post_type', '==', 'movie');

add_action('acf/init', function() use ($movie_details) {
    acf_add_local_field_group($movie_details->build());
});
```

#5 Bi-directional Relationships

7



'Toy Story' (1995)

[READ REVIEW](#)


9



'The Lion King' (1994)

[READ REVIEW](#)

29



'Princess Mononoke' (1997)

[READ REVIEW](#)



7



'Toy Story' (1995)

READ REVIEW

9



'The Lion King' (1994)

READ REVIEW

29



'Princess Mononoke' (1997)

READ REVIEW

9



'The Lion King' (1994)

READ REVIEW


7



'Toy Story' (1995)

READ REVIEW

29



'Princess Mononoke' (1997)

READ REVIEW

How it's Done - Option 1

- Write a function that hooks in to the **acf/update_value** filter
 - This runs before a value is saved
 - Will update the custom field value of each selected post to include the current post's ID

Docs Page

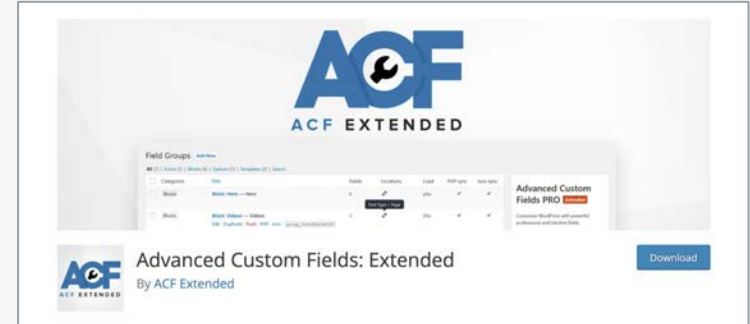
www.advancedcustomfields.com/resources/bidirectional-relationships

FUNCTIONS.PHP

```
function bidirectional_acf_update_value( $value, $post_id, $field ) {  
  
    // vars  
    $field_name = $field['name'];  
    $field_key = $field['key'];  
    $global_name = 'is_updating_' . $field_name;  
  
    // bail early if this filter was triggered from the update_field() function called with  
    // - this prevents an infinite loop  
    if( !empty($GLOBALS[ $global_name ]) ) return $value;  
  
    // set global variable to avoid infinite loop  
    // - could also remove_filter() then add_filter() again, but this is simpler  
    $GLOBALS[ $global_name ] = 1;  
  
    // loop over selected posts and add this $post_id  
    if( is_array($value) ) {  
  
        foreach( $value as $post_id2 ) {  
  
            // load existing related posts  
            $value2 = get_field($field_name, $post_id2, false);  
  
            // allow for selected posts to not contain a value  
            if( empty($value2) ) {  
  
                $value2 = array();  
  
            }  
  
            // bail early if the current $post_id is already found in selected post's $value2  
            if( in_array($post_id, $value2) ) continue;  
  
            // add current $post_id to the $value2 array  
            $value2[] = $post_id;  
  
            // update the field with the new $value2 array  
            update_field($field_key, $value2, $post_id2);  
  
        }  
  
    }  
  
    return $value;  
}
```

How it's Done - Option 2

- Third-party plugin from ACF Extended
- On wordpress.org
- Adds field settings for establishing the relationship



Order	Label	Name	Type
1	My Relationship	my_relationship	Relationship

Field Label	<input type="text" value="My Relationship"/>
Field Type	<input type="text" value="Relationship"/>
Bidirectional	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="text" value="Relationship 1 (field_abcdef123456) x"/>

Support

Version: 0.8.9.2
Last updated: 2 weeks ago
Active installations: 70,000+
WordPress Version: 4.9 or higher
Tested up to: 6.1.1
PHP Version: 5.6 or higher
Languages: See all 7

Tags: acf, admin, custom fields, fields, meta

Advanced View

Ratings [See all >](#)

★★★★★

5 stars	113
4 stars	2
3 stars	1
2 stars	0
1 star	5

[Log in to submit a review.](#)

- NEW Field Group Locations
- Self/Multi/Bidirectional Fields
- Advanced Fields Validation
- Flexible Content as Page Builder
- Compress ACF values into a single metadata
- ACF Forms Manager
- ACF Options Pages / Block Types Manager
- ACF & WordPress Meta Overview
- WordPress Post Types / Taxonomies Manager
- WordPress Options Manager
- WordPress Admin Enhancements
- WPML & Polylang Multilingual support
- ... And many more features

#6 Headless with ACF

Headless with WordPress and ACF

- ACF has API support:
 - REST API (natively with ACF)
 - WPGraphQL (with WPGraphQL plugin and WPGraphQL ACF plugin)
- Can support fully decoupled headless site, eg. Atlas sites

Real World Headless Example

- People are voting on the VHS Awards site up to a certain date
- Local cinema is a double bill of the most voted 90s movies
- Have the site dynamically power the cinema's billboard
 - Billboard is a simple node app
 - Needs to fetch the site data



Using a custom REST API Endpoint

Step 1: Create the callback function to return the data we need

```
popular-callback.php

<?php

function vhs_popular_movies( $data ) {
    $args = array(
        'post_status' => 'publish',
        'post_type' => 'movie',
        'posts_per_page' => 2,
        'meta_key' => 'votes',
        'orderby' => 'meta_value_num',
        'order' => 'DESC'
    );

    $query = new WP_Query($args);

    return $query->posts;
}
```

Using a custom REST API Endpoint

Step 2: Register the custom REST endpoint using the callback function

```
register-endpoint.php

<?php

add_action( 'rest_api_init', function () {
    register_rest_route( 'vhs/v1', '/popular', array(
        'methods' => 'GET',
        'callback' => 'vhs_popular_movies',
    ) );
} );
```

Using a custom REST API Endpoint

Step 3: Test our the new endpoint - <http://vhs-awards.local/wp-json/vhs/v1/popular>

The screenshot shows a REST client interface with the following details:

- Method:** GET
- URL:** `http://vhs-awards.local/wp-json/vhs/v1/popular`
- Status:** 200 OK
- Time:** 56 ms
- Size:** 3.62 KB
- Response Format:** JSON

```

1  {
2    {
3      "ID": 199,
4      "post_author": "2",
5      "post_date": "2023-02-23 03:36:25",
6      "post_date_gmt": "2023-02-23 03:36:25",
7      "post_content": "David Fincher's brutally violent, visually stunning adaptation of Chuck Palahniuk's novel is so perfectly pitched that flippant young punks can see it as call
      for antisocial mayhem and older establishment types could read it as a repudiation of Nineties nihilism. Give credit to stars Edward Norton and Brad Pitt, two leads who
      embody the yin and yang of macho self-destruction - especially when a certain killer twist kicks things into a different gear. Though it keenly described the rootlessness
      of middle-class Gen-Xers, its insights into a specific end-of-the-century alienation still apply: to the anti-materialistic progressives and the alt-right; to #NotAllMen
      activists and GamerGaters; and to any recklessly angry type who find a community that allows them to indulge their worst impulses. NH",
8      "post_title": "'Fight Club' (1999)",
9      "post_excerpt": "",
10     "post_status": "publish",
11     "comment_status": "closed",
12     "ping_status": "closed",
13     "post_password": "",
14     "post_name": "fight-club-1999",
15     "to_ping": "",
16     "pinged": "",
17     "post_modified": "2023-03-02 11:51:19",
18     "post_modified_gmt": "2023-03-02 11:51:19",
19     "post_content_filtered": "",
20     "post_parent": 0,
21     "guid": "http://vhs-awards.local/movie/fight-club-1999/",
22     "menu_order": 0,
23     "post_type": "movie",
24     "post_mime_type": "",
25     "comment_count": "0",
26     "filter": "raw"
27   },
28   {
29     "ID": 226,
30     "post_author": "2",
31     "post_date": "2023-02-23 03:36:25",
32     "post_date_gmt": "2023-02-23 03:36:25",
33     "post_content": "'As far back as I can remember, I always wanted to be a gangster.'" Martin Scorsese's woody, dirty adaptation of Nicholas Pileggi's slice-of-Mafia-life book
      Wiseguy is many things: a social anthropology study, an epic look at the American Dream, a coked-up nightmare, a nostalgic look back at an age when made men were made men,
      a head-spinning display of virtuosic filmmaking, the blueprint for the modern organized-crime saga and a peerless look at a world where you might be slapped on the back or
      shot in the face. "Mob guys love it, because it's the real thing," Pileggi told GO. "They say, 'It's like a home movie.'" And as you watch Ray Liotta's Henry Hill go from
      up-and-coming crook to cosa nostra bigwig to Witness-Protection-Plan "average nobody," you realize you're getting a funhouse-mirror reflection of an old-fashioned U.S. of
      A. bootstrap success story, complete with bespoke Italian suits, bulging cashrolls and Bolivian-marching-powder meltdowns.\n\n[acf field=title]\n\n[acf field=title]
34     "post_title": "'Goodfellas' (1990)",
35     "post_excerpt": "",
36     "post_status": "publish",
    }
  }
  
```

#7 Creating a custom block with ACF

A Custom Call-to-action Block



The VHS Awards

A celebration of the greatest films from the greatest decade (the 90s) of film.

No one know 90s movies better than you! So make sure you vote!

VOTE NOW



1

'Goodfellas' (1990)

READ REVIEW



2

'Starship Troopers'
(1997)

READ REVIEW



3

'Fight Club' (1999)

READ REVIEW



4



5











6

functions.php

```
//Register Custom Blocks  
add_action( 'init', 'register_acf_blocks' );  
function register_acf_blocks() {  
    register_block_type( __DIR__ . '/blocks/cta' );  
}
```


 Fields

#	Label	Name	Type
1	 Text	text	 Text
2	 Button Text	button_text	 Text
3	 Button Link	button_link	 Url
4	 Background Color	background_color	 Button Group

[+ Add Field](#)

Settings



Location Rules

Presentation

Group Settings

Rules



Show this field group if

Block



is equal to



CTA



and

or

Add rule group

3 Block Template Files

```
Block Templates

blocks/
  cta/
    block.json
    cta.php
    cta.css
```

blocks/cta/block.json

```
{  
  "name": "acf/cta",  
  "title": "CTA",  
  "description": "A custom CTA block.",  
  "style": [ "file:./cta.css" ],  
  "category": "formatting",  
  "icon": "admin-comments",  
  "keywords": ["cta", "call to action"],  
  "acf": {  
    "mode": "preview",  
    "renderTemplate": "cta.php"  
  },  
  "align": "full"  
}
```

```
blocks/cta/cta.php

<?php
/**
 * CTA Block Template.
 */

$text = get_field( 'text' );
$button_text = get_field( 'button_text' );
$button_link = get_field( 'button_link' );
$background = get_field( 'background_color' );
$background_color = "blue" ;

if ( $background === "blue" ) {
    $background_color = "#0026E2";
} elseif ( $background === "yellow" ) {
    $background_color = "#FFA116";
} else {
    $background_color = "#18181b";
}

?>
<div
  class="acf-cta alignwide"
  style="background-color: <?php echo esc_attr( $background_color ); ?>"
  >
  <span><?php echo esc_html( $text ); ?></span>
  <a href="<?php echo esc_attr( $button_link ); ?>"><?php echo esc_html(
  $button_text ); ?></a>
</div>
```

```
blocks/cta/cta.css

.acf-cta {
  display: flex;
  padding: 2rem;
  background-image: radial-gradient(#18181b 20%, transparent 20%);
  background-position: 0 0, 50px 50px;
  background-size: 8px 8px;
  border: 3px solid #18181b;
  font-family: var(--wp--preset--font-family--ibm-plex-mono) !important;
  align-items: center;
}

.acf-cta span {
  font-size: 24px;
  font-weight: 600;
  color: #fff;
}

.acf-cta a {
  display: flex;
  align-items: center;
  height: 42px;
  border: 3px solid #E7A72C;
  text-decoration: none;
  color: #0015DF !important;
  padding: 0 12px;
  font-size: 18px;
  text-transform: uppercase;
  font-weight: 600;
  margin-left: auto;
  background-color: #E7A72C;
}

.acf-cta a:hover {
  background-color: #0015DF;
  border-color: #E7A72C;
  color: #E7A72C !important;
}
```



VHS Awards



The VHS Awards

A celebration of the greatest films from the greatest decade (the 90s) of film. I

1



'Goodfellas' (1990)

[READ REVIEW](#)

2



'Starship Troopers' (1997)

[READ REVIEW](#)

3



'Fight Club' (1999)

[READ REVIEW](#)

Page	Block	✕
Summary ^		
Visibility	Public	
Publish	February 23, 2023 2:46 am UTC+0	
URL	vhs-awards.local	
Template	Blank	
AUTHOR		
	rob	▼
Move to trash		
🕒 27 Revisions		
Featured image ▼		
Discussion ▼		
Page Attributes ▼		

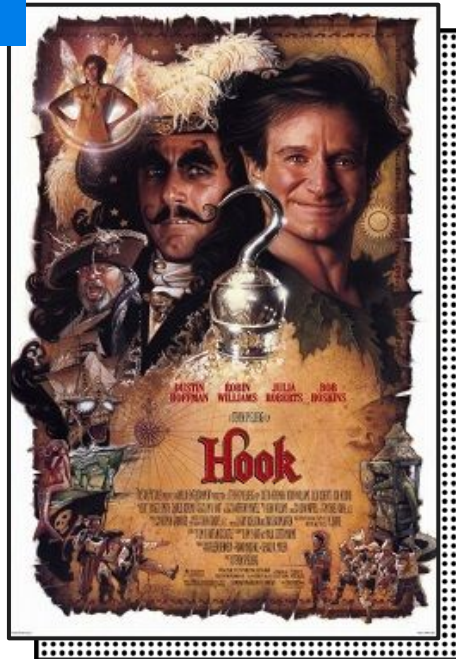
A Recap

1. Install ACF PRO via Composer
2. Custom Post Types & Taxonomies in ACF
3. Global/Site-wide Fields with an Option Page
4. Programmatically Registering Fields
5. Bi-Directional Relationships
6. Headless with ACF
7. Creating a Custom Block with ACF

The best movie of the 90s!

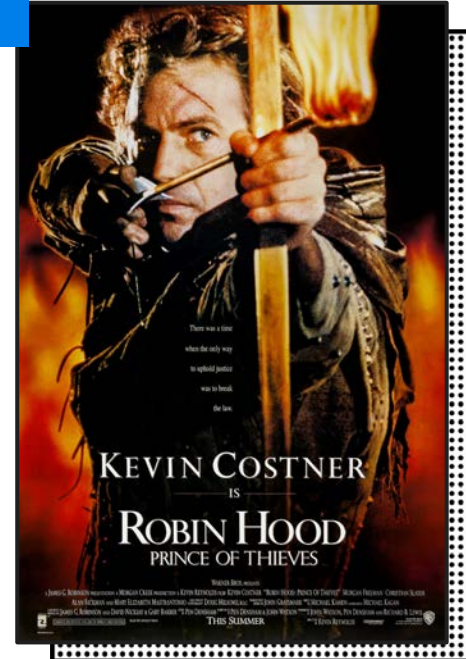
Rob's Vote!

1



Iain's Vote!

1



Thank you.

Iain Poulson

Product Manager, ACF

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Rob Stinson

Product Marketing Manager

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