



DrupalCon

NORTH AMERICA 2021
ONLINE APRIL 12-16

TernBicycles.com

Empowering Business Teams to Control
Their Technology With Drupal 9



Terry Chen

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Michael E. Meyers

Managing Director, Tag1 Consulting



- Over 17 Years in Drupal Community
- VC Backed Startup Founder With Exit
- CTO at Top 50 Website
- Acquia VP DevRel, Marketing, Products
- Tag1 Sales, Partnerships, & Marketing



About Tag1

The Team Global Leaders Trust to Ensure Their Success

The New York Times



ALJAZEERA



FOREO

ACLU





Terry Chen

Brand Director, Tern Bicycles



- Project Owner, Leads TernBicycles.com
- Leads Marketing & Creative Teams
- Led the Tern Team In Building the Most Successful Virtual Product Launch in Bike Industry History
- Product Marketing Manager For Ulead Systems





Tern Case Study: What We'll Cover

- An Introduction to Tern Bicycles
- Why Did Tern First Choose Drupal?
- Drupal End of Life (EOL) and Extended Support
- Business Goals for The New Site
- Why Did Tern Upgrade to D9 & Stick with Drupal?
- A Preview of the New TernBicycles.com Site
- Innovative Solutions to Build and Deliver the Sites
- A Parallel Approach to a Challenging Data Migration
- Project & Dev Processes for Teams 12-15 Hours Apart
- Q&A



INTRODUCING **TERN BICYCLES**





WHY DID TERN **CHOOSE DRUPAL?**





Why Did Tern First Choose Drupal?

Launched In 2011, Tern Needed a New Website Fast.

- Drupal's Flexibility Gave Confidence It'd Meet Short & Long Term Needs
- Drupal Has a Steeper Initial Learning Curve, But a Better ROI
- Don't Need to Be a Developer to Run and Manage the Websites
- Standout Features: Content Types, Views, Domain Access & i18n
- Hardest Questions Was What Version of Drupal - D7 Was Coming Soon



“ After Launch, We Didn’t Need a Lot of Development Support. With Drupal’s Site-Building Capabilities, We Could Change & Manage Our 45+ Multilingual Websites, Rarely Modifying Code. ”

- Terry Chen, Brand Director



END OF LIFE (EOL) **EXTENDED SUPPORT**





Drupal End of Life (EOL) - What Now?

Extended Support Enabled Tern to Run D6 Five Years Beyond EOL

- Tern Didn't Need to Upgrade - System Was Exceeding Expectations
- Upgrades Are High Cost, High Effort; Better ROI Elsewhere
- Initially Key Core Modules Were Not Mature Enough to Upgrade
- Make Business Decisions on Your Timeline, Don't Be a Hostage of Tech
- Continue Running Drupal After EOL with Drupal Extended Support



“ We Were Excited to Learn About Tag1’s Extended Support Capabilities. We Loved the Fact That We Were Able to Extend the Life Of Our Drupal 6 Site Way Beyond EOL. We Definitely Got Our Money’s Worth, and Then Some! ”

- Terry Chen, Brand Director



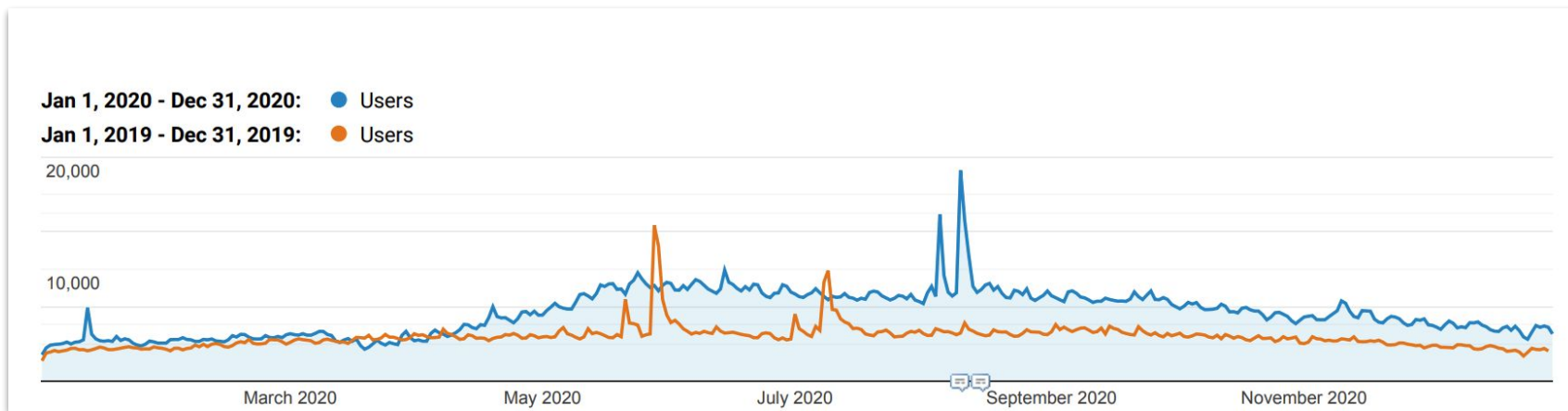
D9 MIGRATION **BUSINESS GOALS**





About TernBicycles.com

With Increased Interest in Cycling, Global Traffic Grew Exponentially



This Time Last Year TernBicycles.com Saw 130% Growth in Unique Users





About TernBicycles.com

User Traffic Is Highly Distributed Around the Globe





Business Goals for the New Site

Based On User & Distributor Feedback as Well as Tern's Needs & Goals

- A Faster, Easier to Use Site That Provided Valuable, Relevant Info for Visitors
- Empower Distributors With Better Translation Tools & An Improved Backend
- New Features: Bike Comparison, Bike & Accessory Filters, Bike-Accessory Compatibility Checker, Etc
- Even Easier for Non-Technical Team Members to Add, Edit, Translate, Layout... Pages
- Do all this With Even Less Developer Support Than Before
- Implement the New Site Using Minimal Proprietary Code
- Collaborative Approach to Development



UPGRADING **WHY STICK WITH DRUPAL?**





Why Did Tern Choose Drupal, Again?

When Migrating Platforms You Have to Consider All Options

- What Made Drupal Great For Tern Had Only Gotten Greater
- Site Building: Content Types, Views, Layout Builder, Etc.
- Multilingual: Much Improved Translation Workflow
- Conceptually Familiar to Tern and Distributors
- No More Migrations! The Path to D10 and Beyond Is Seamless
- Long-Term Relationship With a Great Agency Partner

La nuova GSD

Ancora piccola. Ancora più utile.

SCOPRI DI PIÙ





It's Actually 45+ Multilingual Sites

...And This Is Where Things Get Complex

- Each Distributor Exclusively Owns One or More Countries
- They Control What Products They Offer and in What Configurations
- They Might Remove or Add Pages to Their Site
- Translation: Countries Can Have Content In Multiple Languages
- Efficiently Manage Content / Translations Across Multiple Sites



INNOVATIVE **DRUPAL SOLUTIONS**



HOME > BIKES > GSD

View

Edit

Delete

Layout

Revisions

Clone

Translate

Using Layout Builder, Privileged Users Can Edit What Content Appears On the Page, and Where It Appears.

Meet the All-New GSD



Content

Structure

Appearance

Extend

Configuration

Groups

People

Reports

Dealers

Revision information

☒

Create new revision

New revision

+ Add section

⊗ Configure Section 1

"Meet the GSD" block

+ Add block

⊗ Configure Section

"Related Content - Bikes" views block

"Bike Comparison" block

Choose a block

×

+ Create custom block

Comparisons

Bike Comparison

Content fields

All Bikes with Generation Numbers

Body

Title

Wheel Sizes

Generation

Bike Models

Bike Photo

Main Lifestyle Image

Tagline

Video

Lists (Views)

Related Content – Accessories

Related Content – Bikes

Related Content – Reviews

Bike/Platform

Mailchimp Signup

Mailchimp Subscription Form: Sign Up for News on the BYB

Mailchimp Subscription Form: Sign Up for News on the GSD

Mailchimp Subscription Form:

Easily Add, Move, or Delete Content.
No Code Changes Required!

Kori™ Basket

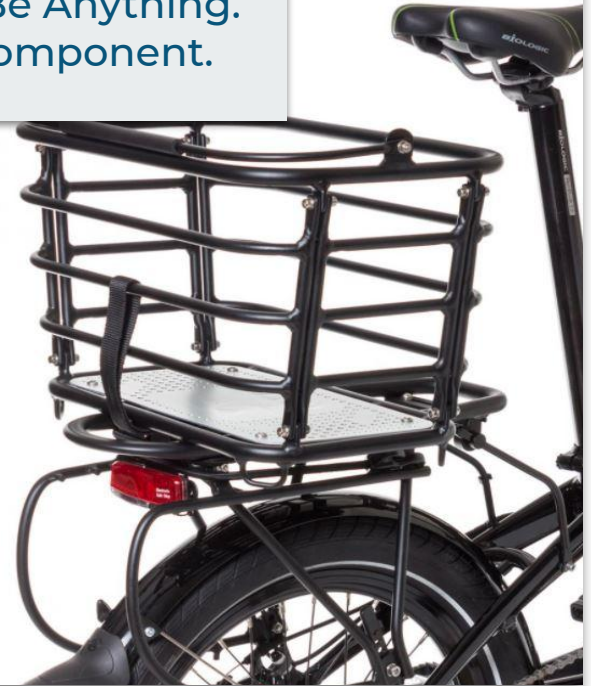
CANASTA DE ALUMINIO INDUSTRIAL

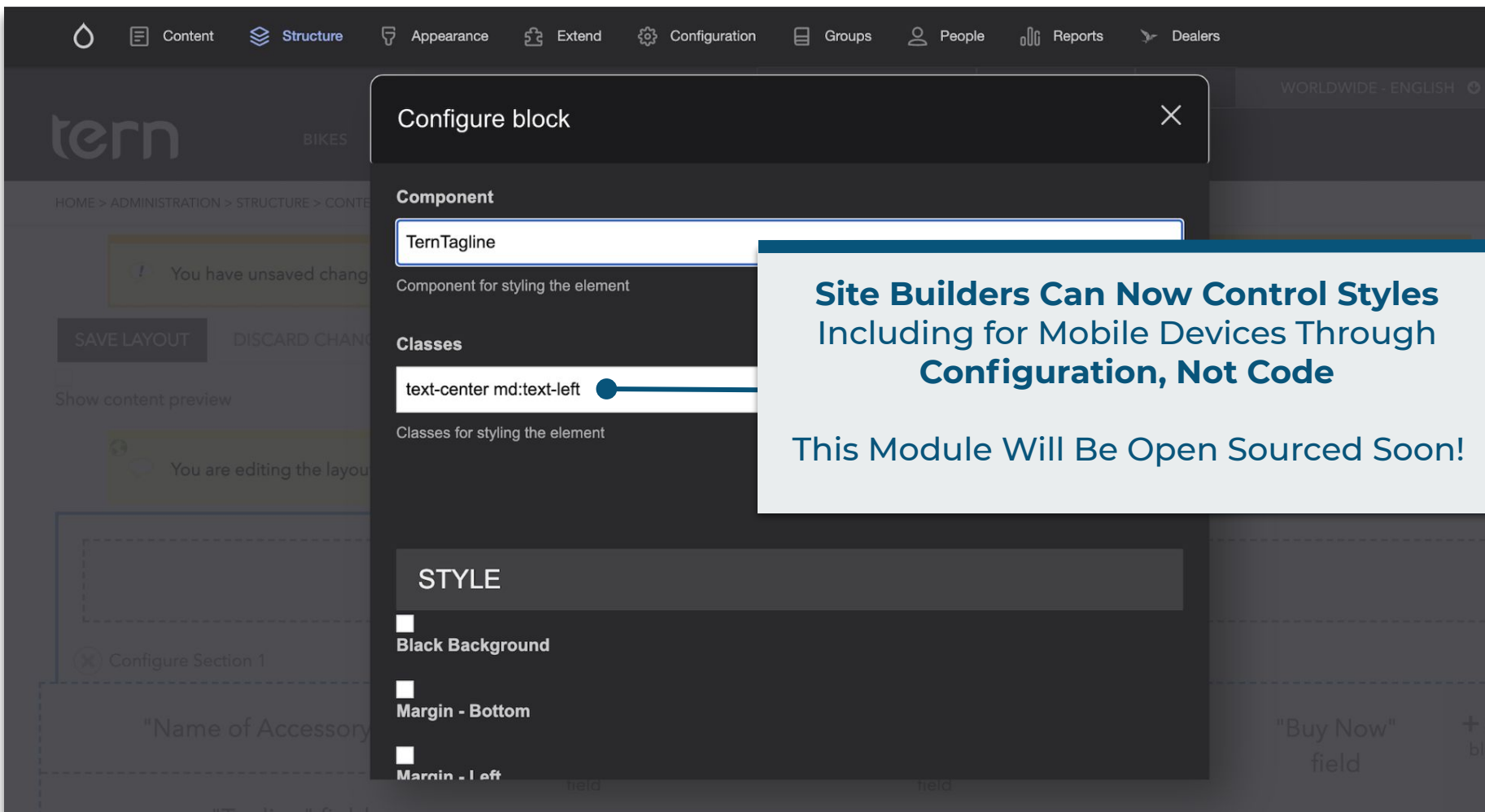
Moderna y elegante, la Kori™ Basket es una canastilla trasera de aluminio que ofrece una manera fácil para llevar una carga. La Kori™ Basket se arma rápidamente y se asegura en forma sólida y carga una tonelada. Te vas a preguntar, ¿cómo puede estar sin ella?

- Hecha en aluminio tubular rígido que permite cargar paquetes altos y pesados
- Incluye una manija recubierta para cargar cómodamente cosas pesadas
- Anclaje con sistema KCLICKfix™ Rackpack compatible con portapaquetes Tern Cargo™, Portage™, Freight™ y Loader™
- Robusto pie que le permite buena estabilidad en el piso

Now You Can Control Style Too!

We Added **Components** to Drupal,
Like in Laravel. They Can Be Anything.
This Text is the **Tagline** Component.





Configure block



Component

TernTagline

Component for styling the element

Classes

text-center md:text-left

Classes for styling the element

STYLE



Black Background



Margin - Bottom



Margin - Left

**Site Builders Can Now Control Styles
Including for Mobile Devices Through
Configuration, Not Code**

This Module Will Be Open Sourced Soon!



認識BYB

折疊小巧，收折緊密

[立即探索](#)

The Country-Language Selector
is Also a **Component**.



Component Can Have Actions! onClick The Menu Drops Down

認識BYB

折疊小巧，收折緊密

立即探索

THIS SITE IN OTHER COUNTRIES/REGIONS:

[WORLDWIDE - ENGLISH](#)
[ARGENTINA - ESPAÑOL](#)
[AUSTRALIA - ENGLISH](#)
[BELGIUM - DUTCH](#)
[BELGIUM - FRANÇAIS](#)
[CANADA - ENGLISH](#)
[CANADA - FRANÇAIS](#)
[CHILE - ESPAÑOL](#)
[COLOMBIA - ESPAÑOL](#)
[CZECH REPUBLIC - ČESTINA](#)
[DENMARK - DANSK](#)
[FINLAND - ENGLISH](#)
[FRANCE - FRANÇAIS](#)
[GERMANY - DEUTSCH](#)
[GREECE - ΕΛΛΗΝΙΚΑ](#)
[HONG KONG - 繁體中文](#)
[HUNGARY - MAGYAR](#)
[ITALY - ITALIANO](#)
[JAPAN - 日本語](#)
[KOREA - 한국어](#)
[LUXEMBOURG - DEUTSCH](#)
[MALAYSIA - ENGLISH](#)
[MEXICO - ESPAÑOL](#)
[NETHERLANDS - DUTCH](#)
[NEW ZEALAND - ENGLISH](#)
[NORWAY - BOKMÅL](#)
[PARAGUAY - ESPAÑOL](#)
[PERU - ESPAÑOL](#)
[PHILIPPINES - ENGLISH](#)
[POLAND - POLSKI](#)
[RUSSIA - РУССКИЙ](#)
[SINGAPORE - ENGLISH](#)
[SLOVAKIA - ČESTINA](#)
[SPAIN - ESPAÑOL](#)
[SWITZERLAND - DEUTSCH](#)
[SWITZERLAND - FRANÇAIS](#)
[TAIWAN - 繁體中文](#)
[THAILAND - ENGLISH](#)

For Another Client
We Are Prototyping
The Ability to
Create or Edit
Styles, & Actions as
Config not Code

Site Builders Have
Complete Control!

Description

Description of the component library item.

Template

1

<div class="text-center md:text-left">

2

<div class="uppercase font-thin text-gray-900 mt-2 mb-5">

3

<div class="bold-tagline">{{ title }}</div>

4

</div>

5

</div>

Create or Modify Styles & Actions In Admin Pages

Preview data

1

title: Long and Flat Storage

LONG AND FLAT STORAGE

Preview



Enabled

Save Delete



Once Completed,
This Code Will Get
Open Sourced and
Then Tern Can
Download & Install
It at No Cost!

Description

Description of the component library item.

Template

```
1 <div class="text-center md:text-left">
2   <div class="font-thin text-black mt-2 mb-5">
3     <div class="field-tagline">{{title }}</div>
4   </div>
5 </div>
```

Removed "uppercase" & Changed to "black" Font

Preview data

```
1 title: Long and Flat Storage
```

Dynamic Preview of Changes

Long and Flat Storage

Preview




Enabled

Save Delete



Upcoming Tag1 DrupalCon Presentation

[Tag1.com/blog/tag1-upcoming-talks-spring-2021](https://tag1.com/blog/tag1-upcoming-talks-spring-2021)

	
<p>Peta Hoyes Partner/COO</p>	<p>Fabian Franz VP, Software Engineering</p>

Expanding On Site Building With Components To Truly Achieve No-code Drupal

DrupalCon 2021

Thursday, April 15 - 17:20 to 17:50 UTC

Hopin - Room 2



#Tag1TeamTalks and Blogs

Learn More About the Latest Innovations in Drupal & Web Dev



<tag1>

Enabling Declarative Components Everywhere:
Drupal + Web Components
Out of the Box

#Tag1TeamTalk

Web Components
[Tag1.com/Web-Components](https://tag1.com/Web-Components)




<tag1>

A Deep Dive Into Real Time Collaborative Editing Solutions

#Tag1TeamTalk

Real-Time Collaboration
[Tag1.com/Yjs](https://tag1.com/Yjs)



<tag1>

Introducing Goose -
a highly scalable load testing framework written in Rust

#Tag1TeamTalk

Performance & Scalability
[Tag1.com/Goose](https://tag1.com/Goose)



Bulk Copy/Paste Content, By Field, Across Languages.

Create One Spanish Translation, Copy to Other Countries, Then Refine Each

+ Add content

Title

Content type

Published status

Language

Translation status

Filter and Select Content to Update

<input type="checkbox"/>	ID	Title	Content type	Published status	Language	Translation status	Updated	Operations
<input checked="" type="checkbox"/>	6	Homepage - Colombian Spanish	Page	Published	Colombia - Español	Worldwide - English	Translated	12/07/2020 - 12:28 <input type="button" value="Edit"/>
<input type="checkbox"/>	204493	Rojo	Page	Published	Colombia - Español	Worldwide - English	Translated	12/04/2020 - 15:22 <input type="button" value="Edit"/>
<input type="checkbox"/>	4	About Us	Page	Published	Colombia - Español	Worldwide - English	Translated	12/04/2020 - 15:21 <input type="button" value="Edit"/>
<input type="checkbox"/>	5083	Términos y condiciones de Uso	Page	Published	Colombia - Español	Worldwide - English	Translated	12/02/2020 - 15:18 <input type="button" value="Edit"/>
<input type="checkbox"/>	162506	Visibilidad 720°	Page	Published	Colombia - Español	Worldwide - English	Translated	12/02/2020 - 15:07 <input type="button" value="Edit"/>
<input type="checkbox"/>	3	Sustainability	Page	Published	Colombia - Español	Worldwide - English	Translated	12/02/2020 - 14:18 <input type="button" value="Edit"/>
<input type="checkbox"/>	2	Our Team	Page	Published	Colombia - Español	Worldwide - English	Translated	12/02/2020 - 14:18 <input type="button" value="Edit"/>

Then Select Synchronize

Action

Synchronize field translations: Content

Are you sure you want to synchronize the translation for this entity?

The source language.

Argentina - Español



Pick Source Language You
Want to Copy From

^ Content - Page

Select fields to synchronize



Body



Metatags



Published



Title

Choose Fields to Sync

This action cannot be undone.

Confirm

Cancel

Download & Extend

[Drupal Core](#)[Distributions](#)[Modules](#)[Themes](#)[General projects](#)

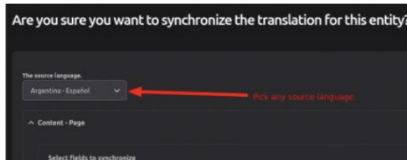
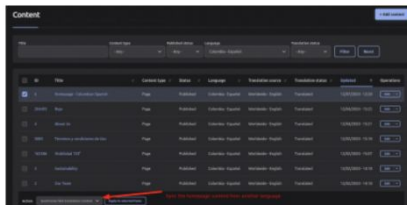
Field translation synchronize

[View](#)[Version control](#)[Automated testing](#)

By [heddn](#) on 7 December 2020, updated 7 December 2020

★ 3

This project is not covered by
Drupal's [security advisory policy](#).



Maintainers for Field translation synchronize

[heddn](#) – 2 commits

last: 3 months ago, first: 4 months ago

If you have a multilingual site that has multiple languages for different countries, you soon run into the issue where Columbian Spanish, Argentinian Spanish and Mexican Spanish are similar



Managing Tech Debt & D10 Upgrade Path

Preparing For a Future That Requires Minimal Development Support

- Took Minimal Effort to Test & Remove Deprecations & be D10 Ready
- Project Goal: Reduce Dependencies on Developers
- Drupal 10 Is Coming Soon, Really Soon! (June 2022)
- Tern's Migration to D10 Should Be Quick & Easy With Minimal Dev
- Released 60~ Contrib Patches, Everyone Using D10 Benefits
- Only 6 Issues Remain That Can't Be Addressed Until 10 Is Closer

Download & Extend

[Drupal Core](#)

[Distributions](#)

[Modules](#)

[Themes](#)

[General projects](#)

[EU Cookie Compliance \(GDPR Compliance\)](#) » [Issues](#)

The core/jquery.cookie asset library is deprecated in Drupal 9.0.0 and will be removed in Drupal 10.0.0. Use the core/js-cookie library instead

Problem/Motivation

See <https://www.drupal.org/node/3104677>

Steps to reproduce

Proposed resolution

Remaining tasks

Fixed

Project: EU Cookie Compliance (GDPR Compliance)

Version: 8.x-1.x-dev

Component: Code



A CHALLENGING **DATA MIGRATION**





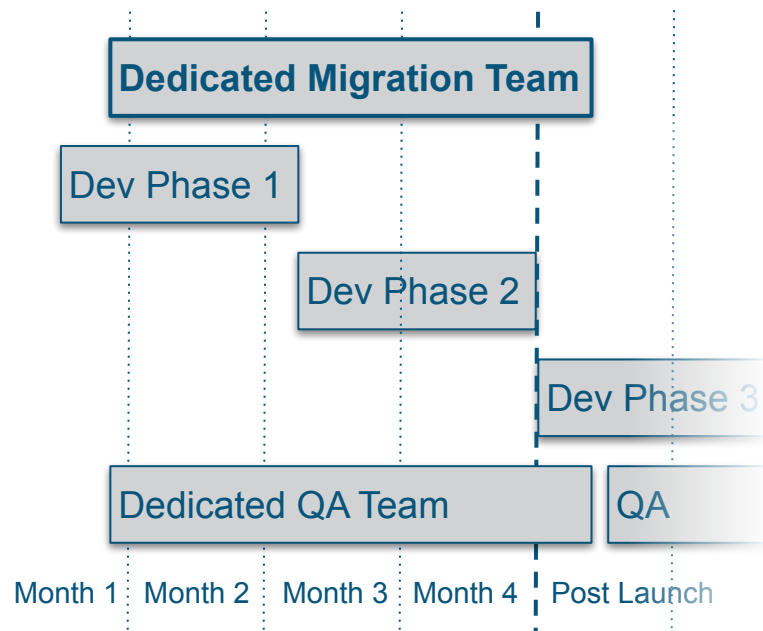
“ Data Migrations Are One of the Most,
Challenging, Time Consuming, and
Expensive Aspects Of a Platform
Migration Project! ”

- Anyone who's done a migration



Data Migration Approach: Parallel Teams

Start Migration Work Early, in Parallel, Enable Degrees of Independence





Data Migration Challenges

Exclusions: You Don't Want to Migrate 100% of The Data Every Run

```
/**
 * Domains to exclude.
 */
const TERN_UPGRADE_EXCLUDED_DOMAINS = [
  'Austria', 'Brazil', 'Bulgarian', 'China', 'Ecuador', 'Estonia',
  'Guatemala', 'India', 'Indonesia', 'Israel', 'Latvia', 'Lithuania',
  'Panama', 'United Arab Emirates'
];

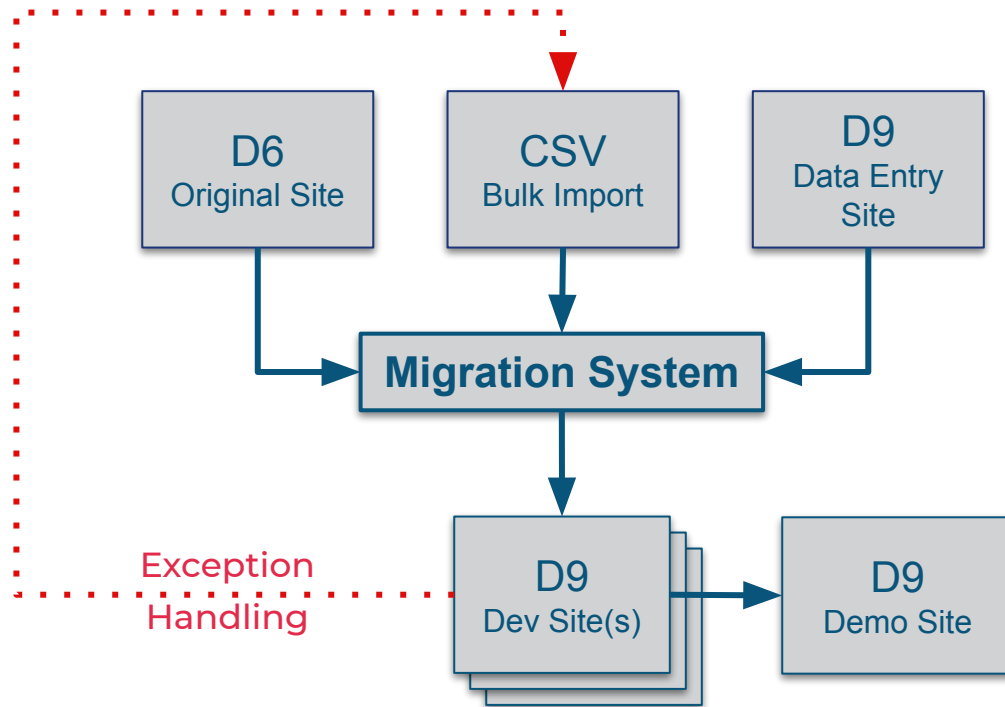
/**
 * Countries to exclude.
 */
const TERN_UPGRADE_EXCLUDED_COUNTRIES = [
  'ae', 'at', 'br', 'bg', 'cn', 'ec', 'ee', 'gt', 'in', 'id', 'il', 'lv', 'lt',
  'pa', 'pt', 'ro', 'si', 'tr', 'xx', 'za',
];
```

Include or Exclude Specific Data Sets
Migrate Only What You Need, When You Need



Data Migration Approach: Parallel Process

Migrated From Multiple Sources to Get More Done, Easier, & Faster





Data Migration Challenges

What Appears Simple On the Surface May Be Deceptively Complex

- 500k+ Record Sets, Lots of Content; 14+ Hrs to Process Each Full Run
- 10+ Years of Data & Data Model Changes, Variability in Data
- New Functionality & Data Models - 20% Of the Data Was Re-Mapped
- Complex Permissions and Access Controls Must Be Maintained
- i18n: D6 Every Node & Translated Node Has Nids -> d9 All Same NID
- Data Validation: Revalidate All Dealer Addresses in the Database.




Data Migration Challenges: Data Formats

Complex Regex Need to Detect and Convert Content to New Models

GSD S00 LX
STYLISH, DURABLE, ENVIRONMENTALLY FRIENDLY

Why GSD Specs Accessories Support FIND A DEALER



GENERAL INFO

SPEEDS:	Continuously Variable 380%
WEIGHT:	34.98 kg (77.1 lb)
GEAR INCHES:	26" - 99" (2.08 - 7.91 m)
FOLDING SIZE:	176 x 40.5 x 87 cm (69.3 x 15.9 x 34.3 in)
FOLDING TIME:	5 sec
FRAME SIZES:	One size
DISTANCE: SEATPOST TO HANDLEBAR:	49 - 59 cm (19.3 - 23.2 in)
DISTANCE: SADDLE TO PEDAL:	69 - 105 cm (27.2 - 41.3 in)
SUGGESTED RIDER HEIGHT:	150 - 195 cm (59.1 - 76.8 in)
MAX GROSS VEHICLE WEIGHT:	200 kg (440.9 lb)

DISTANCE: SEATPOST TO HANDLEBAR:
Min: 490 mm (19.3") Max: 590 mm (22")

DISTANCE: SADDLE TO PEDAL:
Min: 690 mm (27.2") Max: 1050 mm (41.3")

SUGGESTED RIDER HEIGHT:
150 - 195 cm (4'11" - 6'5")

Original D6 Spec
Data Used Strings

'Min: 490 mm (19.3")'
'Max: 590 mm (22")'

Distance: Seatpost to Handlebar

Min (cm)	Max (cm)
49.0	59.0

Converted to Individual
Fields In an Entity

field_seat_handle_low: 49
field_seat_handle_high: 59



DEVELOPMENT PROCESS

DISTRIBUTED GLOBAL TEAM





Global Team: From Taipei to Telluride

One of the Biggest Challenges Of the Project Was Time Zones

- 15hr Spread From Tern in Taipei to Furthest Team Member in Colorado
- Invest Heavily In Collaboration Tools: Github, Slack, Gdocs, Etc.
- Facilitate Asynchronous: Slack Standups, Every Meeting Recorded
- Anything Requiring a lot of Back & Forth Will Take a lot Longer, so Plan
- Working As One Dev Team With Tern Fully Engaged & Participating
- Ultimately Tern & Tag1's Joint Dedication is What Made This a Success



Q & A





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TernBicycles.com

Empowering Business Teams to Control
Their Technology With Drupal 9



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