



GLOBAL
DrupalCon

The Open Source Digital Experience Conference

ONLINE EVERYWHERE

2020 JULY 14-17

DrupalCon is brought to you by the Drupal Association

Preparing You & Your Site for Drupal 9

DRUPALCON GLOBAL 2020

Hello.

“Give light and people
will find the way.”

–Ella Baker



Kristen Pol

Drupal Since 2004

hello@kristen.org



Thanks
Hook 42

01 Why

02 Research

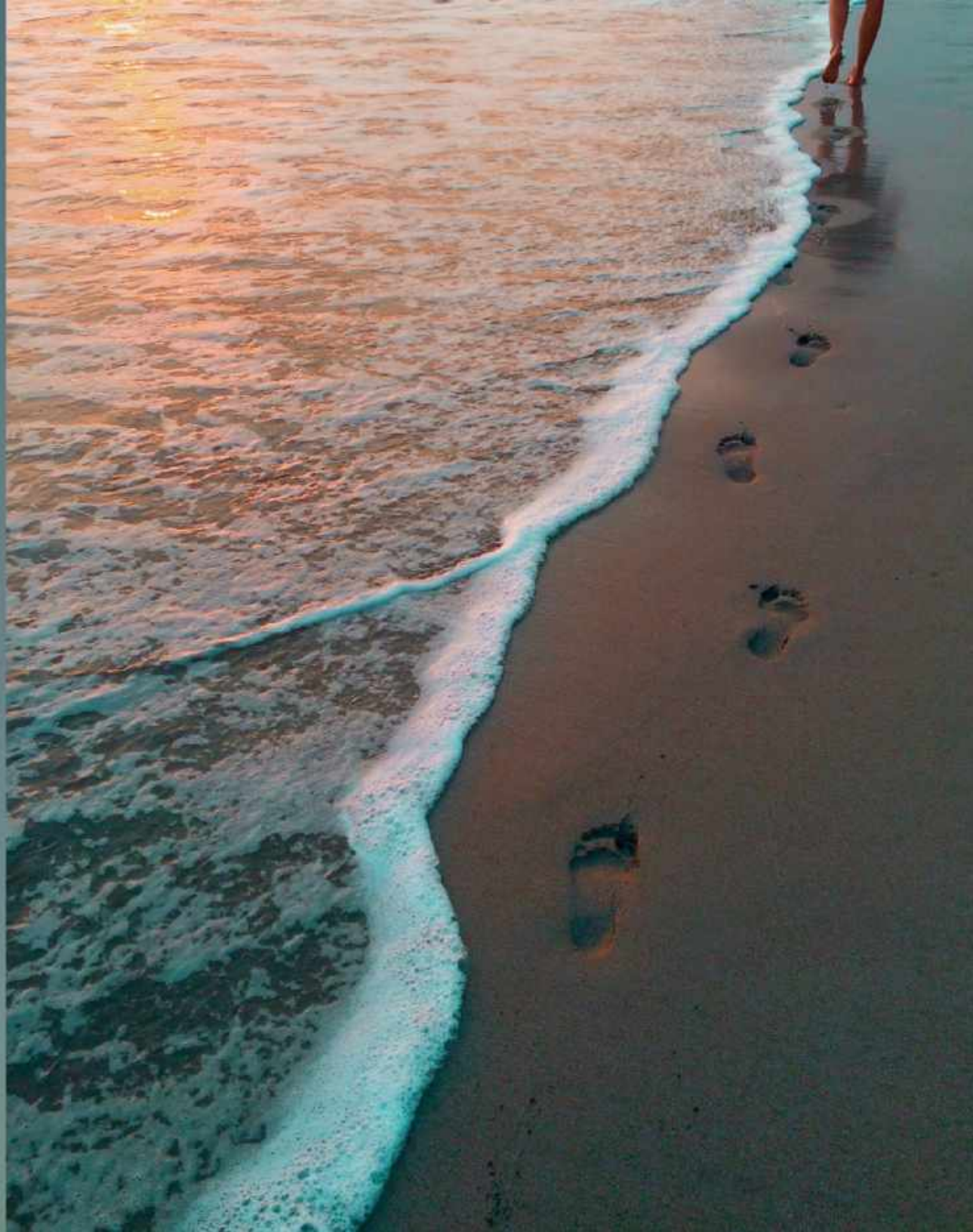
03 Audit

04 Visualize

05 Plan

06 Execute

07 Celebrate



WHY DRUPAL 9?



Innovation



Flexibility



Security



Performance



Multilingual



Accessibility



Usability



Integration

A high-speed photograph of a water splash. A large, clear droplet is suspended in the air above a crown-shaped splash of water. The water is illuminated with a bright blue light, creating a shimmering effect. The background is dark and out of focus.

Isn't that Drupal 8?

DRUPAL 9 IMPROVEMENTS

01

Easy Upgrade

Easiest major* upgrade in a decade

02

Simplified Code

Code 15% smaller from removing old code

03

Improved Testing

SimpleTest code replaced by PHPUnit

04

Updated Libraries

Updated Composer, Symfony, Twig, & more

05

Cleaner Admin UI

Claro admin theme stabilizing for inclusion

06

Modern Frontend UI

Olivero to move from contrib to core in 9.1

*“ The big deal about Drupal 9 is ...
that it should not be a big deal. ”*

—Dries Buytaert



CAN YOU WAIT?

Drupal 7 Support
Until Nov 2022

Vendor Extended
Drupal 7 Support Until 2025+

**JUN
2020**

**JUN
2022**

**JUN
2024**

8.9 & 9.0

9.4 & 10.0

10.4 & X.Y

Drupal 8 Support
Until Nov 2021

Drupal 9 Support
Until Nov 2023?

Drupal 10 Support
Until ?



Research
DO YOUR HOMEWORK

" Research is formalized
curiosity. It is poking and
prying with a purpose. "

—*Zora Neale Hurston*

DRUPALCON GLOBAL 2020

bitly.com/DrupalConGlobal2020D9

- ✓ Deep dive: state of Drupal 9
- ✓ Drupal 9: New Initiatives for Drupal
- ✓ Bridging the migration gap from Drupal 7 to 9
- ✓ Preparing custom & contributed code for D9
- ✓ Preparing you & your site for Drupal 9
- ✓ The Drupal Initiatives mega-session



simplytest.me

Evaluate Drupal projects online

What is this?

Enter a project name:

Launch sandbox

Back to site Manage Shortcuts admin

Content Structure Appearance Extend Configuration People Reports Help

GENERAL SYSTEM INFORMATION



Drupal Version
9.0.0



Last Cron Run
Last run 1 minute 42 seconds ago
[\(more information\)](#)

Run cron



Web Server
Apache/2.4.38 (Debian)



PHP Version
7.3.18 [\(more information\)](#)
Memory limit
-1 (Unlimited)



Database Version
5.7.27
System
MySQL, Percona Server, or equivalent

MODULES



Media +
Library



Layout
Builder



Quick
Edit



Work-
spaces



Content
Moderation



Content
Translation



Settings
Tray



Help
Topics

HOSTING

Acquia



SYSTEM REQUIREMENTS



Apache
2.4.7+



PHP
7.3+



MySQL
5.7.8



Drush
10

bit.ly/Drupal9SystemRequirements

MORE RESOURCES

drupal.org/9

drupal.org/docs/upgrading-drupal

hojtsy.hu/tags/drupal-9

kristen.org/drupal9

bit.ly/TimDrupal9

bit.ly/AngieD9Podcast

Audit

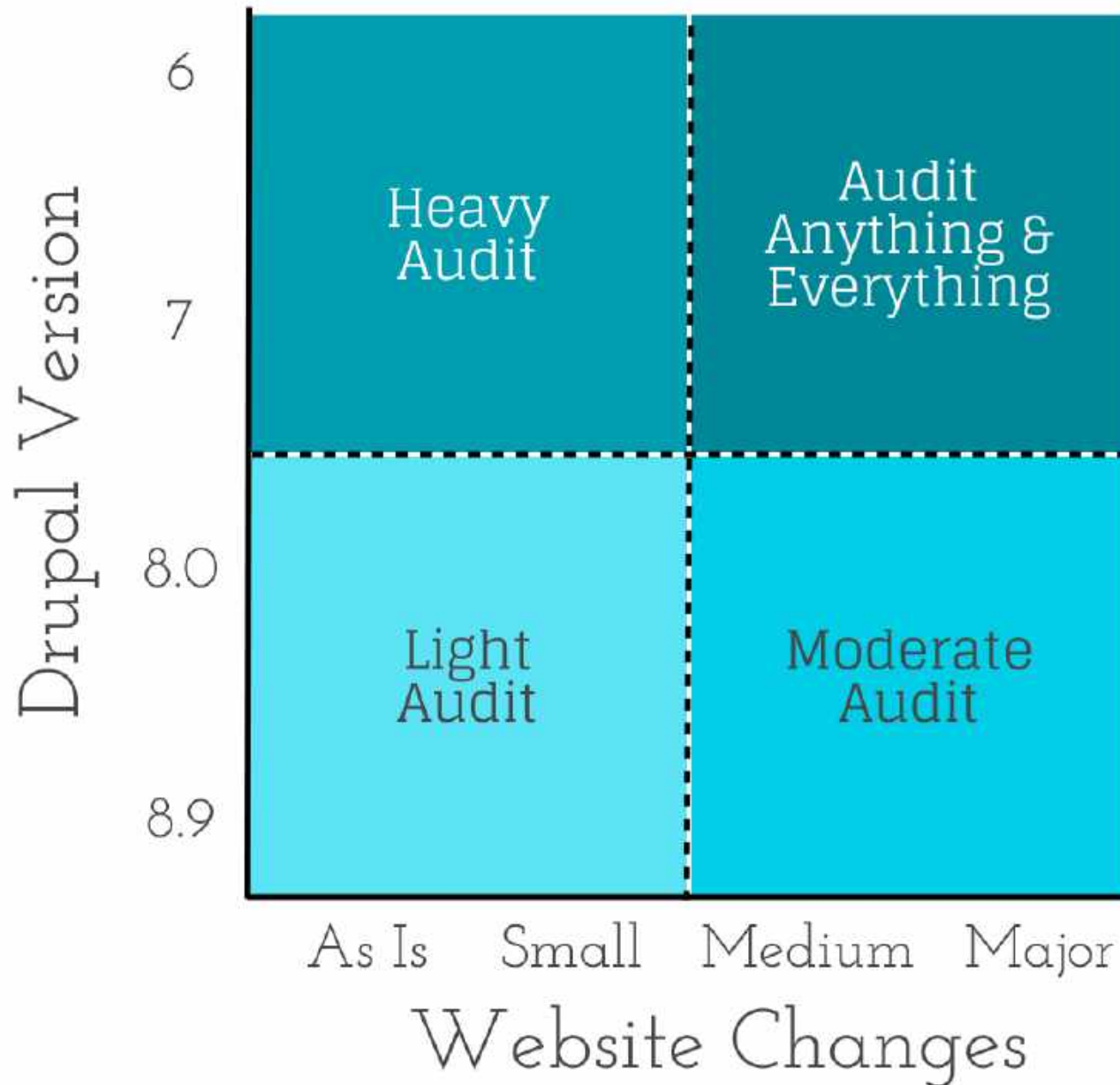
FIND THE GAP



“ The only people who see the whole picture are the ones who step outside the frame.”

—*Salman Rushdie*

HOW MUCH TO AUDIT



WHAT TO AUDIT



"The Gap"



Infrastructure



Security



Architecture



Content



Accessibility



Usability



SEO

AUDIT TOOLS

01

DRUPAL

- ✓ Upgrade Status
- ✓ Entity Reports
- ✓ Site Audit
- ✓ Security Review
- ✓ Hacked

02

EXTERNAL

- ✓ Deprecation Status
- ✓ PageSpeed
- ✓ BrowserStack
- ✓ SiteImprove
- ✓ WAVE

03

MANUAL

- ✓ Review Code
- ✓ Review Docs
- ✓ Manual Testing
- ✓ User Testing
- ✓ Screenreaders

Audit using a
non-production site!





Visualize

SEE THE END GOAL

" You have to dream before
your dreams can come true."
—*A. P. J. Abdul Kalam*



BUDGET & TIMELINE

- ✓ External constraints?
Caps? Deadlines? Events?
- ✓ Can you afford to
redesign / revamp?
- ✓ For Drupal 6/7 to 9 or large
redesigns, assume cost
will be about the same as
original site

TEAM



Product
Owner



Project
Manager



Business
Analyst



Solution
Architect



UX
Designer



End
Users



Web
Developers



Key
Stakeholders

CONSIDERATIONS

AUDITS

- ✓ Findings
- ✓ Gaps
- ✓ Effort
- ✓ Focus

CHANGES

- ✓ As Is
- ✓ Redesign
- ✓ Remove
- ✓ Add

PRIORITIES

- ✓ Must Have
- ✓ Nice to Have
- ✓ Future
- ✓ Won't Do

DISCUSSIONS

01

Business

Goals
Constraints
Risks

02

Audience

Engagement
Pain Points
Stories

03

Competitive

Landscape
Disadvantage
Edge

04

Functional

Tools
Processes
Integrations

05

Design

Interface
Experience
Usability

06

Content

Management
Workflows
Promotion

DELIVERABLES



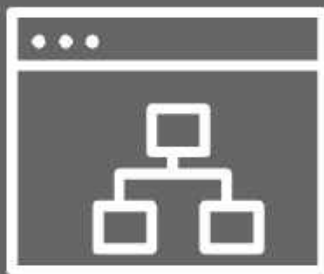
Style Guide



Wireframes



Mockups



Sitemap



Prototype



Requirements



Plan

PLOT YOUR COURSE

“ To be prepared is half
the victory. ”

—*Miguel de Cervantes*

UPGRADING TO 9.0.x

01

Hosting Support

Must meet minimum specs

02

Cleanup Current Site

Remove unnecessary "stuff"

03

Update Versions

Core & contrib code on latest versions

04

Version Specific

Special steps to update to 9.0.x

05

QA & Testing

Manual and automated tests

06

Party Time

Celebrate your new Drupal 9 site

drupal.org/docs/upgrading-drupal

6 or 7 to 9

Reusing Existing Site Structure

01

New Base Site

Create with core 9.0.x

02

Contributed Code

Add 9.0 compatible projects

03

Custom Code

Use Module Upgrader or manually update

04

Migrate Config

Migrate to create entity structures

05

Finish Building

Config, site building, layout & theme

06

Migrate Data

Migrate entity data to structure

bit.ly/Drupal6or7to9Upgrade

6 or 7 to 9

Rebuilding from Scratch

01

New Base Site

Create with core 9.0.x

02

Contributed Code

Add 9.0 compatible projects

03

Custom Code

Use Module Upgrader or manually update

04

Configure Site

Site building, layouts, and configuration

05

Theme Site

Create theme for look-and-feel

06

Migrate Data

Migrate entity data to structure

bit.ly/Drupal6or7to9Upgrade

8 to 9

The Easiest Upgrade in a Decade

01

Contributed Code

Use 9.0 version or patch manually

02

Custom Code

Use Rector or update code manually

03

Core Update

Update core to 9.0.x

bit.ly/Drupal8to9Upgrade

ARCHITECTURE



Layout
Approach



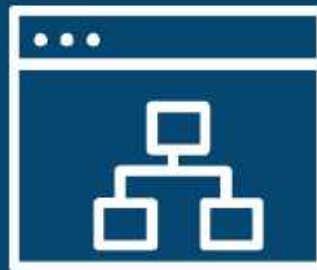
Editing
Tools



SEO
Tools



Component
Approach



Content
Workflow



Migration
Approach

ARCHITECTURE

DrupalCon Global 2020 Sessions

- ✓ Media in Drupal 8: everything you need to know
- ✓ Page building showdown: Paragraphs vs. Layout builder
- ✓ An overview of Drupal 8 front-end component integration methods
- ✓ Outstanding admin UX
- ✓ SEO and Drupal: Designing and developing a search-friendly site
- ✓ Avoid a redesign train wreck: Get your content from point A to B

EFFORT FACTORS

01

STATE

- ✓ Audit Results
- ✓ Core Version
- ✓ Modules Available
- ✓ Rector Coverage

02

COMPLEXITY

- ✓ Entity Count
- ✓ Module Count
- ✓ Integrations
- ✓ Website Changes

03

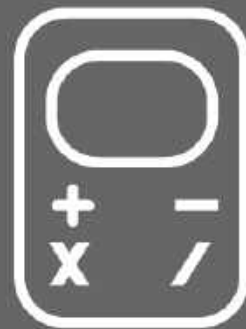
EXPERIENCE

- ✓ Team
- ✓ OOP
- ✓ Drupal 8
- ✓ Migration

DELIVERABLES



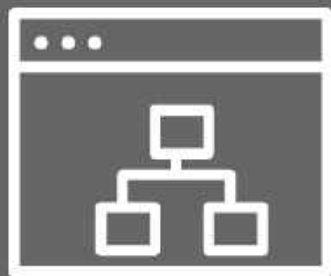
Schedule



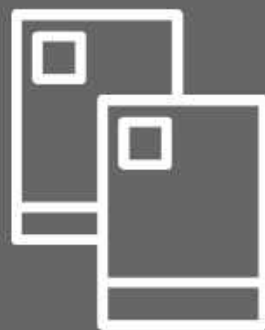
Cost



Team Matrix



Architecture



Migration Plan



Tickets

“ A year from now you’ll wish
you had started today. ”

–Karen Lamb





Execute

DO THE WORK

"Dreams become reality when
we put our minds to it."

—*Queen Latifah*

IMPLEMENTATION

DrupalCon Global 2020 Sessions

- ✓ Moving to Composer: Converting an existing site
- ✓ Understanding Configuration Management and How to Override
- ✓ Altering, extending, and enhancing Drupal
- ✓ Layout Builder components can break your site. Here's how.
- ✓ Next level Twig
- ✓ A strategic approach to custom migrations

UPGRADE TOOLS

01

CUSTOM CODE

- ✓ Upgrade Status
- ✓ Module Upgrader
- ✓ Upgrade Rector
- ✓ Change Records

02

CONTRIBUTED PROJECTS

- ✓ Drupal.org Project
- ✓ Upgrade Status
- ✓ Deprecation Status
- ✓ Upgrade Rector

03

MIGRATION PROCESS

- ✓ Migrate Drupal
- ✓ Migrate Tools
- ✓ Migrate Plus
- ✓ Migrate Upgrade

CONTRIBUTED PROJECTS

Determining Compatibility

01

Project Release

Check project page for Drupal 9 release

02

Project Plan

Check project page for Drupal 9 plan

03

Existing Patches

Find issues tagged with "Drupal 9 compatibility"

04

Deprecation Status

Use Acquia site for status and patch

05

Upgrade Status

Use module on site with project for status

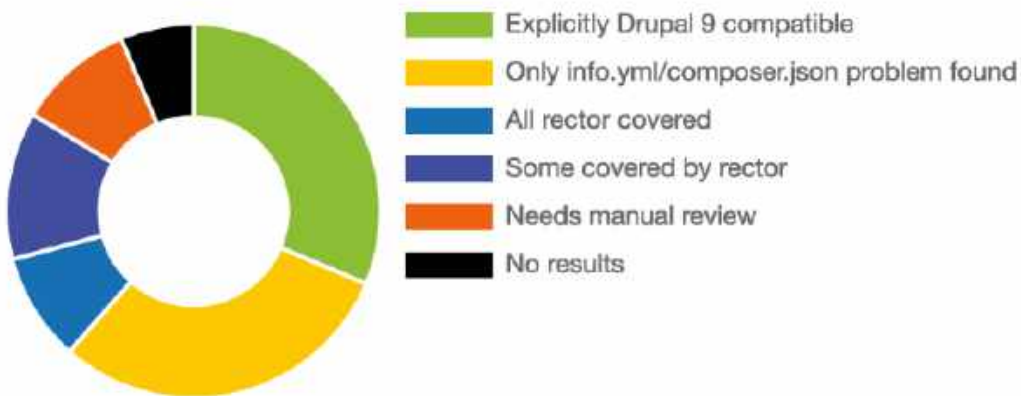
06

Patch Yourself

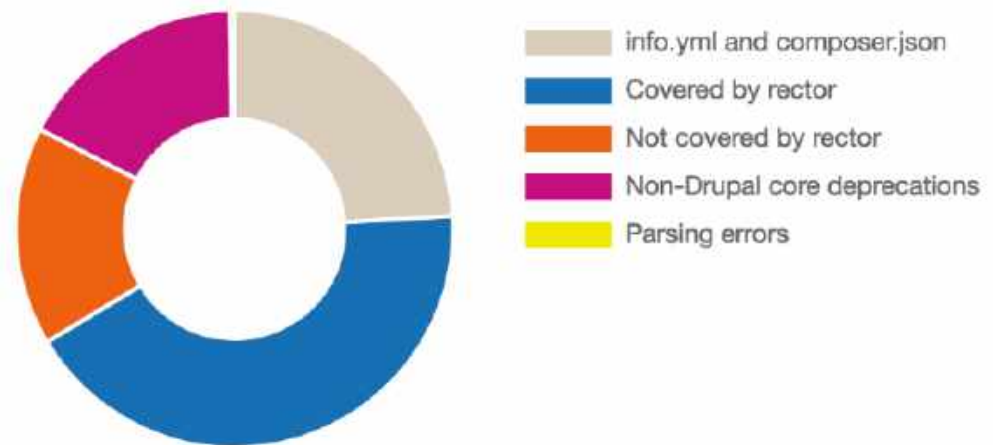
Make custom patch with Rector or manually

DEPRECATION STATUS

dev.acquia.com/drupal9/deprecation_status



9105 projects by results



29617 errors found

Name	Result	Error	Project type	Usage	Group	Total deprecations	Total parsing errors
bootstrap_cloud 1.x-dev	✓ Explicitly Drupal 9 compatible	None	Theme	12	10000	0	0
enum_type_column 1.x-dev	✗ All rector covered	None	Module	3	10000	11	0

UPGRADE STATUS

drupal.org/project/upgrade_status

Contributed projects

Contributed code is available from drupal.org. Problems here may be partially resolved by updating to the latest version. [Read more about how to update contributed projects.](#)



176 ERRORS

Found in 23 projects.



214 WARNINGS

Found in 36 projects.



4 CHECKED

No known errors found.

<input type="checkbox"/>	Project	Available update	Status
<input type="checkbox"/>	Admin Toolbar		
<input type="checkbox"/>	This module is ready for Drupal 9.	N/A	✓ No known errors
<input type="checkbox"/>	Build Hooks 8.x-2.2	Up to date	⚠ 1 warning
<input type="checkbox"/>	CAPTCHA 8.x-1.0	Up to date	⚠ 1 warning
<input type="checkbox"/>	Composer Deploy 8.x-1.3	Up to date	✖ 1 error, 2 warnings
<input type="checkbox"/>	Consumers 8.x-1.10		
<input type="checkbox"/>	Consumers >= 8.x-1.11 is compatible with Drupal 9.	8.x-1.11	✖ 2 errors, 2 warnings

MODULE UPGRADER

drupal.org/project/drupalmoduleupgrader



Welcome to Drupal Module Upgrader Demo | Drupal Module Upgrader Demo

8.x.local:8083/admin/modules

Drupal Module Upgrader Demo

Watch later Share

Shortcuts admin

Structure Appearance Extend Configuration People Reports Help

My account

Drupal Module Upgrader Demo

Welcome to Drupal Module Upgrader Demo

No front page content has been created yet.

[Add content](#)



UPGRADE RECTOR

drupal.org/project/upgrade_rector

▼ CUSTOM PROJECTS

Custom code is specific to your site, and must be upgraded manually. [Read more about how developers can upgrade their code to Drupal 9.](#)

No custom projects found.

▼ CONTRIBUTED PROJECTS

Contributed code is available from drupal.org. Problems here may be partially resolved by updating to the latest version. [Read more about how to update contributed projects.](#)

▼ PATCH GENERATED FOR UPGRADE RECTOR 8.X-1.0-ALPHA2

Review the suggested changes as they may need some further updates manually. Work with the maintainers of [Upgrade Rector 8.x-1.0-alpha2](#) following their Drupal 9 plan (if specified on the project page). Make sure to update to the latest (development) version locally. Remember that there may very well be [issues opened](#) for some or all of these incompatibilities found.

```
$foo = LOCALE_PLURAL_DELIMITER;
- drupal_set_message('Sample message');
+ $this->messenger()->addStatus('Sample message');
$url = Drupal::url('<front');
}
Index: web/modules/contrib/upgrade_rector/tests/modules/upgrade_rector_test_error/upgrade_rector_test_error.module
--- a/web/modules/contrib/upgrade_rector/tests/modules/upgrade_rector_test_error/upgrade_rector_test_error.module
+++ b/web/modules/contrib/upgrade_rector/tests/modules/upgrade_rector_test_error/upgrade_rector_test_error.module
@@ -5,6 +5,6 @@
 */
function upgrade_rector_test_sample() {
  $foo = LOCALE_PLURAL_DELIMITER;
- drupal_set_message('Sample message');
+ \Drupal::messenger()->addStatus('Sample message');
  $url = Drupal::url('<front');
}
```

List of applied rectors

- DrupalRector\Rector\Deprecation\DrupalSetMessageRector

[Export results](#)

MIGRATE DRUPAL UI

bit.ly/DrupalMigrateUI

Drupal version of the source site *

Drupal 6

Drupal 7

▼ SOURCE DATABASE

Provide credentials for the database of the Drupal site you want to upgrade.

Database type *

- MySQL, MariaDB, Percona Server, or equivalent
- PostgreSQL
- SQLite

Database host *

Database name *

Database username *

Database password

▶ ADVANCED OPTIONS

▼ SOURCE FILES

Public files directory

To import public files from your current Drupal site, enter a local file directory containing your site (e.g. /var/www/docroot), or your site address (for example http://example.com).

What will be upgraded? ☆

Home



5 MODULES WILL NOT BE UPGRADED

[Details](#)



33 MODULES WILL BE UPGRADED

[Details](#)

▼ MODULES THAT WILL NOT BE UPGRADED

There are no modules installed on your new site to replace these modules. If you proceed with the upgrade now, configuration and/or content needed by these modules will not be available on your new site. For more information, see [Review the pre-upgrade analysis](#) in the [Upgrading to Drupal 8](#) handbook.

DRUPAL 7

DRUPAL 8



addressfield

Not upgraded



color

Not upgraded



locale

Not upgraded



rdf

Not upgraded



views

Not upgraded

READY TO LAUNCH?

01

INTERNAL CHECKS

- ✓ Latest Stable Code
- ✓ Upgrade Status Clear
- ✓ Status Report Clear
- ✓ Security Review Clear
- ✓ Logs Clear

02

EXTERNAL CHECKS

- ✓ Performance
- ✓ Devices & Browsers
- ✓ HTML & CSS
- ✓ Broken Links & SEO
- ✓ Accessibility

03

FINAL COUNTDOWN

- ✓ Delete Test Stuff
- ✓ Migration Pass
- ✓ Cache Tuning
- ✓ Final Testing
- ✓ Launch Plan

Celebrate!



ENJOY YOUR SITE :)

Drupal Thanks!



Special Thanks To

Gábor Hojtsy * Josh, Jacob, & Aaron Deutsch * Merleigh Jones