



DECOUPLED DAYS 2021

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Virtual Edition
July 14–15, 2021

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Introducing Vuer

Background

- Drupal Outline Module
 - Used Drupal Javascript
 - Outline similar to a Drupal Book
 - Also similar to Taxonomy
 - Vocabulary is an Outline
 - Term is an Outline Entry
 - Entries organized heirarchically
 - Entries be stand alone piece of content or they can provide a wrapper for any Drupal Entity
- Javascript Modernization Initiative
 - Goal was to provide Admin UI functionality in a React App
 - Attempted to integrate Outline module
- Vuer / Decoupled Menus Initiative / Generic Web Components / Druxt
 - Component based approach

What does Vuer do?

- Improved Content Editing Interface for Drupal
 - drag n drop, undo/redo, graphical workflow, etc.
- Improved Book Publishing
 - Outlines can reference any Drupal entity, not just Book nodes
 - Ability to publish an outline as a document, e.g. pdf
 - Open outlines multiple Drupal servers simultaneously
- Improved Drupal Administrative UI
 - Taxonomy editing
 - Permissions
 - Workflow
 - Status Report
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Technical architecture

Front End

- Vue / Vuex / Vuetify SPA
- Druxt
- GraphQL / Apollo

Back End

- Drupal / GraphQL
- Node.js

Vue / Vuex / Vuetify

- Vue has an easy to understand templating syntax.
- Vuex provides state management.
- Vuetify provides Material Design components.

Druxt

- Nuxt for Drupal
 - <https://nuxtjs.org>
- Requires a Drupal module and JS library
 - <https://www.drupal.org/project/druxt>
 - <https://github.com/druxt>
- Provides Vue components for rendering and editing Drupal entities.
 - Currently these components communicate directly with Drupal using JSON API.
 - The long term goal is to create Vue components that wrap Generic Web Components made available by the Drupal Core team.
 - Other Druxt components are provided too, e.g. site, menu, blocks, views, etc.

Backend

- Drupal
 - Requires Outline, Druxt and GraphQL modules
 - Druxt components communicate using JSON API
 - The Vue outline components communicate to Drupal using GraphQL.
- Node.js
 - Provides a place to save Vuer configuration
 - Nuxt server side rendering
 - Puppeteer screen scraping

Drupal

- **Drupal Entities**
 - A strength of Drupal is its robust entity support.
 - Entities are “fieldable”
 - Entities can have multiple display and edit modes.
 - Vuer can be thought of as a “Drupal entity editor” where the entities can be organized in a hierarchy.
- **Drupal Core Taxonomy module similarities**
 - Outline module code was a fork of the D8 Core Taxonomy module.
 - Outline is a Drupal configuration entity similar to a Taxonomy Vocabulary
 - Outline Entry is a content entity similar to Taxonomy Term
- **Major differences**
 - Outline Entry has only one parent
 - Outline Entry may not have custom fields
 - Outline Entry Base fields include name, content, expansion state, and entity reference
 - Link between servers
- **Entity Reference Field**
 - Allows an Outline Entry to point too any valid Drupal Entity
 - Outline Entry becomes a wrapper around a Drupal Entity

Development Environment

- Vue Plugin
- Lando
- VS Code
- Drupal treated as an npm package
- Provides a starting point for developing custom Vue apps that use Drupal as the back end.

Roadmap

- Content Editing
 - Integrate Druxt editing components
 - Drag/Drop, Undo/Redo, Spell Check
- Book and Taxonomy Integration
 - Editing
 - Migration
 - Eport PDF
- Auto-generate outlines / outline entries
 - e.g. Book of sale items on e-Commerce site
- Drupal Views Support
- Native App
- Static Generation

Code Walkthrough

- Drupal Outline Module
 - Based on Drupal Core Taxonomy Module where a Vocabulary is an Outline, and a Term is an Outline Entry.
- Vue App
 - Vuex
 - GraphQL/Apollo
 - Follows Nuxt project structure