Four Kitchens

Using bundle classes to build content types with built-in behaviors

DrupalCamp NJ

13 MARCH 2026


Four Kitchens | @nJim
Jim.Vomero@FourKitchens.com

PROBLEM

Drupal Is Great at Modeling Structure

- Robust core entity system
- No code tools (Field UI)
- Configuration management

PROBLEM

Behavior Ends Up Everywhere

```
// The classic bundle check.
if ($node->bundle(), === 'events') {
    // Show registration CTA.
}

// Getting fancy by checking multiple.
if (in_array($node->bundle(), ['news', 'story'])) {
    // Add author byline in the news feed.
}
```

PROBLEM

Behavior Ends Up Everywhere

```
// The "Everything is a Conditional" sprawl.
if ($node->bundle()=== 'news') {
  $variables['eyebrow'] = 'News';
}
elseif ($node->bundle()=== 'story') {
  $variables['eyebrow'] = 'Story';
}
elseif ($node->bundle()=== 'event') {
  $variables['eyebrow'] = 'Event';
}
```

PROBLEM

Behavior Ends Up Everywhere

```
// Growing Conditional Logic.
switch ($node->bundle()) {
  case 'news':
    $cta = 'Read More';
    break;
  case 'event':
    $cta = 'Register';
    break;
  case 'story
    ...
```

PROBLEM

Four Pillars of OOP

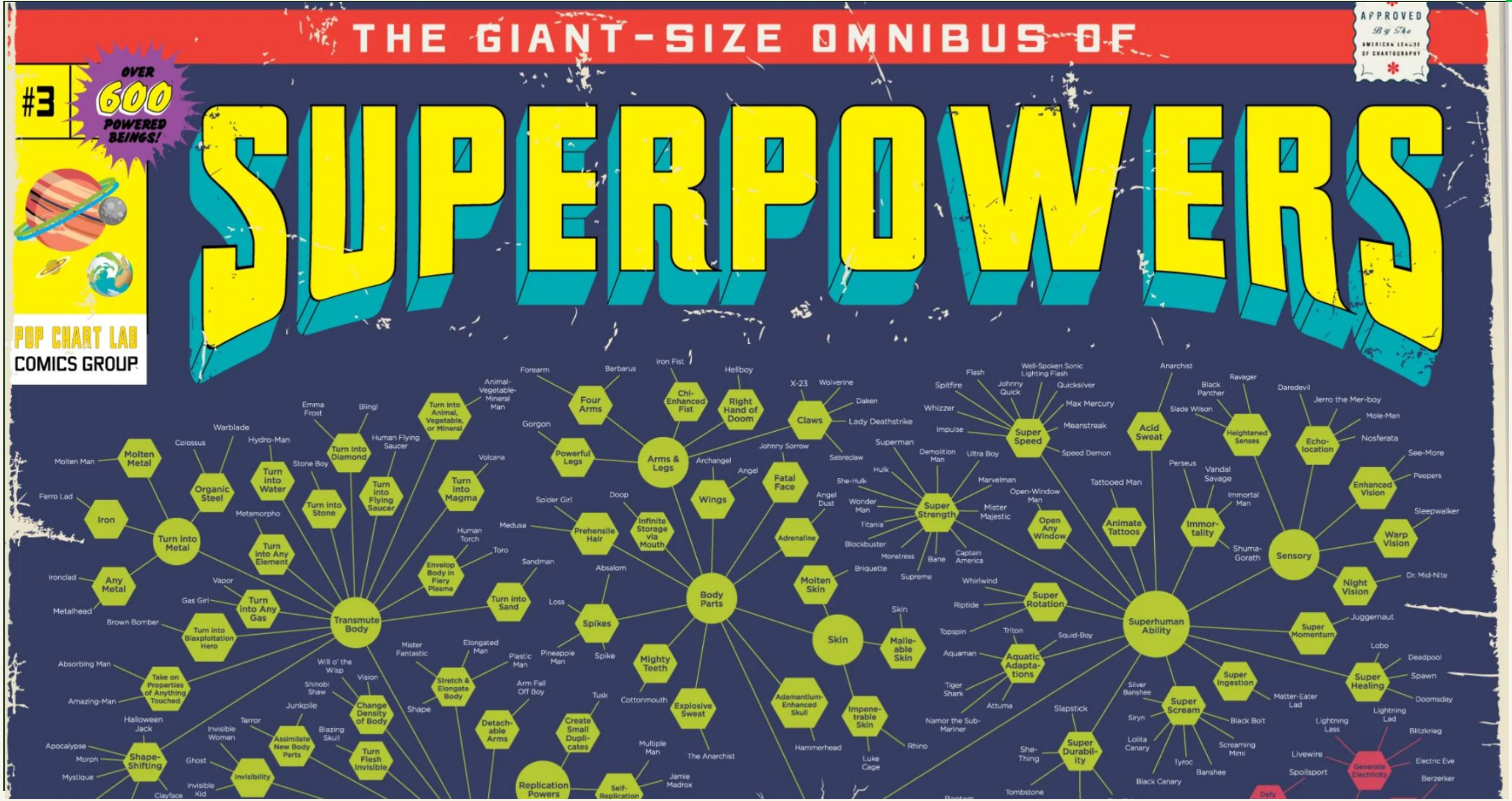
PROBLEM

Four Pillars of OOP

```
// Tired textbook examples..
abstract class Pet {
  protected string $name;
  public function eat() { ... }
  public function speak() { ... }
}

class Dog extends Pet { ... }

class Cat extends Pet { ... }
```


THE GIANT-SIZE OMNIBUS OF
SUPERPOWERS
#3
OVER 600 POWERED BEINGS!
APPROVED By The AMERICAN LEAGUE OF CARTOGRAPHY
POP CHART LAB
COMICS GROUP
Transmute Body
Turn into Metal
Molten Metal
Organic Steel
Iron
Any Metal
Turn into Water
Turn into Diamond
Turn into Stone
Turn into Flying Saucer
Turn into Magma
Turn into Animal, Vegetable, or Mineral
Turn into Any Element
Turn into Any Gas
Turn into Blaxploitation Hero
Take on Properties of Anything Touched
Envelop Body in Fiery Plasma
Turn into Sand
Change Density of Body
Stretch & Elongate Body
Assimilate New Body Parts
Turn Flesh Invisible
Shape-Shifting
Invisibility
Detach-able Arms
Create Small Dupli-cates
Replication Powers
Self-Replication
Body Parts
Arms & Legs
Four Arms
Powerful Legs
Chi-Enhanced Fist
Right Hand of Doom
Claws
Wings
Fatal Face
Prehensile Hair
Infinite Storage via Mouth
Spikes
Mighty Teeth
Explosive Sweat
Adrenaline
Molten Skin
Skin
Malle-able Skin
Adamantium-Enhanced Skull
Impene-trable Skin
Super Speed
Super Strength
Open Any Window
Acid Sweat
Animate Tattoos
Immor-tality
Heightened Senses
Echo-location
Sensory
Enhanced Vision
Warp Vision
Night Vision
Super Rotation
Superhuman Ability
Super Momentum
Aquatic Adapta-tions
Super Ingestion
Super Healing
Super Scream
Super Durabil-ity
Generate Electricity
Defy
Molten Man
Colossus
Warblade
Hydro-Man
Emma Frost
Bling!
Ferro Lad
Metamorpho
Ironclad
Metalhead
Vapor
Gas Girl
Brown Bomber
Absorbing Man
Amazing-Man
Halloween Jack
Apocalypse
Morph
Mystique
Clayface
Invisible Woman
Ghost
Invisible Kid
Terror
Junkpile
Blazing Skull
Shinobi Shaw
Will o' the Wisp
Vision
Mister Fantastic
Elongated Man
Plastic Man
Shape
Arm Fall Off Boy
Human Flying Saucer
Stone Boy
Volcana
Human Torch
Toro
Medusa
Sandman
Loss
Pineapple Man
Spike
Tusk
Cottonmouth
Multiple Man
Jamie Madrox
Absalom
The Anarchist
Hammerhead
Luke Cage
Rhino
Animal-Vegetable-Mineral Man
Forearm
Gorgon
Barbarus
Iron Fist
Hellboy
X-23
Wolverine
Daken
Lady Deathstrike
Sabreclaw
Johnny Sorrow
Archangel
Angel
Spider Girl
Doop
Angel Dust
Briquette
Skin
Spitfire
Flash
Johnny Quick
Well-Spoken Sonic Lighting Flash
Quicksilver
Whizzer
Max Mercury
Meanstreak
Impulse
Speed Demon
Superman
Demolition Man
Ultra Boy
Hulk
She-Hulk
Wonder Man
Titania
Blockbuster
Monstress
Bane
Captain America
Marvelman
Mister Majestic
Open-Window Man
Supreme
Whirlwind
Riptide
Topspin
Triton
Squid-Boy
Aquaman
Tiger Shark
Attuma
Namor the Sub-Mariner
Slapstick
She-Thing
Tombstone
Anarchist
Black Panther
Slade Wilson
Ravager
Daredevil
Jerro the Mer-boy
Mole-Man
Nosferata
See-More
Peepers
Sleepwalker
Dr. Mid-Nite
Juggernaut
Lobo
Deadpool
Spawn
Doomsday
Tattooed Man
Perseus
Vandal Savage
Immortal Man
Shuma-Gorath
Silver Banshee
Siryn
Lolita Canary
Black Canary
Tyroc
Banshee
Screaming Mimi
Black Bolt
Matter-Eater Lad
Lightning Lass
Lightning Lad
Blitzkrieg
Livewire
Spoilsport
Electric Eve
Berzerker

OOP

Superhero Example

Follow along in Figjam

‘Nuff talk.
Let’s see some code.

https://github.com/nJim/entity-bundles-examples

THE MECHANICS

Step 1: Identify bundles to customize

- Don’t create bundle classes for everything right away.
- Start with encapsulating real behaviors, not just field settings.

THE MECHANICS

Step 2: Define the bundle classes

- Keep the namespace consistent
- Use clear bundle names
- Always extend parent entities

THE MECHANICS

Step 3: Map the bundle to the class

```
// Register the new bundle class the 'classic' way.
function comics_entity_bundle_info_alter(array &$bundles): void {
  $bundles['node']['event']['class'] = \Drupal\comics\Entity\Node\Event::class;
  $bundles['node']['news']['class'] = \Drupal\comics\Entity\Node\News::class;
  $bundles['node']['story']['class'] = \Drupal\comics\Entity\Node\Story::class;
}
```

THE MECHANICS

Step 4: Move behaviors into methods

```
// Start with short, focused methods.
$node->getFeaturedImage();
$node->getCallToAction();
$node->hideFromSearch();
$node->hasShareLink();
```

THE MECHANICS

Step 5: Use behaviors in custom code

```
// Method defined in bundle class.
public function getByline(): string { ... }

// Used in a twig template.
{{ node.getByline() }}

// Used in custom module.
if ($node instanceof AuthorabletInterface) {
  $node->getByline();
}
```

DESIGN APPROACH

Using interfaces for shared capabilities

- Traits, Interfaces, structured data
- Services, plugins, and other structures for encapsulation
- Adopting design patterns

DESIGN APPROACH

Practical lessons from real projects

- Adopt bundle classes incrementally
- Start with the most painful bundles
- Don’t turn them into junk drawers
- Document the pattern for the team

With bundle classes, we can designing content types that know how to answer questions about themselves.

Thank You.

Four Kitchens | @nJim
Jim.Vomero@FourKitchens.com