

A stylized graphic of the Union Jack flag, featuring the red, white, and blue colors of the flag, positioned on the left side of the slide.

Vibe Coding, Agentic Workflows, and the Art of Context

From Chaos to Clarity with AI

Presented by Rowan Sentesy

EE Conf 2025 - London UK
October 15 2025

Scan QR Code
for slide deck



About me

Rowan Sentesy

Powell River, BC, Canada

Senior Web Developer

Hop Studios (6 yrs)



Introduction

The 'G-School' Journey:

- Euphoria > Chaos > Clarity

The Lessons:

- Documentation-driven development & Tactical tips

The System:

- FlowNotes - putting it all into practice in day-to-day workflow

Q & A



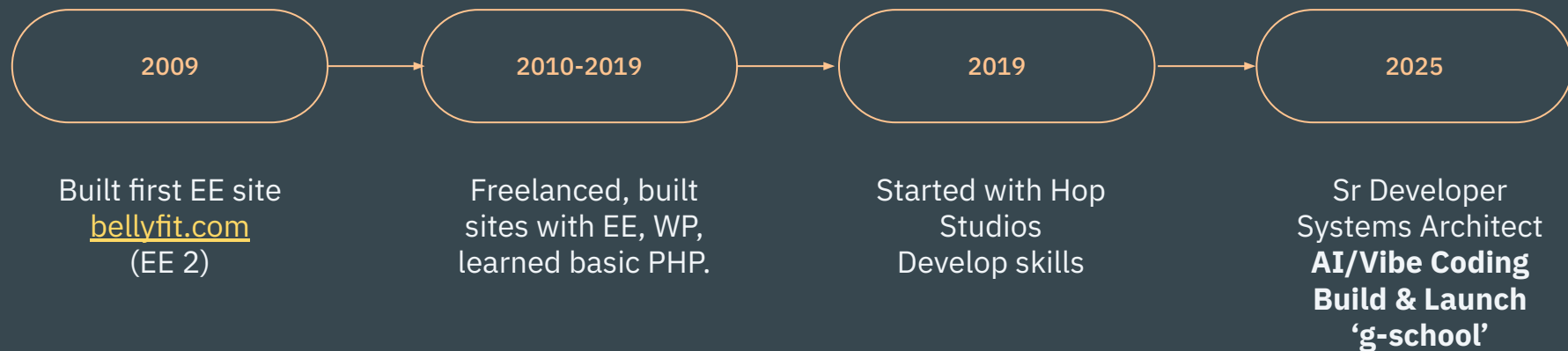
My Goal:
Help you be more effective with AI development!



How did I get here?



16 Years of Growth



The Parallel - Then & Now



2009: Where it all started

- bellyfit.com
- Hired EE developer to help
- Self-taught
- Career



G-School

2025: where we are now

- Complete rebuild, rebrand!
- G-School site on “modern” stack
- “Hired” AI to help
- Self-directed & AI driven learning
- Expansion
- **Not EE!!!**



Why Leave EE?

- Technical Debt
- Business Pivot
- Learning Opportunity
- Curiosity & Growth



Vibe Coding?

Can I vibe-code a custom 'modern' website without a familiar stack?

Was it time to jump into 'Vibe Coding'?

Was the technology ready?

Was I ready?



Vibe Coding

Intuition > Expertise

Risk? 

Comfort Zone? 

AI made the impossible possible

Master as little as possible!





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G-School
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Stay feminine.
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Stack Comparison

ExpressionEngine

G-School

Monolithic

Distributed/Microservices

All-in-one

Composable

Self-hosted

Eight specialized cloud services

One codebase

Multiple coordinated services

Traditional CMS

Headless



What did I build?

G-School Tech Stack

NEXT.js



Firebase



Cloud
Firestore



Firebase Hosting

stripe

SANITY

vimeo





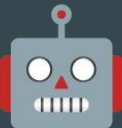
AI Euphoria

The Magic Works!

First achievements:

- I had a plan
- I had a theme (Theme Forest)
- Proof of concept - data migration (EE to Sanity)
- Integrate with Sanity, show migrated content on my local site!
- This will be EASY!



*Look, the  is
doing the work!*

(Video clip)



✓ Task Completed

I've implemented a solution that respects the current DataTable state (filter, sort, etc.) for the "Check All Resources" functionality. The key improvements are:

1. Added a proper React ref system between the main component and the DataTable.
2. Created a robust method to extract resources directly from the DataTable.
3. Removed the jQuery-based DOM manipulation that was causing issues.

Now when you filter the table or sort by any column (like Last Updated), clicking "Check All Resources" will process the currently visible resources in the exact order they appear in the table. This ensures that you get the correct subsets of resources in your preferred order, without the process being reset.

To verify the fix, simply:

1. Apply any filtering to the table (search, sort by column, etc.)
2. Click "Check All Resources"
3. Observe that only the currently visible resources are processed, and in the correct order.

 See new changes

 Cline wants to execute this command:

```
docker-compose up -d
```

✓ Auto-approve: Read, Edit, Commands, Browser >

Run Command

Type a message...

  cline-anthropic/claude-3.7-sonnet thinking

 rs_stripe-integration*   Launchpad  5  0 No pipeline  Create



```
(1) qa-status.json: Original ↔ Cline's Changes (Editable) • SignInConter
docs > status > {} qa-status.json > ...
342 35 "userJourneys": [
343   {
344     "id": "vimeo_privacy_qa",
345     "name": "Vimeo Privacy Settings",
346     "implementationId": "webhook_handlers",
347   },
348   {
349     "id": "free_trial_flow_qa",
350     "name": "Free Trial Flow",
351     "status": "scheduled",
352     "lastTested": null,
353     "issues": [],
354     "notes": "",
355     "testInstructions": [
356       "phase": "MVP",
357       "testInstructions": [
358         "Manually verify a sample of videos in Vimeo dashboard",
359         "Test embedding of videos with different privacy settings"
360       ],
361       "implementationId": "vimeo_privacy"
362     },
363     {
364       "id": "video_embedding_qa",
365       "name": "Video Embedding",
366       "status": "scheduled",
367       "lastTested": null,
368       "issues": [],
369       "notes": "",
370       "testInstructions": [
371         "Navigate to video content pages",
372         "Check that videos load properly",
373         "Verify no Vimeo privacy errors appear",
374         "Test loading time for video players"
375       ],
376       "implementationId": "vimeo_player"
377     },
378   ],
379 ]
380 }
```

The Overconfidence Trap

Early AI success → Overconfidence

"AI got me this far, I can keep this pace!"

Set aggressive launch deadline

"I'll just make MORE magic happen!"



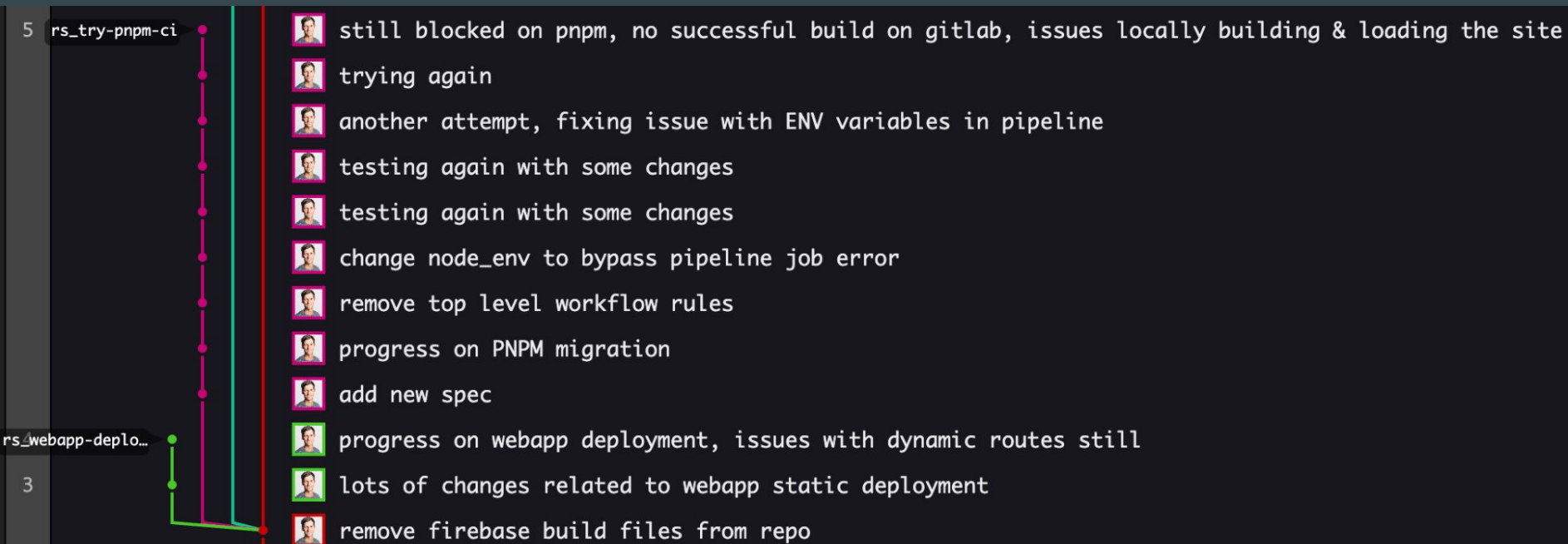
The Crash = The Flood!



GAME OVER...



May Chaos: Git Graph





The Recalibration

Just me and my AI

Stack overwhelming & complex

AI context limits - couldn't hold it all at once!

> “Write all the docs. Read all the docs.
Build the project! Go!” ❌



The Awakening

Retreat & Reflect

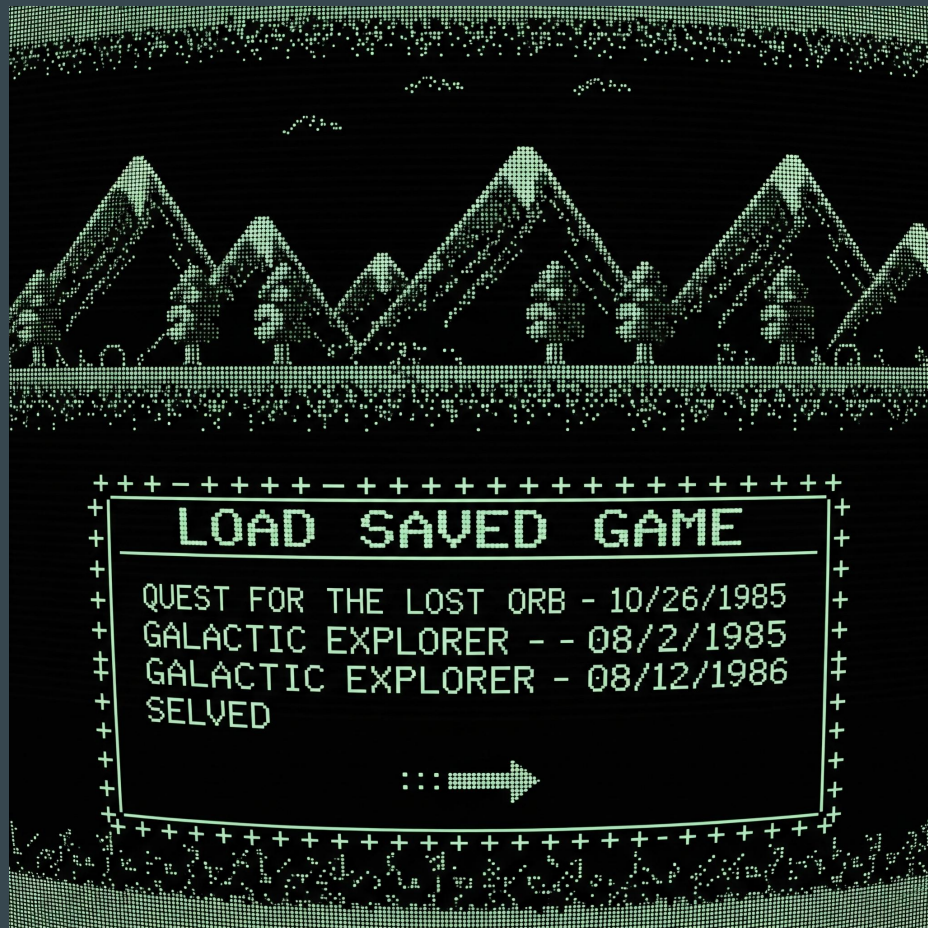


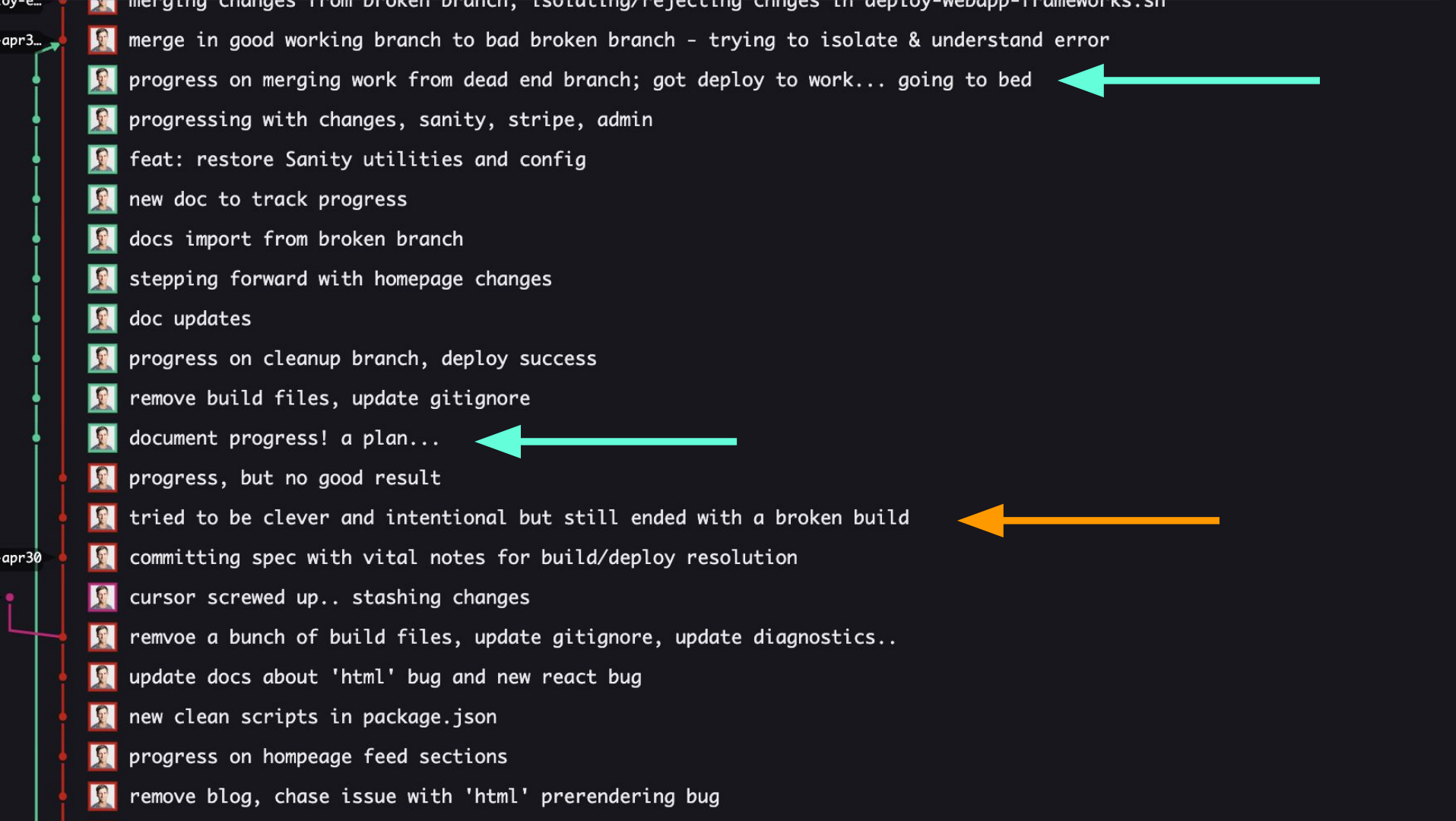
*Go back
to go forward*

退一步海阔天空

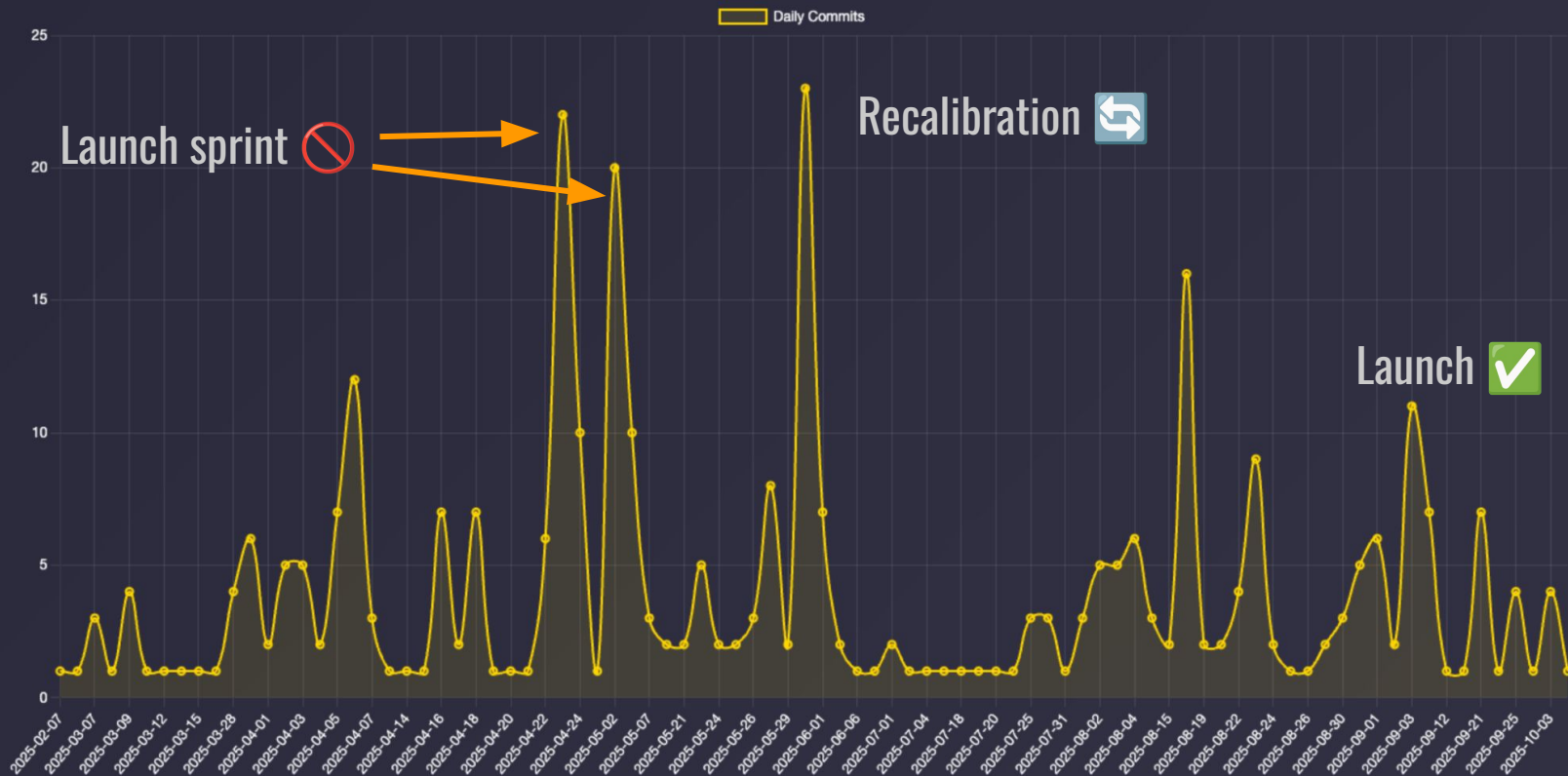
“Take one step back, (and you will see)
the vastness of the sea and sky”

~chinese proverb

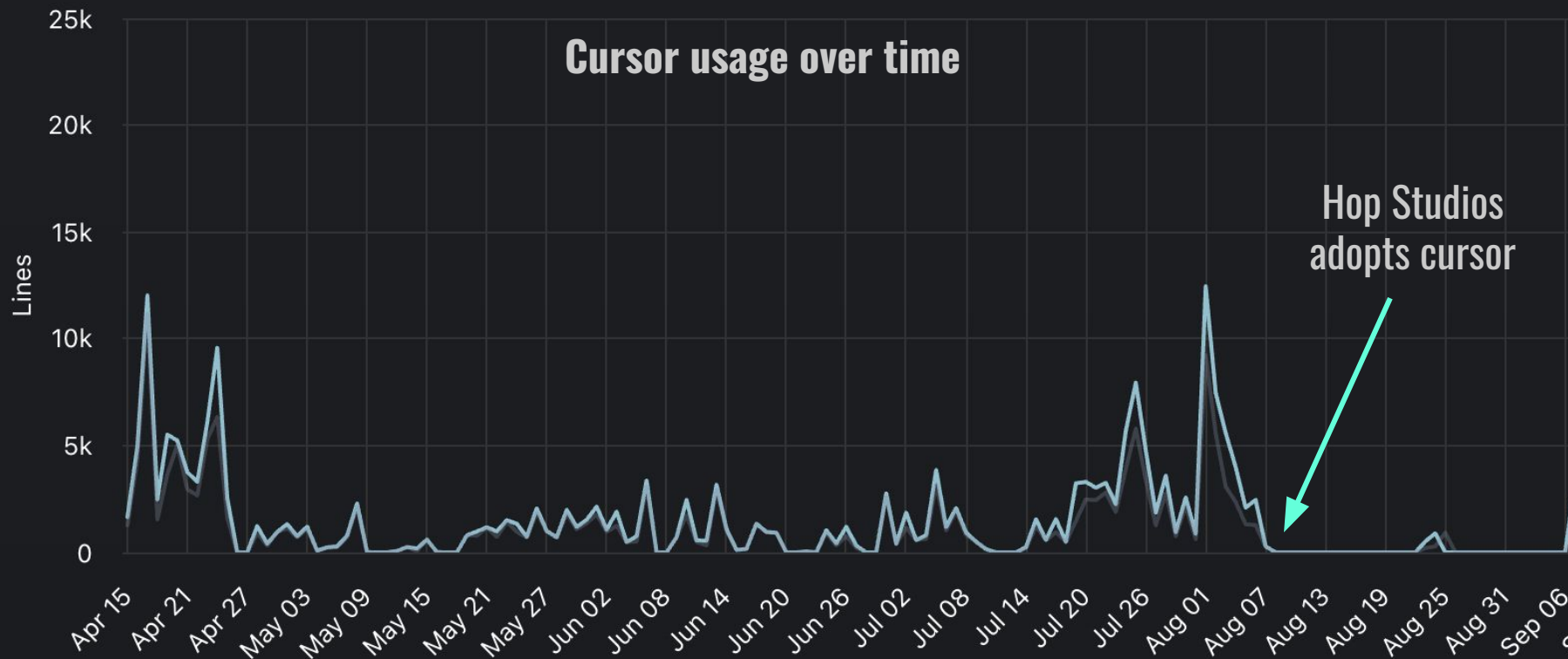




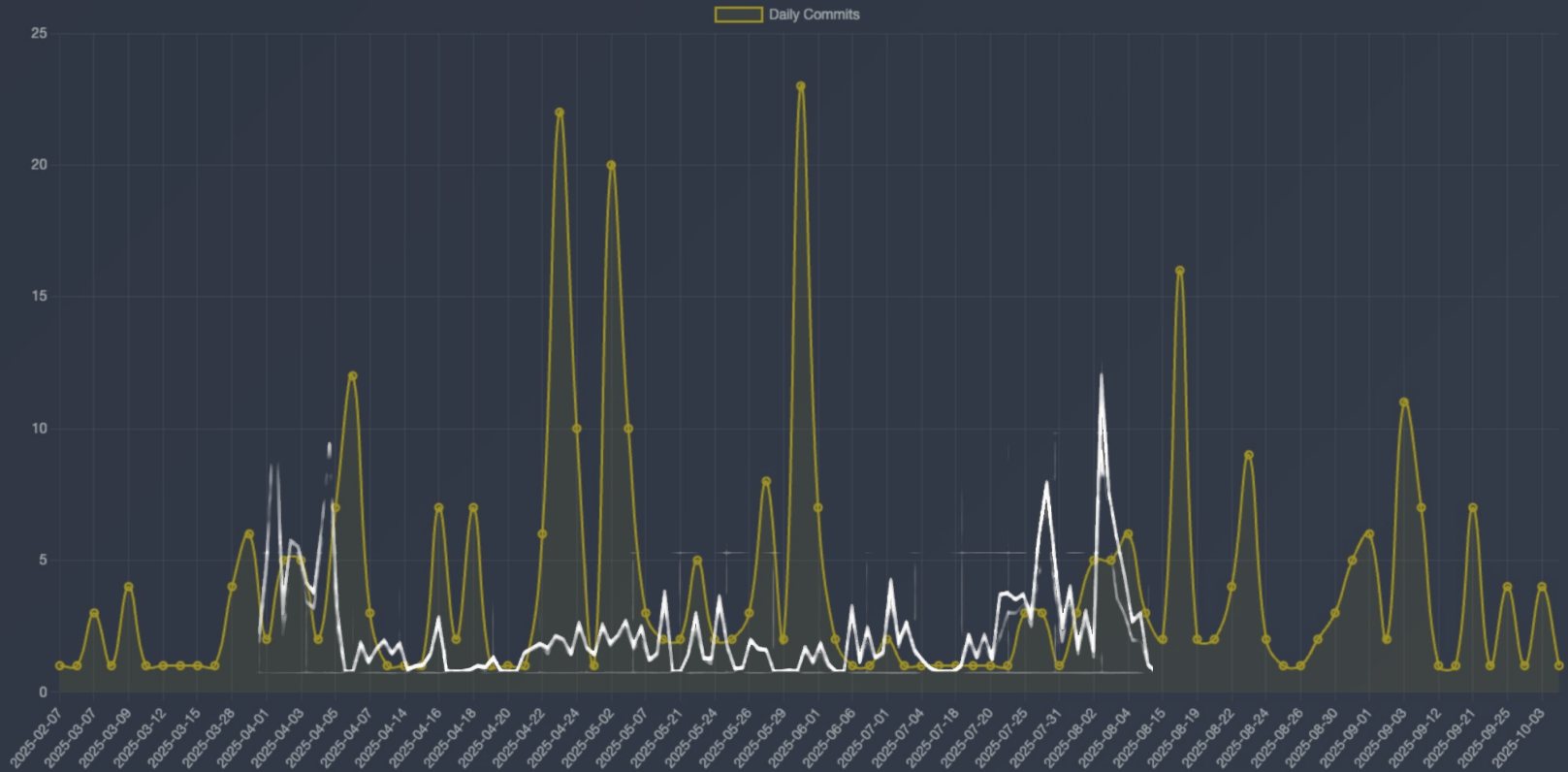
Daily Commit Velocity



Cursor usage over time



Daily Commit Velocity



Limitation: When agent is working, what do I do?

What I tried:

IDE agent + web interface (Claude/ChatGPT) for planning	✗ Couldn't get full docs into web interface
Documentation export scripts → upload to web	✗ Too cumbersome, no way to evolve docs ✓ Generate specs from web LLMs
Two IDE Agents implementing simultaneously	✗ Overlapping broke everything ✗ Bad quality, not productive <i>Too many brooms!</i>



Limitation: When agent is working, what do I do?
Breakthrough -> What worked:

Workspace 1: Docs workspace	Workspace 2: Code workspace
Strategic thinking Generate “Spec”	Implement “Spec” Write code! QA



Evolved Workflow

Each feature/fix gets a dedicated markdown spec

Date-stamped filename: 'YYYY-MM-DD-feature-name.md'

Version controlled, lives in repository

Open in 'Code agent' to implement

Living documentation

Archiving process/housekeeping

Ideally: Canonical docs == implementation spec == what's in the code!



Evolved Workflow MVP Sprint Specifications



M+ 2025-01-28-admin-dashboard-payment-enhancements.md	feat: implement admin dashboard homepage with real data widgets
M+ 2025-08-22-P1-05-mobile-audit-and-optimization.md	feat: Complete video slug page mobile optimization (~90%)
M+ 2025-08-31-desktop-navigation-dropdown-visibility-fix.md	removing fallback image urls
M+ 2025-08-31-mobile-search-scrolling-fix.md	feat: Complete video slug page mobile optimization (~90%)
M+ 2025-08-31-profile-picture-consistency-and-optimization.md	checkpoint before polishing new components pre-launch
M+ 2025-09-01-mvp-launch-fixes.md	fix: resolve MVP launch critical issues and implement watch history res...
M+ 2025-09-01-production-launch-specification.md	fix: resolve MVP launch critical issues and implement watch history res...
M+ 2025-09-01-sanity-data-corruption-investigation-and-cleanup.md	checkpoint before polishing new components pre-launch
M+ 2025-09-02-google-oauth-redirect-uri-mismatch-resolution.md	fix: resolve MVP launch critical issues and implement watch history res...
M+ 2025-09-02-stripe-coupon-promo-code-implementation.md	feat: mobile responsive improvements, auth hardening, and dashboard ...
M+ 2025-09-03-account-settings-refactoring.md	fix: resolve MVP launch critical issues and implement watch history res...
M+ 2025-09-03-admin-dashboard-authentication-fix.md	feat: mobile responsive improvements, auth hardening, and dashboard ...
M+ 2025-09-03-dashboard-comment-list-refactor-spec.md	fix: resolve MVP launch critical issues and implement watch history res...
M+ 2025-09-03-production-domain-verification-and-admin-setup.md	feat: Production domain verification, admin setup, and documentation ...
M+ 2025-09-03-related-videos-sidebar-clickability-fix.md	feat: mobile responsive improvements, auth hardening, and dashboard ...
M+ 2025-09-03-stripe-checkout-invoice-generation-troubleshooting.md	new spec for invoice & subscription updates
M+ 2025-09-03-user-authentication-subscription-status-refactoring.md	feat: mobile responsive improvements, auth hardening, and dashboard ...
M+ 2025-09-03-user-profile-management-api-endpoints-implementati...	feat: mobile responsive improvements, auth hardening, and dashboard ...
M+ 2025-09-04-payment-history-webhook-and-auth-role-fixes.md	feat: implement admin dashboard homepage with real data widgets
M+ README.md	progress on front-end webapp styles, responsiveness, mobile friendly ...

Production Launch Spec

550 lines

Total Scope:

Coordinates ~20 different
implementation areas



```
title: Production Launch Specification - September 1, 2025
status: Complete
date: 2025-09-01
start_time: 2025-09-01T09:00:00
archived_time: 2025-10-12T18:19:00
owner: MS Alice B Project Team
ai_model: Claude-3.5-Sonnet
prompt_count: 5
related_specs:
  - implementations/future-releases/2025-08-24-production-launch-specification.md
  - guides/stripe-test-checklist.md
  - guides/operations/firebase-stripe-integration-guide.md
  - specs/deployment/environment-config.md
implementation_status_id: production_launch_sept_2025
qa_status_id: production_launch_sept_2025_qa
canonical_docs_reviewed: true
```

Production Launch Specification - September 1, 2025

Overview

This specification outlines the comprehensive production launch plan for the MS Alice B platform, including critical environment configuration, Stripe promo/coupon code setup, early signup discount pricing, and end-to-end testing workflow. **LAUNCH COMPLETED** - The site has successfully launched and is operational in production.

Launch Goals

Primary Objectives

- **Secure Production Deployment:** All secrets properly configured in Firebase Secret Manager
- **Stripe Production Setup:** Live mode with promo codes for testing and early signup discount
- **End-to-End Testing:** Complete checkout flow validation with real payment processing
- **Early Signup Incentive:** \$19.99 CAD introductory pricing for first 2 weeks
- **Zero-Downtime Launch:** Seamless transition from development to production

Success Metrics ACHIEVED

- **100% webhook delivery success rate** ACHIEVED
- **Sub-2s page load times** ACHIEVED
- **Zero authentication errors** ACHIEVED
- **Successful payment processing with promo codes** ACHIEVED
- **Early signup discount working correctly** ACHIEVED

Launch Success

- ✓ Successful deployment
- ✓ 140+ subscribers in first month
- ✓ Stable production system with paying customers
- ✓ Real business, real users



The Breakthrough



Documentation Drives Development



9 Tactical Tips for AI Development

...



Tactical Tip 1 - Dual Workspace Strategy (review)

Limitation: When agent is working, what do I do?

Workspace 1: Docs workspace	Workspace 2: Code workspace
Strategic thinking	Features/Fixes
Generate “Spec”	Implement “Spec”
Planning, strategy	Write code!
High level	QA feedback loop (with human)
Audit & update docs	Archive when complete
Track feature & QA progress	



Tactical Tip 2 - Three-Stage Quality Loop

1. Docs Agent: Build context-rich spec
review codebase, documentation, requirements
2. Review & Validate:
Human + agent review for completeness/accuracy
3. Implementation Agent:
Review spec, review codebase, ask questions
Questions or concerns? Cycle back to step 1 & repeat!



Tactical Tip 3 - Canonical Docs vs Work Specs

CANONICAL DOCS

WHAT should be built

Living documents - Updated continuously

 Location:
docs/

 Purpose:

Planning & design, Architecture decisions,
source of truth

IMPLEMENTATION SPECS

HOW to build it

Update after each response. Archive when
complete.

 Location:
docs/implementations/

 Purpose:

Execution & tracking, checkpoint states



Documentation Structure

docs/	# ← You are here (Main Documentation Hub)
■ README.md	# ← This file (Main Navigation Hub)
■ specs/	# Technical Specifications & Architecture
technical-specification.md	# Complete technical overview
architecture/	# System design & data models
api/	# API documentation
features/	# Feature specifications
security/	# Security & authentication
backend/	# Backend specifications
frontend/	# Frontend specifications
content/	# Content management specs
deployment/	# Deployment specifications
integrations/	# Integration specifications
operations/	# Operations & monitoring
project-overview/	# Project overview specs
quality/	# Quality specifications
ux/	# UX specifications
analytics/	# Analytics configuration
archive/	# Archived specifications
templates/	# Specification templates
🔗 implementations/	# Implementation Documentation
YYYY-MM-DD-feature-name.md	# Active implementation specs
mvp-critical/	# Critical MVP implementations
mvp-polish/	# MVP polish implementations
future-releases/	# Future release planning
archive/	# Completed implementations
image/	# Implementation images
README.md	# Implementation overview

📁 status/	# Project Status Tracking
implementation-status.json	# Current implementation status
qa-status.json	# QA testing status
code-review-status.json	# Code review status
documentation-stats.json	# Documentation statistics
implementation-status-index.json	# Implementation index
documentation-compliance-dashboard.md	# Compliance dashboard
components/	# Component-specific status (13 files)
image/	# Status images
README.md	# Status overview
📁 guides/	# How-to Guides & Tutorials
admin-setup-guide.md	
environment-variables-guide.md	
deployment/	# Deployment guides
operations/	# Operations guides
README.md	# Guides overview
📁 standards/	# Design Standards & Guidelines
📁 qa/	# Quality Assurance Documentation
🔧 scripts/	# Utility Scripts & Tools
📁 migration/	# Data Migration Documentation
📁 templates/	# Documentation Templates
📁 packages/	# Package-specific documentation
🖼 image/	# Visual assets and images
📁 gschool-design-package/	# Design system package
🔧 Configuration Files	# Workspace, package.json, etc.



Tactical Tip 4 - Implementation Specs as Living Checkpoint System



The Problem:

Chat crashes & Context limits

Lost progress



The Solution:

Update spec with EVERY prompt

Spec becomes your save state



The Result:

Peace of mind.

No lost progress

Maintain Context outside of chat!



Tactical Tip 5 - Precision Language System

Shared vocabulary for AI prompting:

1. **Alignment:** Does spec align with canonical docs?
2. **Synthesize:** Merge multiple sources into unified document
3. **Specification (n):** Document outlining the what and how
4. **Implementation:** Doing the work outlined in spec
5. **Canonical Docs:** High-level architecture truth
6. **Stub:** Placeholder for planned feature or document
7. **Scaffold:** Build framework/placeholders of components



Tactical Tip 6 - "Identify any mis-alignments"

The Limit:

Agents won't self-check against multiple sources

Agents lose big picture, create duplicate patterns

The Action:

Always check for existing patterns, Keep it DRY!

The Benefit:

Catches inconsistencies early, pre-emptive QA!



Tactical Tip 7 - "1000+ lines = refactor time"

The Problem:

Agents lose context in massive files

The Rule:

1000+ lines = refactor time

AI is exceptionally good at refactoring

Ask it to break it apart, show you the plan

Compromise: Simplify to $\sim 1/2$ complexity.



Tactical Tip 8 - Commit Message Generation

The Problem:

Writing good commit messages is tedious, especially if you didn't write the code.

The Solution:

AI generates → Human reviews → Human commits

Example Prompt:

"Review git status and make me a commit message... short and broadly accurate"

Advice:

Don't let AI commit directly - **stay in control!**



Example of real AI commit message

feat: Fix thumbnail consistency and cache invalidation issues



Core Fixes:

- Fix resolveSanityImageUrl function to properly resolve Sanity images instead of returning undefined
- Implement bidirectional cache invalidation between dashboard and webapp
- Add real-time thumbnail update events for immediate user experience



Files Modified:

- packages/shared/src/utils/getThumbnailUrl.ts: Fixed Sanity image resolution
- packages/dashboard/src/views/dashboard/tv-shows/video-resources/utils.js: Added webapp cache invalidation
- packages/webapp/src/hooks/useUnifiedMetadata.ts: Added dashboard event listener
- packages/webapp/src/hooks/useMetadataCache.ts: Added dashboard event listener



Documentation Updates:

- Updated canonical thumbnail getter spec to v2.0 with recent fixes
- Archived completed implementation specs to archive folder
- Updated implementation status tracking with recent completions
- Enhanced archive notes with comprehensive fix documentation



Impact:

- Users now see updated thumbnails immediately instead of waiting 5-30 minutes
- Eliminated mysterious thumbnail loading behavior
- Consistent thumbnails across all views (Continue Watching, Alice's Picks, Search)
- Improved user experience with predictable thumbnail updates



QA Status: PASSED - User testing confirmed both fixes working correctly



Tactical Tip 9 - Build Your Own .cursor/rules

The Trigger:

Making the same correction more than twice?
That's a rule.

The Action:

Get the agent to write/update the rule, teach
once, use forever.

Evidence:

MSAliceB: 715 lines of rules

This isn't configuration - it's captured innovation

The Meta-Pattern:

Hit Limit → Document Solution →
Commit to Rules → Never Hit Again



G-School Launched



Q: Can I use what I learned at Hop Studios?



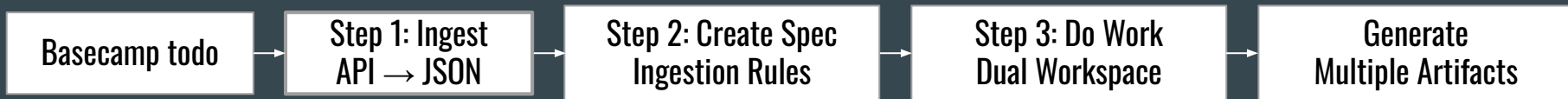
Introducing... Flow Notes

G-School taught me how build with AI

AI Powered

Document driven development

Every task I touch goes through FlowNotes



Basecamp JSON

```
{
  "ingestedAt": "2025-10-12T19:34:20.625Z",
  "ingestedLocalDate": "2025-10-12",
  "sourceUrl": "https://3.basecamp.com/5744549/buckets/39953224/todos/9054332564",
  "id": 9054332564,
  "title": "Investigate - Masthead page not displaying properly",
  "status": "completed",
  "dueOn": "2025-09-11",
  "assignees": [
    {
      "id": 45375899,
      "name": "Rowan Sentesy",
      "email": "rowan@hopstudios.com"
    }
  ],
  "project": {
    "id": 39953224,
    "name": "Greater Good"
  },
  "list": {
    "id": 8033529339,
    "name": "General GG"
  },
  "description": "<div>—</div><div>status: completed</div><div>priority: high</div><div>category: development</div><div>git_mr_url: <a target=\"_blank\" rel=\"noreferrer\" class=\"autolinked\" data-behavior=\"truncate\" href=\"https://gitlab.com/hop-studios/greater-good/greatergood/-/merge_requests/151\">https://gitlab.com/hop-studios/greater-good/greatergood/-/merge_requests/151</a></div><div>review: TJ</div><div>tags: [javascript, isotope, templating, frontend, bug-fix]</div><div>—<br><br></div><div><h1>Task Summary</h1><div>Fixed critical masthead page display issue where page appeared completely blank. Root cause was isotope filtering logic changes that broke content display.</div><div><h1>Implementation Details</h1><ul><li><strong>Root Cause</strong>: Isotope selector only supported div elements but masthead uses ul elements</li><li><strong>Fix</strong>: Updated functions.js selector to support both div and ul elements</li><li><strong>Additional</strong>: Fixed isotope reflow, filter class generation, and UI improvements</li><li><strong>Files Modified</strong>: functions.js, masthead template, PHP utilities, CSS</li></ul><div><h1>Key Decisions</h1><ul><li><strong>Updated isotope logic</strong> to support both element types rather than restructuring templates</li><li><strong>Enhanced image quality and added masthead-specific styling</li><li><strong>Maintained backwards compatibility with existing pages</li></ul><div><div><br><br></div><div></div></div>",
  "comments": [
    {
      "id": 9054995233,
      "createdAt": "2025-09-10T07:18:39.255Z",
      "creator": {
        "id": 45375899,
        "name": "Rowan Sentesy",
        "email": "rowan@hopstudios.com"
      },
      "content": "<div><div>—</div><div>status: completed</div><div>priority: high</div><div>category: development</div><div>git_mr_url: <a target=\"_blank\" rel=\"noreferrer\" class=\"autolinked\" data-behavior=\"truncate\" href=\"https://gitlab.com/hop-studios/greater-good/greatergood/-/merge_requests/151\">https://gitlab.com/hop-studios/greater-good/greatergood/-/merge_requests/151</a></div><div>review: TJ</div><div>tags: [javascript, isotope, templating, frontend, bug-fix]</div><div>—<br><br></div><div><h1>Task Summary</h1><div>Fixed critical masthead page display issue where page appeared completely blank. Root cause was isotope filtering logic changes that broke content display.</div><div><h1>Implementation Details</h1><ul><li><strong>Root Cause</strong>: Isotope selector only supported div elements but masthead uses ul elements</li><li><strong>Fix</strong>: Updated functions.js selector to support both div and ul elements</li><li><strong>Additional</strong>: Fixed isotope reflow, filter class generation, and UI improvements</li><li><strong>Files Modified</strong>: functions.js, masthead template, PHP utilities, CSS</li></ul><div><h1>Key Decisions</h1><ul><li><strong>Updated isotope logic</strong> to support both element types rather than restructuring templates</li><li><strong>Enhanced image quality and added masthead-specific styling</li><li><strong>Maintained backwards compatibility with existing pages</li></ul><div><div><br><br></div><div></div></div>"
    }
  ]
}
```

A1 generated .md

```
---
todo_id: 9054332564
title: "Investigate - Masthead page not displaying properly"
project: "Greater Good"
list: "General GG"
status: "completed"
priority: "high"
category: "development"
assignee: "Rowan Sentesy"
assignee_email: "rowan@hopstudios.com"
due_date: "2025-09-11"
completed_date: "2025-09-10"
estimated_time: "6h"
basecamp_url: "https://3.basecamp.com/5744549/buckets/39953224/todos/9054332564"
git_mr_url: "https://gitlab.com/hop-studios/greater-good/greatergood/-/merge_requests/151"
review: "TJ"
tags: ["javascript", "isotope", "templating", "frontend", "bug-fix"]
due_date_history:
  - ingested: "2025-09-09"
    due_on: "2025-09-10"
    status: "due_today"
  - completed: "2025-09-10"
    due_on: "2025-09-10"
    status: "completed_on_time"
  - ingested: "2025-10-12"
    due_on: "2025-09-11"
    status: "completed"
---

# Investigate - Masthead page not displaying properly

## Overview
Critical display issue on the Berkeley Greater Good masthead page where content is not rendering properly, appearing as a blank page.

## Problem Description
- **Affected URL:** https://greatergood.berkeley.edu/about/masthead
- **Issue:** Page appears completely blank with no content displaying
- **Reporter:** Jeremy (Client)
- **Discovery Date:** September 9, 2025

## Technical Investigation Notes
- **Template Path:** contentzsystem/user/templates/default_site/about.group/masthead.html
- **Status:** Root cause identified and fix implemented
- **Priority:** High - critical functionality issue affecting public-facing page

## Root Cause Analysis
The issue was caused by recent changes to the isotope filtering logic in 'functions.js'. The masthead page uses a different structure than other pages:

1. **Masthead Structure:** Content is in 'display:none' divs with 'ul.isotope-container-dummy' class
2. **Other Pages:** Content is in 'div.isotope-container-dummy' class
3. **Problem:** The 'isotopeMagic' function was only looking for 'div.isotope-container-dummy' elements
4. **Impact:** Content wasn't being moved from dummy containers to visible isotope containers

## Commits That Caused the Issue
- '2e35c41c1' - "Fix tabs on definition, books, studies" (May 1, 2025)
- '30a6f3e9' - "Rs fix tabs books studies - minor js fix post merge" (May 1, 2025)

These commits introduced special handling for '#studies-section' and '#books-section' pages, but the masthead page doesn't have these sections, so it uses the legacy behavior which had a selector issue.
```



The Artifacts - Complete Task Lifecycle

Work spec - investigation & solution

Updates from 'code workspace' agent

GitLab MR link - tracking the actual proposed changes

Review completion - attributed to reviewer

Basecamp notes

Client communication



FlowNotes - the Vision

Today:

Process content (Voice memos, emails, todos, meeting transcripts etc)

Generate work specs

The future:

Full featured project intelligence engine

Security & privacy-focused, agency support (project managers & developers)

Multi-platform: Web, Mobile, IDE Extensions, project management tool support

Supercharge organizational workflow with documentation-driven development systems.



Final Thoughts



Q & A

Any questions or comments?



Thanks for listening!



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