Fusion

The Magic of Writing PHP in Vue SFC

- Sasaya 19/04/25 @ Emoji Cafe & Bar -

Demo

Slide

https://github.com/storyn26383/fusion-20250419

Before Starting

Install Dependencies

```
npm install && composer install
```

Run Vite Server

```
npm run dev
```

Run Laravel Server

```
php artisan serve
```

Who Am I

🌴 Sasaya

Command-Line + Tmux + Vim

PHP + Laravel + Swoole

🔽 Vue + Nuxt + TailwindCSS

🥁 Percussion

🐈 Gululu x Lomaichi

What is Fusion?

```
<php>
    $name = prop('Fusion');
</php>

<script setup>
  const greeting = 'Hello'
</script>

<template>
  <h1>{{ greeting }} {{ name }}!</h1>
</template>
```

Sync State

```
<php>
    $count = prop(0);
    $doubleCount = prop(fn () => $count * 2)->readonly();
</php>

<template>
  <button @click="count++; fusion.sync()">
    <h1>Count: {{ count }}</h1>
  </button>
  <h1>Double Count: {{ doubleCount }}</h1>
</template>
```

Traditional Laravel

```php
Route::get('/api/counter', fn () => ['doubleCount' => request('count', 0) * 2]);
```

```vue
<script setup>
  const count = ref(0)
  const doubleCount = ref(0)
  function increase() {
    count.value++
    const response = await fetch(`/api/count?count=${count.value}`)
    doubleCount.value = response.doubleCount
  }
</script>

<template>
  <button @click="increase"><h1>Count: {{ count }}</h1></button>
  <h1>Double Count: {{ doubleCount }}</h1>
</template>
```

Action

```
<php>
    expose(getHeader: fn () => request()->header('User-Agent'));
</php>

<script setup>
  const result = ref('')
  async function getResult() { result.value = await getHeader() }
</script>

<template>
  <button @click="getResult">
    <h1>Get User Agent from Server</h1>
  </button>
  <h1 v-if="result">{{ result }}</h1>
</template>
```
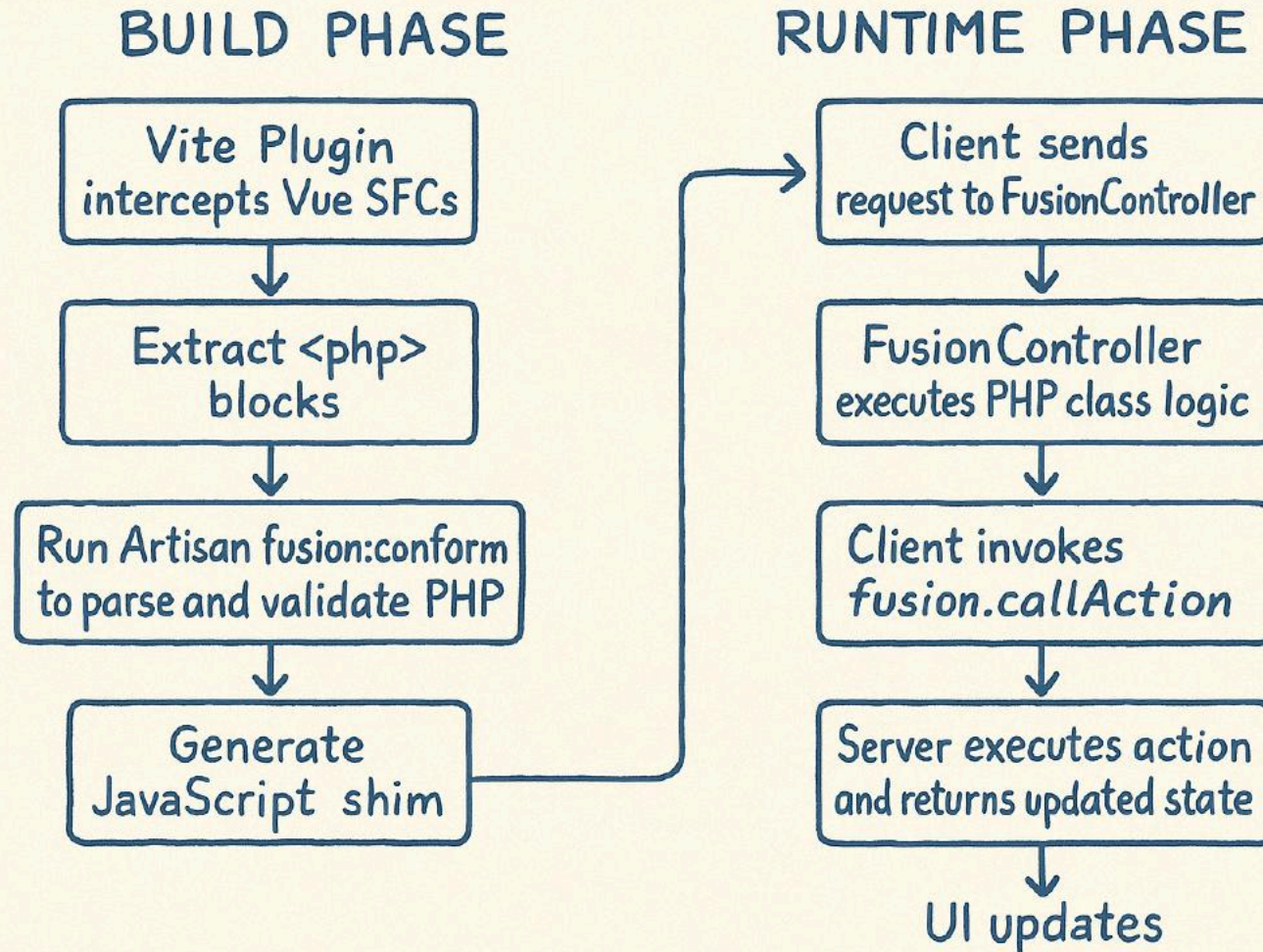
Traditional SPA Flow

Write API in Laravel

⬇

Send AJAX requests from Vue

⬇

Render after receiving JSON results

Fusion Flow

No need to write API endpoints
Everything is completed in a single Vue file

How Fusion Works

Pros and Cons

✅ **Advantages:**

- Fashionable
- Fast and convenient

⚠️ **Disadvantages:**

- Seems simple, but contains many pitfalls

🚨 Important Notes 🚨

- Fusion is built on top of Inertia
- Fusion does not yet support Laravel 12
- Fusion is in a very early development preview now
- DO NOT use Fusion in production yet

Fusion GitHub

https://github.com/fusion-php/fusion

Conclusion

Frontend and backend are like this:
United they will separate, separated they will unite

Thank You

Q & A