

Architecture Notes

Fluid Component Framework Architectural Notes

Component Framework Architecture

What is a Component?

Components are recurring interactions:

- Navigation
- Forms and data
- Direct manipulation of objects
- Workflows, wizards, and sequences

On the client-side, a Fluid component consists of:

- One or more HTML templates
 - One or more layers of CSS
 - JavaScript for behavioural logic
 - Accessibility metadata (control, presentation, etc)
- And on the server-side:
- A set of conventions for accessing service logic
 - The ability to deliver the appropriate markup, metadata, and user preferences

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Types of Components

1. Markup-driven components are general:
 - Server delivers fully-rendered HTML
 - JavaScript manipulates DOM based on id contract
 - Greater flexibility and reuse, but greater server dependency
2. Data-driven components are smarter but slower:
 - Handle their own template processing
 - Require multiple round-trips to the server for data
 - Allow for less dependency on server-side presentation framework

Elements of the Framework

- Framework infrastructure: lifecycle supports, server-side communication, etc.
- Components themselves
- Transformation engine
- Server-side binding and delivery
- Repository of components
- Metadata standards

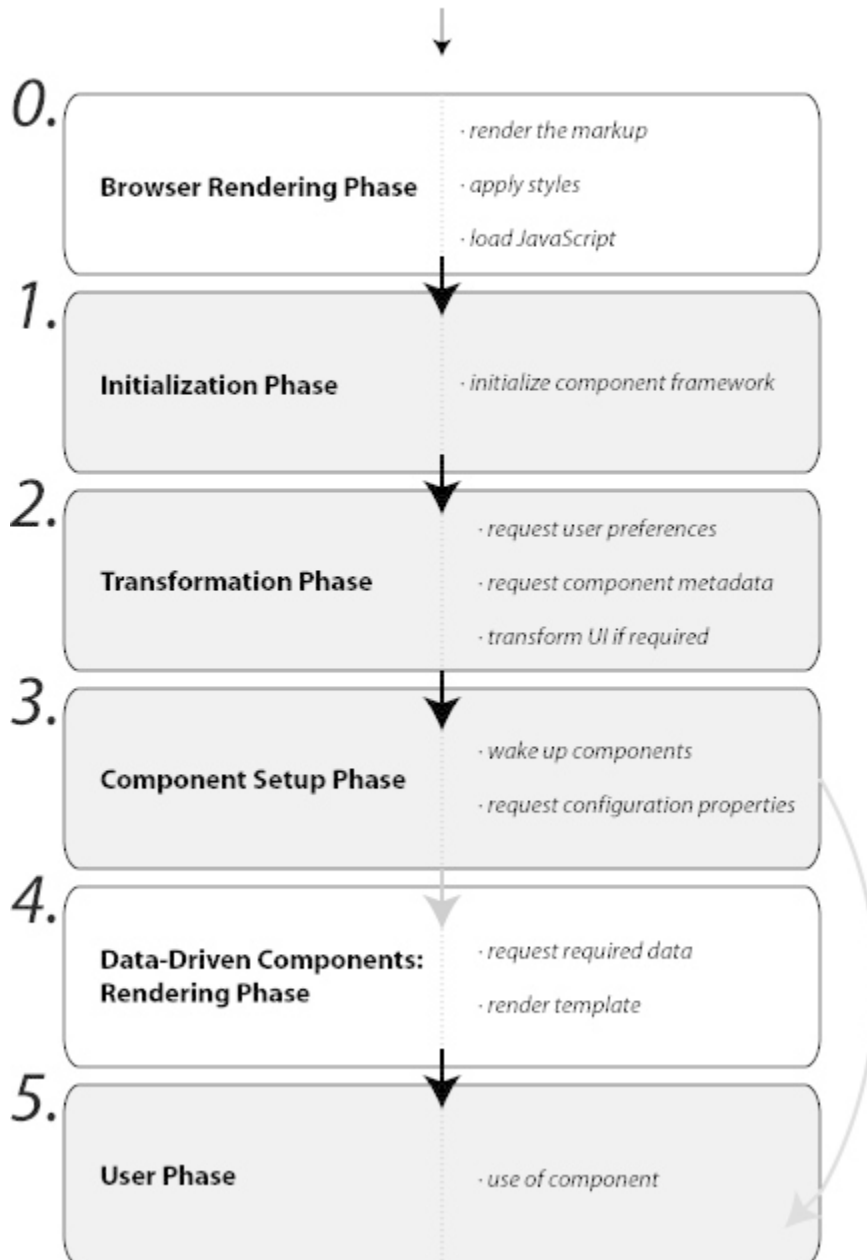
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Transformation Flow

- Compare metadata and preferences
- If okay, do nothing
- Otherwise, request an alternative component
- Select from alternatives or use initial component

The Fluid Component Framework Lifecycle

HTML Page + CSS + JavaScript
Full Page Request Sent from Server



Component Repository

- Mirrored within the application (ie. doesn't require a dependency on a 3rd party server)
- Options:
 - Repository is just a file system: client-side transformation engine does all the work of finding matches
 - Repository is smart: implemented in Java or JavaScript or another language, and can respond to requests from a lighter-weight client-side transformation engine