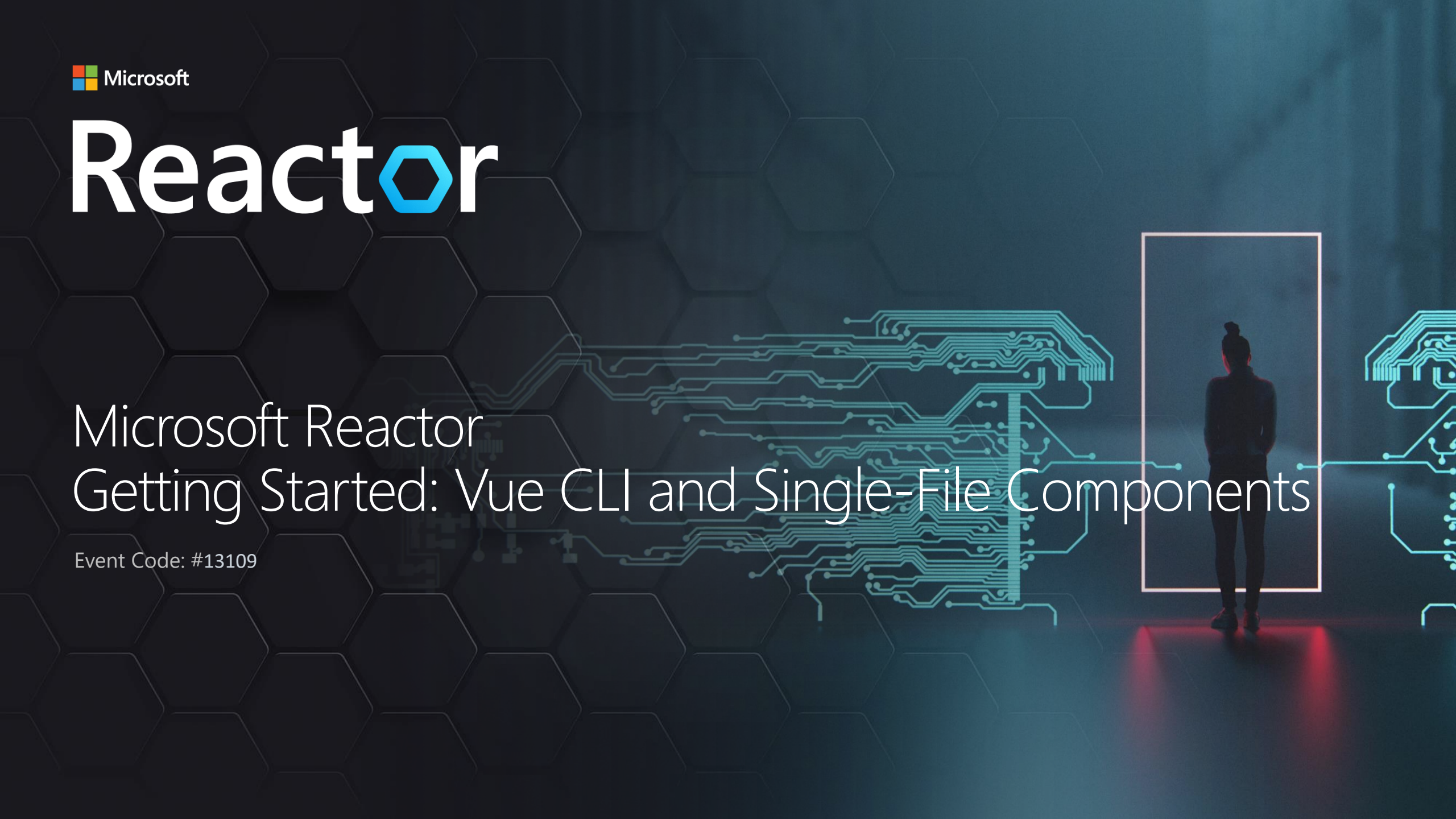
Microsoft

Reactor

Microsoft Reactor
Getting Started: Vue CLI and Single-File Components

Event Code: #13109



FAQ's

What are the Reactors?

Reactors are community spaces where technology professionals meet, learn, and connect—to both their local peers as well as industry-leading ideas and technology from Microsoft, partners, and the open source community.

With a diverse mix of hands-on workshops, expert panels, and community events, there's something for everyone—whether you're just getting started or working on complex projects.

Reactor programming is always free and inclusive of a broad set of products, tools, and technologies. You will find:

- First party content designed to help developers learn new skills in high-demand fields such as Machine Learning, AI, and Data Science
- New content around breakthrough technologies and concepts such as quantum computing and blockchain
- Resources, talks and classes from Microsoft for Startups to deliver what startups need to succeed
- Cloud Advocates who deep-dive into their technical specialties and the Industry Experiences team to provide tailored content around applications for Manufacturing, Healthcare, Retail, and other verticals
- Reactors always welcome community groups, Meetups, partners and MVPs to use our space

Map


Stockholm
London
Redmond
Toronto
New York
San Francisco
Tel Aviv
Shanghai
Abu Dhabi
Bangalore
São Paulo
Sydney

Our Ask of You

Be aware of others

Be friendly and patient

Be welcoming and respectful

Be open to all questions and viewpoints

Be understanding of differences

Be kind and considerate to others

Getting Started: Vue CLI and Single-File Components

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Principal Cloud Architect

Speaker Bio: Allen Sanders is a Principal Cloud Architect with over 25 years of experience in software engineering, architecture and design delivering technology strategy and business solutions in multiple verticals. As a Microsoft Certified Professional, he has taught, led and mentored teams of varying sizes in multiple application transformation efforts. He has a passion for learning – both his own and for others.

Agenda

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Introduction

https://aka.ms/VueCliComponents

Creating a Vue App

- Able to integrate Vue into an HTML page with a simple script tag
- Can create an entire Vue app with only a single JavaScript file
- However, approach not scalable for apps of even minimal sophistication

Creating a Vue App

- Can use Vue CLI to configure development environment
- Enables coordination of several tools critical to building/testing Vue apps
- Able to compose an elegant Vue app from individual components
- Properties and custom events bring our Vue components “to life”

Vue CLI

Bootstrapping

- Vue CLI can be used to configure your development environment for Vue
- A *create* script provides wizard for configuring the following:
  - Linting
  - Babel
  - Language selection (JavaScript or TypeScript)

Building

- Vue CLI designed to work with .vue files (single-file components)
- Bundler used to translate .vue files to JS/HTML/CSS for browsers
- webpack used as default bundler in Vue

Testing

- Vue CLI includes a development server for running/testing apps
- Detects file changes
- Rebuilds/rebundles as required

How to Use

- Install via npm – *npm install –g @vue/cli*
- Create app using *vue create <appname>*
- Will be prompted for configuration options

Vue Components

.vue Files

- Single-file components promote reuse
- Also, helps keep app files smaller (easier to maintain/test)
- Use semantic tags in HTML to compose UIs

Component Structure

- Can include:
  - *<style></style>* section – supports styling scoped to the component
  - *<script></script>* section – stores scripting code used on the form (e.g., data(), methods, components)
  - *<template></template>* section – houses HTML template for component

Using Components

- Components can be imported into other components/pages
- Registered with "*components*" property
- Then component available as tag for use in HTML template

Separate Files

- Can use *src* attribute of <*style*> and <*script*>
- Allows reference to code in other files
- However, often will see HTML, CSS, and script together in same file

Component Props

Component Props

- Short for “properties”
- Represent set of values that can be passed into component
- Can be used to programmatically change appearance or behavior

Component Props

- Defined for component by adding "*props*" field in script
- Caller using component sets props as attributes on component tag in template
- Can use a schema to restrict types for the props

Component Props

- Can also use a hierarchy for binding to more complex model structure
- Props can be used in component using standard data read approach
- NOTE: Props passed from parent to child form one way down binding

Custom Events

Custom Events

- As mentioned, data binding is one way down (parent to child)
- Custom events enable communication from child back to parent
- Parent can create handler for event (similar to the click event on a button)

Custom Events

- Registered in component using "*emits*" field in script
- Emitted from component using "*$emit*" function
- Can also use a registered method in script that calls *this.$emit()*

Custom Events

- Events can be emitted with additional data for the parent using the component
- Parent uses @<*event-name*> syntax to add handler for event
- Event handler registered in parent component in "*methods*" field

Knowledge Check

Summary

What Did We Cover?

- Vue CLI
- Creating and using single-file components (.vue files)
- Component props and custom events

Next Steps / Further Study

- https://aka.ms/VueCliComponents
- https://vuejs.org/
- https://v3.vuejs.org/guide/introduction.html
- https://www.vuemastery.com/blog/vue-2-or-vue-3/

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Thank You!

Q&A

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aka.ms/ReactorEmailSignUp

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We are constantly striving to create excellent content
and would appreciate if you could take this brief survey.

Survey Link: https://aka.ms/Reactor/Survey

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