Uncovering the hidden gem -
UI5 Developer Tools

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UI5con HYBRID

Speakers

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Agenda

The evolution of front-end debugging

Debugging basics with Chrome Developer Tools

Debugging in UI5
- UI5 Diagnostic Tools
- UI5 Inspector

Debugging in action | Live Demo

Recapping our learnings

The evolution of front-end debugging

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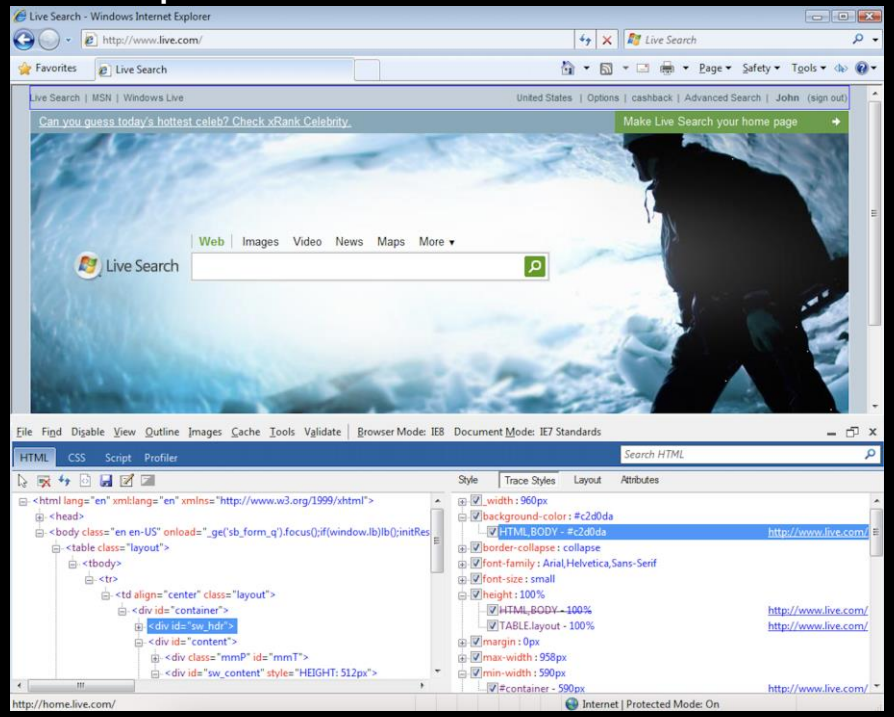
“Developer friendly browsers”

#10YearChallenge

2012

The only hope were “console.log”, ”debugger;” & a lot of patience :D



2022

“Inspect animations” , “visual coverage” , “memory analysis”, and more – all possible with built-in browser developer tools!

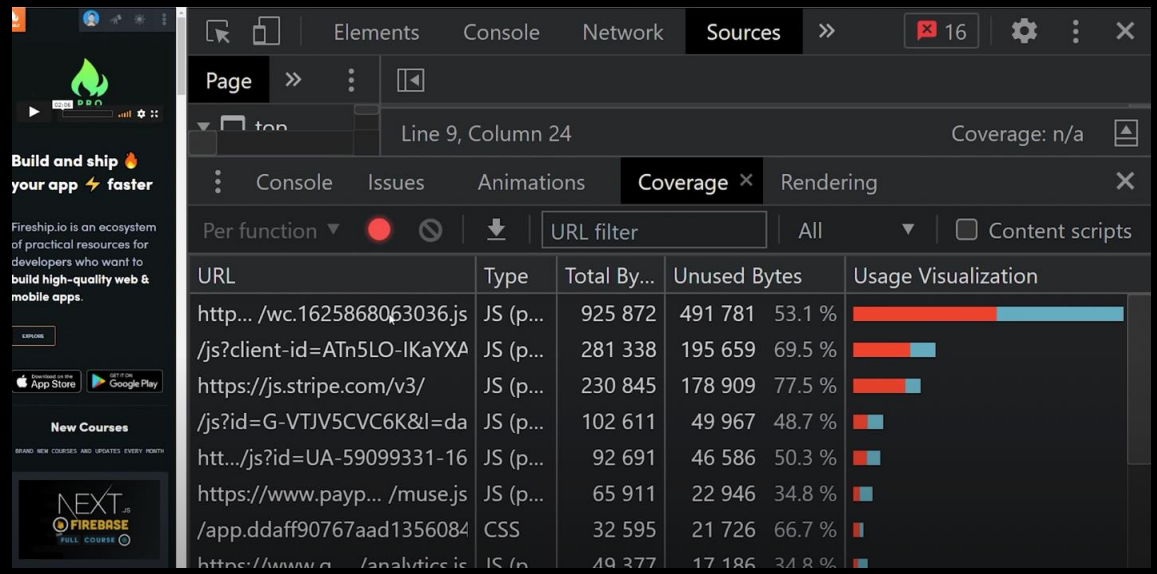


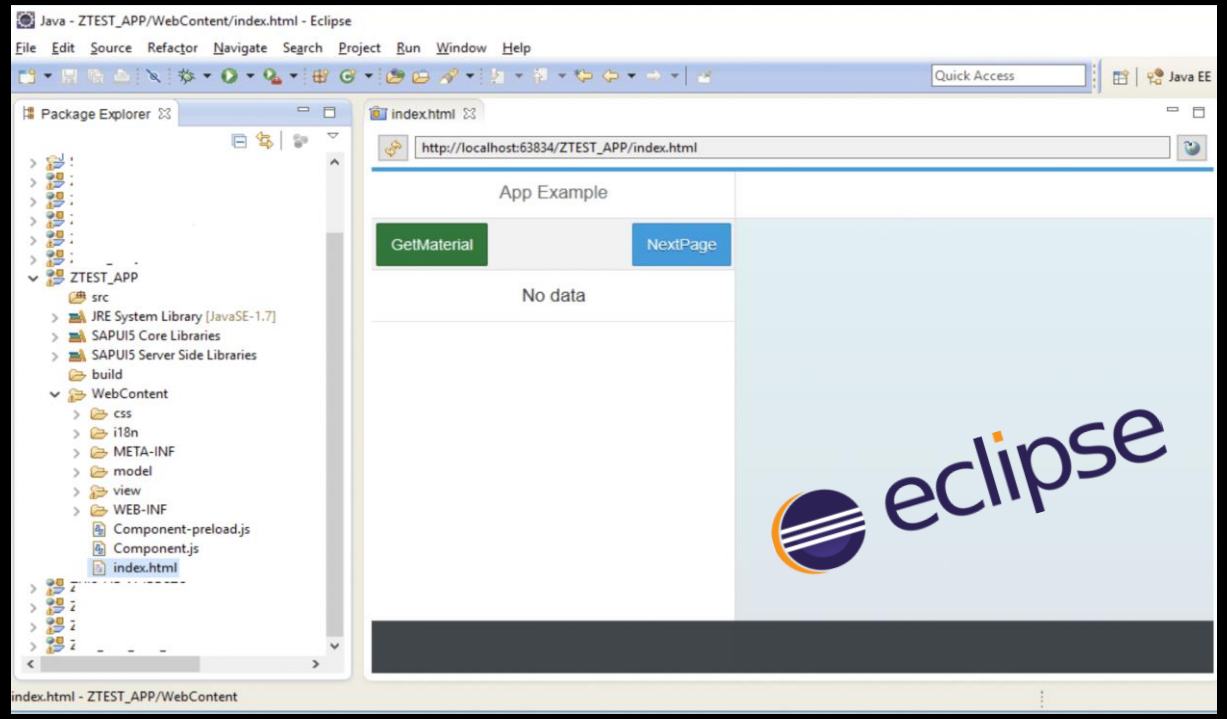
Image credits: Fireship (YouTube)

“Developer Tools”

#10YearChallenge

2012

Remember when your coffee got cold before the build was complete & Tomcat server ran it?



2022

Live-reload? Code suggestions? Cloud IDEs?

There’s a buffet of tools and plugins to chose from!

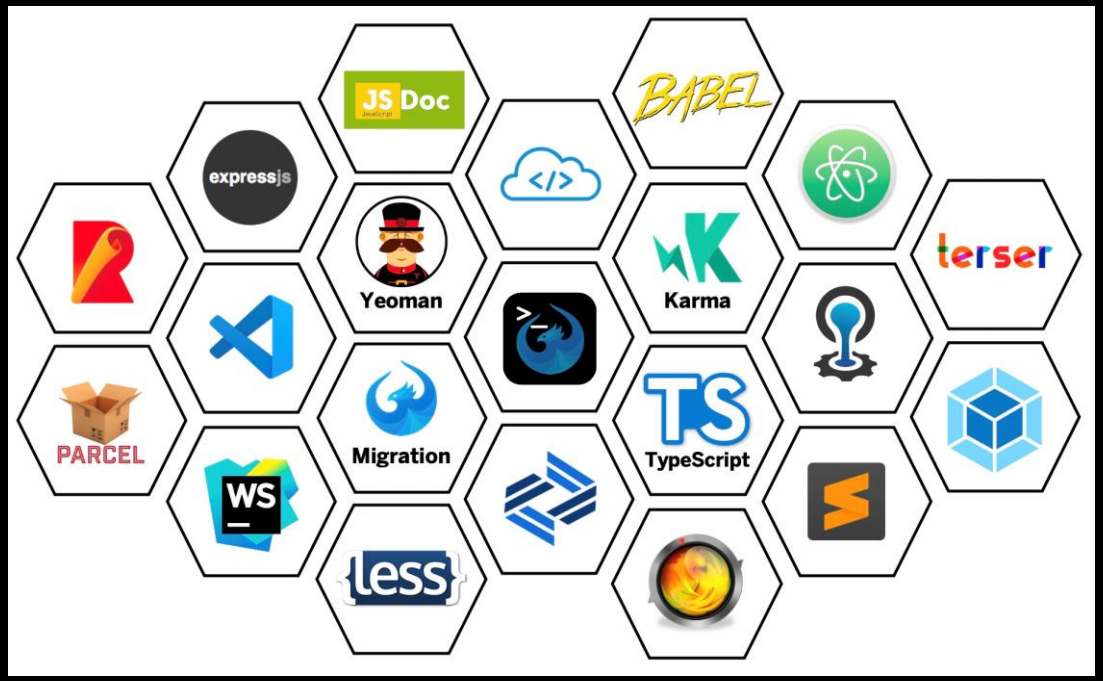


Image credits: SAP Blogs

Framework advancements

#10YearChallenge

2012

jQuery in UI5 | $.onceUponATime()

```
$.ajax({
  url: "https://YOUR_SYSTEM/sap/byd/odata/cust/v1/your_service/Collection..",
  type: 'GET', /* or POST or DELETE or PUT or PATCH or MERGE */
  datatype: 'json',
  data: { amount: '12.34' },
  success: function(oResult) { /* do something */ }
  error: function(oResult) { /* do something */ }
});
```

2022

The frameworks are leaner and meaner ! 😎

– Enhanced native frameworks
– Minified files,
– Tree-shaking
– Optimized builds and more..

Don’t believe us? See this blog by Andreas Kunz on the UI5 loading evolution

Code Quality & Testing

#10YearChallenge

2012

Syntax errors were discovered mainly after running things on the browser.

If you were too adventures, then an elaborate Jenkins + Maven setup might have helped you.

Maven™

2022

- Automated tests and static code checks : part of standard lifecycle!
- Community driven solutions like wdi5 : making testing easier !
- Cloud solutions like “Sentry” : track + analyse error trends across users.

ESLint

SENTRY

Debugging Front-end apps

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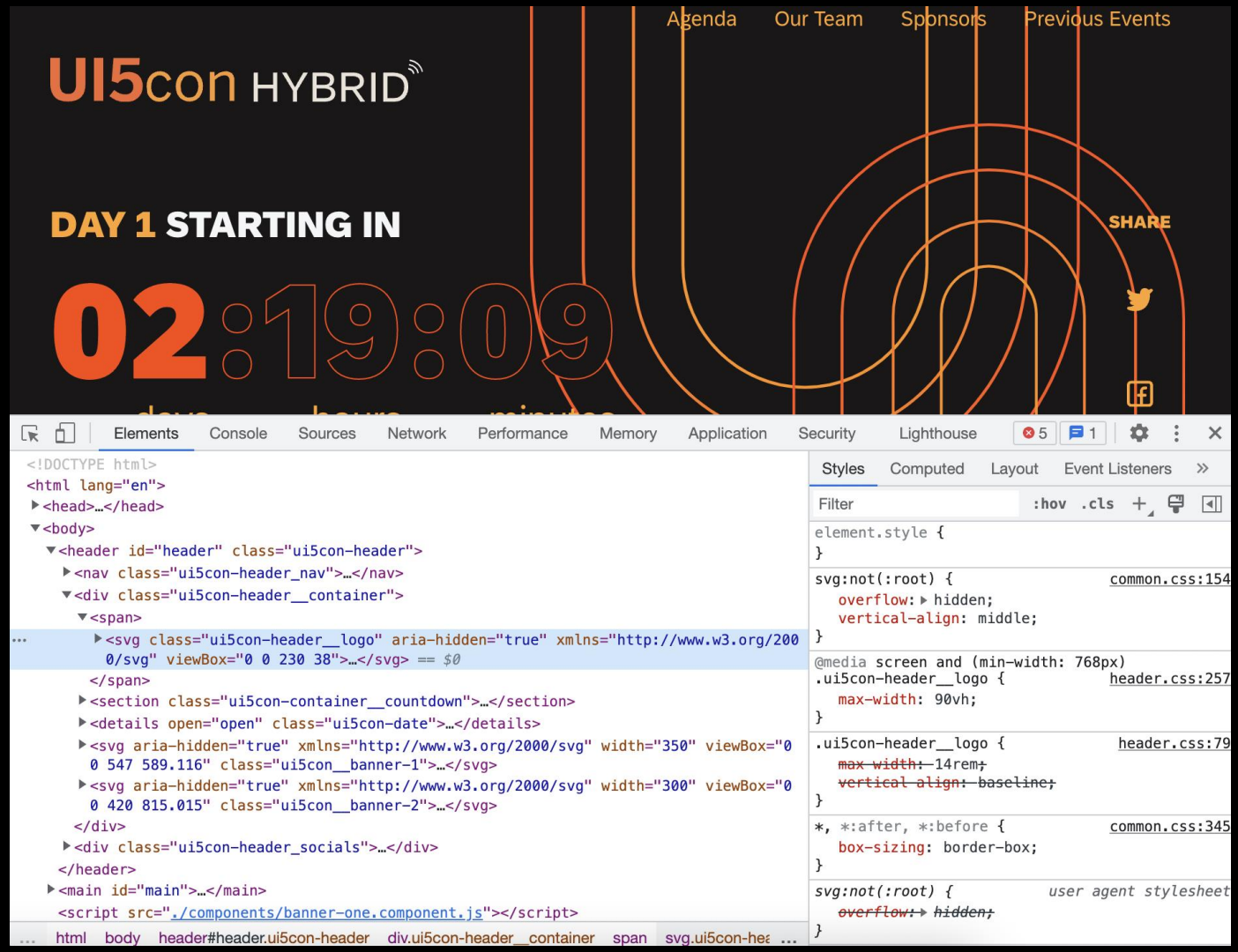
Basics of front-end debugging

Using Chrome Developer tools

Tools of trade

- Elements
- Console
- Sources
- Network tools
- Performance insights
- Cache & Memory



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Debugging UI5 Applications
AOP Based tools

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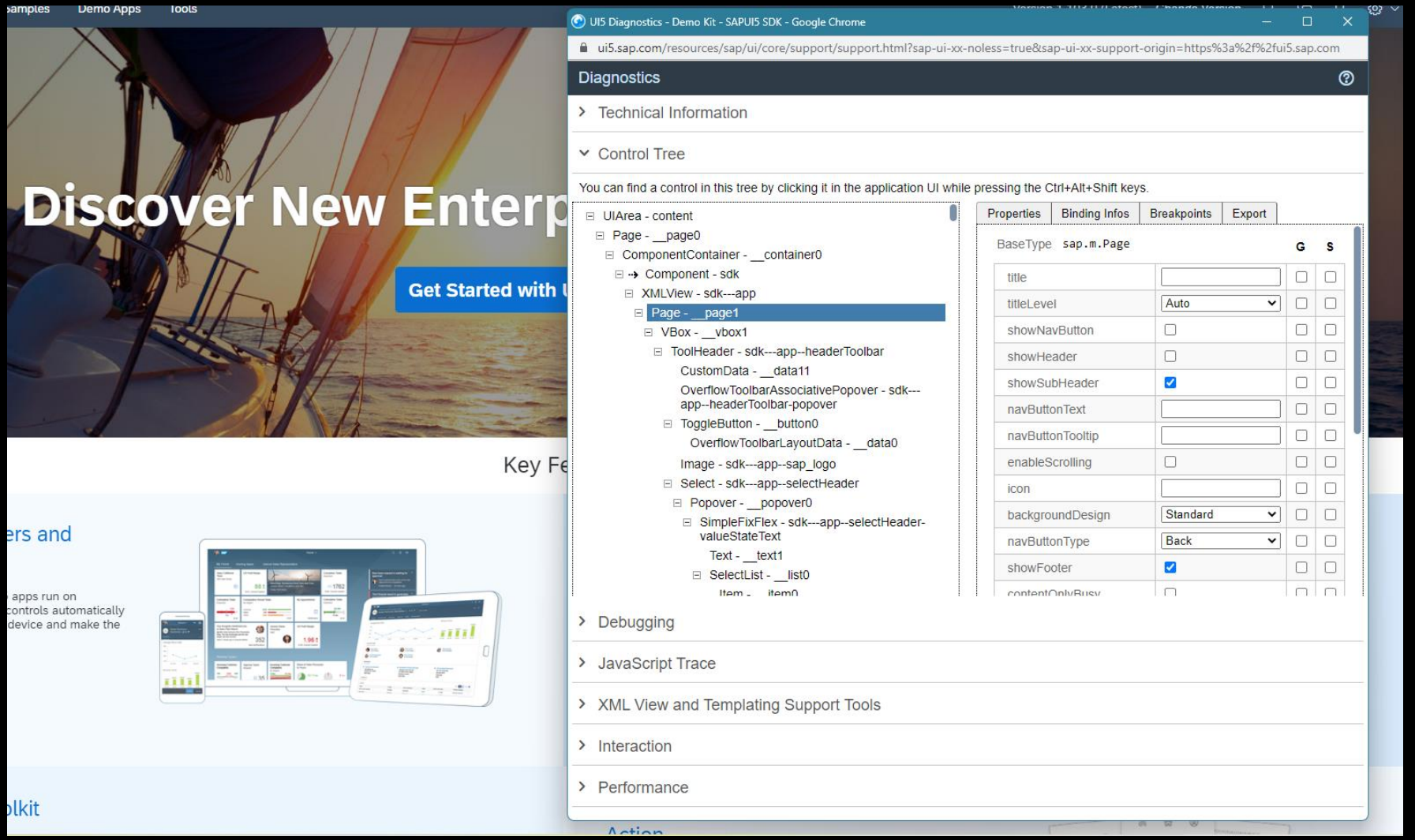
UI5 Diagnostic Tool

An inbuilt support tool that runs as part of the UI5 framework itself !

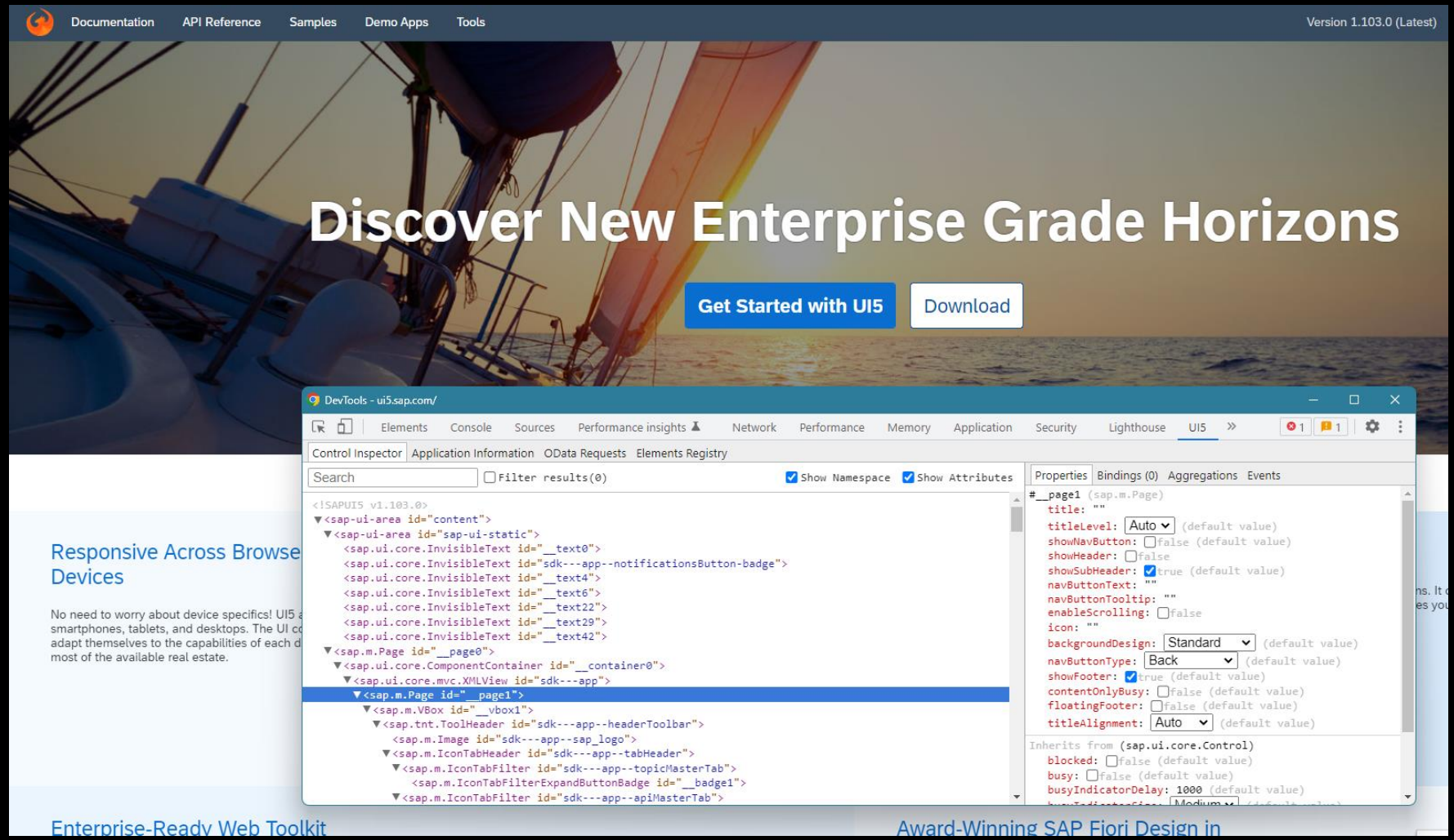
- ✓ Press Ctrl+Shift+Alt+S and start diagnostics!
- ✓ Analyse control tree, properties , binding info and more.
- ✓ Debug with breakpoints on UI5 control specific classes



UI5 Inspector

A chrome extension to power up your browser developer-tools with UI5 relevant capabilities!

- ✓ Inspect controls and review their properties, bindings, and data model
- ✓ Modify control properties on the fly and see how this affects rendering and behaviour
- ✓ Find relevant framework information for your UI5 app



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Seeing it in Action

Most live demos run into issues. We curated some for ours ;)

What we Learnt!

Debugging is an art – do it your way !

Browser Developer Tools

- The first-aid solution for almost all problems
- Explore beyond the “Inspect elements” to fully leverage its capabilities

UI5 Diagnostics

- Part of the UI5 framework | Ctrl+Shift+Alt+S and fire-away!
- Allows UI5 specific diagnostic of control tree, data binding, control debugging and more.

UI5 Inspector

- Easily installable Chrome extension to analyse OData requests and controls
- Under active enhancements & recommendation for future

Download from Chrome Web Store

What if you need more help?

Google is always a good friend, but you'll find many more in the UI5 community!

- OpenUI5 on GitHub : https://github.com/SAP/openui5/issues
  - Tip: Raising Issues here might get your bugs good attention
  - *P.S. You can always contribute with your code for good karma ;)*

- SAP Community Forums
  - SAPUI5 on SAP Answers
  - SAP Blogs: https://blogs.sap.com/

💡 Ask your questions with details to get faster help
  - Issue with Network Request? Share your SAML trace alongside.
  - Facing styling issues? Don't forget to share the UI5 & browser version

Thank You!

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