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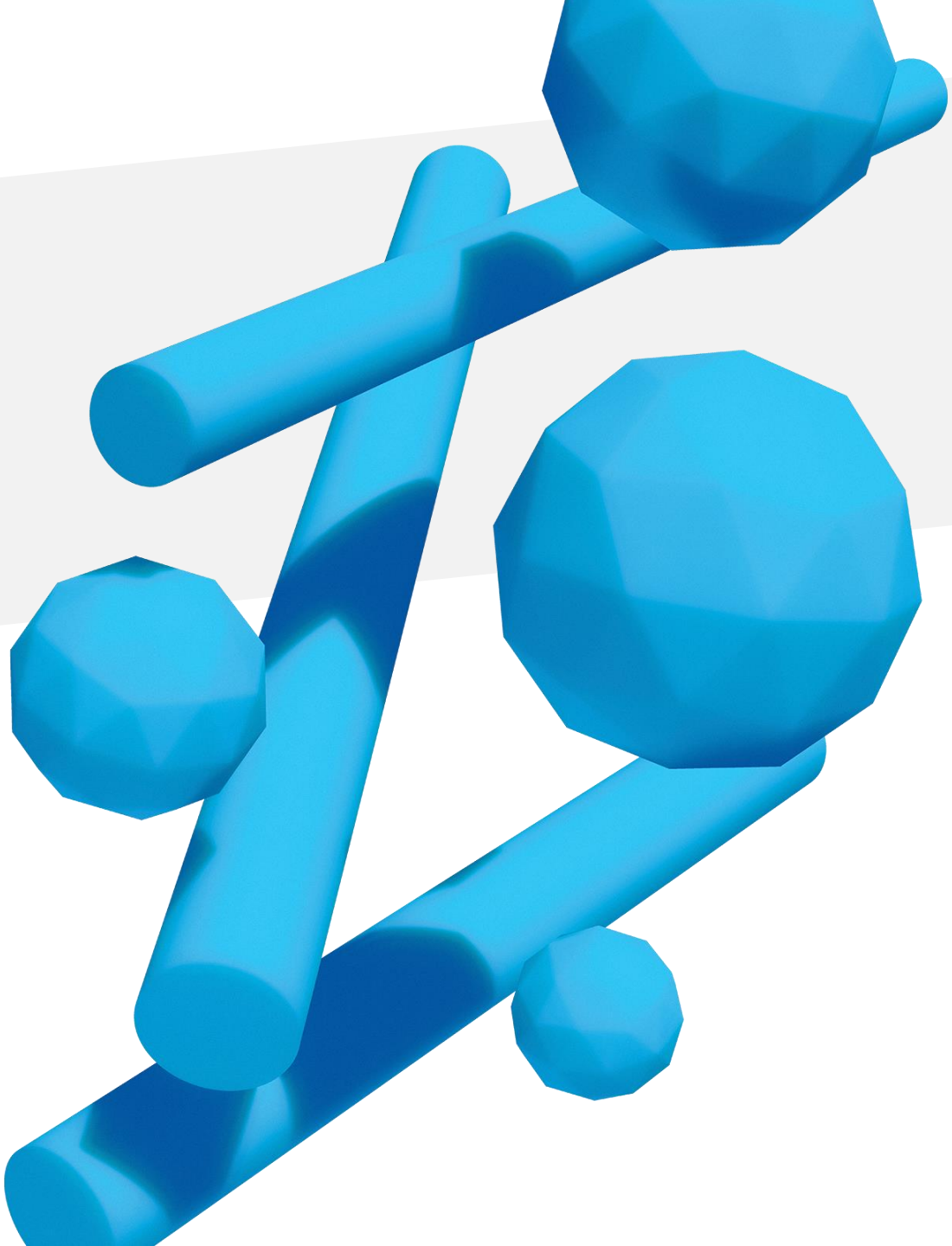
Building Full-Stack Unicode Applications with VAST



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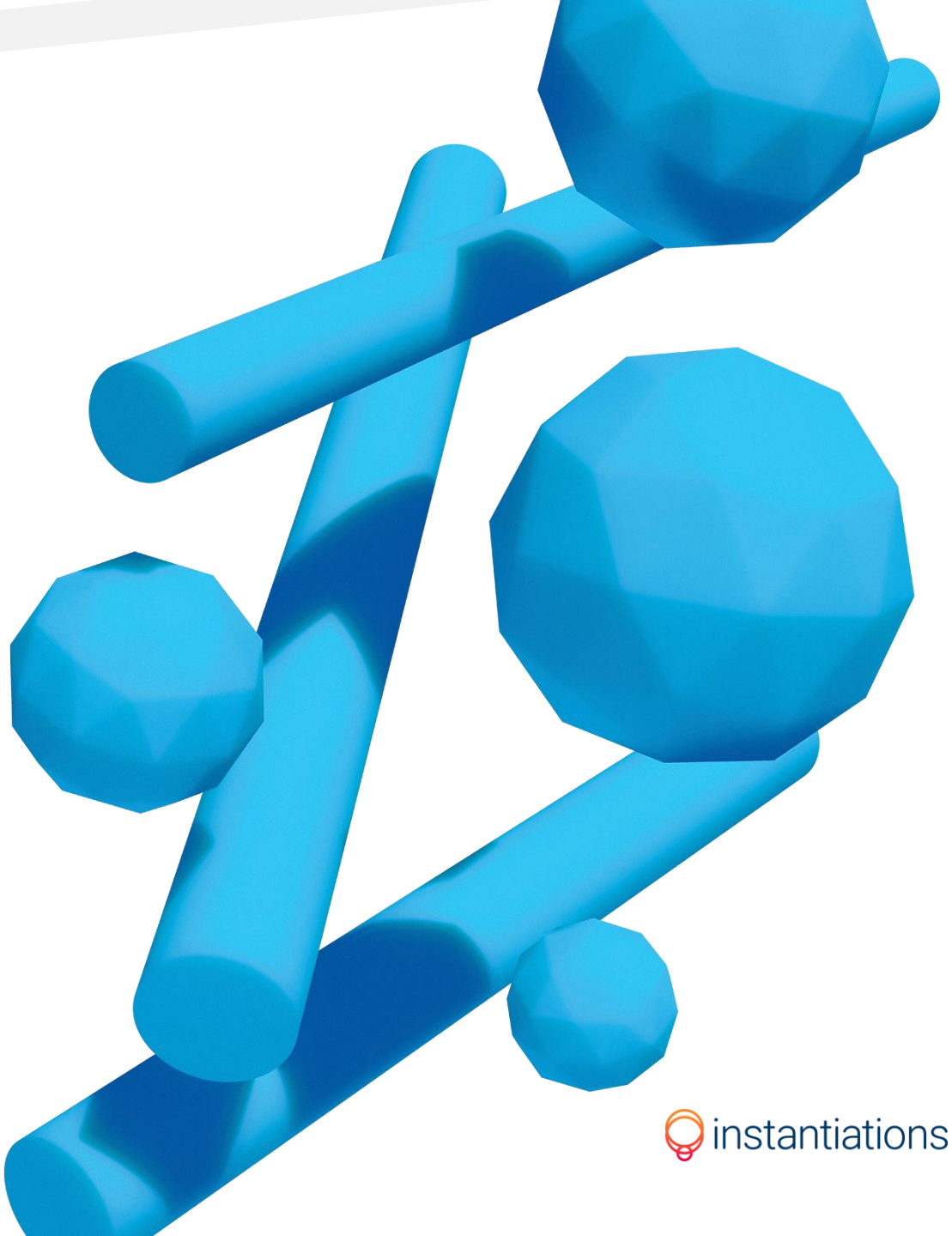
Agenda

- VAST Unicode Support Recap
- Unicode support scope
- Live **and interactive** demo
- Unicode Support Next Steps
- Questions



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VAST Unicode Support Recap

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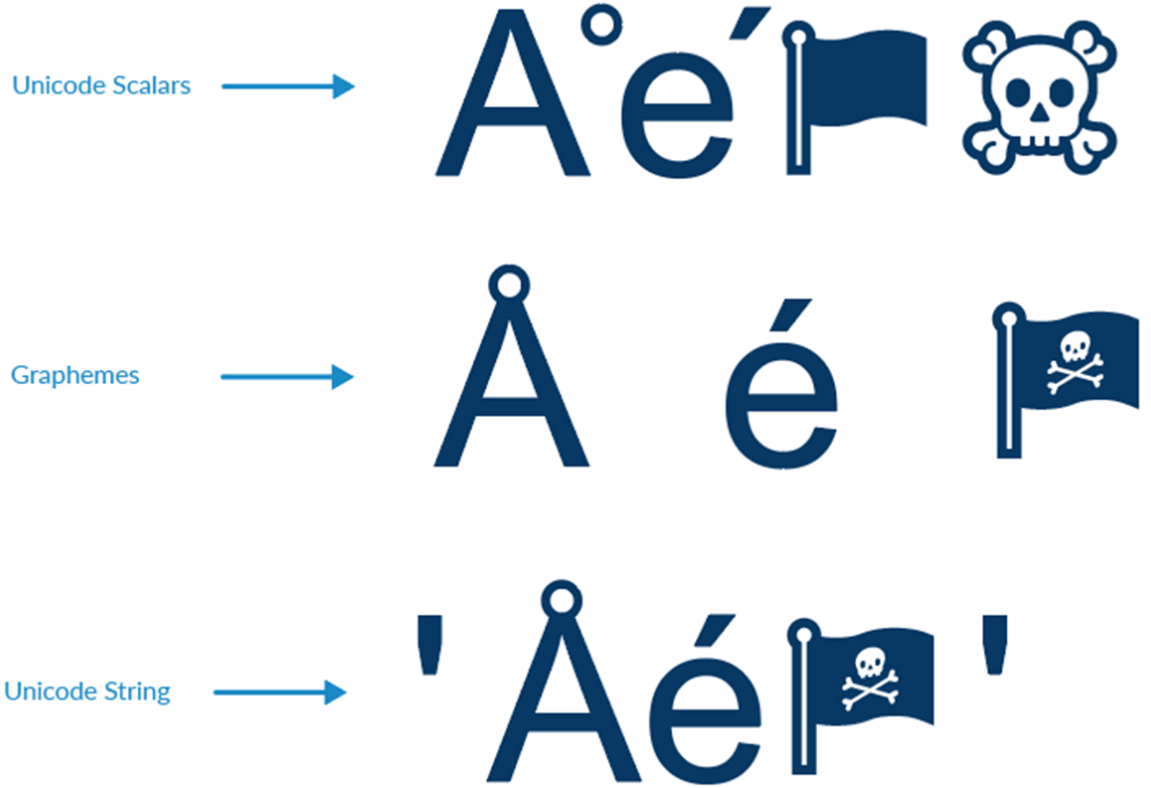
Unicode abstractions composition

- UnicodeScalar
  - Represents a Unicode code point
- Grapheme
  - Composed or one or more UnicodeScalars
  - User perceived "character"
- UnicodeString
  - Collection of Graphemes
  - Mutable/Growable
  - API Compatible with String
  - Internal storage is validated UTF-8



Unicode Support as of VAST 2024 (13.0.0)

- Tools
  - Inspectors, Workspace
- JSON/CSV/STON support
- Database/GLORP support
  - Full support, input/output of UnicodeStrings
- Seaside
  - Can render UnicodeStrings, Graphemes, Scalars
  - Input is limited to codepage dependent strings

- Unicode support is always an opt-in feature

Seaside Unicode Support in upcoming VAST version

- Updated Grease/Seaside to latest releases
- Modified hashing of UnicodeStrings
- Full Unicode support for Grease/Seaside
  - Enabling is optional

Live demo!

(using upcoming VAST release)

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Play with the Live Demo

- Scan QR with your phone!

http://10.201.3.32:8080/unicode

(INRIA-guest network)

https://bit.ly/esug-unicode

Unicode Support Summary

Unicode Support in VAST 2025 (14.0.0)

- Use of Unicode is optional, but encouraged

- GLORP
  - Can take both Strings and UnicodeStrings as input
  - Outputs UnicodeString's instead of String

- Seaside
  - Can take both Strings and UnicodeStrings as input
  - Unicode support for WAFileLibrary text MIME types

Unicode Support Next Steps

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Unicode Support Next Steps

- Unicode Collation support
- Dev tools Unicode integration
  - ENVY/Library integration
  - Browsers
  - UI composers
- Extend frameworks support
  - CFS (Filesystem) integrations
  - SST libraries
  - XML
- Define literals syntax
  - UnicodeString
  - Grapheme

Let’s see the ranking!

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Questions?

Thanks for attending!

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