elm 0.19
What's new?

3

FUNCTIONS

▸ `(,)`,`(,,)` etc. => `Tuple.pair`

▸ **Removed from Basics:** `toString`,`uncurry`,`curry`,`flip`, and `(!)`

▸ `String.toInt : String -> Maybe Int`(no `Result`)

▸ `String.toFloat : String -> Maybe Float`(no `Result`)

▸ `String.fromInt`/`String.fromFloat`

▸ `Basics.toString` => `Debug.toString`

FUNCTIONS
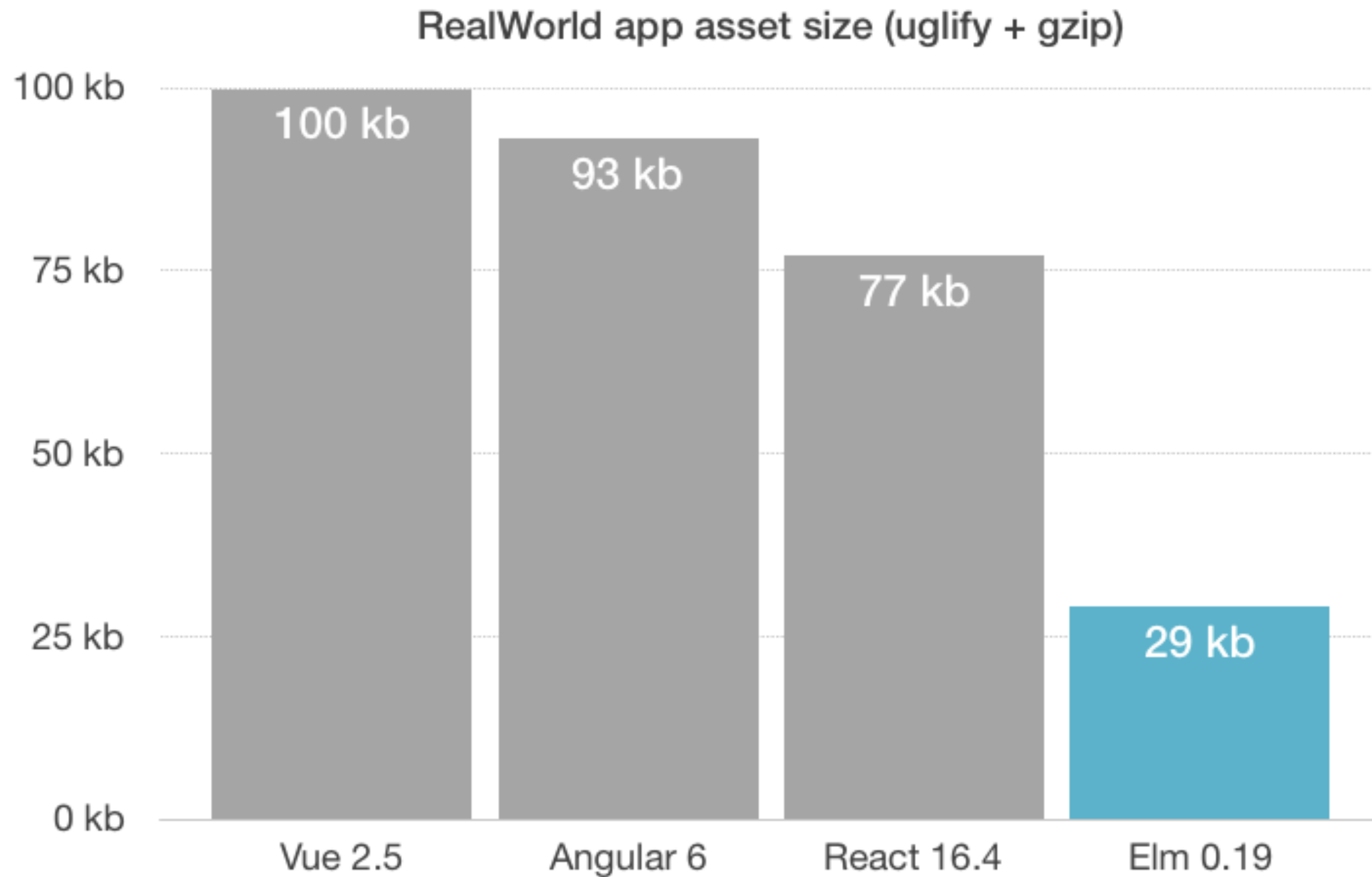
- Basics.crash => Debug.todo
- Basics.rem 451 10 **becomes** remainderBy 10 451
  - 451 % 10 **becomes** modBy 10 451

Performance!

PERFORMANCE!

▸ Better compile times!!! (~~2 seconds for 50k LOC)

▸ List.foldr is 30% faster (List.map, List.filter and List.append)

▸ Dict has 170% faster inserts and 30% faster removals

▸ Set has comparable improvements to Dict as it is a thin wrapper around it

▸ Random functionality has speedups of 20% to X00% on different operations

▸ **Basic values and values of types like** `type Height = Height Float` **are unboxed (faster comparison)**

▸ `--optimize` **flag**

▸ **DCE (Dead Code Elimination)**

RealWorld app asset size (uglify + gzip)

- Vue 2.5 — 100 kb
- Angular 6 — 93 kb
- React 16.4 — 77 kb
- Elm 0.19 — 29 kb

PACKAGES

▸ elm-lang/* moved to elm/*

▸ evancz/url-parser moved to elm/url with a simpler and more flexible API

▸ elm-tools/elm-parser moved to elm/parser with speed boost when compiling with the --optimize flag

▸ Json.Encode/Json.Decode moved to elm/json

▸ Time and Date moved to elm/time with a significantly improved API + timezones!!

PACKAGES

▸ Random moved to elm/random with a better implementation and a few new functions

▸ Regex moved to elm/regex with a much clearer README

PACKAGES

▸ elm/browser combines and simplifies the following 0.18 packages:

▸ elm-lang/navigation with smoother APIs

▸ elm-lang/dom with ability to get node positions and dimensions.

▸ elm-lang/mouse with decoders

▸ elm-lang/window

▸ elm-lang/keyboard uses decoders like this

▸ elm-lang/page-visibility

▸ elm-lang/animation-frame

No more infix operators!!

SPA

▸ Html.beginnerProgram -> Browser.sandbox

▸ Html.program/Html.programWithFlags -> Browser.element/Browser.document

OTHER

▸ String.map/foldl/foldr/uncons now consider Char to be a Unicode codepoint rather than an UTF-16 byte.

▸ String.toInt no longer recognises the 0x prefix.

▸ The random number generator has been switched to PCG, which has better properties

▸ A number of bugs fixed in Array.

▸ Color module got removed.

▸ No need to maintain separate elm.json for tests!

▸ No more shadowing variables (compiler error)

OTHER

▸ Stricter Record update syntax (no changing of types)

▸ Html.Attributes.style : List (String, String) -> Attribute msg becomes String -> String -> Attribute msg

▸ Local caching of packages (faster installation)

▸ Tuples are maxed out at 3 items

OTHER

▸ **Forbidden to expose everything (be explicit)**

▸ **The virtual-dom package now allows synchronous event handling**

SADLY, THIS DIDN'T MAKE IT

▶ No code splitting

▶ No server-side rendering

▶ No lazy-loading

TMI, should I upgrade?