Wait, who are you again?

- **ECMA TC39**
  - Standardizing **ECMAScript** JavaScript
  - Google, Microsoft, Bloomberg, PayPal, …

- **Temporal Champions Group**
  - Standardizing **Date**
  - Modern, ergonomic API for building date/time applications
  - JavaScript veterans, Internationalization experts, …
So what’s so special about Temporal anyway?

- Modern, ergonomic API
- Addresses long-standing weaknesses of `Date`
- Use RFC 3339 as base interchange format
- First-class timezone support
- First-class calendar support
- Timezones and calendars in the data model
- How does one persist that?
The Time Zone Conundrum

- By far not the first to uncover this problem
- RFC3339 and ISO8601 allow absolute offsets from UTC
- *Many* applications work in the context of a “human” time zone
- Need to encode in the timestamp for persistence or interchange
- Databases? Round Tripping?
- What is a “human time zone”? IANA? Unicode?
- Java, Linux, Databases, Calendars
2021-03-04T02:32:09+05:30 IST
2021-03-04T02:32:09+05:30[Asia/Kolkata]
Phew! We’re done, right?

- Not quite
- The format was never standardized
- More information that can be encoded
- For Temporal, calendars are a priority
- More? CLDR Timezones? Numbering Systems?
- Need for a generalized format
- Process to specify keys and acceptable values
ISO 8601 / RFC 3339

2020-08-05T20:06:13+09:00

PlainMonthDay

PlainYearMonth

PlainDate

PlainTime

PlainDateTime

Instant (PlainDateTime with offset or "Z" suffix)

ZonedDateTime (PlainDateTime+offset+TimeZone)

TimeZone Extension

Calendar Extension

[Asia/Tokyo][u-ca=japanese]

Calendar (Used in all types except Instant)
Share our observations with IETF
Keep folks from CalConnect, ISO in the loop
Standardize generalized, optional extensions
Modernize RFC 3339, in sync with ISO 8601
  - Extended years syntax
  - Deprecating two/three-digit years
Standardize a mechanism for registering keys
Work with Unicode in parallel regarding the u namespace
How do we move ahead with this?

- Brought our findings to CALEXT, CalConnect
- Authored a draft, aiming to obsolete RFC 3339
- Included updates and optional extensions
- Some pushback to obsoleting RFC 3339
- Updates and extensions separated into distinct drafts
- Can both be adopted? By which WGs?
- Do we need a new WG?
Thank You!