Async Function Updates
Updates from Last Time

• Complete spec available: https://github.io/tc39/ecmascript-asyncawait
• Removed await *
• Implemented in Babel & Regenerator, lots of positive feedback.
Design Questions

• Async arrow functions:
  • async (a, b) => await a + await b;
  • (a, b) @=> await a + await b;

• Newing an async function:
  • Error
  • Promise-for-instance

• Errors in Parameter Initializer
  • Align with Generators – error is thrown out of the async function
  • Ideal semantics: error causes returned promise to reject
Design Questions Continued

• Await synchronous things synchronously
  • `await 1` - does it trigger a turn of the event loop as in the desugaring?
  • Allow synchronous await but ensure promise resolution is async?
  • Do neither and allow returning an already-resolved promise?

• Promise Cancellation:
  • Depends on cancellation at the promise level
  • Urge champions to consider ergonomics with async functions

• Await at top-level
  • Can you await at the top level of a module?
  • Handy especially for Node.