

The async Function Solutions

Launch options

- Describe briefly how you would use `async()` to start a task which
 - Runs asynchronously with the main thread
 - Use `async(std::launch::async, ...);`
 - Runs synchronously with the main thread
 - Use `async(std::launch::deferred, ...);`

Async launch policy

- A thread is launched immediately to run `func()` asynchronously
- `main()` continues to execute
- `main()` calls `get()`
- If necessary, `main()` blocks until `func()` completes
- The result from the thread can now be used

Deferred launch policy

- `main()` continues to execute
- `main()` calls `get()`
- `func()` is run synchronously in the main thread
- The main thread blocks until `func()` returns
- The result from the thread can now be used

Default launch policy

- The output will be either the same as for async, or the same as for deferred
- The implementation may choose either