Description of what the vertical slice actors and classes are doing

# TromboneAssembly

initialize()

* gets the assembly configuration from the configuration service and creates an instance of an AssemblyContext with the configuration.
* Sends a Subscribe message to the trackerSubscriber (determine more about the reason here)
* Creates an EventPublisher actor
* Creates a CommandHandler actor, passing a reference to the EventPublisher actor to it
* Creates a DiagPublisher actor, passing a reference to the EventPublisher actor to it
* Registers the Event, Telemetry and AlarmServices with the LocationSubscriberActor, presumably to keep track of the location of these services
* Sends an Initialized message to the Supervisor

initializingReceive()

* This function receives messages during initialization. It delegates location changes messages to the locationReceive function, and handles all other message types it receives.
* Handles the Running message: changes context to runningReceive()
* All other messages log an error

locationReceive()

* Receives Location messages and updates variables pointing to either HCD actor references, eventService, telemetryService or alarmService to a Some(…) value.
* This plumbing is so generic it needs to be somewhere else (maybe a trait)

runningReceive()

* receives all messages when in running state
* delegates messages to diagReceive, controllerReceive, lifecycleReceivePF, or unhandledReceivePF

diagReceive()

* Accepts DiagnosticMode and OperationsMode messages, and sends DiagnosticState or OperationsState messages to the diagPublisher upon receipt repectively

lifecycleReceivePF()

* Handles Running, RunningOffline, DoRestart, DoShutdown and LifecycleFailureInfo messages. Only DoShutdown actually does anything: it sends a DoShutdown to all HCDs the assembly uses and then a ShutdownComplete message to the supervisor.

unhandledReceivePF()

* any other message not handled by any other function is handled here. Logs an error message.

setup()

* overridden function from the AssemblyController trait. Handles submit messages containing SetupConfigArgs.
* Validates incoming setupConfigArgs using the Validation and the setupConfigArg.
* Creates a SequentialExecutor and sends a StartTheSequenceMessage (containing a commandHandler actor reference) to it

validateSequenceConfigArg()

* calls ConfigValidation.validateTromboneSetupConfigArg(sca). Not sure how this is different from the Validation class.

getAssemblyConfigs()

* Convenience function: gets the configuration from the configuration service.

object:

The TromboneAssembly constants:

* local config file location, props for TromboneAssembly, values for each of the ‘bad’ services Option[ServiceType] = None. This last one should be a more global constant of CSW.

# Notes

We should determine a development path for our assembly that adds one feature at a time. Each feature should have component tests that run the common scenarios for a given feature.

* Lifecycle: startup/shutdown, initializing, running
* Configuration
* Command Service – handling a command
* Event Service
* Telemetry Service
* Alarm Service

We should create a message passing diagram for common for each of the common use cases for each feature.