DCAF Sequencer Requirements Document

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# Definitions

Sequence: Is a group of steps that execute in a defined order. A sequence has a start and a finish.

Step: Is the minimum element of a sequence. They are executed by the sequencer in the order established by the sequence.

Step Group. Steps that have a relation between them. This is a step by itself??

# General Requirements

* Each sequencer should only run 1 sequence at a time.
* Sequencer should be able to load multiple sequences.
* Sequencer should be able to pause or abort a sequence.
* Multiple steps can write to a single variable.
* Setup and teardown.
* Steps should not block the sequencer flow to be allow the sequence to be aborted.

# Use Cases

## Industrial Control

### Case 1: Missile

A missile is a large manifold that contains multiple valves that need to be open to allow water to pass. This type of machine can execute multiple sequences

* Open Valves in sequence
* Open Valves simultaneous
* Time steps (open valve for certain amount of time)

### Case 2: Mixer

This device mixes chemical substances based on ratios or time.

## Testing

### Case 2: Unmanned electronic device Style Tester

Its an electronic component tester. It executes a sequence of test over a component. Each step can be configured with different parameters and will provide results of the execution of the step.

* Execute test
* Skip test
* Steps can be executed depending on the result of previous steps.

### Case 3: Current Battery test Sequence