15. The non-transitory computer readable storage medium of claim 1, wherein the translate (F) further comprises (iii) validating the second plurality of unit operations according to a predetermined validation list, wherein the predetermined validation list comprises one or more criteria of the compiled second workflow.

16. The non-transitory computer readable storage medium of claim 15, wherein the one or more criteria of the compiled second workflow comprises a priority of each unit operation in the second plurality of unit operations, a weight of each unit operation in the second plurality of unit operations, a time of completion for the second plurality of unit operations, a compatibility of the second plurality of unit operations to a different plurality of unit operations, a property of each unit operation in the second plurality of unit operations, and one or more constraints of the second plurality of unit operations.

17. The non-transitory computer readable storage medium of claim 16, wherein the property of each unit operation in the second plurality of unit operations is selected from the set: a viscosity value, a purity value, a composition value, a temperature value, a weight value, a mass value, a time value, an iteration number, a wavelength value, and a volume value.

18. The non-transitory computer readable storage medium of claim 1, wherein the first device is in electronic communication with at least one transport path coupled to the plurality of instruments for receiving a sample from the plurality of instruments and returning the sample to the plurality of instruments.

19. A method of implementing workflows:

at a device comprising one or more processors, memory storing one or more programs for execution by the one or more processors, a controller, a communications interface, a power supply, and one or more peripheral devices, the one or more programs singularly or collectively using the one or more processors to execute a method comprising:

(A) obtaining, via the one or more peripheral devices, a first plurality of organic engineering targets;

(B) assigning, via the controller, the first plurality of organic engineering targets to a first uncompiled workflow, wherein

the first uncompiled workflow is configured to produce the first plurality of organic engineering targets,

the first uncompiled workflow is associated with a first subset of process modules in a plurality of process modules,

each respective process module in the plurality of process modules is associated with a different subset of unit operation definitions in a plurality of unit operation definitions,

each respective unit operation definition in the plurality of unit operation definitions is independently associated with a corresponding time interval, and

each respective unit operation definition in the plurality of unit operations is independently associated with a first subset of instruments in a plurality of instruments;

(C) translating, via the controller, for each respective organic engineering target in the first plurality of organic engineering targets, the first uncompiled workflow into a corresponding instance of a compiled first workflow for the respective organic engineering target, wherein the corresponding instance of the compiled first workflow comprises:

(i) for each respective instrument in the first subset of instruments (a) an address of the respective instrument and (b) one or more execution instructions for the respective instrument, and

(ii) a first plurality of unit operations, wherein the first plurality of unit operations is temporally organized into a linear temporal order, and wherein, each respective unit operation in the first plurality of unit operations is characterized by the time interval of the corresponding unit operation definition,

thereby forming a plurality of instances of the compiled first workflow;

(D) obtaining, via the one or more peripheral devices, a second plurality of organic engineering targets;

(E) assigning, via the controller, the second plurality of organic engineering targets to a second uncompiled workflow, wherein

the second uncompiled workflow is configured to produce the second plurality organic engineering targets, and

the second uncompiled workflow is associated with a second subset of process modules in the plurality of process modules; and

(F) translating, via the controller, for each respective organic engineering target in the second plurality of organic engineering targets, the second uncompiled workflow into a corresponding instance of a compiled second workflow for the respective organic engineering target, wherein the corresponding instance of the compiled second workflow comprises:

(i) for each respective instrument in the second subset of instruments (a) an address of the respective instrument and (b) one or more execution instructions for the respective instrument, and

(ii) a second plurality of unit operations, wherein

the second plurality of unit operations is temporally organized into a linear temporal order,

each respective unit operation in the second plurality of unit operations is characterized by the time interval of the corresponding unit operation definition, and

adjusting, via the controller, a time interval of a unit operation in the second plurality of unit operations from a time interval of the corresponding unit operation definition by an amount in accordance with a determination of an interlocking condition with a unit operation in the first compiled workflow, thereby forming a plurality of instances of the compiled second workflow.

20. A system for implementing workflows comprising a first device, wherein the first device comprises:

a display;

a power supply;

a communications interface;

one or more peripheral devices;

one or more processors;

memory; and

one or more programs, wherein the one or more programs are stored in the memory and configured to be executed by the one or more processors, the one or more programs including instructions for:

(A) obtaining a first plurality of organic engineering targets;