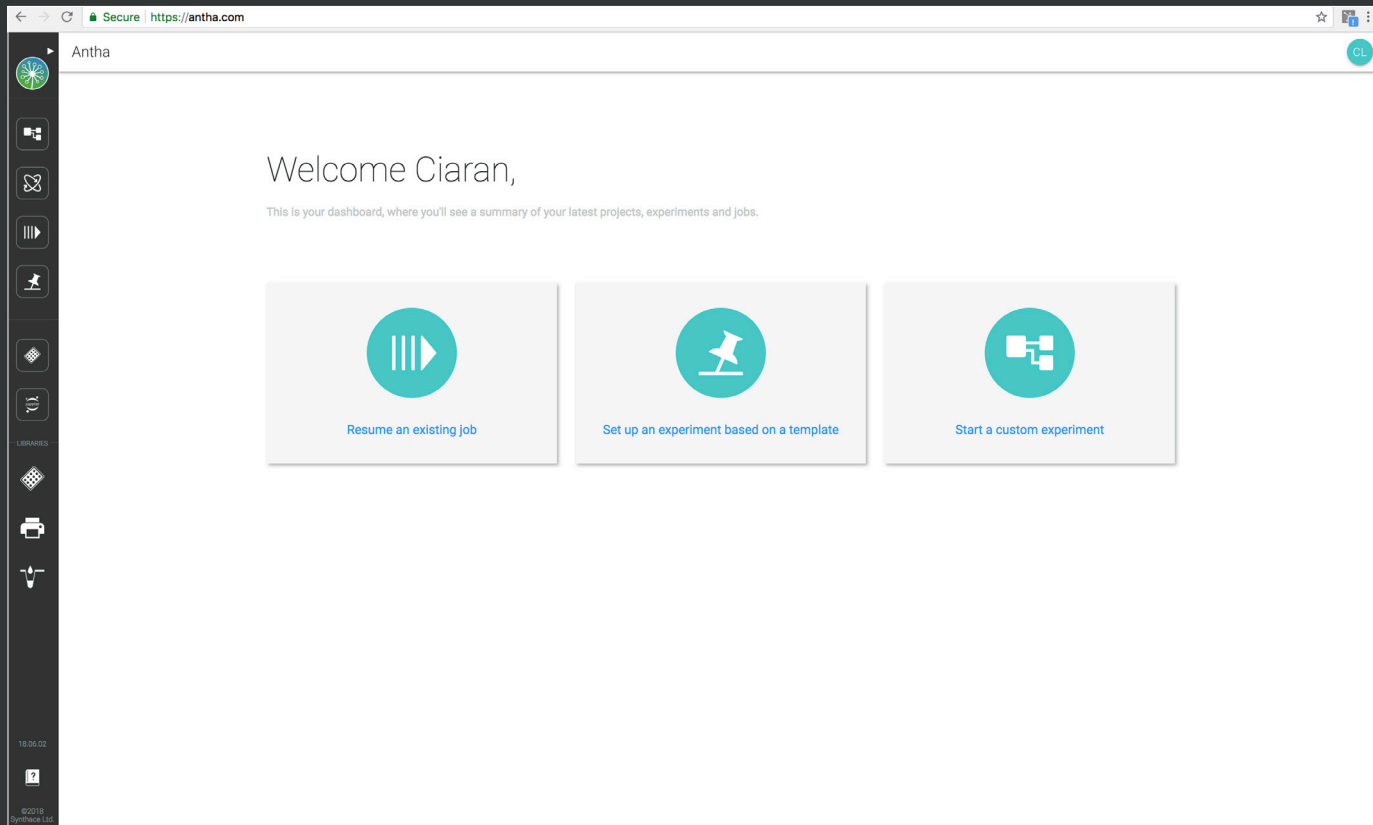


SYNTHACE

Antha Software User Guide Screenshots



Home Screen Resume an existing experiment, create a new one, or use an existing template.

The screenshot displays the Synthace Workflow Editor interface. At the top, a header bar includes the title 'Workflow editor', a 'CLEAR' button, a 'LAYOUT' dropdown, and action buttons for 'DOWNLOAD', 'UPLOAD', 'CONSOLE', and 'SIMULATE'. The main workspace is a grid where a single element, 'Aliquot 1', is placed. On the left, a sidebar lists various element types under the heading '(Default element set)'. The right sidebar shows the configuration for the selected 'Aliquot' element, including its name, inputs, and solution.

Workflow editor x

1x Aliquot
Click to add description

(Default element set)

EDIT

aliquot

Aliquot ⓘ
The Aliquot element will transfer a defined liquid at defined volumes a specified number of times into a chosen plate type.

AliquotOnto ⓘ
The AliquotOnto element will transfer a defined liquid at defined volumes on to each of a series of Solutions to aliquot on to.

Exercise6 AliquotMulti ⓘ
protocol Exercise6_AliquotMulti is a user exercise.

Lesson2D Aliquot MultiSolutions ⓘ
The lowest level example protocol Lessonshowing The MixTo command being used to specify the specific wells to be aliquoted to.

Lesson2E AliquotStartatRowColumn ⓘ
Extra fields to Pre mix, and start at specific columns or rows.

Lesson2A Aliquot ⓘ
example protocol Lessonshowing The MixTo command which allows a specific plate type to be specified.

Lesson2B Aliquot SpecificPlate ⓘ
example protocol Lessonshowing The Mixinto command which allows a specific plate to be specified.

Lesson2C Aliquot MultiPlates ⓘ
example protocol Lessonshowing how the MixTo command can be used to specify different plates of the same type i.

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DOWNLOAD UPLOAD CONSOLE SIMULATE

Parameters Configuration

Details

Element type
Aliquot

Name
Aliquot 1

Inputs

VolumePerAliquot
50ul ⓘ

NumberOfAliquots
8 ⓘ

AliquotPlateName ⓘ

ByFlow
☐ Enable ⓘ

OverrideLHPolicy ⓘ
No policy chosen

WellsAlreadyUsed ⓘ
Add new key +

PreferredWells ⓘ
Add new key +

Solution
water ⓘ

OutPlate ⓘ
96 shallow well flat bottom p...

Workflow Editor

Workflows are composed of individual 'elements'. Each element contains a specific instruction – in this example, to aliquot. The various parameters of the aliquot can be defined in the right-hand panel.

The screenshot displays the Synthace Workflow Editor interface. On the left, a sidebar contains a list of elements under the heading '1x Aliquot'. The main workspace shows a grid with a single element labeled 'Aliquot 1'. An 'Add device' dialog box is open in the center, listing various devices: TestFelix, Arnold, Arnold-OH, Arnold_Trilution2.4, Bilbo_2, Elissa, Elissa - DotCom, Gandalf_0, Gandalf_1, and Gilson PipetMax. On the right, a 'Parameters' panel is visible, showing settings for 'driverSpecificTipPreferences', 'driverSpecificWashPreferences', 'driverSpecificTipWastePreferences', 'maxPlates', 'maxWells', 'residualVolumeWeight', 'modelEvaporation', 'outputSort', 'useDriverTipTracking', 'executionPlannerVersion', and 'useLiquidLevelFollowing'.

Adding a Device Choose from a list of integrated devices to execute your experiment on.

Workflow editor x

1x Aliquot

CLEAR LAYOUT

DOWNLOAD UPLOAD CONSOLE SIMULATE Parameters Configuration

Plate Library 96

1 well plate with 96 positions spotting/picking containing 50 ml solid agar

5µl 1µl

VISIT CATALOGUE

96 NunC 1.0 ml DeepWell Plates with Shared-Wall Technology

1ml 10µl

VISIT CATALOGUE

96 shallow well flat bottom plate, black

340µl 25µl

VISIT CATALOGUE

96 shallow well flat bottom plate, clear

340µl 25µl

VISIT CATALOGUE

96 well DNA storage plate

1.2ml 100µl

VISIT CATALOGUE

96 well E-Gel on E-Gel Mother Base plate, layout 1 electronic gel with 96 wells, orientation 1

20µl 0µl

VISIT CATALOGUE

96 well E-Gel on E-Gel Mother Base plate, layout 2 electronic gel with 96 wells, orientation 2

20µl 0µl

VISIT CATALOGUE

96 well deep square well U bottom plate (Nunc)

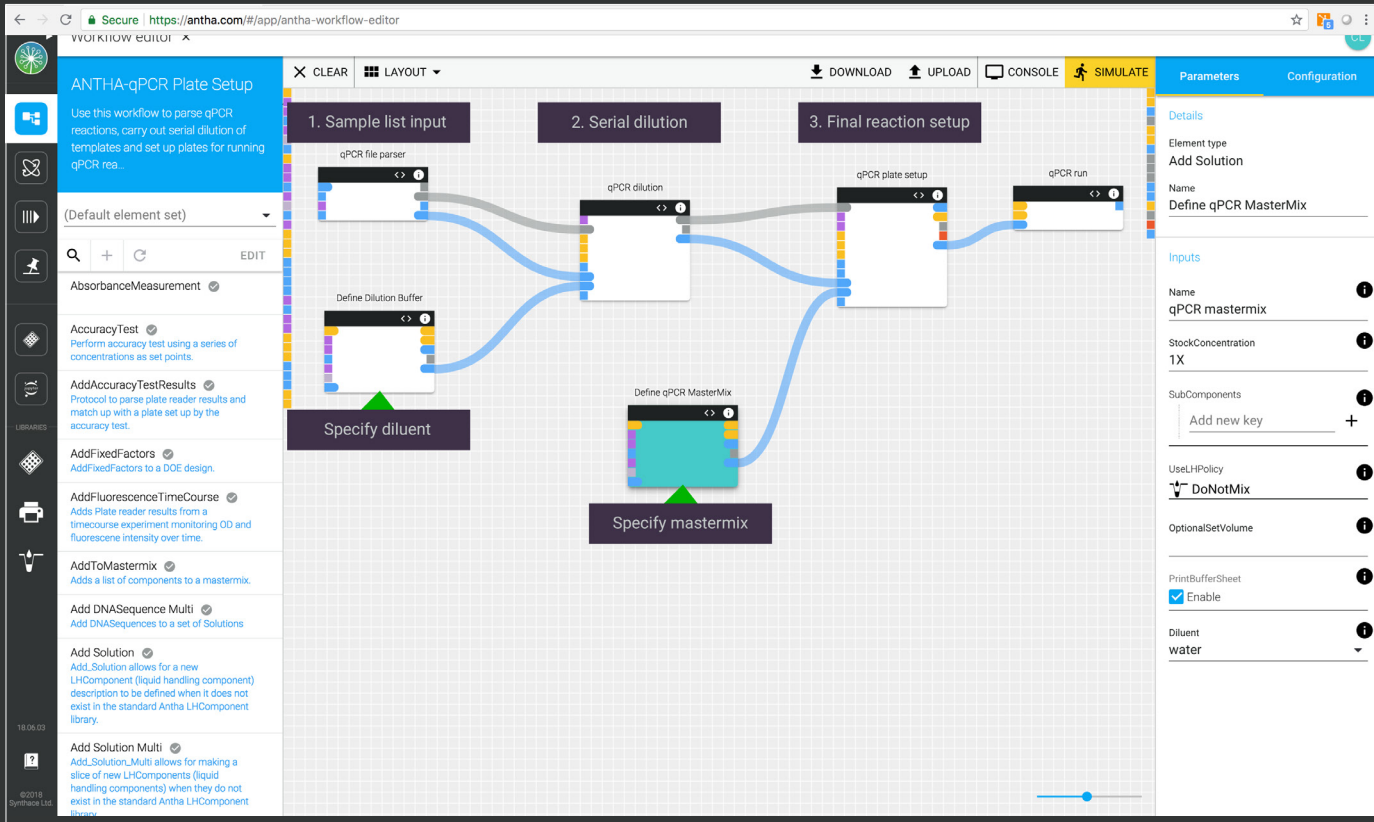
2ml 420µl

CANCEL SELECT

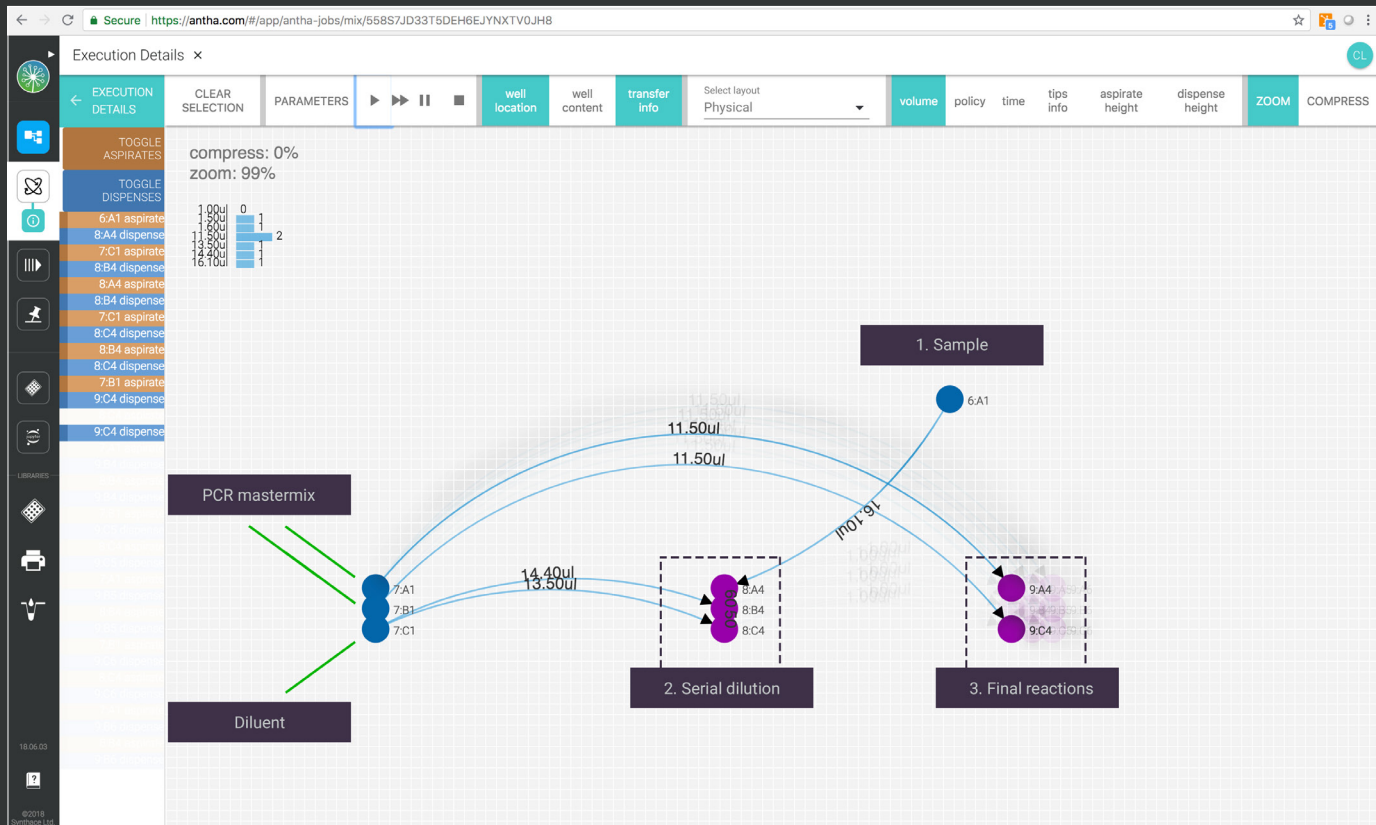
position_8
position_7
position_4

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The Plate Library Specify the type of plates to use – for example, 96-well or 384-well.



Workflow Editor Link the elements together to create your entire workflow. In this example, a qPCR assay set-up.



Simulate Antha checks that each step in your workflow makes sense and flags up any potential issues before executing the experiment. It also provides a graphical representation of the experiment.

Secure | <https://antha.com/#/app/antha-jobs/plate-preparation/5W2XX6Y3Q3Z0JQ60HX11JP7JA5/6C4R3YCCFN1VYJECYVBD215M/5>

Execution Details ×

← EXECUTION DETAILS

PLATE PREPARATION

EDIT PLATES

DOWNLOAD

BEFORE AFTER

PLATES:

Source plate
[qPCR_OutputPlate.csv](#)
 96 well plate (skirted) on a 20mm riser (Gilson)

Destination plate
[qPCR_plate1](#)
 AB_384_PLATE_V1_djustedPlateHeight1mm on a 18mm riser (Gilson)

Source plate
[auto_input_plate_1_monitor](#)
 96 well plate (skirted) on a 18mm riser (Gilson)

Destination plate
[DilutionPlate1](#)
 AB_384_PLATE_V1_djustedPlateHeight1mm on a 18mm riser (Gilson)

WELLS:

A4	Reaction1 Neat sample	▼ 9.5ul
B4	Reaction1 Dilution number 1	▼ 9.5ul
C4	Reaction1 Dilution number 2	▼ 10.5ul
SmartMix		
EASY Dilution Buffer		11.9ul
Reaction1		0.1ul

10.50ul

C4

Reaction1
Dilution number
2

SmartMix

CLOSE

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Traceability Know exactly what is in each well both before and after running the experiment.

Execution Details ×

← EXECUTION DETAILS DECK LAYOUT

Arnold - DotCom
GilsonPipetMax
02D15X5558MBB1B5Z87M9IKY93

BEFORE AFTER

- 1 Waste box
used tips will be dropped here
- 4 Tip box
DF30 Tip Rack (PIPETMAX 8x20)
- 5 Tip box
DFL10 Tip Rack (PIPETMAX 8x20)
- 6 Source plate
qPCR_OutputPlate.csv
96 well plate (skirted)
on a 20mm riser (Gilson)
- 7 Source plate
auto_input_plate_1.pup
96 well plate (skirted)
on a 18mm riser (Gilson)
- 8 Source plate
DilutionPlate1
A8_384_PLATE_V1_djustedPlateHeight1mm
on a 18mm riser (Gilson)
- 9 Source plate
qPCR_plate1
A8_384_PLATE_V1_djustedPlateHeight1mm
on a 18mm riser (Gilson)

DEVICE FRONT SIDE

Deck Layout Antha tells you where to put your plates, tip box, and waste box on the instrument's deck.

Execution Details x

ANTHA-qPCR Plate Setup

SEE DESCRIPTION

Estimated time: 00:10:40
Submitted by: Ciaran Loughlin
Status: **Simulation**

Open in other apps
Job

Order files
order.csv
order.fas

Plate files
qPCR_OutputPlate.csv.csv
DilutionPlate1.csv
auto_input_plate_1_monitor.csv
qPCR_plate1.csv
qPCR_OutputPlate.csv.csv
auto_input_plate_1_monitor.csv

Data files
raw-5W2XX6Y3Q3Z0JQ60HX11JP7JA5.sqllite
1_X_qPCR_mastermix_RecipeSheet.html
ANTHA-qPCR_Design_Template_1Reactions.csv
qPCR_plate reaction layout.csv
outputs.json

EXECUTION DETAILS **PREVIEW MODE** **SCHEDULE THIS JOB**

Manual Order materials Plate preparation Deck layout QPCR

GilsonPipetMax Mix

RESOURCES

Labware

Plates

96 well plate (skirted) + 20mm riser (Gilson)	1
AB_384_PLATE_V1_djustedPlateHeight1mm + 18mm riser (Gilson)	2
96 well plate (skirted) + 18mm riser (Gilson)	1

Tips

DF30 Tip Rack (PIPETMAX 8x20)	12 (1 box)
DPL10 Tip Rack (PIPETMAX 8x20)	11 (1 box)

Tipwaste


Wastebbox - gilson	1
--------------------	---

Materials

Reaction1	50 ul
qPCR mastermix	118 ul
EASY Dilution Buffer	33.9 ul

Devices

EDIT

 **Arnold - DotCom**
GilsonPipetMax
02D1SX5558MB185Z87M9RKY93

Execution Details See all the details, materials required, and devices relevant to the experiment before starting. Once you're ready, just click 'schedule this job'.

**“I can’t believe DOE is
only 7 elements instead
of 3000 lines of Trilution.
You are causing a stir
in my C-Suite. I’m very
happy with the DoE run.”**

A UK biopharma company,
specialising in gene-based medicines

Here's what our clients are saying about us.
For more, visit synthace.com



"Antha has made it incredibly easy for us to run very complicated experiments through the use of simple elements. It has transformed our view of lab automation, enabling us to use it in many different ways. We eagerly await drivers for more types of equipment and are especially interested in integrating data analytics into our workflows where Antha's connectivity would revolutionise data management and analysis."

**A UK specialist
company in
cell and gene
therapy**

"We have been working with this company for over a year now and have successfully implemented their technology for assay automation and plan to expand this further into automated QC.... Overall, really great, high level of attention, good speed with replies, anything that doesn't have an obvious answer there is a specialist to help."



"Antha increased throughput by an order of magnitude and enabled an estimated 25% reduction in overall vector construction timelines, a 33% reduction in costs, while dramatically reducing manual steps and increasing robustness. This enabled the rapid investigation of large arrays of genetic options alongside process factors for full bioprocess optimisation."

**The Swedish
arm of a US
multinational**

"You are very responsive, very quick to respond to problems, and an all around competent team. You are a delight to work with."

SYNTHACE ■■■

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