## Assay Screening Allocation Rules Script Language

## Specification Version: ver-1

Last changed 9th March 2018

# Getting Started

P Plate1

A Titanium-Taq 1-12 A-H 0.02 M/uL

A (Eco)-ATCC-BAA-2355 1,5,9 B 1.16 x

* The first letter of each line says what type of rule it is. (P,A,T,V)
* The first line means “I’m talking about a **plate** that I’m going to call Plate1”
* I want to allocate the *reagent* Titanium-Taq to the range of cells denoted by these columns/rows, at the concentration specified.
* Note the three ways you can specify which cells you mean *(single, range, list)*
* The fields are separated by one or more spaces; you don’t have to line things up like I have.
* Everything is case-sensitive.
* The concentration units must be one of a fixed list known to the language interpreter.
* You are not allowed to use tabs in your script*. (to make it easier for an editor tool to line columns up automatically for you).*

# Addition Plates, and Transfers

P Plate1

…

P Plate42

T Plate1 1 B 1-12 A-H 20 dilution

* Now I’m talking about “Plate42”
* I want to transfer-in, stuff from cell 1B *(the source-cell*) of “Plate1” into the range of cells denoted by these columns/rows, at the dilution specified.
* You can specify the *source-cell* row(s) and column(s) as either *(single, range, list).* But beware some combinations of source/destination are meaningless.

# Coupons

P Coupon3

* The language makes no distinction between a plate, a coupon, or any other type of container arrangement; they are all just a P.
* A plate, as far as this language is concerned is just a thing that has rows and columns, and to which you give a name.
* Use the name to convey meaning to humans reading the script.
* It’s up to you to avoid using cells other than A1 for coupons.

# Registration of Legal Reagent Names

The software that interprets these rules, knows in advance which reagent names are allowed, and will treat a non-recognized one as an error in your script.

If you end a reagent name with an exclamation mark ‘!’, the system will treat this as an instruction to add this name (without the !) to its set of allowed names.

A some-new-reagent! 1-12 A-H 0.02 M/uL

# Reagent Lot-Numbers

If you want to include a lot number, you should incorporate it into the reagent name, however you wish. A good example might be a blood sample, for example:

A Blood-123-abc 1-12 A-H 0.02 M/uL

# Comments and Blank Lines

Any line that starts with ‘#’ is a comment for humans and is ignored by the language interpreter.

The same goes for completely blank lines.

# Specifying the Version of the Language You are Using

The first line of your script must be of this form:

V ver-1

This proclaims which language specification version you are conforming to with the rules in your script.

This allows us to extend the syntax and capabilities in the future whilst still being able to interpret scripts that conform to older versions. (Note the title of this document says that it is ver-3).