

HSPA Basic

Introduction

HSPA Basic is a software package to simplify the usage of Hamilton STAR liquid handlers. It contains the HSPA method edit program, HSPA Basic program and a fixed Hamilton Venus program (HSPA_1_1).

Installation

1. Download the HSPA Basic.zip file and extract the contents in C:\HSPA folder
2. Double click HSPA Basic setup to install the HSPA Basic control program
3. Double click HSPA Basic Method setup file to install the method edit program

 HSPA Basic setup	2/2/2016 12:53 PM	Application	523 KB
 HSPA Basic Method setup	2/2/2016 8:30 PM	Application	523 KB

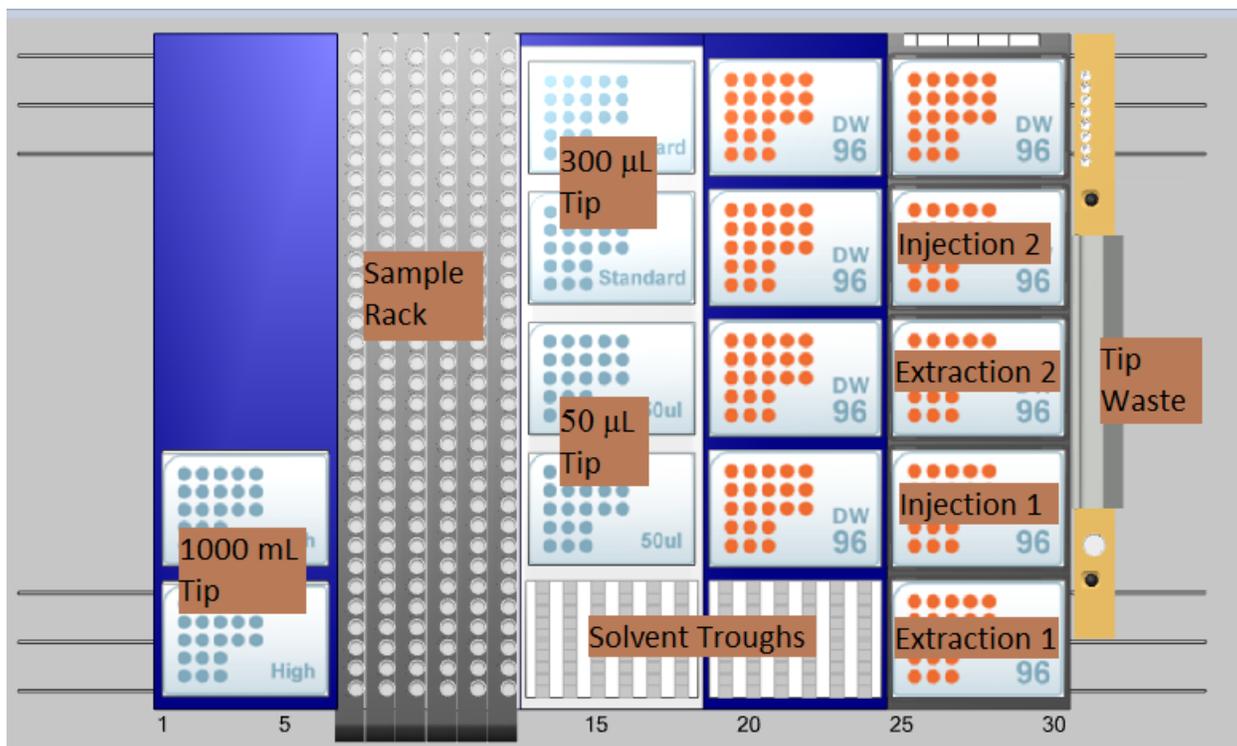
4. Import the Hamilton Venus program HSPA_1.1 into Hamilton Venus Method Editor

Hamilton STAR setup

HSPA employs a fixed Hamilton Venus program (HSPA_1_1) with a predefined deck layout. In order for the HSPA Basic program to communicate with HSPA_1_1, the deck layout of the should be configured accordingly.

1. Deck Layout:

The preset deck layout is shown in this picture.



96-well plates Extraction1 and Extraction2 are combined as Extraction in HSPA. 96-well plates Injection1 and Injection2 are combined as Injection. Similarly, 6 sample tube racks (32-position) are combined as SampleRack.

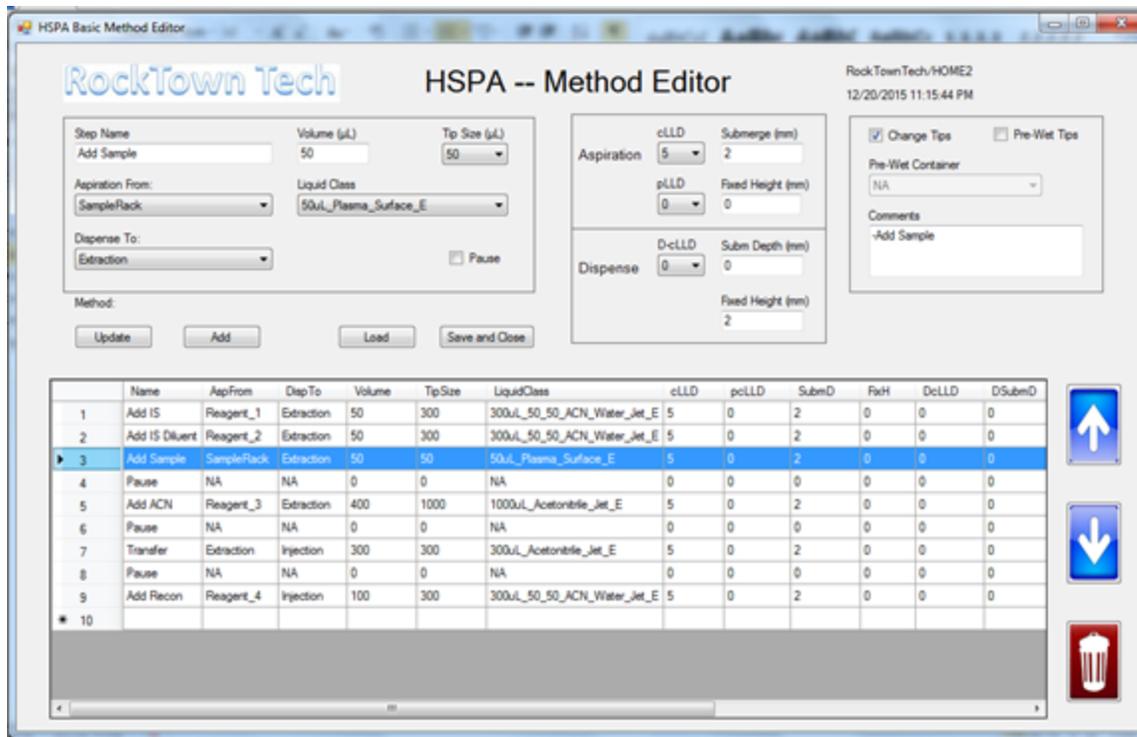
Deck Layout and sequences can be modified. However, the submethod "Sequence" of HSPA_1_1 should be modified accordingly to ensure correct labware is used. Please contact us if you need to modify the deck layout.

2. HSPA Setup file

The deck layout is summarized in the HSPA Setup.xlsx file stored in folder C:\HSPA\HSPA Configuration. In this setup file, there are three sheets. Sheet 1 is for deck layout sequences. Sheet 2 is for maximum tip numbers. Sheet 3 is for liquid classes. HSPA Basic and HSPA Method Editor read information from the setup file everytime it runs. Please contact us before using HSPA to ensure the information in the setup file is correct.

HSPA Method Editor

Using HSPA Method Editor to generate and modify a method.



Refer application note published in Journal of Applied Bioanalysis for using HSPA Method Editor.
<http://betasciencepress.com/index.php/jab16006>

HSPA Basic Runtime Module

HSPA Basic is started automatically when running HSPA_1_1 program in Hamilton Venus.

Form1

RockTown Tech

HSPA -- Basic

Select Method Next

Method: C:\HSPA\HSPA_method\VPPT method.xlsx

Tip Setup

starting column Max Tip Number: 192
 1000 µL 1 Starting Position: 1

starting column Max Tip Number: 192
 300 µL 1 Starting Position: 1

starting column Max Tip Number: 192
 50 µL 1 Starting Position: 1

Exit

RockTownTech/HOME2
12/21/2015 9:18:19 PM

Name	AppFrom	DispTo	Volume	TipSize	LiquidClass	cLLD	pcLLD	SubmD	FxH	DcLLD	DSub
Add IS	Reagent_1	Extraction	50	300	300µL_50_50_ACN_Water_jet_E	5	0	2	0	0	0
Add IS Diluent	Reagent_2	Extraction	50	300	300µL_50_50_ACN_Water_jet_E	5	0	2	0	0	0
Add Sample	SampleRack	Extraction	50	50	50µL_Plasma_Surface_E	5	0	2	0	0	0
Pause	NA	NA	0	0	NA	0	0	0	0	0	0
Add ACN	Reagent_3	Extraction	400	1000	1000µL_Acetonitrile_jet_E	5	0	2	0	0	0
Pause	NA	NA	0	0	NA	0	0	0	0	0	0
Transfer	Extraction	Injection	300	300	300µL_Acetonitrile_jet_E	5	0	2	0	0	0
Pause	NA	NA	0	0	NA	0	0	0	0	0	0
Add Recon	Reagent_4	Injection	100	300	300µL_50_50_ACN_Water_jet_E	5	0	2	0	0	0

Sequence

HSPA - Basic

Step 1 Add IS -- Add IS-

Total Sample Number: 39

Aspiration From: Reagent_1
 Dispense To: Extraction
 Volume (µL): 50
 Liquid Class: 300µL_50_50_ACN_Water_jet_E
 Prewet tips when aspiration from solvent trough

Number of Samples: 39 Aspiration Start Position: 1 Dispense Start Position: 2

Sample Name: Sample Add Sample

Read Sequence File
 Note: read a sequence file will overwrite the sample list

Cancel OK

Sample List for the step

	Sample Name	Aspiration Position	Dispense Position
1	Sample 001	1	2
2	Sample 002	1	3
3	Sample 003	1	4
4	Sample 004	1	5
5	Sample 005	1	6
6	Sample 006	1	7
7	Sample 007	1	8
8	Sample 008	1	9
9	Sample 009	1	10
10	Sample 010	1	11
11	Sample 011	1	12
12	Sample 012	1	13
13	Sample 013	1	14
14	Sample 014	1	15
15	Sample 015	1	16
16	Sample 016	1	17
17	Sample 017	1	18

Refer application note published in Journal of Applied Bioanalysis for using HSPA Basic runtime module.
<http://betasciencepress.com/index.php/jab16006>

Contact Information:

Rocktown Technology and Service

reps.rocktown@gmail.com

www.rocktowntech.net