


# 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

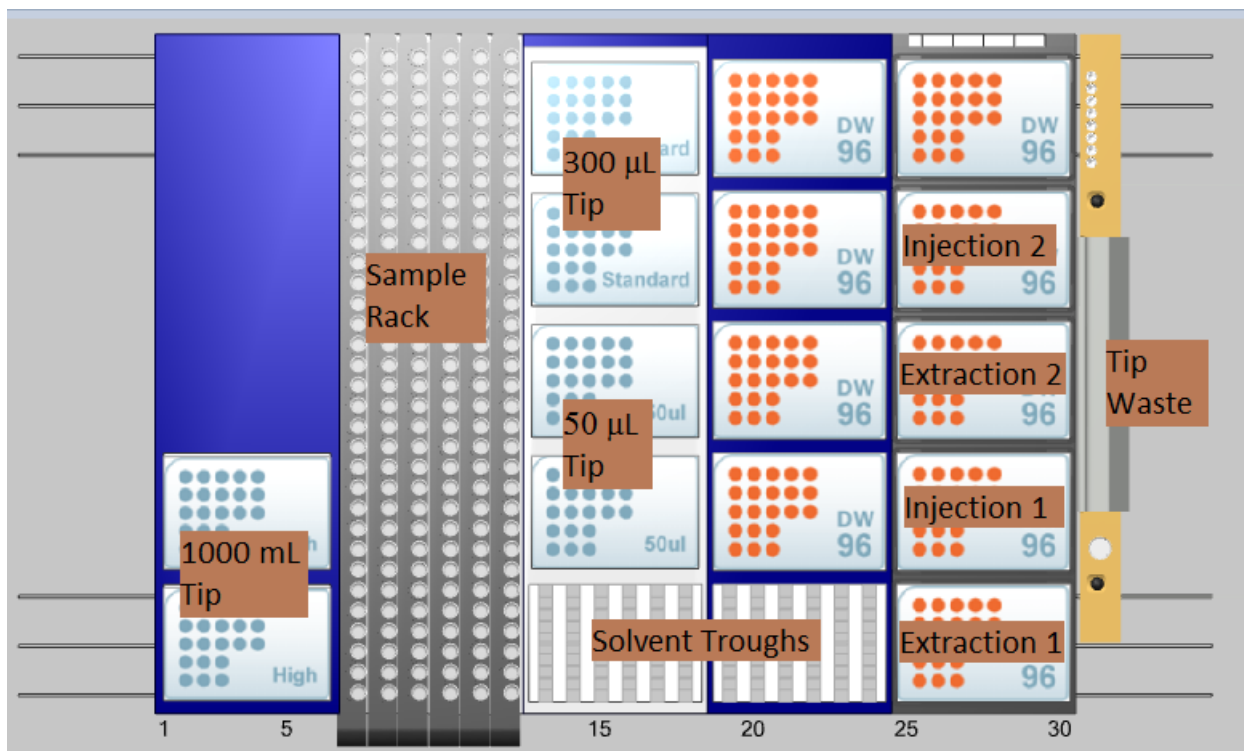
4. Import the Hamilton Venus program HSPA\_1.1 into Hamilton Venus Method Editor

## 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.

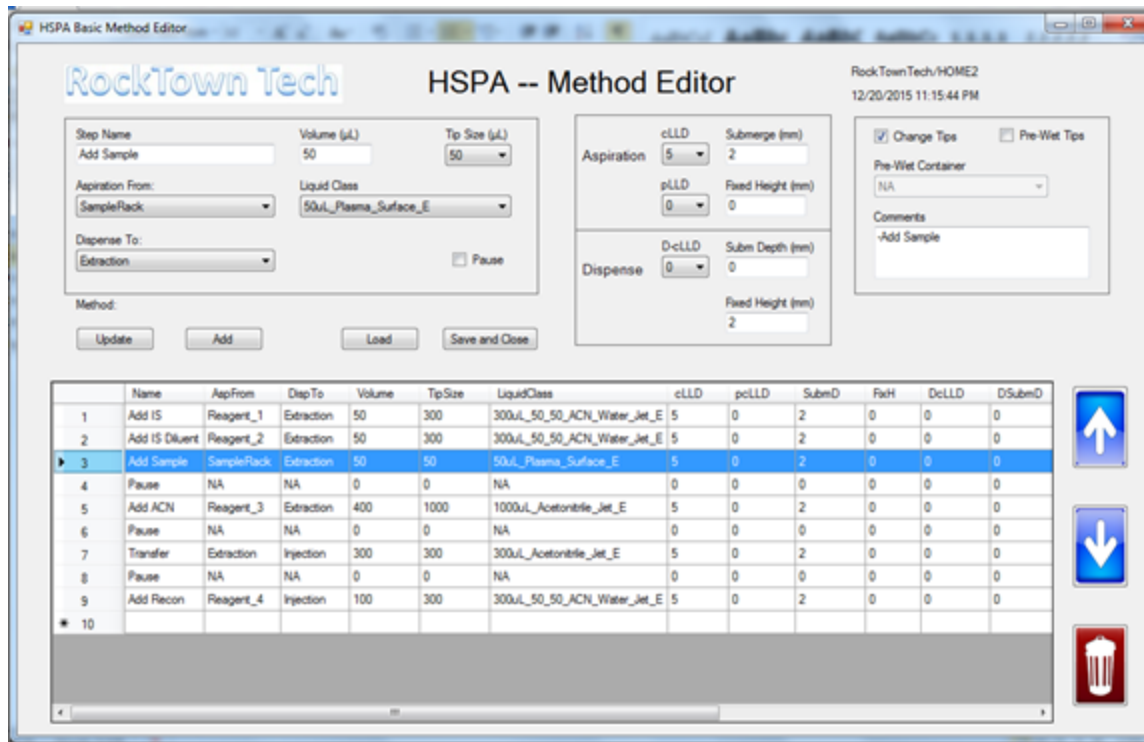
Deck Layout and sequences can be modified. However, the submethod "Sequence" of HSPA\_1\_1 should be modified accordingly to ensure correct labware is used. Please contact us if you need to modify the deck layout.

## 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

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## 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

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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	300uL_50_50_ACN_Water_jet_E	5	0	2	0	0	0
Add IS Diluent	Reagent_2	Extraction	50	300	300uL_50_50_ACN_Water_jet_E	5	0	2	0	0	0
Add Sample	SampleRack	Extraction	50	50	50uL_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	1000uL_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	300uL_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	300uL_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: 300uL\_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>

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