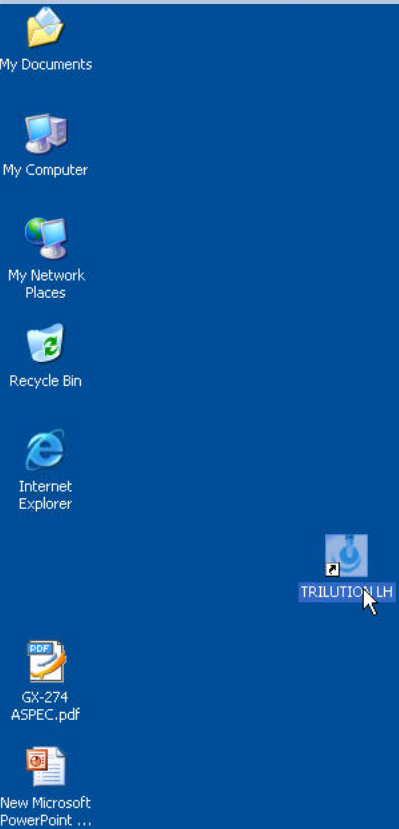


双击桌面上TRILUTION LH图标



密码为空不填，单击Log On进入主界面

TRILUTION™ LH

User Name Administrator

Password

Log On

GILSON

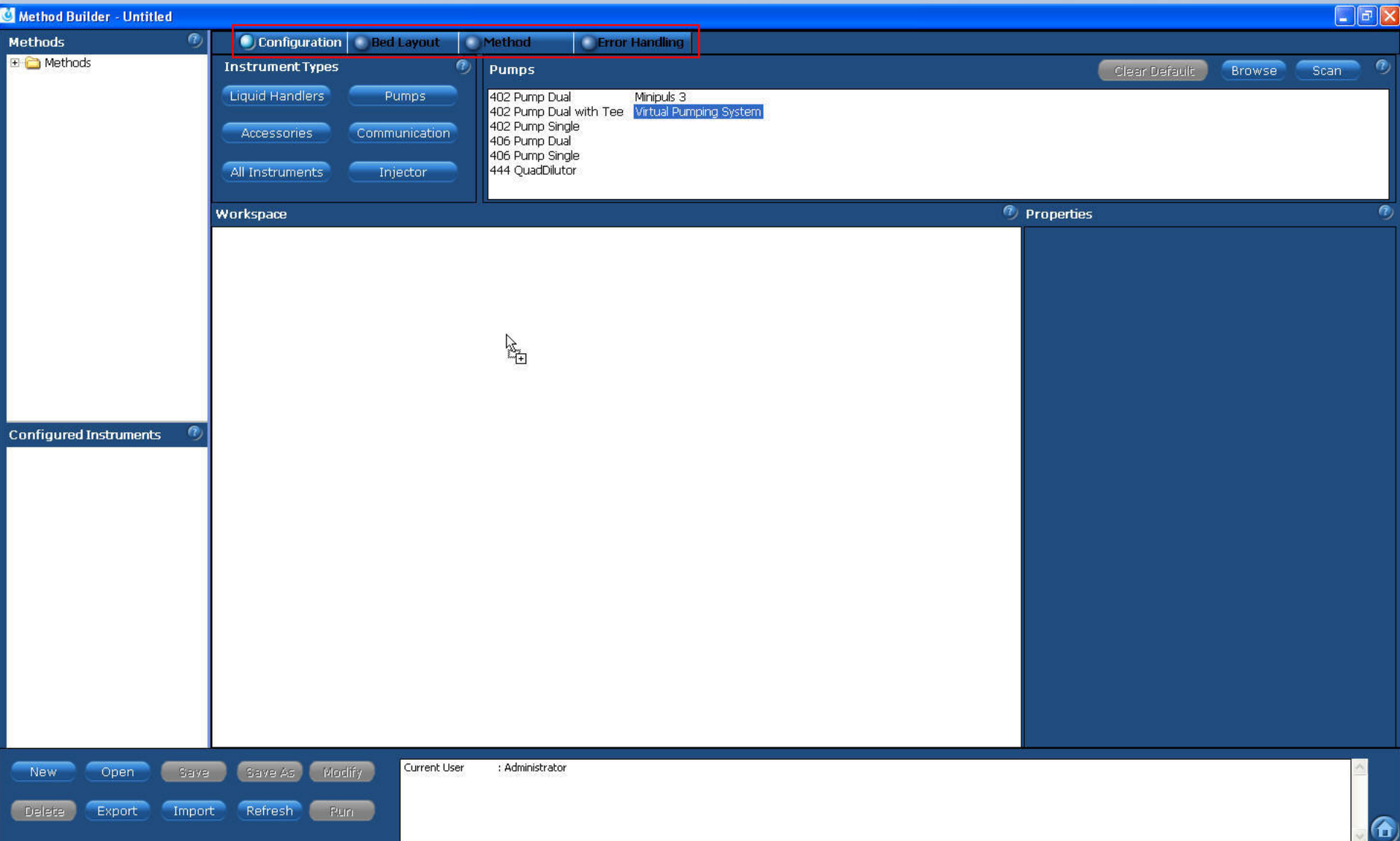
© 2005 - 2006 Gilson, Inc.



点击Method Builder进入方法编辑界面



在界面的最上面有**Configuration/Bed Layout/Method/Error Handling**四个选项，分别对应 联机设备/托盘管架/控制方法/错误对策，未编辑的项目反蓝，已经编辑或正在编辑的项目反白



编辑Configuration



如图，点选**Pumps**，在右面的框中将**Virtual Pumping System**拖到**Workspace**中，之后点击**scan**，扫描已连接的硬件

Method Builder - Untitled

The screenshot displays the Trilution Method Builder software interface. The main window is titled "Method Builder - Untitled" and features several panels:

- Methods:** A sidebar on the left containing a "Methods" folder icon.
- Instrument Types:** A central panel with buttons for "Liquid Handlers", "Pumps" (highlighted with a red box), "Accessories", "Communication", "All Instruments", and "Injector".
- Pumps:** A list of pump models including "402 Pump Dual", "402 Pump Dual with Tee", "402 Pump Single", "406 Pump Dual", "406 Pump Single", and "444 QuadDilutor". The "Virtual Pumping System" is selected and underlined. A red arrow points from this selection to the workspace.
- Workspace:** A large central area where the "Virtual Pumping System" icon is being dragged. A red arrow also points from the "Pumps" list to this icon.
- Properties:** A panel on the right showing the configuration for the "Virtual Pumping System". It includes a "Setup" tab, a "General" sub-tab, and a table with columns for "Probe", "Syringe", "VALVEMATE", and "Position". The "VALVEMATE" column contains the text "VALVEMATE". There are "Up" and "Down" buttons to the right of the table.
- Configured Instruments:** A sidebar at the bottom left showing a "Pump" icon.
- Footer:** A bar at the bottom with buttons for "New", "Open", "Save", "Save As", "Modify", "Delete", "Export", "Import", "Refresh", and "Run". It also displays "Current User : Administrator".

已连接的硬件会显示在如图的框中，将所有硬件一一拖入Workspace中，

The screenshot displays the TRILUTION Method Builder software interface. The main window is titled "Method Builder - Untitled" and features several panels:

- Methods:** A sidebar on the left containing a "Methods" folder.
- Configuration:** A top navigation bar with tabs for "Configuration", "Bed Layout", "Method", and "Error Handling".
- Instrument Types:** A panel on the left with buttons for "Liquid Handlers", "Pumps", "Accessories", "Communication", "All Instruments", and "Injector".
- Available Instruments:** A central panel with a red border containing a list of instruments: "406 Pump Dual(640H8J162)" and "406 Pump Dual(640J8J166)". A red arrow points from this list to the workspace.
- Workspace:** A large central area where hardware icons are placed. A blue box highlights a pump icon, and a mouse cursor is positioned over it.
- Properties:** A panel on the right showing the configuration for the selected instrument, "GX-274 ASPEC without Pump". It includes options for probe size (56 mm, 125 mm, 175 mm) and input fields for "Z Clamp Height (mm)" and "Z Safe Height (mm)", both set to 185.
- Configured Instruments:** A sidebar on the left showing a list of instruments already added to the workspace, including "Pump" and "Liquid Handler".
- Footer:** A bottom bar with buttons for "New", "Open", "Save", "Save As", "Modify", "Delete", "Export", "Import", "Refresh", and "Print". It also displays the "Current User" as "Administrator".

注意拖动两台406泵时按照实际摆放顺序先将摆在上面的泵对应的序列号拖到Workspace中，并如图所示修改Pump Name为Pump (1)

Method Builder - Untitled

Methods

Configuration Bed Layout Method Error Handling

Instrument Types

- Liquid Handlers
- Pumps
- Accessories
- Communication
- All Instruments
- Injector

Available Instruments

406 Pump Dual(640H8J162)

Clear Default Browse Scan

Workspace

Properties

Setup General

406 Pump Dual

Pump Name: Pump (1)

Communication

Ethernet

Pump Serial Number: 640J8J166

Configured Instruments

- Pump
- Liquid Handler
- Pump(2)

New Open Save Save As Modify

Delete Export Import Refresh Run

Current User : Administrator

start TRILUTION LH Menu Method Builder - Untit... 1:54 PM

全部拖完之后检查下Virtual Pumping System中泵的排列顺序，此处直接关系到四台泵对应的针序列是否准确，正确顺序如图

Method Builder - Test

Methods

- Methods
 - Large Volume
 - Rinse MPE
 - Rinse System
 - Rinse Transferport
 - Test

Instrument Types

- Liquid Handlers
- Pumps
- Accessories
- Communication
- All Instruments
- Injector

Pumps

402 Pump Dual Minipuls 3
 402 Pump Dual with Tee Virtual Pumping System
 402 Pump Single
 406 Pump Dual
 406 Pump Single
 444 QuadDilutor

Clear Default

Browse

Scan

Workspace

Properties

Setup General

Virtual Pumping System

Probe	Syringe	VALVEMATE	Position
A	A(Pump(1))	None	None
B	B(Pump(1))	None	None
C	A(Pump(2))	None	None
D	B(Pump(2))	None	None

Up

Down

Configured Instruments

- Pump
- Liquid Handler
- Pump(1)
- Pump(2)



New Open Save Save As Modify

Delete Export Import Refresh Run

Current User : Administrator
 Method : Test
 Configuration : ASPEC
 Bed Layout : ASPEC
 Created Date : 8/25/2009 11:17:20 AM
 Created By : Administrator

编辑Bed Layout



依次双击框中的方格，选择700ml Bottle并点OK，此为托盘上装溶剂的
4个700ml的塑料瓶

Method Builder - Untitled

Configuration Bed Layout Method Error Handling

Zone Management

Zone Name	Wells
Source Zone	0
Result Zone	0
Inside Rinse	0
Outside Rinse	0

700 ml Bottle 700 ml Bottle 700 ml Bottle

Select Rack

Name	Description	Preview
500 mL Bottle		
<u>700 mL Bottle</u>		

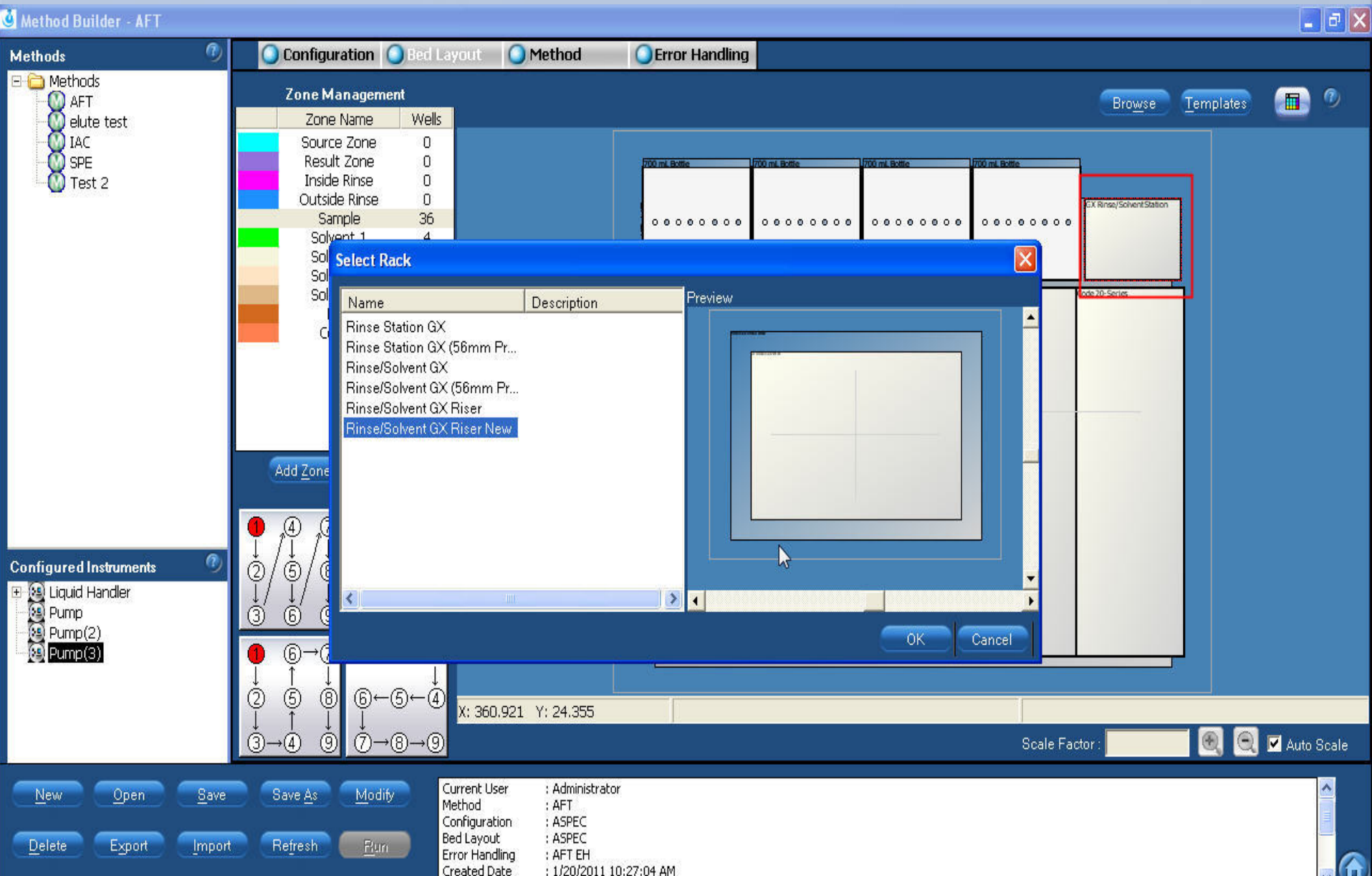
OK Cancel

Scale Factor : Auto Scale

Current User : Administrator

New Open Save Save As Modify
Delete Export Import Refresh Run

如图，双击框中的方格，在弹出的界面中选择Rinse/Solvent GX Riser New，之后再次双击此方格，并选择Rinse/Solvent GX



同上双击框中的方格，选择Code 45

Method Builder - Untitled

Configuration Bed Layout Method Error Handling

Methods

- Methods
 - test 1
 - test 2 big

Configured Instruments

- Liquid Handler

Zone Management

Zone Name	Wells
Source Zone	0
Result Zone	0
Inside Rinse	0
Outside Rinse	0

200 ml. Bottle

Code 20-Series

Select Rack

Name	Description	Preview
Code 29SE		
Code 330		
Code 333		
Code 341		
Code 343		
Code 345		
Code 41		
Code 43		
Code 45		
Code 60		
Code 61		
Code 81		
Code 20-Series Heighte...		
Holder 10X		

X: 44.741 Y: 169.866

Scale Factor : Auto Scale

Current User : Administrator

New Open Save Save As Modify Delete Export Import Refresh Run

选择活动管架（放置SPE柱及收集），3ml和6ml分别选择
Holder 373 3mL和Holder 373 6mL

Method Builder - Untitled

Methods

- Methods
 - test 1
 - test 2 big

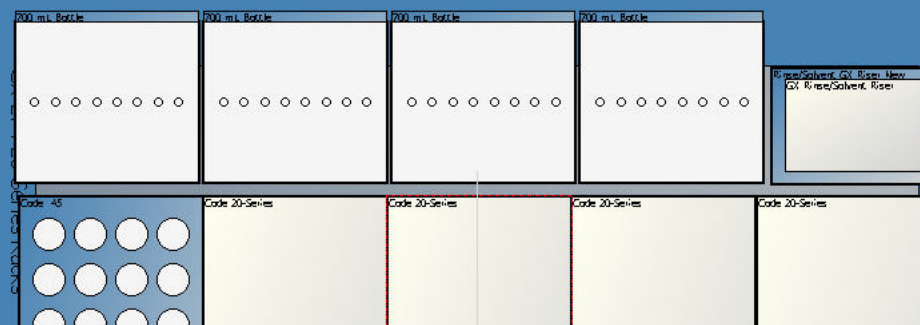
Configuration Bed Layout Method Error Handling

Zone Management

Zone Name	Wells
Source Zone	0
Result Zone	0
Inside Rinse	0
Outside Rinse	0

Browse

Templates



Select Rack

Name	Description	Preview
Code 61		
Code 81		
Code 20-Series Heighte...		
Holder 10X		
Holder 146		
Holder 371		
Holder 373		
Holder 373 3mL		
Holder 373 6mL		
Holder 376		
Peltier Therm Cuvette L		
Peltier Therm Cuvette L ...		
Rack Heightener		
Therm Cuvette L		

OK

Cancel



X: 197.18 Y: 187.455

Scale Factor :



Auto Scale

New

Open

Save

Save As

Modify

Delete

Export

Import

Refresh

Run

Current User : Administrator

再次双击, 3ml 管架选择DEC 373 Mobile Rack 3mL, 6ml 选择DEC 373 Mobile Rack 6ml

Method Builder - Untitled

Configuration Bed Layout Method Error Handling

Zone Management

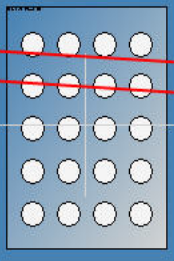

Zone Name	Wells
Source Zone	0
Result Zone	0
Inside Rinse	0
Outside Rinse	0

200 mL Bottle 200 mL Bottle 200 mL Bottle 200 mL Bottle

Rinse/Solvent, CV, Rinse, New
CV Rinse/Solvent, Rinse

Code: 45 Code: 20-Series DEC Slider: 373 Footprint Code: 20-Series DEC Slider: 373 Footprint

Select Rack

Name	Description	Preview
DEC 373 Mobile Rack		
DEC 373 Mobile Rack 3mL		
DEC 373 Mobile Rack 6mL		

OK Cancel

X: 200.698 Y: 182.179

Scale Factor : Auto Scale

Current User : Administrator

New Open Save Save As Modify
Delete Export Import Refresh Run

在此双击选择收集位置，3ml选择Collect 373 3mL，6ml选择Collect 373 6ml

Method Builder - Untitled

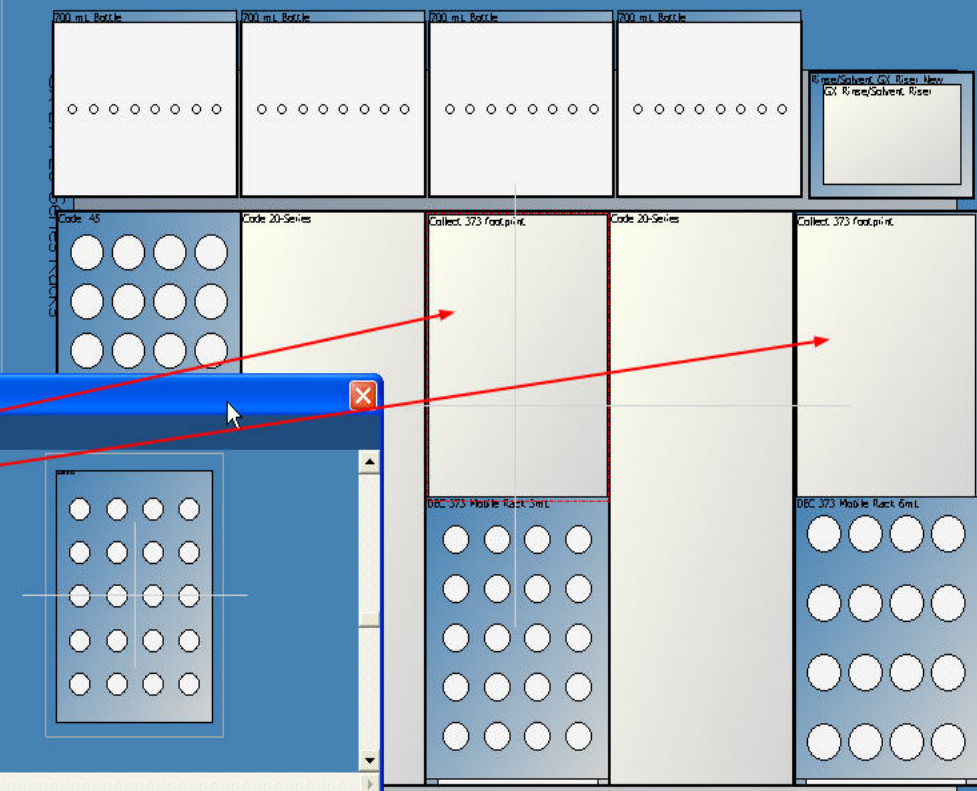
- Methods
 - test 1
 - test 2 big

Configuration Bed Layout Method Error Handling

Zone Management

Zone Name	Wells
Source Zone	0
Result Zone	0
Inside Rinse	0
Outside Rinse	0

Browse Templates



Select Rack

Name	Description	Preview
Collect 373		
Collect 373 3mL		
Collect 373 6mL		

OK Cancel

Configured Instr
Liquid Handler

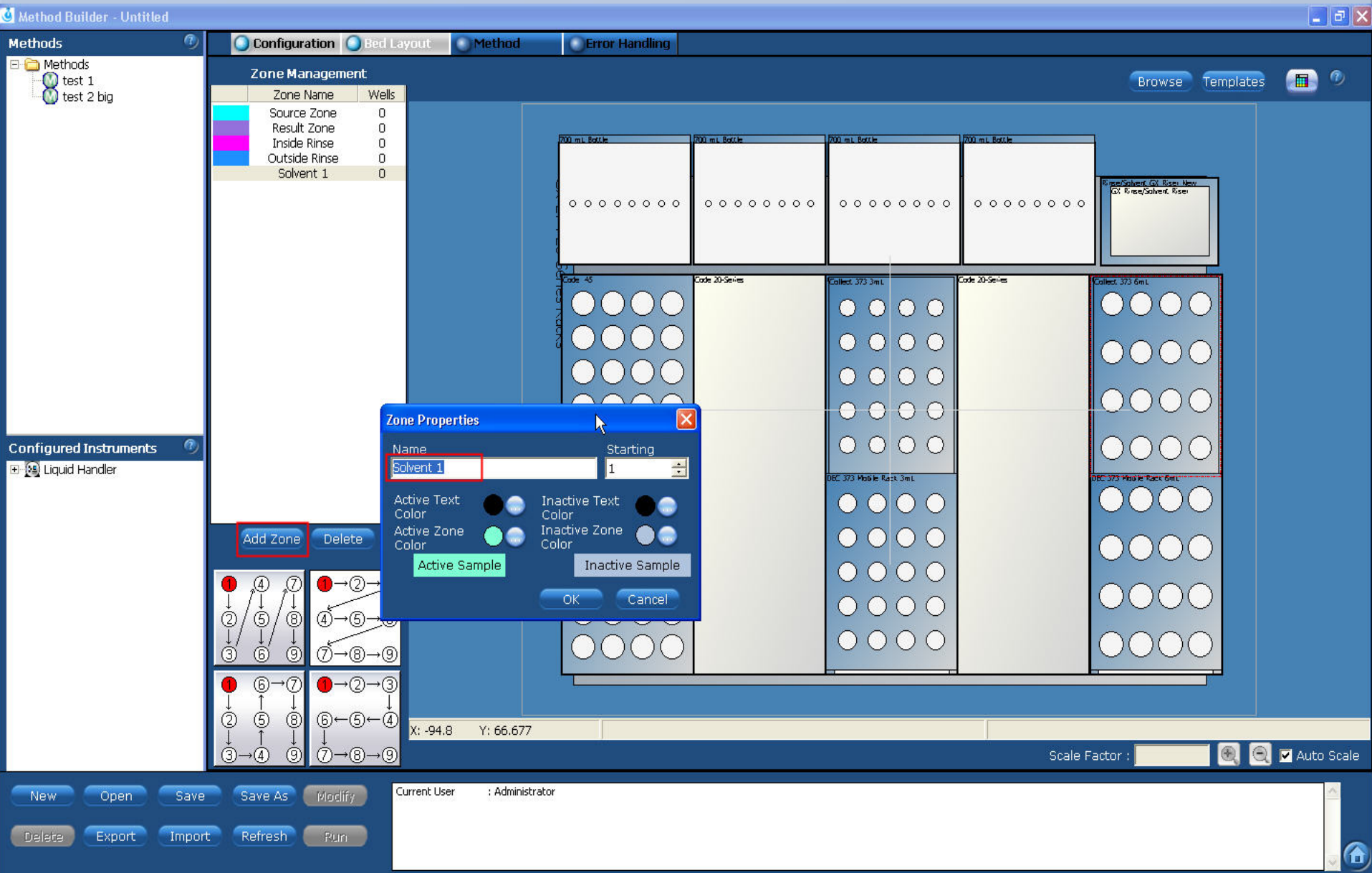
X: 193.661 Y: 129.998

Scale Factor : Auto Scale

New Open Save Save As Modify
Delete Export Import Refresh Run

Current User : Administrator

如图，点击Add Zone编辑样品、溶剂、小柱（DEC）和收集（COLLECT）的位置名字



所有位置可按图示中的名字建立

Method Builder - test 1

Methods

- test 1
- test 2 big

Configuration Bed Layout Method Error Handling

Zone Management

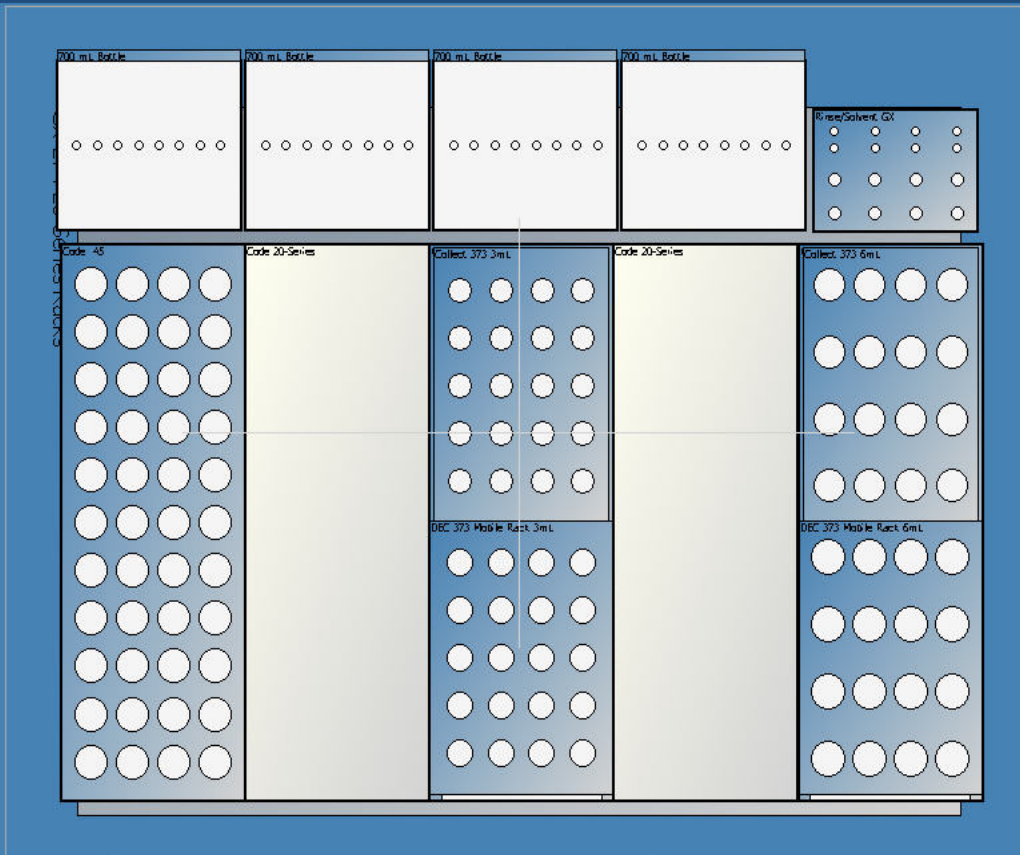
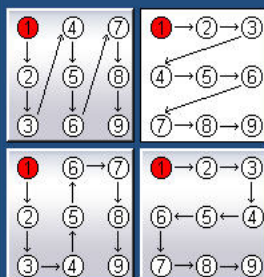
Zone Name	Wells
Source Zone	0
Result Zone	0
Inside Rinse	0
Outside Rinse	0
Solvent 1	0
Solvent 2	0
Solvent 3	0
Solvent 4	0
Sample	0
DEC 3mL	0
Collect 3mL	0
DEC 6mL	0
Collect 6mL	0

Browse Templates

Configured Instruments

- Pump
- Liquid Handler
- Pump(1)
- Pump(2)

Add Zone Delete



X: -51.413 Y: 139.379

Scale Factor : Auto Scale

New Open Save Save As Modify

Delete Export Import Refresh Run

Current User : Administrator
 Method : test 1
 Configuration : ASPEC
 Bed Layout : ASPEC
 Created Date : 1/20/2011 10:47:08 AM
 Created By : Administrator

选中区域的名字，用鼠标左键拖拽并选定所放物品的区域，一下几张图示为个名字所对应的区域

Method Builder - Untitled

Configuration Bed Layout Method Error Handling

Zone Management

Zone Name	Wells
Source Zone	0
Result Zone	0
Inside Rinse	0
Outside Rinse	0
S1	0
S2	0
S3	0
S4	0
S5	0
S6	0
Sample 100mL	0
Sample	0
DEC 3mL	0
COLLECT 3mL	0
DEC 6mL	0
COLLECT 6mL	0

Methods

Configured Instruments

- Pump
- Liquid Handler
- Pump(1)
- Pump(2)

Add Zone Delete

X: 388.9 Y: 21.532

Scale Factor : [] [] [] Auto Scale

New Open Save Save As Modify

Delete Export Import Refresh Run

Current User : Administrator

Method Builder - Untitled

Methods

Configuration Bed Layout Method Error Handling

Browse Templates

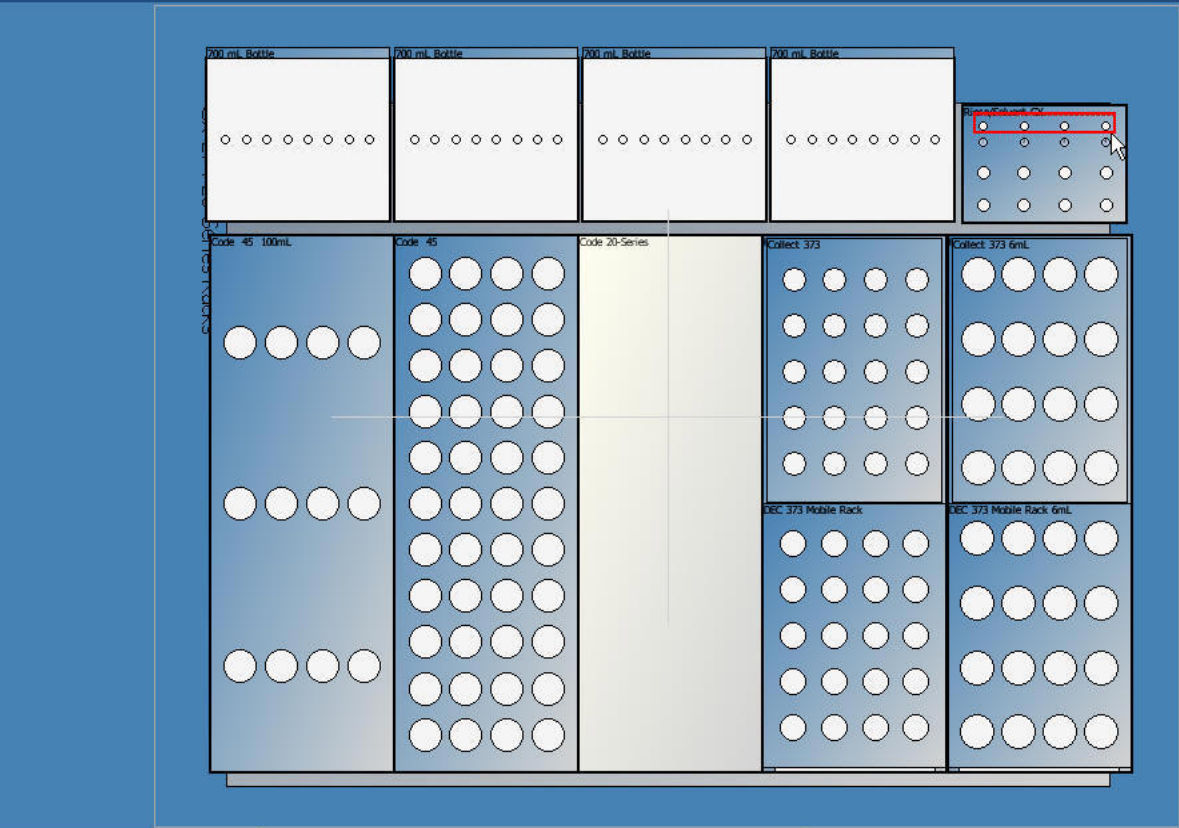
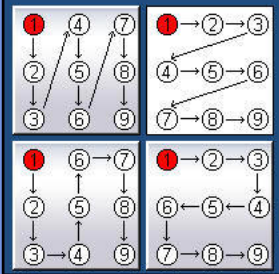
Zone Management

Zone Name	Wells
Source Zone	0
Result Zone	0
Inside Rinse	4
Outside Rinse	0
S1	0
S2	0
S3	0
S4	0
S5	0
S6	0
Sample 100mL	0
Sample	0
DEC 3mL	0
COLLECT 3mL	0
DEC 6mL	0
COLLECT 6mL	0

Configured Instruments

- Pump
- Liquid Handler
- Pump(1)
- Pump(2)

Add Zone Delete



X: 388.9 Y: 11.565

Scale Factor : Auto Scale

New Open Save Save As Modify
Delete Export Import Refresh Print

Current User : Administrator

Methods

- Methods
 - test 1
 - test 2 big

Configuration Bed Layout Method Error Handling

Zone Management

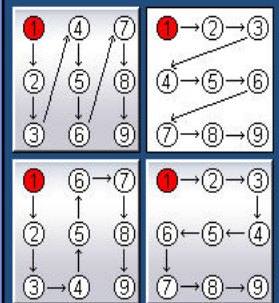
Zone Name	Wells
Source Zone	0
Result Zone	0
Inside Rinse	4
Outside Rinse	4
Solvent 1	4
Solvent 2	4
Solvent 3	4
Solvent 4	4
Sample	0
DEC 3mL	0
Collect 3mL	0
DEC 6mL	0
Collect 6mL	0

Browse Templates

Configured Instruments

- Pump
- Liquid Handler
- Pump(1)
- Pump(2)

Add Zone Delete



X: 291.574 Y: 89.543

Scale Factor : [input] [zoom icons] [checkbox] Auto Scale

- New Open Save Save As Modify
- Delete Export Import Refresh Run

Current User : Administrator
Method : test 1
Configuration : ASPEC
Bed Layout : ASPEC
Created Date : 1/20/2011 10:47:08 AM
Created By : Administrator

Methods

- test 1
- test 2 big

Configuration Bed Layout Method Error Handling

Zone Management

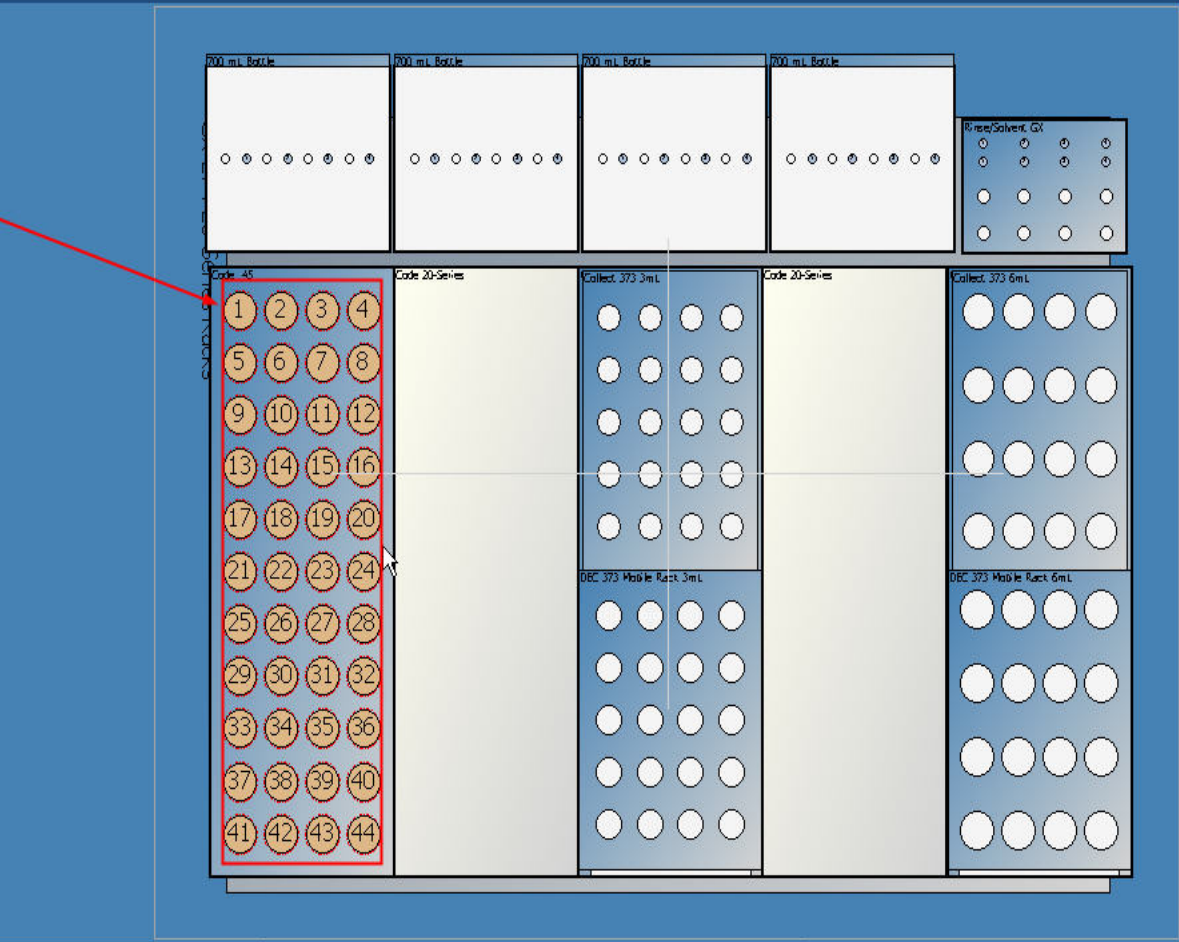
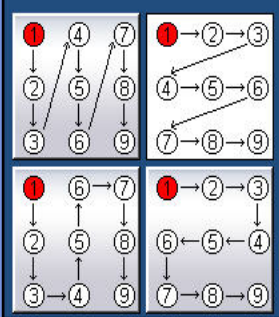
Zone Name	Wells
Source Zone	0
Result Zone	0
Inside Rinse	4
Outside Rinse	4
Solvent 1	4
Solvent 2	4
Solvent 3	4
Solvent 4	4
Sample	44
DEC 3mL	0
Collect 3mL	0
DEC 6mL	0
Collect 6mL	0

Browse Templates

Configured Instruments

- Pump
- Liquid Handler
- Pump(1)
- Pump(2)

Add Zone Delete



X: 68.779 Y: 162.244

Scale Factor : [input] [zoom icons] [Auto Scale]

New Open Save Save As Modify Delete Export Import Refresh Run

Current User : Administrator
Method : test 1
Configuration : ASPEC
Bed Layout : ASPEC
Created Date : 1/20/2011 10:47:08 AM
Created By : Administrator

Methods

- Methods
 - test 1
 - test 2 big

Configuration Bed Layout Method Error Handling

Zone Management

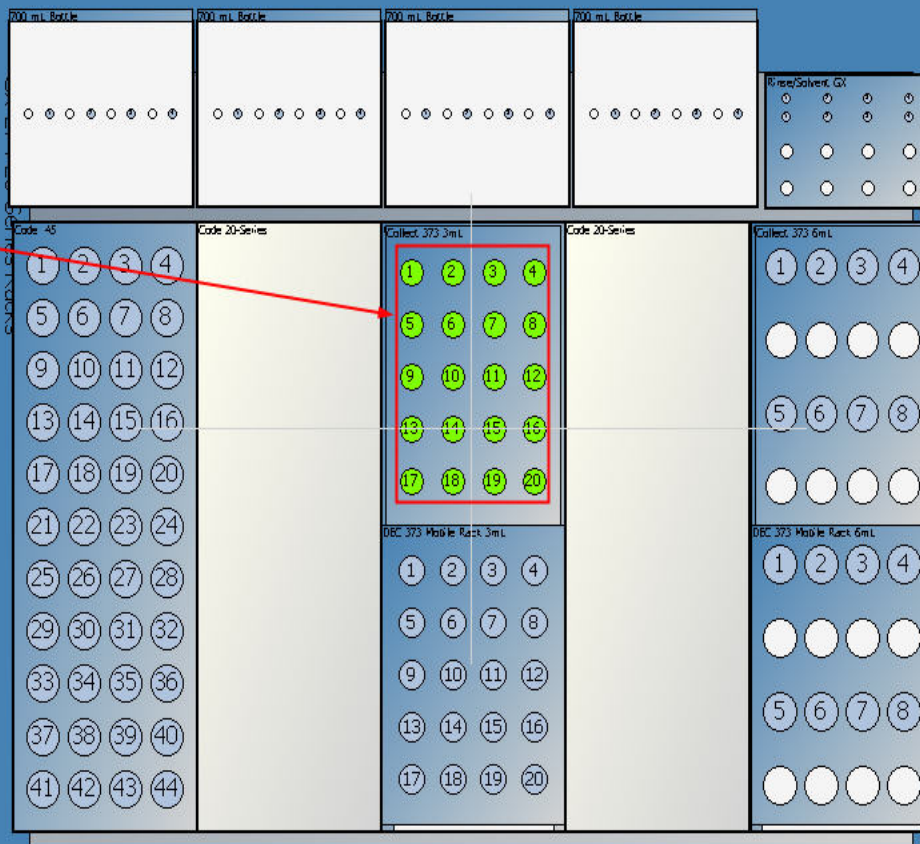
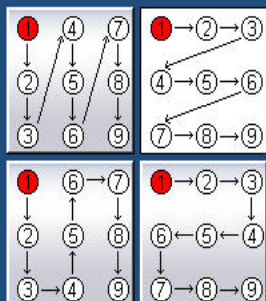
Zone Name	Wells
Source Zone	0
Result Zone	0
Inside Rinse	4
Outside Rinse	4
Solvent 1	4
Solvent 2	4
Solvent 3	4
Solvent 4	4
Sample	44
DEC 3mL	20
Collect 3mL	20
DEC 6mL	8
Collect 6mL	8

Browse Templates

Configured Instruments

- Pump
- Liquid Handler
- Pump(1)
- Pump(2)

Add Zone Delete



X: -78.969 Y: 72.54

Scale Factor : Auto Scale

New Open Save Save As Modify

Delete Export Import Refresh Run

Current User : Administrator
Method : test 1
Configuration : ASPEC
Bed Layout : ASPEC
Created Date : 1/20/2011 10:47:08 AM
Created By : Administrator

Methods

- Methods
 - test 1
 - test 2 big

Configuration Bed Layout Method Error Handling

Zone Management

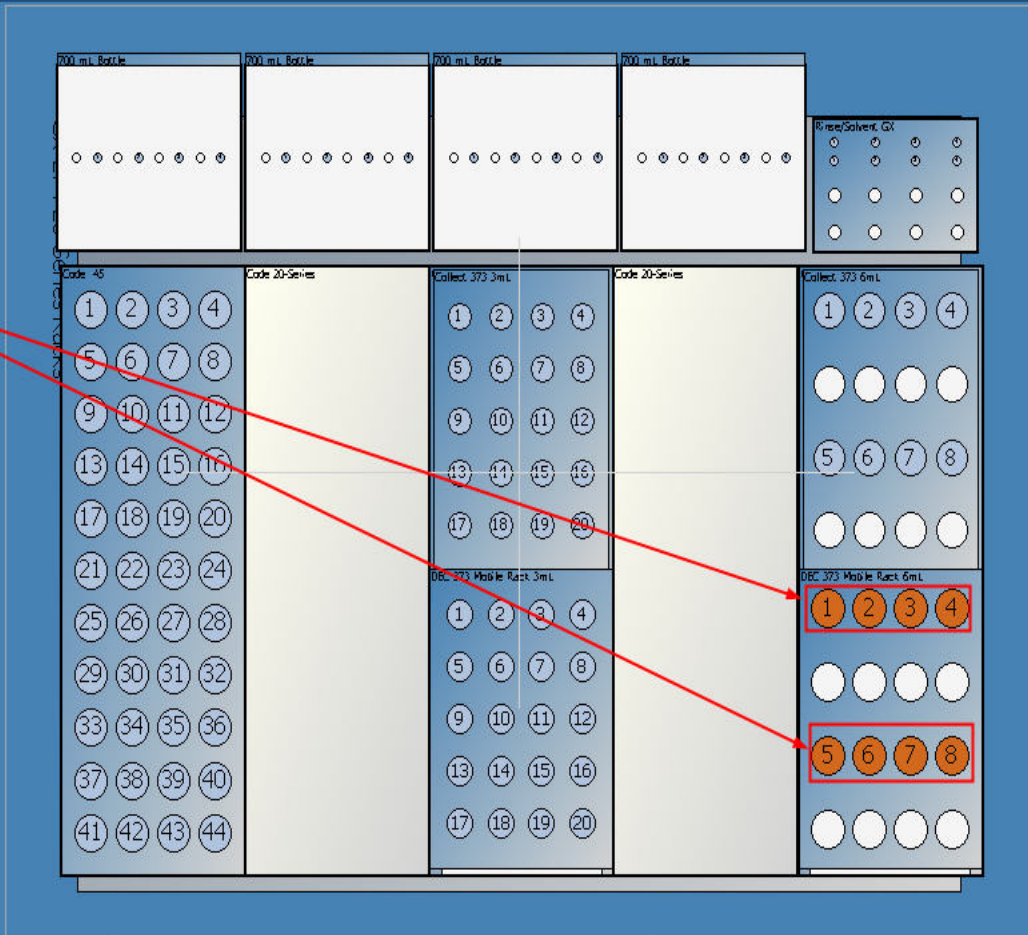
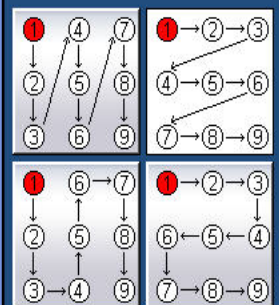
Zone Name	Wells
Source Zone	0
Result Zone	0
Inside Rinse	4
Outside Rinse	4
Solvent 1	4
Solvent 2	4
Solvent 3	4
Solvent 4	4
Sample	44
DEC 3mL	20
Collect 3mL	20
DEC 6mL	8
Collect 6mL	8

Browse Templates

Configured Instruments

- Pump
- Liquid Handler
- Pump(1)
- Pump(2)

Add Zone Delete



X: -98.317 Y: 121.203

Scale Factor : Auto Scale

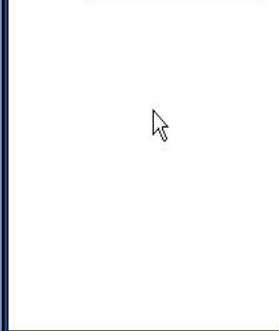
New Open Save Save As Modify Delete Export Import Refresh Run

Current User : Administrator
Method : test 1
Configuration : ASPEC
Bed Layout : ASPEC
Created Date : 1/20/2011 10:47:08 AM
Created By : Administrator

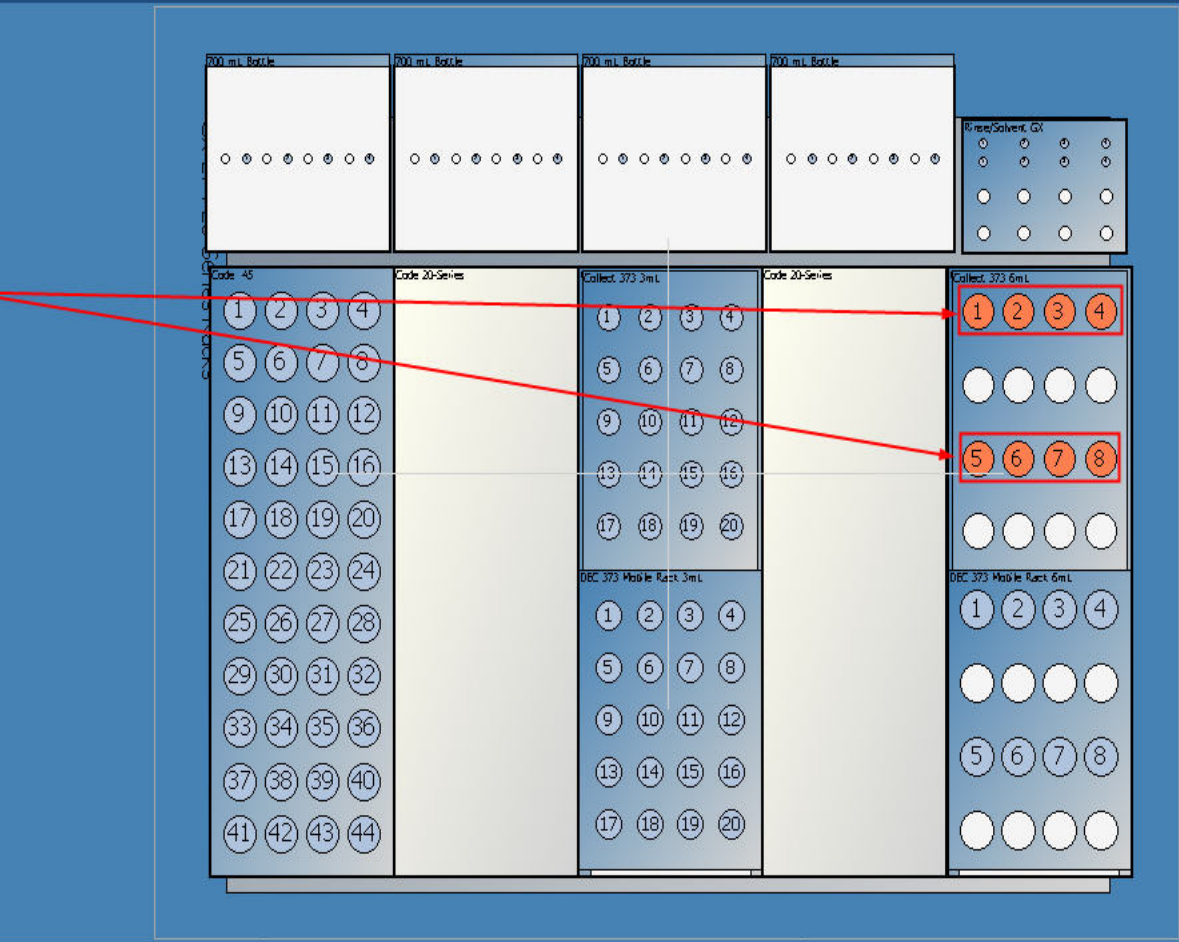
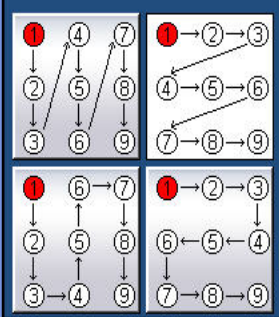
- Methods
 - test 1
 - test 2 big

Zone Management

Zone Name	Wells
Source Zone	0
Result Zone	0
Inside Rinse	4
Outside Rinse	4
Solvent 1	4
Solvent 2	4
Solvent 3	4
Solvent 4	4
Sample	44
DEC 3mL	20
Collect 3mL	20
DEC 6mL	8
Collect 6mL	8



Add Zone Delete



X: -74.865 Y: 122.376

Scale Factor : [input] [zoom icons] [checkbox] Auto Scale

New Open Save Save As Modify
Delete Export Import Refresh Run

Current User : Administrator
Method : test 1
Configuration : ASPEC
Bed Layout : ASPEC
Created Date : 1/20/2011 10:47:08 AM
Created By : Administrator

编辑Method



第三步，编辑方法

点击Method图标，在左下角的Tasks中双击Custom目录，此目录下为常用的固相萃取步骤：

SPE Condition(活化，常用)；

SPE Dry(需要干燥时可用)；

SPE Elute(洗脱，常用)；

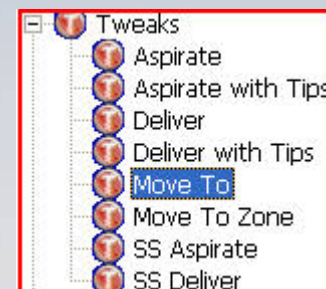
SPE Evaporate(蒸发，不常用)；

SPE Fractionate（分步洗脱）；

SPE Load（加样，常用）；

SPE Wash（淋洗，清洗）。

另外**Tweaks**目录中的**Move to**和**SPE**目录中的**Move Mobile Rack**也比较常用，用来初始化DEC模块和HOME机械臂



以3ml 样品为例做一个标准方法

Condition—Load—Wash—Elute
—Move Mobile Rack—Move to

活化—上样—淋洗—洗脱—归位




Source | DEC/Air Push | **Advanced** | Rinse | Instruments

SPE Condition

Source Properties

Reservoir
 Tray
 Transfer Port

Tray


 Zone:

Well:

Volume (mL):

Extra Volume (mL):

Flow Rate (mL/min):

Air Gap Volume (mL):

Air Gap Flow Rate (mL/min):

Equilibration Time (min):

OK Cancel

鼠标左键点住SPE Condition，将其拖入右面的大框中，弹出左边的界面

Source属性页：设置溶剂的来源

选择： Reservoir表示从洗针液中吸液体，Tray表示从管架上的溶剂瓶S1/2/3/4中吸液体，Transfer Port表示从S5/S6中吸液体

参数：

Zone： 区域 选择事先定义的S1/2/3/4

Well： 试管号 从溶剂瓶吸 输入#Source

Volume： 吸液体积即活化体积

Extra Volume： 扩展的体积，用于易挥发的液体

Flow Rate： 吸液速度

Air Gap Volume： 隔开洗针液与溶剂的空气段体积

Air Gap Flow Rate： 吸空气段速度

Equilibration Time： 平衡时间 即等待时间

Source | DEC/Air Push | **Advanced** | Rinse | Instruments

SPE Condition

Source Properties

Reservoir
 Tray
 Transfer Port

Tray

Zone: S1
 Well: #Source
 Volume (mL): 5
 Extra Volume (mL): 0
 Flow Rate (mL/min): 5
 Air Gap Volume (mL): 0.02
 Air Gap Flow Rate (mL/min): 0.3
 Equilibration Time (min): 0

OK Cancel

一般情况下的填写如左图所示，若选择 **Transfer Port (S5/6)** 则如下图所示

Source Properties

Reservoir
 Tray
 Transfer Port


Transfer Port

Zone: S5
 Well: #Source
 Transfer Port: A
 Volume (mL): 5
 Extra Volume (mL): 0
 Flow Rate (mL/min): 5
 Air Gap Volume (mL): 0.02
 Air Gap Flow Rate (mL/min): 0.3
 Equilibration Time (min): 0

Source **DEC/Air Push** Advanced Rinse Instruments

SPE Condition

DEC Properties

 Zone: DEC

Well: #Well

Volume Increment (uL): 0

Flow Rate (mL/min): 3

Equilibration Time (min): 0


SPE 215 Shake Off

SPE 215 Shake Off Delay Time (min): 0.03

Dispense Air Gap to DEC

Air Push Properties

Solenoid Syringe Valve None



OK Cancel

DEC/Air Push属性页：设置排放至何处

参数：

Zone：区域，选择事先定义的DEC区域

Well：试管号 输入#Well

Volume Increment：排放液体方式，输入0 一次性排放完毕 输入数值 每次按指定的数值进行排放 排放间隔 0.5秒

Flow Rate：过柱速度

Equilibration Time：平衡时间 即等待时间

Dispense Air Gap To Dec：是否将空气段排放到萃取柱中 一般选中为是

Air Push Properties：气体推进模式 一般选None

中间SPE215的所有选项均不选



SPE Condition

DEC Properties



Zone: DEC

Well: #Well

Volume Increment (uL): 0

Flow Rate (mL/min): 3

Equilibration Time (min): 0

 SPE 215 Shake Off

SPE 215 Shake Off Delay Time (min): 0.03

 Dispense Air Gap to DEC

Air Push Properties

 Solenoid
 Syringe
 Valve
 None

Syringe



Volume (uL): 1000

Volume Increment (uL): 250

Air Gap Volume (uL): 20

Aspirate Flow Rate (mL/min): 5

Dispense Flow Rate (mL/min): 10

Equilibration Time (min): 0



OK

Cancel

Air Push Properties: 空气推进模式（也可作干燥用）

选择 **Syringe** 为吹空气

参数:

Volume: 吹入空气的体积

Volume Increment: 增量的方式排放空气

Air Gap Volume: 空气段体积

Aspirate Flow Rate: 吸空气的流速


Dispense Flow Rate: 排空气的速度

Equilibration Time: 平衡时间 即等待时间

Source DEC/Air Push Advanced Rinse Instruments

SPE Condition

DEC Properties

 Zone:

Well:

Volume Increment (uL):

Flow Rate (mL/min):

Equilibration Time (min):

SPE 215 Shake Off


SPE 215 Shake Off Delay Time (min):

Dispense Air Gap to DEC

Air Push Properties

Solenoid Syringe Valve None

Valve

 Probe to Valve Volume (uL):

Probe to Valve Flow Rate (mL/min):

Air Flush Time (min):

Air Push Time (min):

Equilibration Time (min):

选择Valve 为氮吹，只作推进用不选，可做干燥使用

参数：

Probe to Valve Volume: 针到406六通阀的体积 **使用时改为9**

Probe to Valve Flow Rate: 吸上面液体的流速 **使用默认值10**

Air Flush Time: 预吹时间 用作干燥管路，避免水分进入小柱，**一般设定为1min**

Air Push Time: 氮吹的时间，用户可根据需要自行设定

Equilibration Time: 平衡时间 即等待时间

Source | DEC/Air Push | **Advanced** | Rinse | Instruments

SPE Condition

Advanced Source Properties

Liquid Level Following
 Liquid Level Detection

Sensitivity:

Z Option:

Z Offset (mm):

Lower Speed (mm/sec):

Raise Speed (mm/sec):


Advanced DEC Properties

Z Option:

Z Offset (mm):

Lower Speed (mm/sec):

Raise Speed (mm/sec):



OK Cancel


Advanced属性页：高级设置 此页只需要设定针上下移动速度

Lower Speed/ Raise Speed：均改为17

Source | DEC/Air Push | **Advanced** | Rinse | Instruments

SPE Condition

Inside Rinse Properties

 Zone:


Volume (mL):

Flow Rate (mL/min):

Z Option:

Z Offset (mm):

Outside Rinse Properties

 Zone:

Volume (mL):


Flow Rate (mL/min):

Z Option:

Z Offset (mm):

GX Rinse Pump:

GX Rinse Pump Speed:



OK Cancel

Rinse属性页： 洗针参数

所有洗针体积一般默认，可酌情考虑增加

图示中方框处记得更改为Tube Bottom, Z Offset改为2

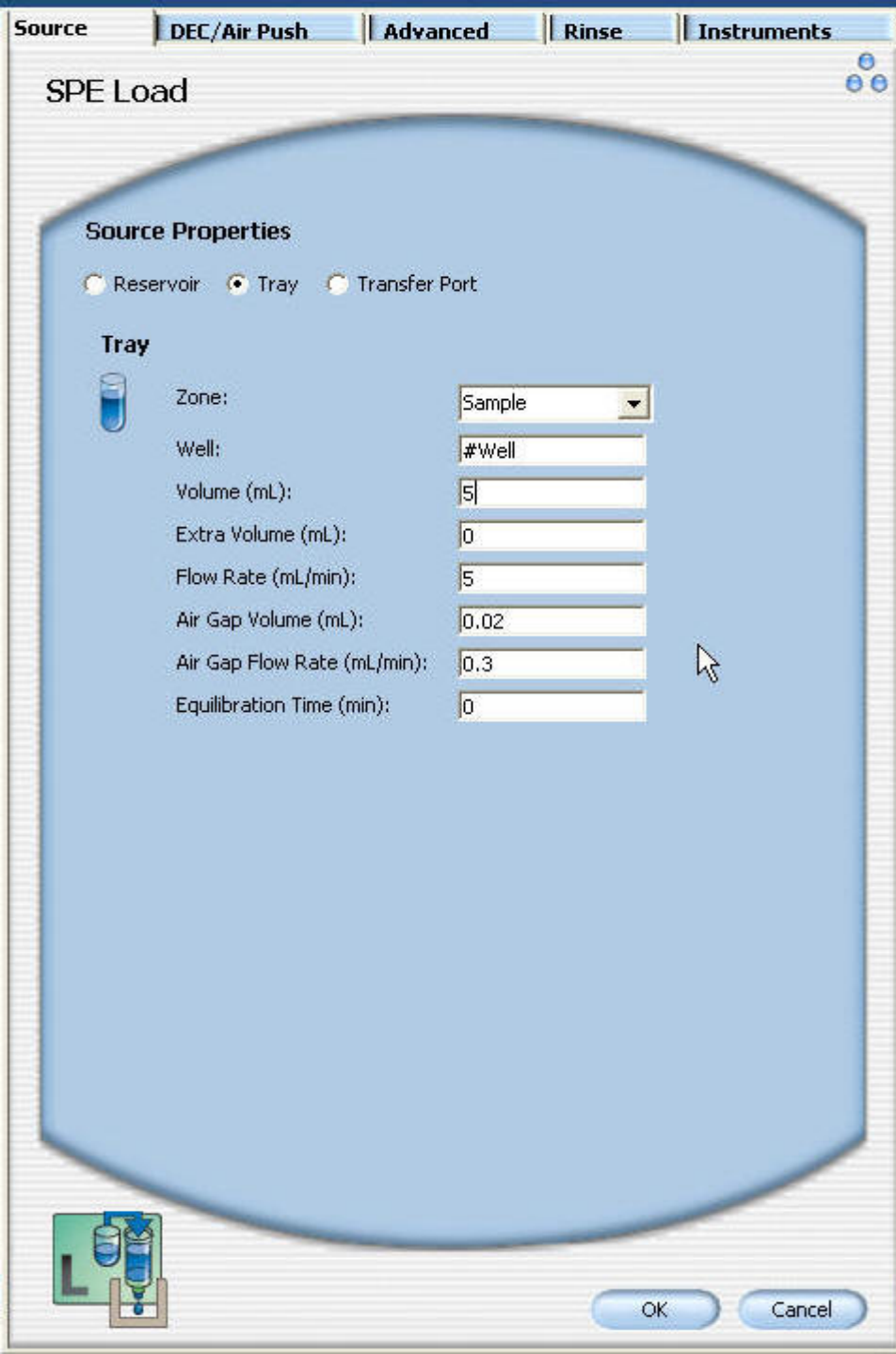
到此SPE Condition编辑结束

与Condition相同，鼠标左键点住
SPE Load
SPE Wash
SPE Elute，将其拖入右面的大框中
此三步的设定与SPE Condition大体相同，
如需要多步活化可多次拖动或复制粘贴相
同的步骤进行设置

另需注意，SPE Load的设置如右图所示，
Zone选择样品Sample，而Well要输入#Well

所有与样品Sample、
DEC3mL/6mL、Collect3mL/6mL
这些Zone相关的Well均写入
#Well

其他的Zone相关的Well写入
#Source



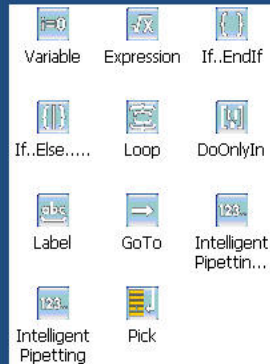
主要的四步编辑完成之后将Move Mobile Rack拖出，如图所选，注意
DEC3mL/6mL

Method Builder - Untitled

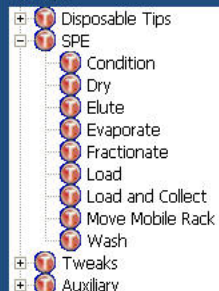
Methods

Methods

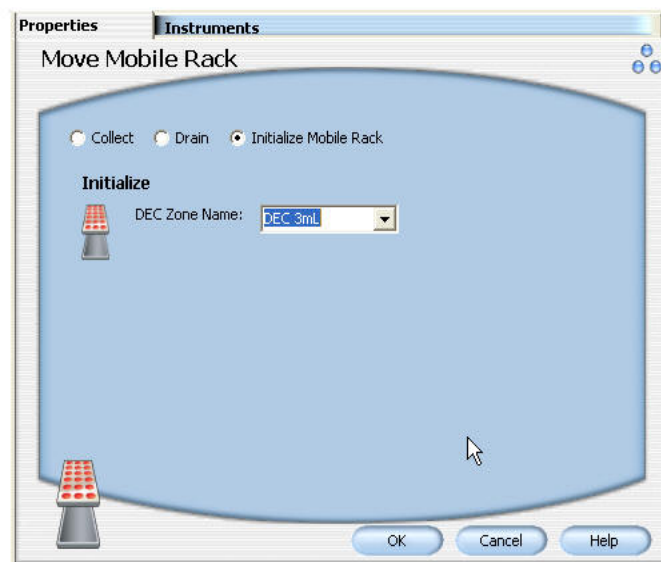
Operators



Tasks



Configuration Bed Layout Method Error Handling



New Open Save Save As Modify

Delete Export Import Refresh Print

Current User : Administrator

再将Move to拖出，选择Home

Method Builder - Untitled

Configuration Bed Layout Method Error Handling

Methods

- Methods

Operators

- Variable
- Expression
- If..EndIf
- If..Else.....
- Loop
- DoOnlyIn
- Label
- GoTo
- Intelligent Pipettin...
- Intelligent Pipetting
- Pick

Tasks

- Disposable Tips
- SPE
- Tweaks
 - Aspirate
 - Aspirate with Tips
 - Deliver
 - Deliver with Tips
 - Move To
 - Move To Zone
 - SS Aspirate
 - SS Deliver
- Auxiliary
- Custom

SPE Condition → SPE Load → SPE Wash → SPE Elute → Move Mobile Rack

Properties Instruments

Move To

Move To

Top
 Home
 XY Coordinates
 Z Coordinate

OK Cancel Help

Current User : Administrator

start TRILUTION LH Menu Method Builder - Unti... TaskPropertyPage 2:15 PM

到此Method Builder完成，点选Save As，输入方法的名字并命名硬件名称和管架名称，再编新方法的时候可直接调用保存过的硬件和管架名或修改后另存即可

Method Builder - Test

Configuration Bed Layout Method Error Handling

Methods

Operators

Tasks

Save Method As

Folder: Methods

Name	Version	Created By
Large Volume	3	Administrator
Large Volume Test	3	Administrator
Rinse MPE	1	Administrator
Rinse System	1	Administrator
Test	1	Administrator

Name: Test

Configuration Name: ASPEC Set as Default

Bed Layout Name: ASPEC

Error Name: Set as Default

Description:

OK Cancel

Current User : Administrator
Method : Test
Configuration : ASPEC
Bed Layout : ASPEC
Created Date : 8/25/2009 11:17:20 AM
Created By : Administrator

start | New Folder | TRILUTION LH Menu | Method Builder - Test | Save Method As | 2:20 PM

点击Application进入应用界面



在Bed Layout中选择编辑好的管架，之后在Method Name中可以选择在此管架基础上的方法，方法后面出现的两个变量中#Source和#Well即为Method中的变量。

注意：#Source永远都填1-4（可在小键盘上输入）；#Well中由于是四根针同时运动，必须填4的倍数，即1-4， 5-8， 9-12， 13-16.....以此类推。

Application - Untitled, Current User : Administrator

Application Manual Control

Applications

Sample List Run Name Bed Layout ASPEC

	Method Name	Mode	Sample Description	#Source	#Well
1	Test	S	Sample Description	1-4	1-4
2		S	Sample Description	0	0
3		S	Sample Description	0	0
4		S	Sample Description	0	0
5		S	Sample Description	0	0
6		S	Sample Description	0	0
7		S	Sample Description	0	0
8		S	Sample Description	0	0
9		S	Sample Description	0	0
10		S	Sample Description	0	0

Bed Layout View Simulation

Zone : Source Zone Seq. Single Seq. Multiple Batch Scale Factor : Auto Scale

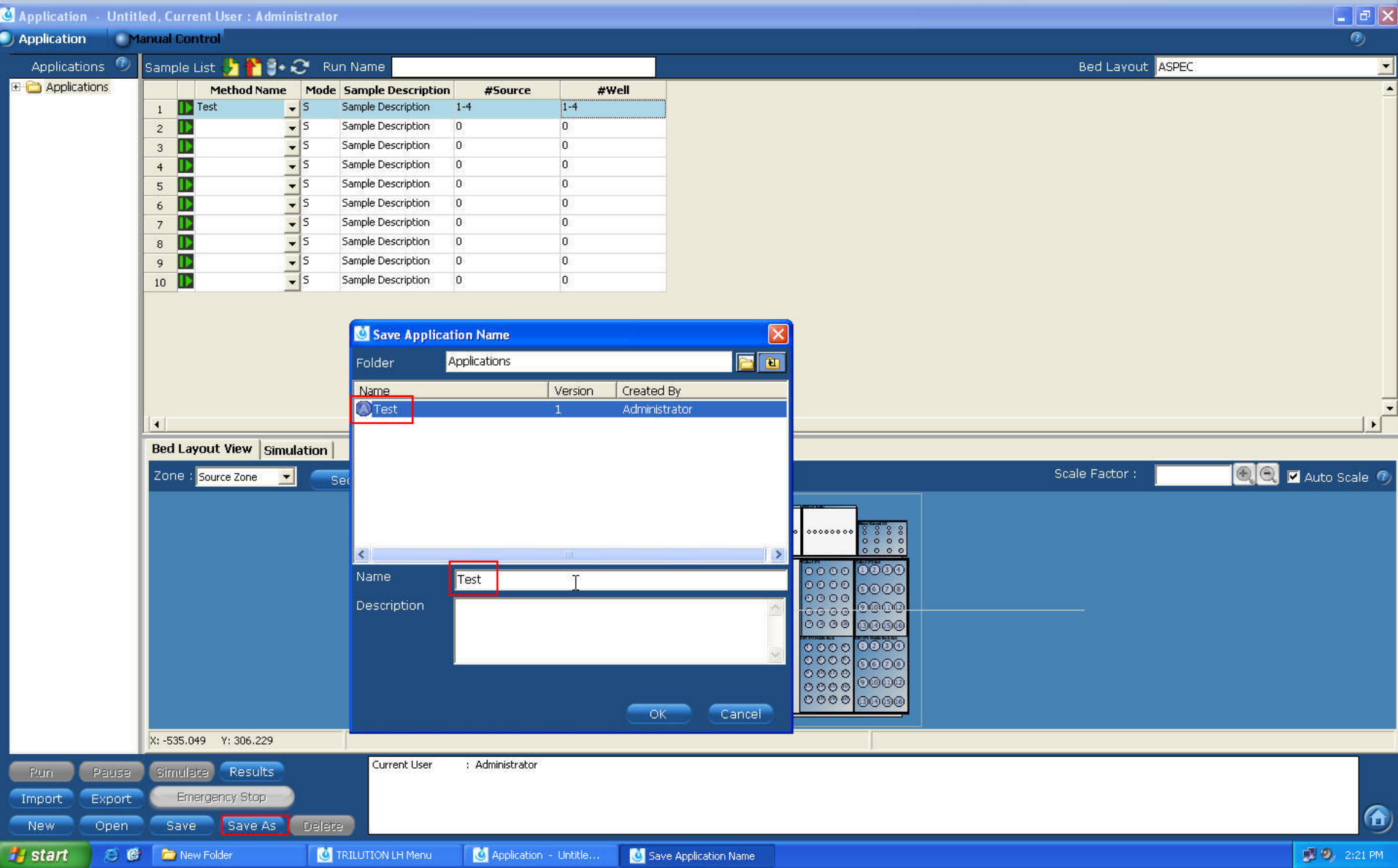
X: -39.933 Y: -44.72

Current User : Administrator

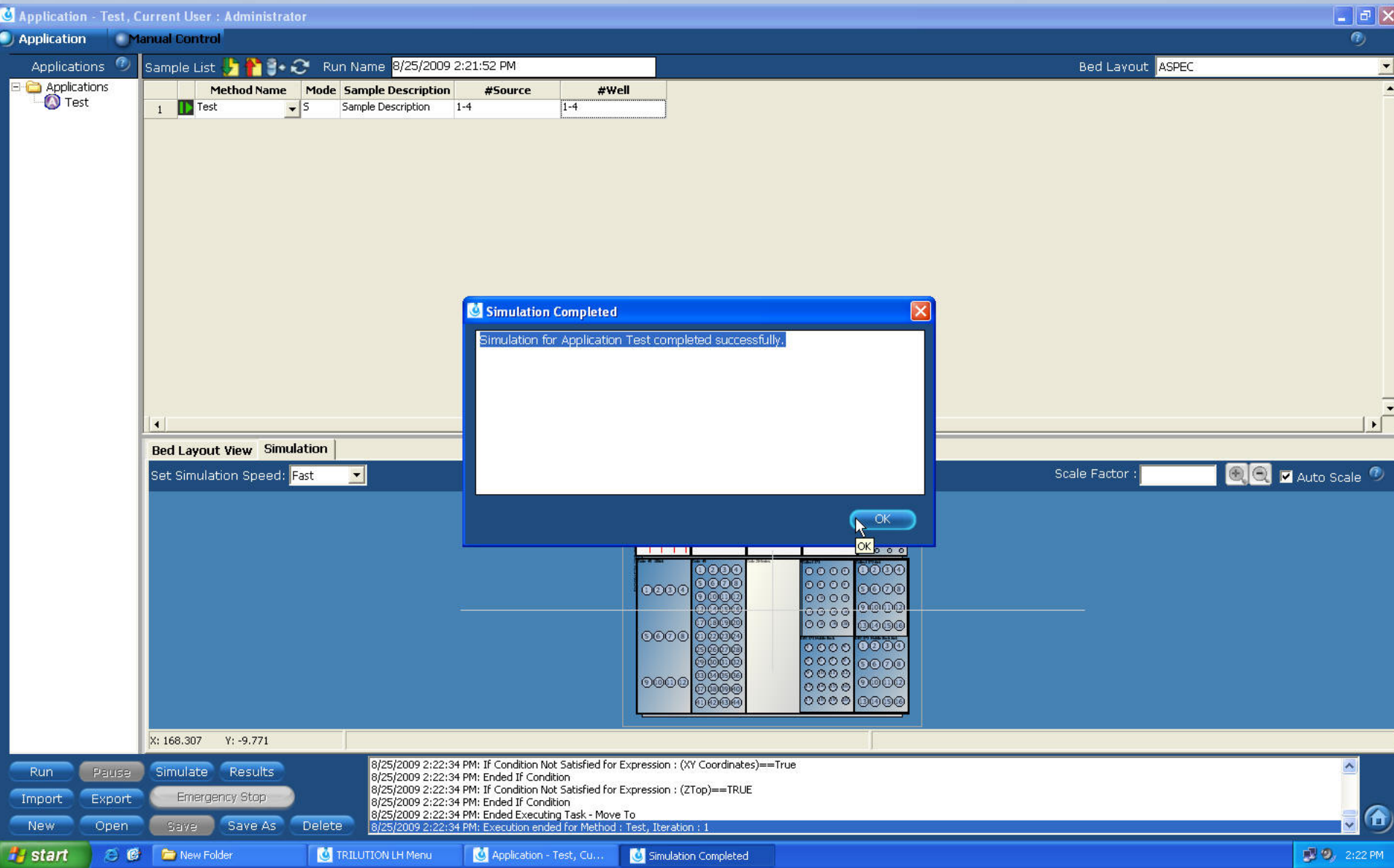
Run Pause Simulate Results Import Export Emergency Stop New Open Save Save As Delete

start TRILUTION LH Menu Application - Untile... 2:20 PM

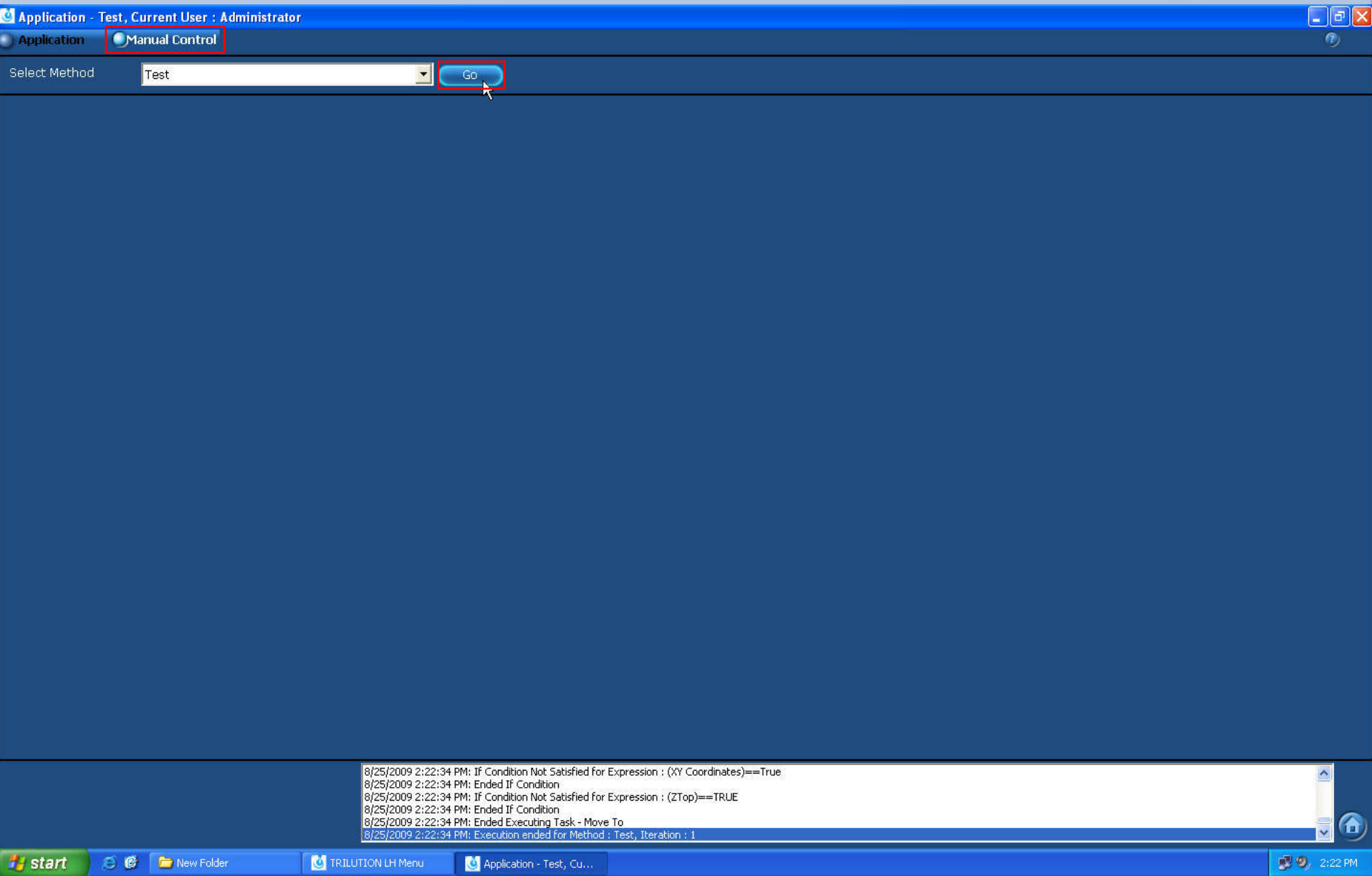
之后点Save As, 在弹出的界面中输入此应用的名字, 以后如果仍旧用同样的方法做同样的几号样品便可以调用此应用而不必重新编方法了, 应用的名字一般也建议取与方法相同的名字



最后点**Simulate**（模拟运行）对所编辑的方法和应用进行模拟运行，如弹出下图中 Simulation Completed的界面表明方法正确，可直接点击Run运行；若出现ERROR的信息窗口则到Method中找出错，误修改后再次Simulate，直到成功后才能RUN，否则容易损坏仪器



正式运行之前如图点击Manual Control，再点Go，此步骤是为了在运行之前确定软硬件是否连接正常



此图为连接正常并初始化硬件

Select Method:

GX-274 ASPEC without Pump



Liquid Handler

Zone:
Well:
Z Offset (mm):

X (mm):
Y (mm):
Z (mm):

Output Contacts

1 2

24V Output Contacts

1 2

Input Contacts

A B

Solenoids

1 2

406 Pump Dual



Pump(1)

Active Syringes

Left Syringe: Right Syringe:

Prime Flow Rate (mL/min):

Initializing Instruments.

406 Pump Dual



Pump(2)

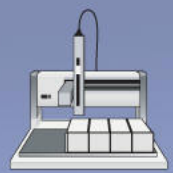
Active Syringes

Left Syringe: Right Syringe:

Prime Flow Rate (mL/min):

初始化结束之后的图示，这里也可以单独控制机械臂、注射泵及开关其他已联机设备，此处为调试仪器时使用。初始化结束后就可以回到Application页面点击Run开始运行程序

GX-274 ASPEC without Pump



Liquid Handler

Zone: Source Zone

Well: 1

Z Offset (mm): 2

X (mm): 0.0

Y (mm): 0.0

Z (mm): 0.0

Output Contacts

1 **开关大水样蠕动泵**

24V Output Contacts

1 **开关大水样切换阀**


Input Contacts

A B

Solenoids

1 2

406 Pump Dual



Pump(1)

Active Syringes

Left Syringe Right Syringe

Prime Flow Rate (mL/min): 10

406 Pump Dual



Pump(2)

Active Syringes

Left Syringe Right Syringe

Prime Flow Rate (mL/min): 10