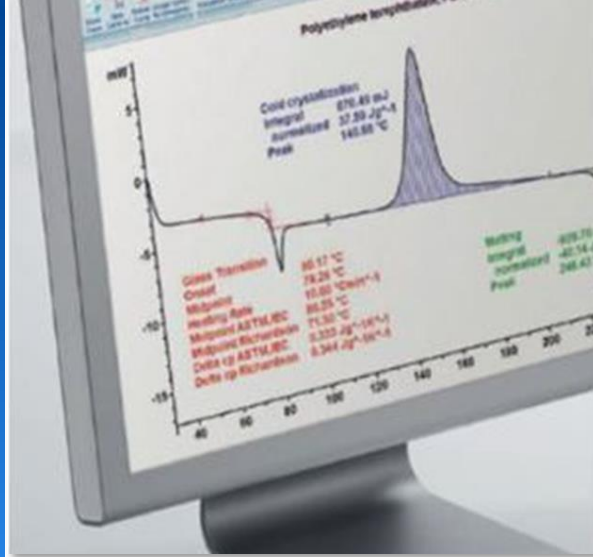


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Swiss Quality

[Click to watch the video](#)

## DSC Routine 中文操作

METTLER TOLEDO

**1** **Star**

**2** **Main Bar**

**3** **Method editor**

**4** **Experiment Editor**

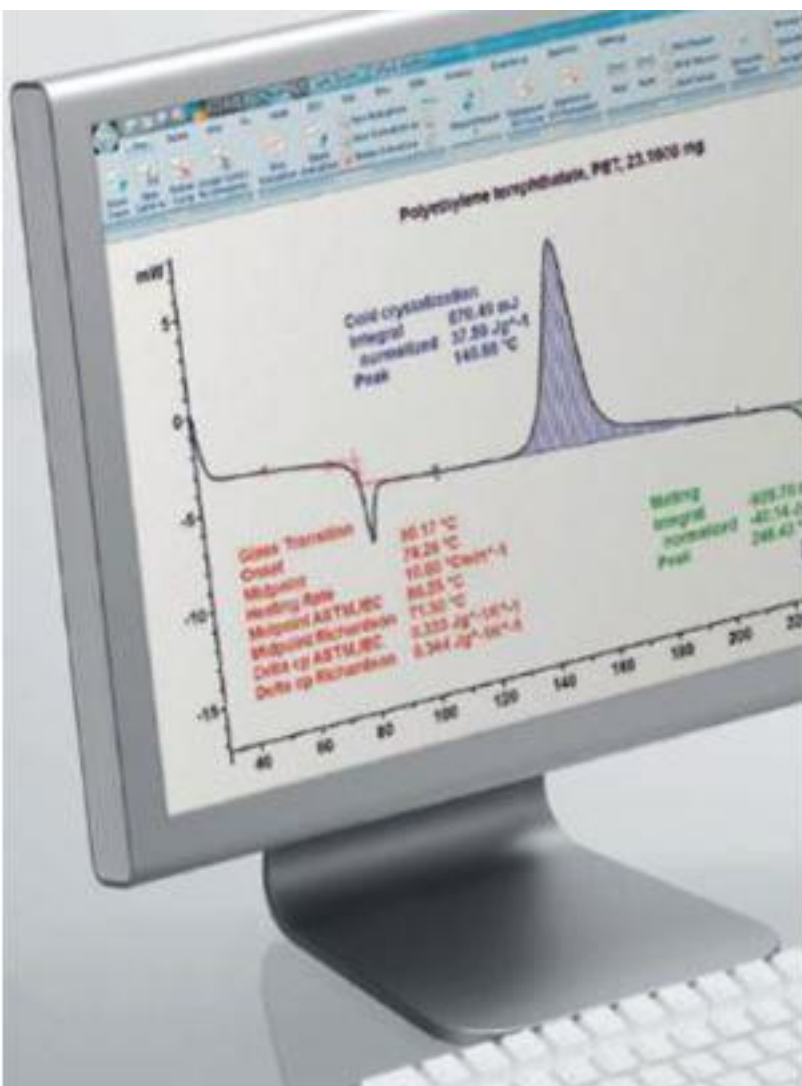
**5** **Module Control Window**

**6**

**7**

**8**

**9**



- Innovative Technology
- Versatile Modularity
- Swiss Quality

[Click to watch the video](#)



STARe User Authentication: STARe Default DB V1... X

User Name	<input type="text"/>	OK
Password	<input type="password"/>	Cancel
<input type="button" value="Change Password..."/>		

**1** Star

**2** Main Bar

**3** Method editor

**4** Experiment Editor

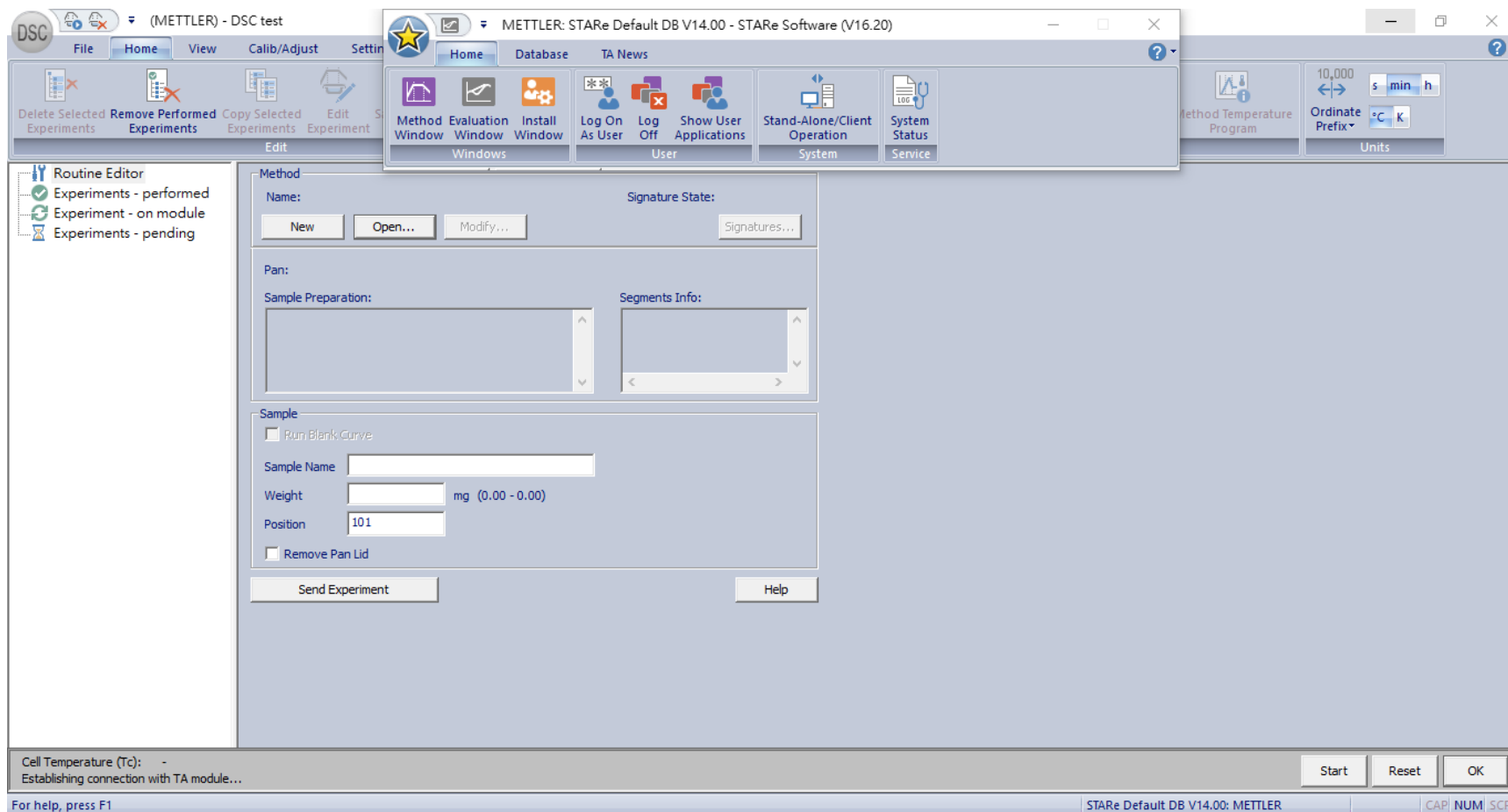
**5** Module Control Window

**6**

**7**

**8**

**9**





STAR® Software



Install Window



Module Control Window



Experiment Window



Evaluation Window



Method Window



Balance Control Window

The screenshot displays the METTLER DSC 3/500 ID1 software interface. The main window is titled "(METTLER) - DSC 3/500 ID1" and features a menu bar (File, Home, View, Calib/Adjust, Settings, Service) and a toolbar with various icons for file operations, editing, and viewing. The interface is divided into several sections:

- Left Panel:** Contains a tree view with "Routine Editor" and "One Click" options, and a list of experiments: "PET 12", "Experiments - performed", "Experiment - on module", and "Experiments - pending".
- Method Editor (Center):** Displays the "Method" details for "DSC 25.. 150@10". It includes fields for "Name", "Signature State" (Not signed), "Pan" (Aluminum Standard 40ul), "Sample Preparation", and "Segments Info" (dt 1.00 s, [1] 25.0..150.0 °C, 10.00 K/r, Synchronization enabled). Buttons for "New", "Open...", "Modify...", "Sign...", and "Signatures..." are present.
- Sample Editor (Bottom Left):** Includes a "Run Blank Curve" checkbox, "Sample Name" (In), "Weight" (-), "Position" (101), and a "Remove Pan Lid" checkbox. A "Send Experiment" button is also visible.
- Method Editor (Bottom Center):** A dialog box titled "DSC 25.. 150@10" showing "Dynamic Segment 1" with "Add Dyn", "Add Iso", and "Delete" buttons. It includes input fields for "Start Temperature" (25 °C), "End Temperature" (150 °C), and "Heating Rate" (10 °C/min). A "Segment Gas" dropdown is set to "Air, 0 ml/min". There are also "Save", "Save As...", "Cancel", and "Print" buttons.
- Status Bar (Bottom):** Shows "Cell Temperature (Tc): 25.1 °C" and "Power save". A note at the bottom left says "For help, press F1".

Red arrows point to the following components:

- Module Control Window:** Points to the top toolbar area.
- Experiment editor:** Points to the "Method" section in the center.
- Method editor:** Points to the "Dynamic Segment 1" dialog box.



**1** Star

**2** Main Bar

**3** Method editor

**4** Experiment Editor

**5** Module Control Window

**6**

**7**

**8**

**9**

Method

Name: :Screen DSC Air, 25...300/10      Signature State:

New    Open...    Modify...    Signatures...

Pan: Aluminum Standard 40ul

Sample Preparation:

Pierce lid of Al pan before sealing!  
Lochen Sie den Tiegeldeckel vor dem Verschiessen!  
Perçer le couvercle avant de le sceller!

Segments Info:

Released  
dt 1.00 s  
[1] 25.0..300.0 °C, 10.00 K/r  
Synchronization enabled

Sample

☐ Run Blank Curve

Sample Name

Weight 0.0000 mg (0.00 - 1000.00)

Position 101

☐ Remove Pan Lid

Send Experiment    Help

DSC -60~300~-60 cycle4@10 N2 40

Dynamic Segment 10 Add Dyn Add Iso Delete

Start Temperature  °C Segment Gas N2, 40 ml/min

End Temperature  °C

Heating Rate  °C/min

Sample Preparation

☐ Subtract Blank Curve

Miscellaneous... Pan... Aluminum Standard 40ul

Save Save As ... Cancel Print Help

Miscellaneous Method Options

Sampling Interval  s

Minimum Sample Size  mg

Maximum Sample Size  mg

Air: 0 ml/min, 0 min

☐ Remove Pan Lid

# Method editor :

Dynamic Segment 10 Add Dyn Add Iso Delete

Start Temperature  °C Segment Gas N2, 40 ml/min

End Temperature  °C

Heating Rate  °C/min

Sample Preparation

☐ Subtract Blank Curve

Miscellaneous... Pan... Aluminum Standard 40ul

Save Save As ... Cancel Print Help

Gas

Filter

Name  ☒ Match Case Apply

Air  
Ar  
CO2  
H2-4%/Ar-96%  
He  
N2  
O2

Flow  ml/min

OK Cancel Help

Isotherm Segment 2 Add Dyn Add Iso Delete

End Temperature  °C Segment Gas N2, 40 ml/min

Time Iso  min

Sample Preparation

☐ Subtract Blank Curve

Miscellaneous... Pan... Aluminum Standard 40ul

Save Save As ... Cancel Print Help

**Method**

Name: DSC -60~300~-60 cycle3@10 N2 40      Signature State:

---

Pan: Aluminum Standard 40ul

Sample Preparation:

-60~300温度 cycle 3 times

Segments Info:

Released  
dt 1.00 s  
[ 1] -70.0..300.0 °C, 10.00 K  
[ 2] 300.0 °C, 37.00 min, N2

---

**Sample**

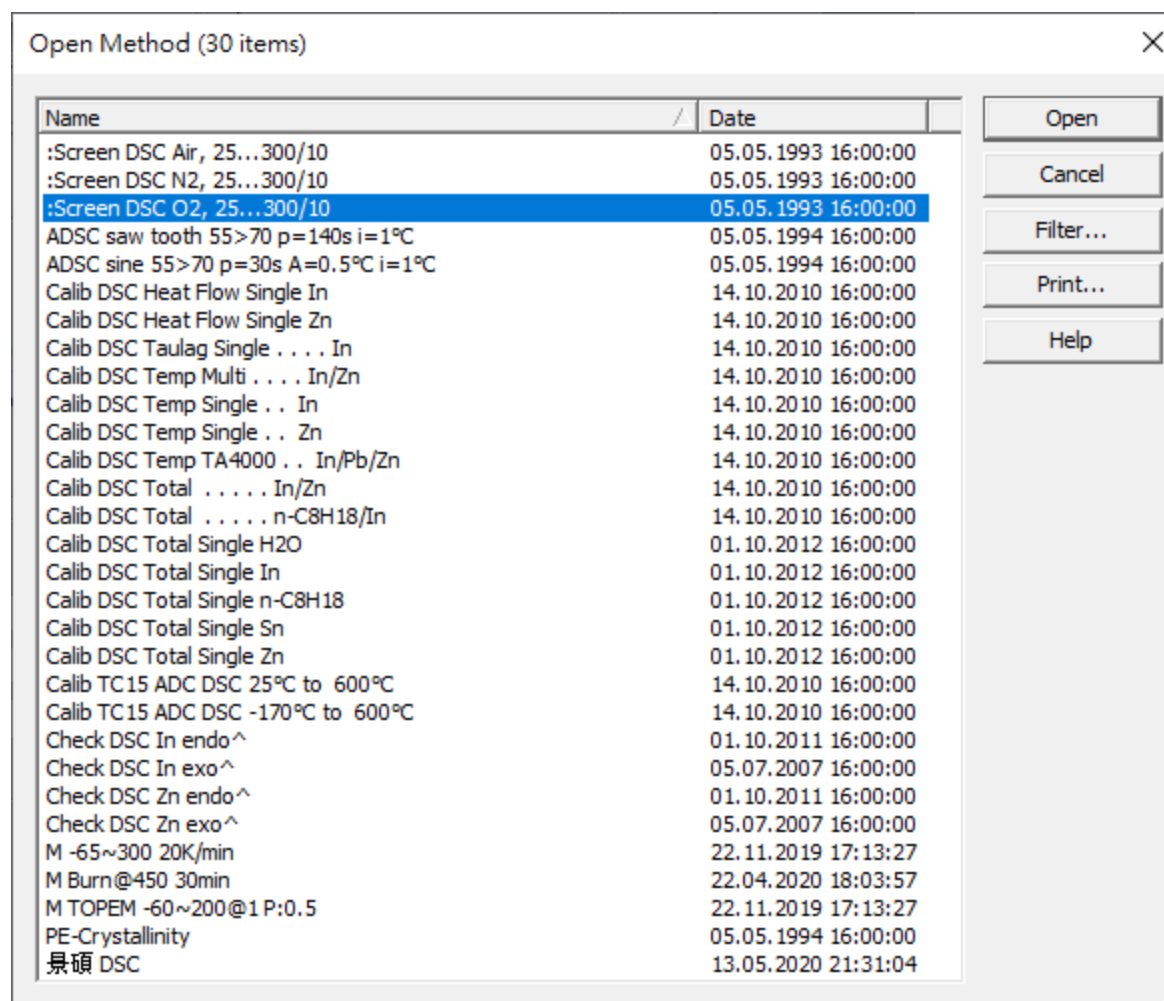
☐ Run Blank Curve

Sample Name

Weight  mg (0.00 - 10.00)

Position

☐ Remove Pan Lid



Method Filter

Method Name:

Date: From  To

TA Technique:

User:  ☒ Enabled Only

Method Group:

☒ Activated Only ☐ Deactivated Only ☐ All

☐ Calib./Adjust. Methods Only

Category:

Defaults ☐ Show Number of Experiments ☒ Match Case

OK Cancel Help

Open Method (4 items)

Name	Date
Check DSC In endo^	01.10.2011 16:00:00
Check DSC In exo^	05.07.2007 16:00:00
Check DSC Zn endo^	01.10.2011 16:00:00
Check DSC Zn exo^	05.07.2007 16:00:00

Open Cancel Filter... Print... Help



**1** Star

**2** Main Bar

**3** Method editor

**4** Experiment Editor

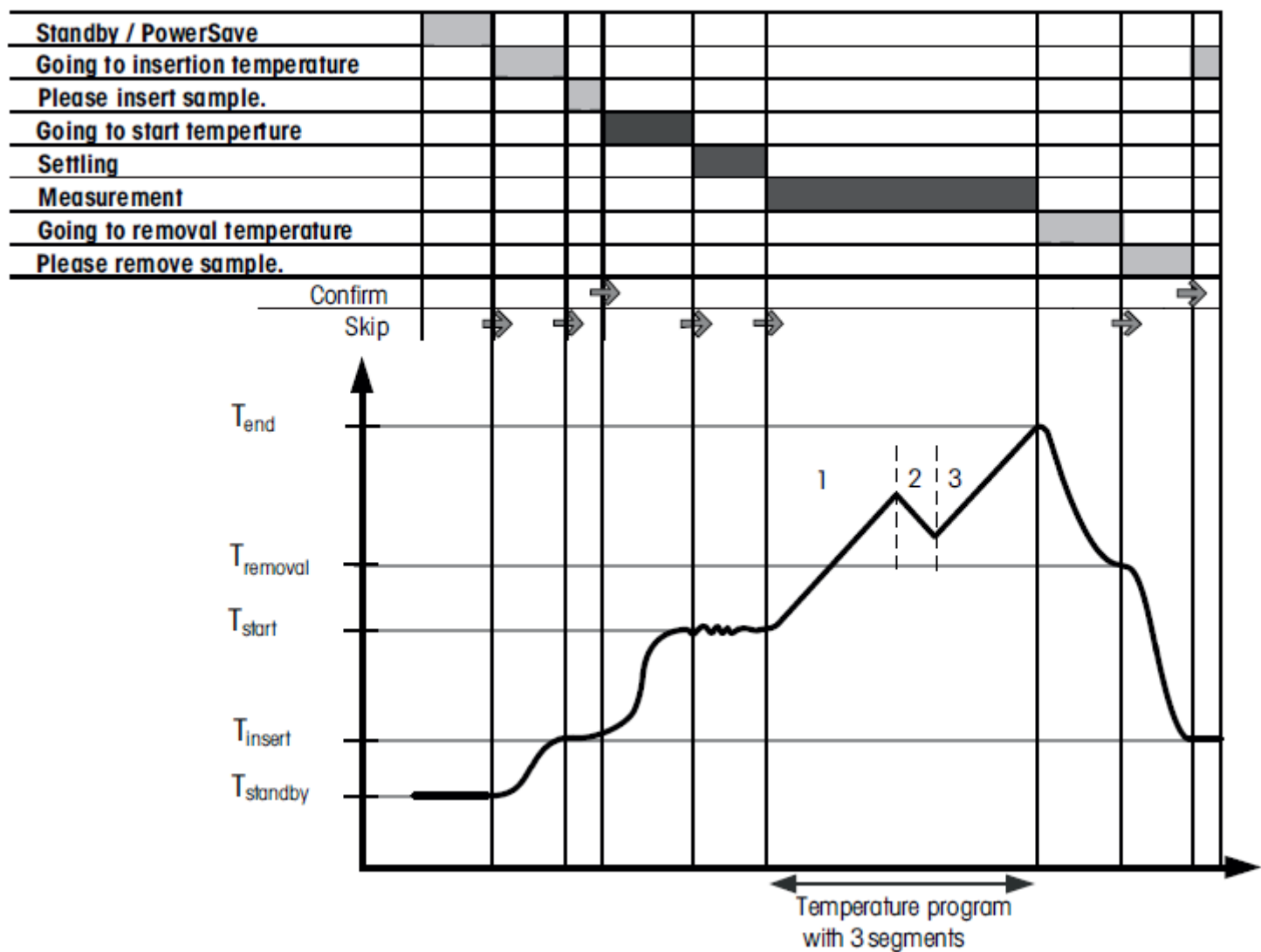
**5** Module Control Window

**6**

**7**

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**9**



Experiment stage	Comment	Display
<b>Standby/ PowerSave</b>	State of the measuring cell is in the operating state defined by the end behavior after the previous experiment <ul style="list-style-type: none"> <li>• <b>Standby:</b> The measuring cell is at standby temperature.</li> <li>• <b>PowerSave:</b> The furnace is switched off.</li> </ul>	Green
<b>Going to insertion temperature</b>		Green
<b>Waiting for sample insertion</b>	Must be confirmed.	Green
<b>Going to start temperature</b>		Red
Experiment stage	Comment	Display
<b>Settling</b>	The TA module settles the start temperature before the measurement.	Red
<b>Measurement</b>	This is the actual measurement stage.	Red
<b>Going to removal temperature</b>		Green
<b>Waiting for sample removal</b>	Must be confirmed.	Green



### Temperature symbols

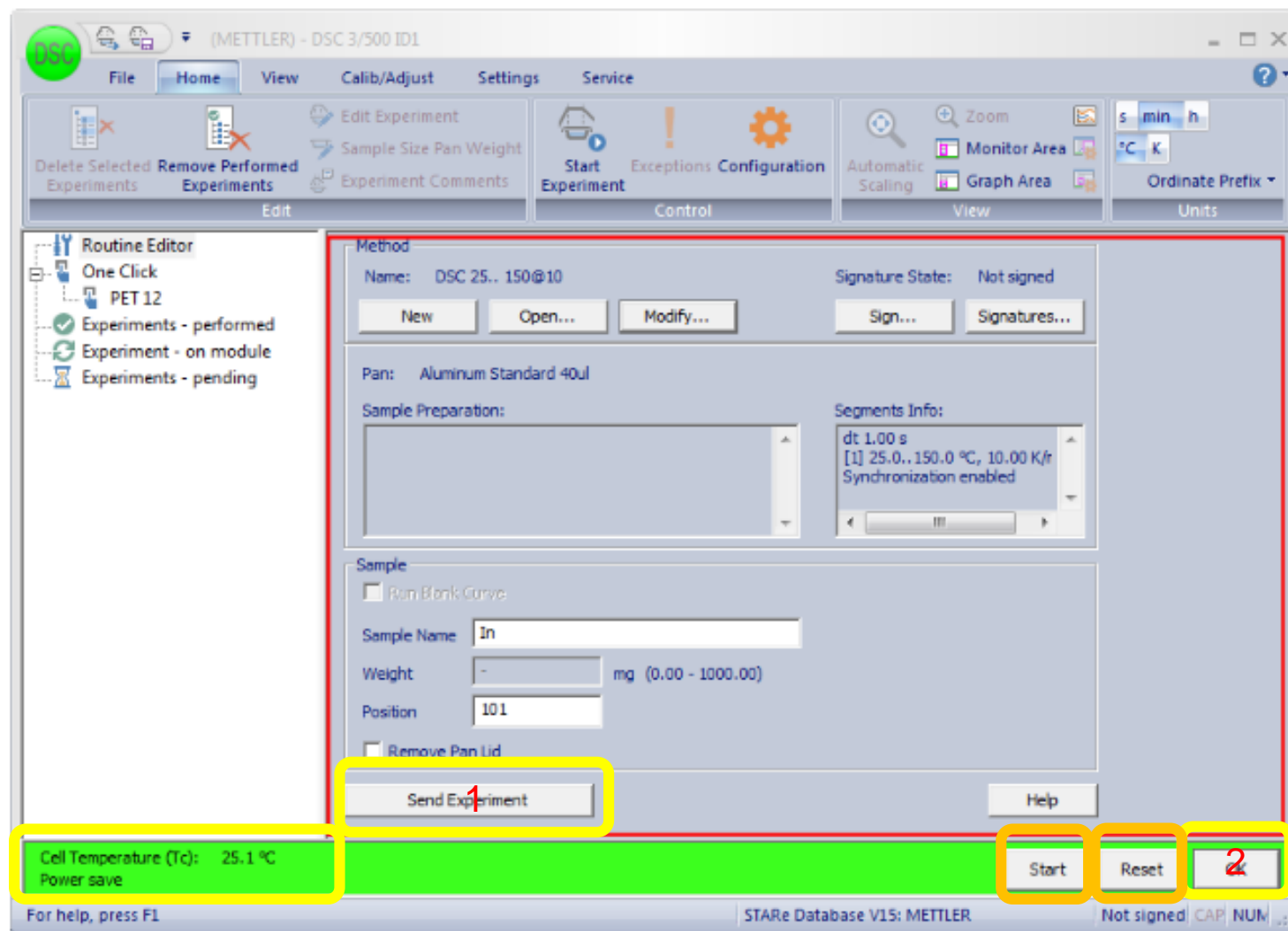
$T_{\text{standby}}$	Standby temperature *
$T_{\text{end}}$	End temperature of temperature program **
$T_{\text{removal}}$	Removal temperature **
$T_{\text{start}}$	Start temperature **
$T_{\text{insert}}$	Insertion temperature **

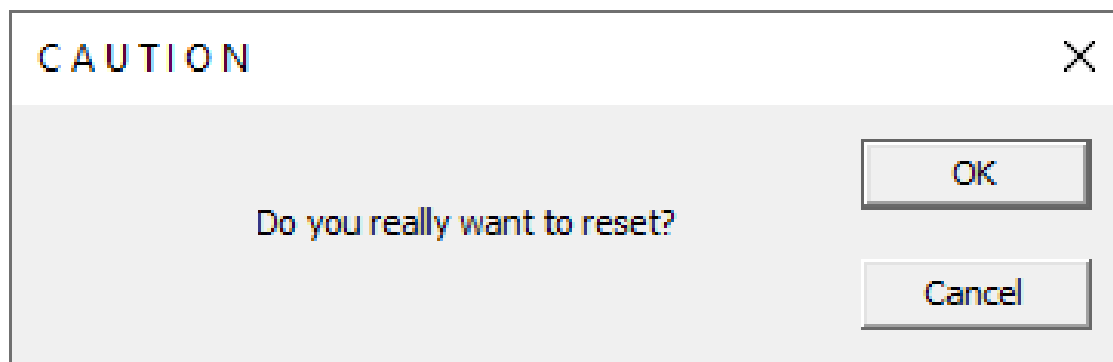
\* Is defined in the module dataset of the STAR® Software.

\*\* Is defined in the method.

顯示情形	操作狀況
綠色，持續亮	待機狀況
綠色，閃爍	等待放入樣品 等待夾出樣品
紅色，持續亮	測量
紅色，閃爍	錯誤 或 警告







1. **Send Experiment**
2. 當爐體抵達到達**Insert Temperature**(放入樣品溫度)到達後，視窗會自動出現提示，即可放入樣品。
3. 在藍色**DSC**感測器上左邊位置(**S**)放置樣品坩堝右邊位置(**R**)放置參比空坩堝
4. 按**OK**確認後，實驗自動執行
5. 實驗完成後，按視窗指示取出樣品後按**OK** 鍵確認後可進行下一個實驗
6. 實驗過程中，使用者可以在儀器控制視窗中，監視實驗及時曲線。
  - 實驗執行過程中，如有必要時可以隨時終止實驗。單擊儀器控制視窗中的**RESET**按鈕，會自動跳出對話視窗再次確認，按**OK**再確認
  - 如果實驗是被**Reset**，終止的則進行下一個實驗時，須單擊功能表單**Start** 控制/開始實驗。
  - 進行中的實驗被終止，儀器恢復到測試前狀態。
  - 被終止的實驗中，已完成的測試曲線實驗圖形仍被儲存

**1** Star

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**5** Module Control Window

**6**

**7**

**8**

**9**



One Click

Experiments - performed

Experiment - on module

2020 0930 (METTLER)

Experiments - pending

Blank\_DSC1 (METTLER)

Blank\_DSC2 (METTLER)

Blank\_DSC3 (METTLER)

Experiment2020 0930

Method30-1400@10 Ar40

Sample2020 0930

Customer

Progress

Details

Segment No1

Heating Rate10.00 °C/min

Sample Weight2.84 mg

Remaining time at least

Segment2:11:55 h

Experiment2:11:55 h

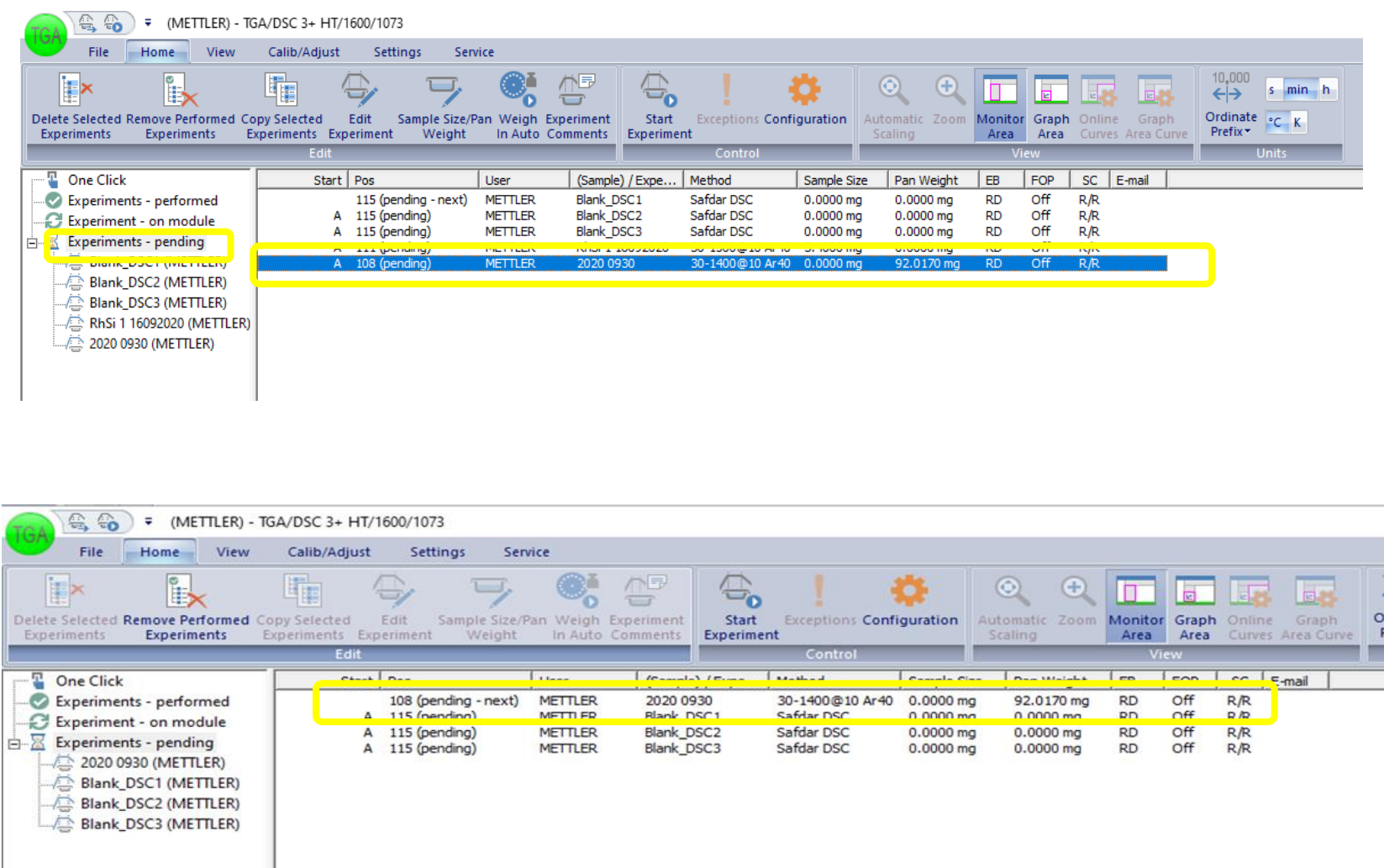
All Experiments16:32:55 h

Weight in mg

3.5

3.0

2.5



# Module Control Window

(METTLER) - TGA/DSC 3+ HT/1600/1073

File

Home

View

Calib/Adjust

Settings

Service

Delete Selected Experiments

Remove Performed Experiments

Copy Selected Experiments

Edit Experiment

Sample Size/Pan Weight

Weigh In Auto

Experiment Comments

Start Experiment

Exceptions

Configuration

Automatic Scaling

Zoom

Monitor Area

Graph Area

Online Curves

Graph Area Curve

One Click

Experiments - performed

Experiment - on module

Experiments - pending

2020 0930 (METTLER)

Blank\_DSC1 (METTLER)

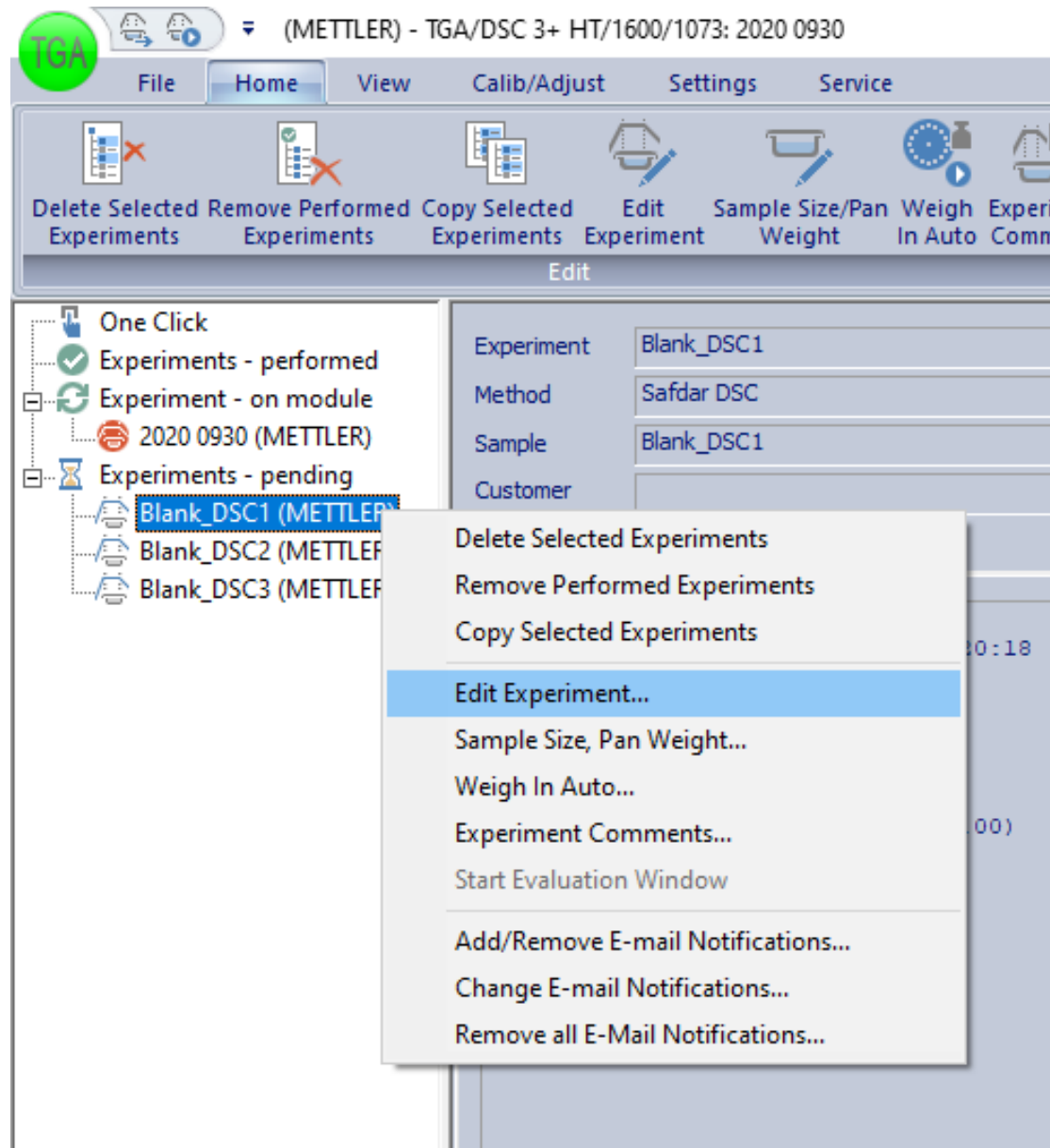
Blank\_DSC2 (METTLER)

Blank\_DSC3 (METTLER)

Start	Pos	User	(Sample) / Expe...	Method	Sample Size	Pan Weight	EB	FOP	SC	E-mail
	108 (pending - next)	METTLER	2020 0930	30-1400@10 Ar40	0.0000 mg	92.0170 mg	RD	Off	R/R	
A	115 (pending)	METTLER	Blank_DSC1	Safdar DSC	0.0000 mg	0.0000 mg	RD	Off	R/R	
A	115 (pending)	METTLER	Blank_DSC2	Safdar DSC	0.0000 mg	0.0000 mg	RD	Off	R/R	
A	115 (pending)	METTLER	Blank_DSC3	Safdar DSC	0.0000 mg	0.0000 mg	RD	Off	R/R	

# Module Control Window

METTLER TOLEDO



Edit Experiment

Position

115

OK

Cancel

Help

End Behavior (EB)

☒ Ready to Run (RD)

☐ Standby (SB)

☐ Power Save (PS)

Furnace Open Permission

☐

Insert Sample

Default

Remove Sample

Default

Start

Default

Sample

Blank\_DSC1

Sample Size, Pan Weight

Position

115

OK

Cancel

Help

Sample Size

0.0000

mg

☐ First Measurement Value

Pan Weight

0.0000

mg

☒ Stabilize temperature for weighing in

Stabilize at

30

°C

☒ Insert temperature

Bandwidth (+/-)

1

K

Duration

30

s

Timeout

90

s

☒ With gas flow of first segment

**Weigh In Auto**

Position

☒ Sample

☐ Pan

Click OK to start weighing in

☐ Start experiment automatically after weighing in

☒ Stabilize temperature for weighing in

Stabilize at  °C

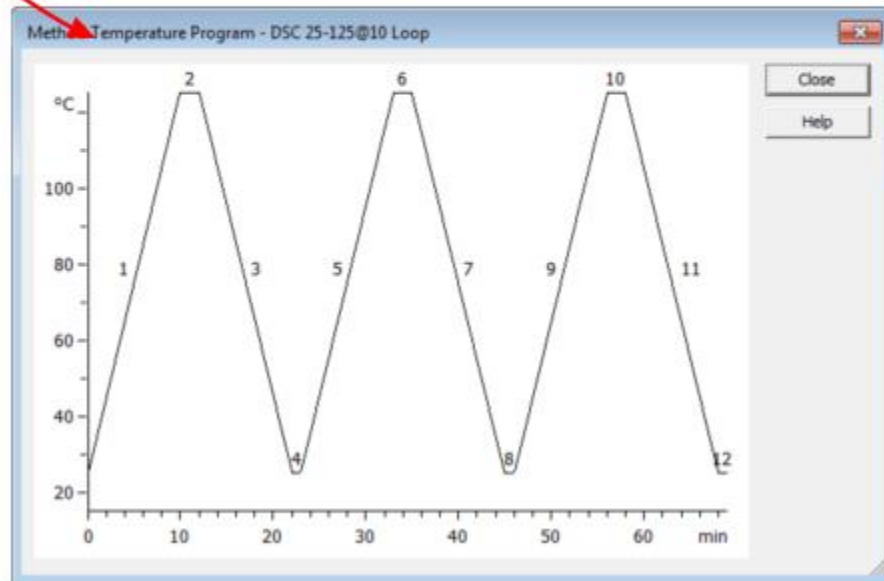
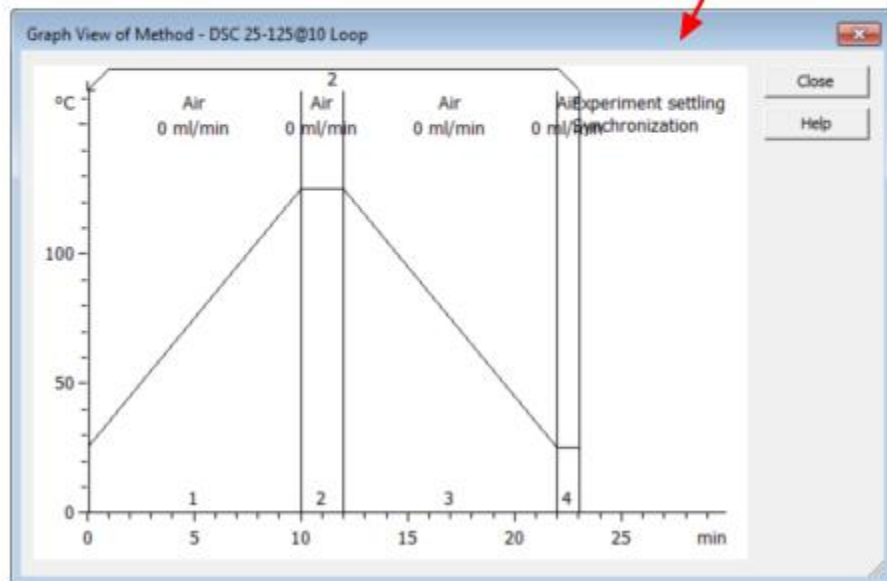
☒ Insert temperature

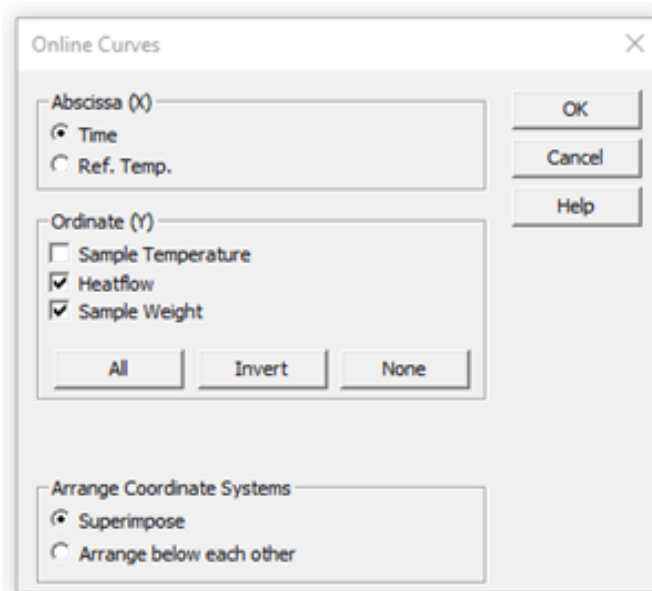
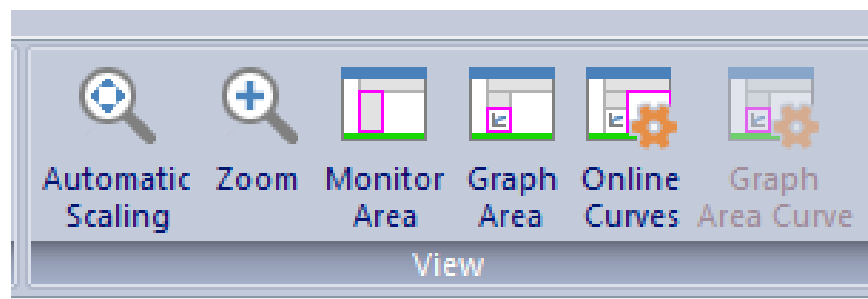
Bandwidth (+/-)  K

Duration  s

Timeout  s

☒ With gas flow of first segment







# Thank You



**METTLER TOLEDO**