# iCycler iQ™ Quick Guide
Protocol
in Library and Workshop Modules

View Protocol

1. Click on the **View Protocol** tab in the **Library** module to view saved protocols.

2. Click on desired protocol under **Protocol Files** to display the selected protocol.

3. Click **Run with selected plate setup** to use this protocol and plate setup for an experimental run.

4. Click **Print this protocol** to print the protocol.
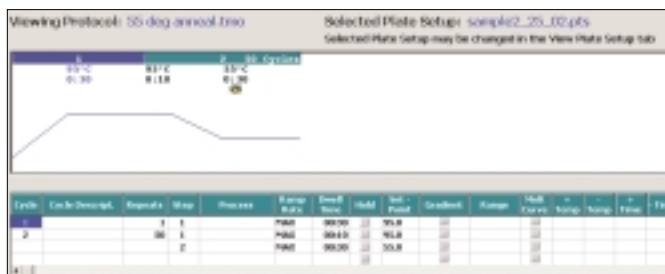
Editing and Creating a Protocol

1. Begin editing and creating a protocol in the **Workshop** module in any one of the following ways:

   • Click **Edit this protocol** in the **View Protocol** tab in the **Library** module

   • Click **Create a new protocol** in the **View Protocol** tab in the **Library** module

   • Click on the **Workshop** module, then select the **Edit Protocol** tab
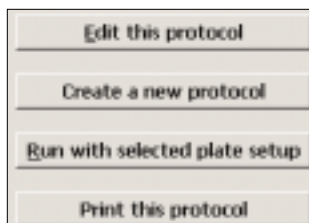
2. Click on **Insert Cycle**, **Delete Cycle**, **Insert Step**, and **Delete Step** to edit the default or selected protocol.

3. This option stays active until you indicate that you're done inserting/deleting. Deselect the option when completed.

4. Click in the spreadsheet on the **Cycle** or **Step** cell, then enter values for **Dwell Time** and **Setpoint** temperature.

Cycle	Repeats	Step	Dwell Time	Setpoint	Gradient	Range
1	1	1	03:00	95.0		
2	50	1	00:10	95.0		
		2	00:30	55.0	✔	10.0

5. Select protocol options in the **Show Options** box to display in the protocol spreadsheet, such as **Gradient** or **Melt Curve**, and enter information (see other side for more information).

6. Select data collection step(s) by double-clicking on the step designated for **REAL-TIME** data collection.

7. Enter a name in the **Protocol Filename** box and click **Save this protocol**.

8. Click **Run with selected plate setup** to run this protocol and selected plate setup.

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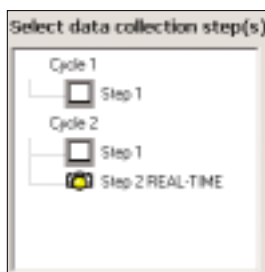
Creating a Gradient Protocol

1. Check the box for **Gradient** in the **Show Options** box. This will expand the protocol spreadsheet to include gradient columns.

2. In the protocol spreadsheet, click the **Gradient** checkbox at the step you want to begin the temperature gradient.

3. In the protocol spreadsheet, type in the **Setpoint** temperature (coolest temperature) and the temperature **Range** for the thermal gradient. The default range is 10°C.

Cycle	Repeats	Step	Dwell Time	Setpoint	Gradient	Range
1	1	1	03:00	95.0	☐	
2	50	1	00:10	95.0	☐	
		2	00:30	55.0	✔	10.0
					☐	

4. Alternatively, you may type in a temperature in a selected row in the gradient display box and a temperature **Range**, and the **Setpoint** temperature will be updated in the spreadsheet.

Cycle 2
Step 2

A	58.8
B	58.1
C	56.9
D	55.0
E	52.5
F	50.8
G	49.6
H	48.8

Range
10.0

Cycle	Repeats	Step	Dwell Time	Hold	Setpoint	Gradient	Range
1	1	1	03:00	☐	95.0	☐	
2	50	1	00:10	☐	95.0	☐	
		2	00:30	☐	48.8	✔	10.0
3	1	1		✔	25.0	☐	

5. Enter a name in the **Protocol Filename** box and click **Save this protocol**.
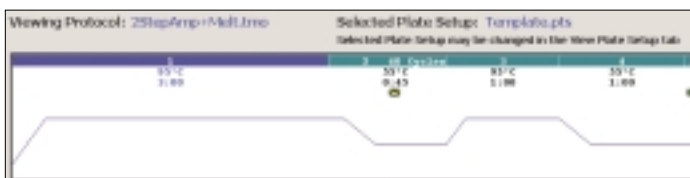
Creating a Melt-Curve Protocol

1. Click **View Protocol** in the **Library** module to view saved protocols.

2. Under **Protocol Files**, select one of the following:

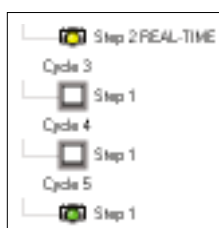   • **MeltCurve.tmo** for a melt-curve protocol only

Viewing Protocol: MeltCurve.tmo
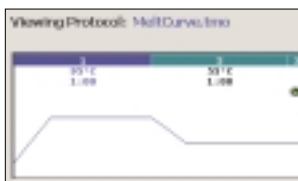
Cycle	Repeats	Step	Dwell Time	Setpoint	Melt Curve	+ Temp	- Temp
1	1	1	01:00	95.0	☐		
2	1	1	01:00	55.0	☐		
3	80	1	00:10	55.0	✔	0.5	

   • **2StepAmp+Melt.tmo** for an amplification and melt-curve protocol

Viewing Protocol: 2StepAmp+Melt.tmo   Selected Plate Setup: Template.pts

Selected Plate Setup may be changed in the View Plate Setup tab

Cycle	Repeats	Step	Dwell Time	Setpoint	Melt Curve	+ Temp	- Temp
1	1	1	03:00	95.0	☐		
2	40	1	00:10	95.0	☐		
		2	00:45	55.0	☐		
3	1	1	01:00	95.0	☐		
4	1	1	01:00	55.0	☐		
5	80	1	00:10	55.0	✔	0.5	

3. To edit the protocol, click **Edit this protocol** to get to the **Workshop** module.

4. Click on the appropriate cell to change values for any parameter, such as **Dwell Time** and **Setpoint** temperature. You may do this to change the annealing temperature or melt-curve starting temperature.

5. Data collection for the melt-curve step is automatically indicated with a green camera.

Step 2 REAL-TIME
Cycle 3
   Step 1
Cycle 4
   Step 1
Cycle 5
   Step 1

6. Enter a name in the **Protocol Filename** box and click **Save this protocol**.