

BiOLOG EcoPlate™ Protocol with OmniLog system

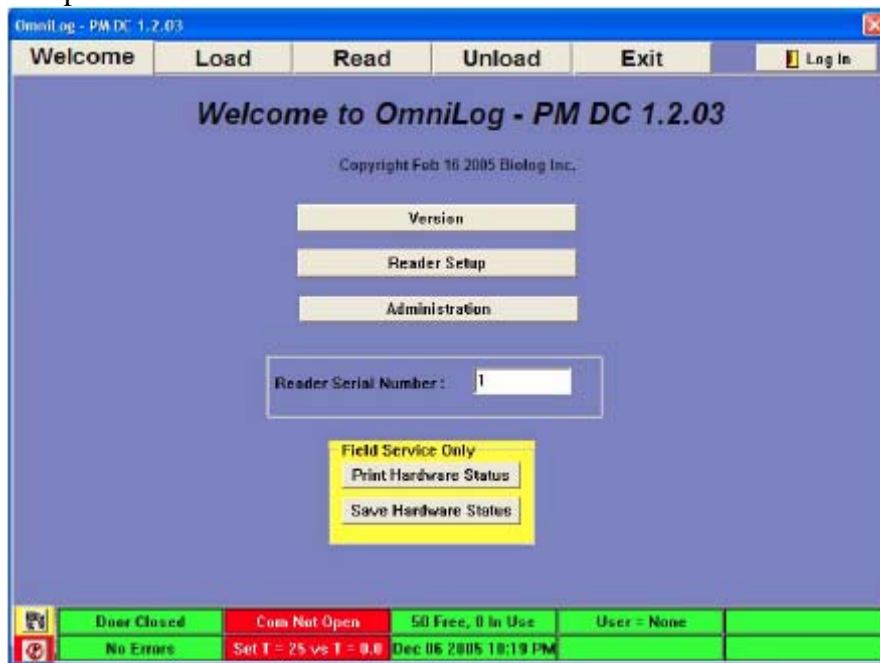
July 2007
SANGHOON KANG

Sample Preparation

1. From sieved fresh soil samples, weigh 5 g of soil into 50-ml tubes and add DIW up to 50 ml.
2. Shake tubes at 200 rpm for 45 minutes at 4 C by horizontally fastening.
3. Settle soil particles for 30 minutes at 4 C.
4. Make serial dilutions 10^{-4} including the initial dilution (5 g in 50 ml).

OmniLog® system

5. Make connections between computer and OmniLog system by clicking 'Reader Setup' button.



6. In 'Reader Setup' page, incubation temperature should be set up.

The image displays two screenshots of the 'Reader Setup' software interface, showing the process of configuring the incubation temperature.

Top Screenshot (Initial State):

- Initialize Reader Section:** Contains 'Start' (green border), 'Open Com Port', 'Initialize Reader', and 'Start Cycle Mode' buttons. Status indicators show 'Serial Port Closed', 'Reader Not Initialized', and 'Cycle Off'.
- Temperature Section:** 'New Target' is set to 25. 'Current Target' is 25. 'Apply' and 'Temp Log' buttons are visible.
- Printer Section:** 'Setup' and 'Font' buttons are present.
- Other Sections:** 'Move Camera' (Home/Top, Park/Bottom), 'Test' (Read Verification, Test Read Menu, Test Cycle Menu, Test Bell), 'Error Logs' (Hardware Error, Video Error, Temp Error, Plate Error, Restart Notice, Service Warning), and 'Other' (Change Password, Form Color, Admin Options).
- Status Bar:** Shows 'Door Closed', 'Com Not Open', '50 Free, 0 In Use', 'UserA: "omniolog"', 'No Errors', 'Set T = 25 vs T = 0.0', 'Dec 06 2005 10:29 PM', '15Min Left', and 'Reset'.

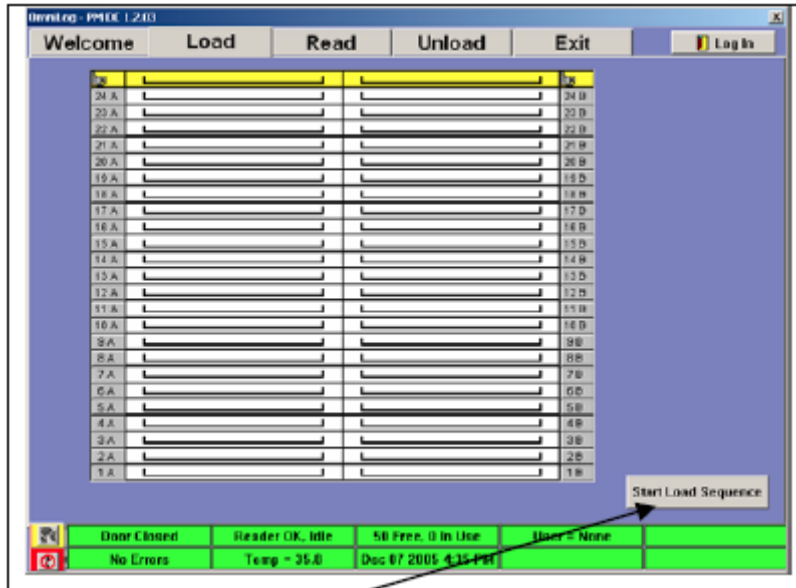
Bottom Screenshot (Configured State):

- Initialize Reader Section:** 'Start' (green border), 'Open Com Port', 'Initialize Reader', and 'Start Cycle Mode' buttons. Status indicators show 'Serial Port Open', 'Reader Initialized', and 'Cycle On'.
- Temperature Section:** 'New Target' is 25, 'Current Target' is 25. 'Apply' and 'Temp Log' buttons are visible.
- Printer Section:** 'Setup' and 'Font' buttons are present.
- Other Sections:** Same as the top screenshot.
- Status Bar:** Shows 'Door Closed', 'Reader OK, Idle', '50 Free, 0 In Use', 'UserA: "biolog"', 'No Errors', 'Temp = 24.9', 'Dec 10 2004 11:55 AM', '15Min Left', and 'Reset'.

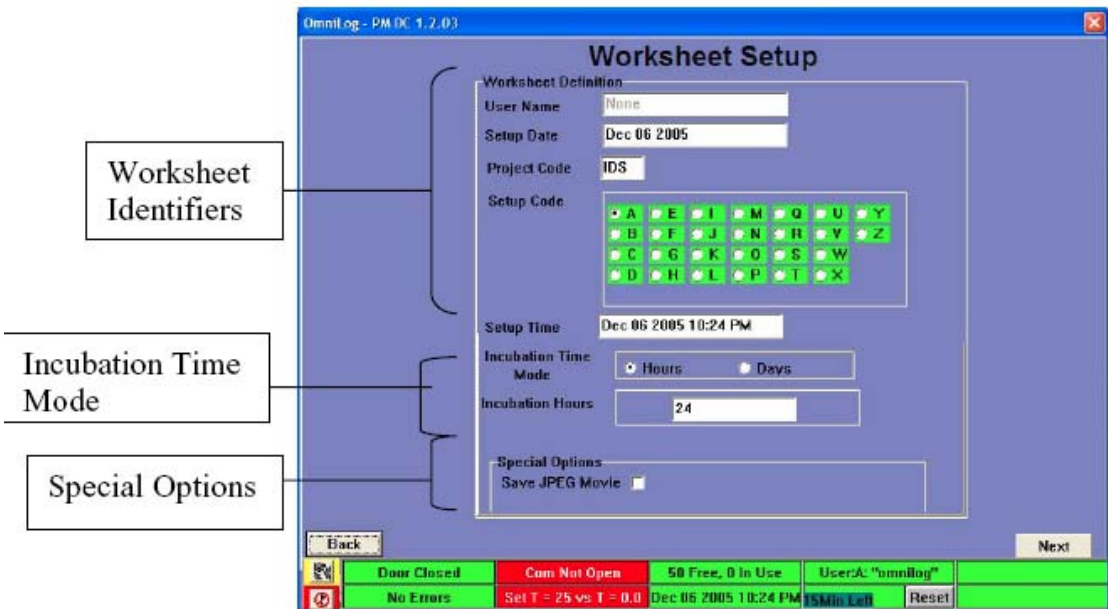
Callouts and Annotations:

- 'Open/Close Com Port' points to the 'Open Com Port' button.
- 'Initialize Reader' points to the 'Initialize Reader' button.
- 'Start Cycle Mode' points to the 'Start Cycle Mode' button.
- 'Temperature area' points to the temperature control section.
- 'Apply' points to the 'Apply' button.
- 'View Temp Log' points to the 'Temp Log' button.

- Click 'Done' button at the lower-right corner and click 'Load' bar from Welcome page.

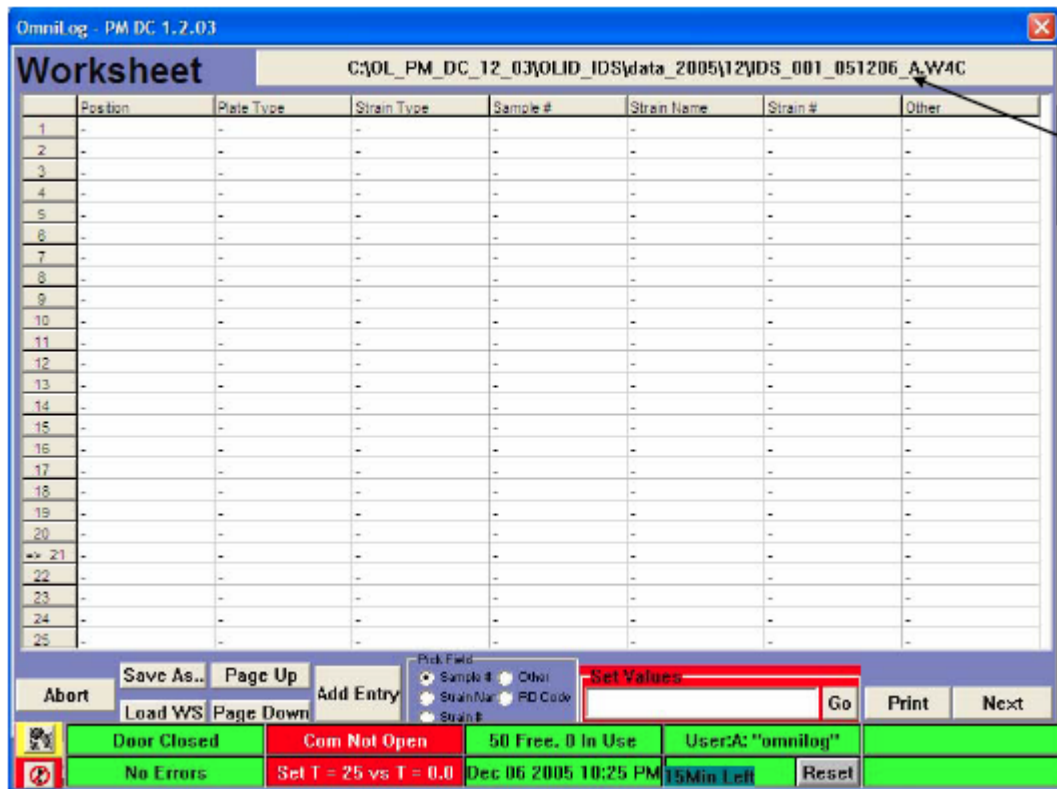


- Set up the 'Worksheet' by clicking 'Start Load Sequence' button.

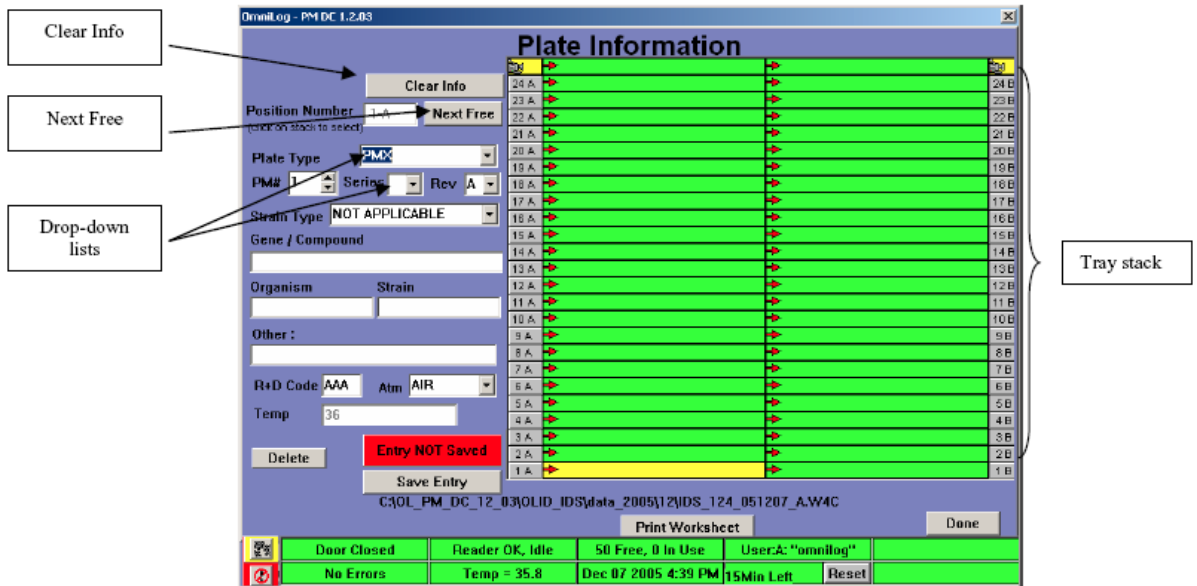


- Three letter 'Project Code' will generate separate folder, so it could be used as user-specific and/or project-specific organization. Set the incubation length either time or day. Clicking 'Save JPEG Movie' would save B/W jpeg picture of plates when plates are read.

10. Click 'Next' button to enter 'Worksheet'.



11. Click 'Add Entry' to enter 'Panel Information'.



- Click 'Done' button to go back to 'Worksheet' to make sure all the information is correctly provided. Then click 'Next' to 'Load Plate'.

Position	Plate Type	Strain Type	Sample #	Strain Name	Strain #	Other
5 A	PM 3-B	N/A	Lot T1001	ecol	12345	dye zzz
5 B	PM 3-B	N/A	Lot T1001	ecol	23456	dye zzz
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	-	-	-	-	-	-
6	-	-	-	-	-	-
7	-	-	-	-	-	-
8	-	-	-	-	-	-
9	-	-	-	-	-	-
10	-	-	-	-	-	-
11	-	-	-	-	-	-
12	-	-	-	-	-	-
13	-	-	-	-	-	-
14	-	-	-	-	-	-
15	-	-	-	-	-	-
16	-	-	-	-	-	-
17	-	-	-	-	-	-
18	-	-	-	-	-	-
19	-	-	-	-	-	-
20	-	-	-	-	-	-
21	-	-	-	-	-	-
22	-	-	-	-	-	-
23	-	-	-	-	-	-
24	-	-	-	-	-	-
25	-	-	-	-	-	-

- Take the tray for the plates specified in 'Worksheet' and inoculate prepared samples using Biolog multi-channel pipetter (programmed to distribute 100 ul 12 times to cover entire 96 wells).

14. Click 'Finish' to begin incubation/measurement (move to 'Read' page).

Plate	Strain	Sample #	Name	Number	Other	Last Read	Inc. His
2-B	PM 3-B	NOT APPLICABLE	gn2plates lot191206		nhqmade, no dye	Dec 09 2005 5:01 PM	24:35:14
3-A	PM 3-B	NOT APPLICABLE	gn2plates lot191206		nhqmade, no dye	Dec 09 2005 5:02 PM	24:35:14
1-A	PM 3-B	NOT APPLICABLE	gn2plate left 912061		cont cl 36C, pm160	Dec 09 2005 5:01 PM	24:41:03
1-B	PM 3-B	NOT APPLICABLE	gn2plate left 912061		cont cl 36C, pm160	Dec 09 2005 5:01 PM	24:41:03
2-A	PM 3-B	NOT APPLICABLE	gn2plate left 912061		cont cl 36C, pm160	Dec 09 2005 5:01 PM	24:41:03
21-A	PMW 4	NOT APPLICABLE	coily			Dec 09 2005 4:33 PM	2:27:43
21-B	PMW 4	NOT APPLICABLE	niquel		diabased FCS	Dec 09 2005 4:33 PM	2:27:43
22-A	PMW 3	NOT APPLICABLE	coily			Dec 09 2005 4:34 PM	2:27:43
22-B	PMW 3	NOT APPLICABLE	niquel		diabased FCS	Dec 09 2005 4:34 PM	2:27:43
23-A	PMW 2	NOT APPLICABLE	coily			Dec 09 2005 4:34 PM	2:27:43
23-B	PMW 2	NOT APPLICABLE	niquel		diabased FCS	Dec 09 2005 4:34 PM	2:27:43
24-A	PMW 1	NOT APPLICABLE	coily			Dec 09 2005 4:34 PM	2:27:43
24-B	PMW 1	NOT APPLICABLE	niquel		diabased FCS	Dec 09 2005 4:34 PM	2:27:43
6-A	PM 3-B	NOT APPLICABLE	Lot 11001	12345	dye 322	Dec 09 2005 5:02 PM	208:19
5-B	PM 3-B	NOT APPLICABLE	Lot 11001	23456	dye 322	Dec 09 2005 5:02 PM	208:19

Door Closed Reader OK, Busy 10 Plates Done User = None Read In Progress
No Errors Temp = 35.8 Dec 09 2005 5:16 PM Next Read 5:30:06 PM

15. By clicking any plate you can check most recent reading with jpeg image.

	1	2	3	4	5	6	7	8	9	10	11	12
A	0	0	0	0	0	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0	0	0	0	0	0
C	0	0	0	0	0	0	0	0	0	0	0	0
D	0	0	0	0	0	0	0	0	0	0	13	0
E	0	0	0	0	0	<57>	0	0	0	0	0	0
F	0	0	0	0	0	0	0	0	0	0	0	0
G	0	0	0	0	0	0	0	0	0	0	0	4
H	0	0	0	0	0	0	0	0	5	0	0	0

Reader: SU 124
 Operator: omnlog: Restrictd Access
 Worksheet: QCP_124_051208_B
 Read Mode: Normal ID Mode
 Setup Time: Dec 08 2005 4:40 PM
 Read Time: Dec 08 2005 7:01 PM
 Read Hour: 2
 Position: 2-B
 Plate Type: PM 3-B
 Strain Type: NOT APPLICABLE
 Sample Number: gn2plates left 912061
 Strain Name:
 Strain Number:
 Other: nhqmade, no dye
 Database: Biolog
 DB File: C:\OL_PM_DC_12_03\PM60
 +/v. Reactions: 2 / 0 / 94
 Data State: OK

Mark As Done Restore Change Inc. His Print Done