

How to use the Samples and Manual MC Override features.

1. Select the desired kiln number from the Overall Kiln Status (OKS).
2. When starting a kiln check the “Use manual MC Override” check box to run MC schedules based on your samples. Specify “Starting Avg. MC” (starting point in MC schedule) & “MC Loss/Day” (schedule progress rate).

Change Kiln #1

Password required for changes.

Charge #	RO.12.22
Description	RO Winter Run
Final MC	1.0
Schedule	Curr Sched 5
Dump Schedule	<input type="checkbox"/> :Enable Dump
Avg MC Override	<input checked="" type="checkbox"/> :Use Avg MC Override Starting Avg MC (%) 65 MC Loss/ Day (%) 2
Charge Details	Species: Northern Red Oak Thickness: 6 /4 Board Feet: 80

3. In the Individual Kiln Status Screen (IKS), Click “Samples” button in to enter Samples page.

Lignomat Kiln Control System

Individual Kiln Status

Kiln	Charge	Schedule	Operator	Final MC	Status
1	RO.12.22	RO Winter Ru	5	DM- 6/4 Northern Red Oak	cody 1.0 Running

Fans - Auto

Direction	Speed %	Rem Time
Off	50	2:38 / 3:00

Temperature °F

Desired	Active	Inactive
110.0	74.2	72.0
Zone2	74.3	72.7

Internal desired Temp: 74.2

EMC %

Desired	Active	Inactive
19.0	9.4	9.4

Internal desired EMC: 9.4

MC #	1	2	3	4	5	6	7	8	Manual Avg
%	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	65.0
Species	1	1	1	1	1	1	1	1	
Active	X								

Elapsed Time

Total	0d 00:22
Heating	0d 00:22
Warming	0d 00:00
Drying	0d 00:00
Conditioning	0d 00:00
Cooling	0d 00:00
Heat Treatment	0d 00:00

Regulators - Auto

Heat	Auto	Off
Vent	Auto	Off
Spray	Auto	Off
Steam Pressure	0	

4. In the samples page, set up your first sample by entering the individual sample information, then click the “add” button, in the top right corner under “Add/Edit Samples”.

Return to IKS

Samples	
Clear Table	
	Add/Edit Samples Update Add
Initial Sample Date	
Species	Red Oak
Thickness	6/4
Green sample weight(grams)	100
Dry sample weight(grams)	65.5
Sample board in kiln initial weight(grams)	1000
Calculated MC%	
Kiln Sample Weights	



Wet sample wafer wt.
 Oven Dry Sample wafer wt.

5. First samples information is added as seen below.

6. Keep in mind that you can navigate away from the page without losing your sample data. The “Clear Table” button will clear the whole table when desired for the next charge (password required). You can also hover your mouse over the sample number label at the top of the column (“Sample 1” in the pic) to edit or delete a sample column at any time.

Return to IKS

Samples			
Clear Table			
	Sample1	Add/Edit Samples Update Add	
Initial Sample Date	20161122		
Species	Red Oak		
Thickness	6/4		
Green sample weight(grams)	100		
Dry sample weight(grams)	65.5		
Sample board in kiln initial weight(grams)	1000		
Calculated MC%	52.7%		
Kiln Sample Weights			
	Add	Insert from scale	

7. Example below of a second samples information added. Repeat step 4 for each sample. (unlimited sample quantity)

Return to IKS

Samples			
Clear Table			
	Sample1	Sample2	Add/Edit Samples Update Add
Initial Sample Date	20161122	20161122	
Species	Red Oak	Red Oak	
Thickness	6/4	6/4	
Green sample weight(grams)	100	120	
Dry sample weight(grams)	65.5	70	
Sample board in kiln initial weight(grams)	1000	1020	
Calculated MC%	52.7%	71.4%	
Kiln Sample Weights			
	Add	Insert from scale	Add Insert from scale

8. With a sample scale connected to your network or MP32, click “Insert from scale” button in the samples designated column to enter sample weight. If using a separate scale, type the sample weight in the data box then click the “add” button.

Return to IKS

Samples			
Clear Table			
	Sample1	Sample2	Add/Edit Samples
Initial Sample Date	20161122	20161122	<input type="button" value="Update"/> <input type="button" value="Add"/>
Species	Red Oak	Red Oak	<input type="text"/>
Thickness	6/4	6/4	<input type="text"/>
Green sample weight(grams)	100	120	<input type="text"/>
Dry sample weight(grams)	65.5	70	<input type="text"/>
Sample board in kiln initial weight(grams)	1000	1020	<input type="text"/>
Calculated MC%	52.7%	71.4%	<input type="text"/>
Kiln Sample Weights			
	<input type="button" value="Add"/>	<input type="button" value="Insert from scale"/>	<input type="button" value="Add"/> <input type="button" value="Insert from scale"/>

9. Below, the first sample weight for Sample 1 has been added. You will see the calculated MC% and the option to use this sample in your Avg. MC%. Note loss/day is not calculated yet.

Return to IKS

Samples			
Clear Table			
	Sample1	Sample2	Add/Edit Samples
Initial Sample Date	20161122	20161122	<input type="button" value="Update"/> <input type="button" value="Add"/>
Species	Red Oak	Red Oak	<input type="text"/>
Thickness	6/4	6/4	<input type="text"/>
Green sample weight(grams)	100	120	<input type="text"/>
Dry sample weight(grams)	65.5	70	<input type="text"/>
Sample board in kiln initial weight(grams)	1000	1020	<input type="text"/>
Calculated MC%	52.7%	71.4%	<input type="text"/>
Kiln Sample Weights			
	<input type="button" value="Add"/>	<input type="button" value="Insert from scale"/>	<input type="button" value="Add"/> <input type="button" value="Insert from scale"/>
2016-11-22	<input type="text" value="960.0"/> <input type="button" value="Update"/> <input type="button" value="Delete"/>		<input type="button" value="Set Avg MC"/>
	MC%: 46.6 Use in Avg MC: <input type="checkbox"/>		

10. Sample #2 added.

Return to IKS

Samples			
Clear Table			
	Sample1	Sample2	Add/Edit Samples
Initial Sample Date	20161122	20161122	<input type="button" value="Update"/> <input type="button" value="Add"/>
Species	Red Oak	Red Oak	<input type="text"/>
Thickness	6/4	6/4	<input type="text"/>
Green sample weight(grams)	100	120	<input type="text"/>
Dry sample weight(grams)	65.5	70	<input type="text"/>
Sample board in kiln initial weight(grams)	1000	1020	<input type="text"/>
Calculated MC%	52.7%	71.4%	
Kiln Sample Weights			
	<input type="button" value="Add"/> <input type="button" value="Insert from scale"/>	<input type="button" value="Add"/> <input type="button" value="Insert from scale"/>	
2016-11-22	Weight: <input type="text" value="96.0"/> <input type="button" value="Update"/> <input type="button" value="Delete"/> MC%: 46.6 Use in Avg MC: <input checked="" type="checkbox"/>	Weight: <input type="text" value="96.0"/> <input type="button" value="Update"/> <input type="button" value="Delete"/> MC%: 60.7 Use in Avg MC: <input checked="" type="checkbox"/>	<input type="button" value="Set Avg MC"/>

11. If you are at this point with a running kiln, verify you're running a MC based schedule (DM) and "Use Avg MC Override" is enabled in the "Change Setup" page (2nd pic below) by clicking "Change Setup" button.

Lignomat Kiln Control System

Individual Kiln Status						
<input type="button" value="Change Setup"/> <input type="button" value="Pause"/> <input type="button" value="Rest"/>						
Kiln	Charge	Schedule	Operator	Final MC	Status	
1	RO.12.22 RO Winter Ru	5 DM- 6/4 Northern Red Oak	cody	1.0	Running	

Fans - Auto

Direction	Speed %	Rem Time
Off	50	2:19 / 3:00

Temperature °F

Desired	Active	Inactive
110.0	74.2	71.9
Zone2	74.3	72.3

Internal desired Temp: 74.2

EMC %

Desired	Active	Inactive
19.0	9.4	9.4

Internal desired EMC: 9.4

MC #	1	2	3	4	5	6	7	8	Manual Avg
%	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	53.6
Species	1	1	1	1	1	1	1	1	
Active	X								

Elapsed Time

Total	0d 00:41
Heating	0d 00:41

Regulators - Auto

12. If starting a kiln using sample MC% data. Make sure the schedule you choose from your library is an MC based schedule, and the “Use Avg MC Override” box is checked in the “Start Kiln” page. “Starting Avg. MC” and “MC Loss/ Day” can be left blank at this point as the schedule starts in heating up and warming thru segments. MC% data is not required for these segments.

13. Once the kiln is started, click the “Samples” button from the IKS screen. This will take you back to your samples setup page from step #10.

Lignomat Kiln Control System

Overall Kiln Status | Stop | Probes | Overrides | Schedule | History | **Samples** | Settings | Graphical View

Individual Kiln Status

Change Setup | Pause | Rest

Kiln	Charge	Schedule	Operator	Final MC	Status
1	RO.12.22 RO Winter Ru	5 DM- 6/4 Northern Red Oak	co	1.0	Running

Fans - Auto

Direction	Speed %	Rem Time
Off	50	2:38 / 3:00

Temperature °F

Desired	Active	Inactive
110.0	74.2	72.0
Zone2	74.3	72.7

Internal desired Temp: 74.2

EMC %

Desired	Active	Inactive
19.0	9.4	9.4

Internal desired EMC: 9.4

MC # 1 2 3 4 5 6 7 8 Manual Avg

14. Use desired sample MC's in Avg MC by checking the box, then click the “Set Avg MC” button.

Return to IKS

Samples

Clear Table

	Sample1	Sample2	Add/Edit Samples
Initial Sample Date	20161122	20161122	<input type="button" value="Update"/> <input type="button" value="Add"/>
Species	Red Oak	Red Oak	<input type="text"/>
Thickness	6/4	6/4	<input type="text"/>
Green sample weight(grams)	100	120	<input type="text"/>
Dry sample weight(grams)	65.5	70	<input type="text"/>
Sample board in kiln initial weight(grams)	1000	1020	<input type="text"/>
Calculated MC%	52.7%	71.4%	

Kiln Sample Weights

	<input type="button" value="Add"/> <input type="button" value="Insert from scale"/>	<input type="button" value="Add"/> <input type="button" value="Insert from scale"/>	<input type="button" value="Set Avg MC"/>
2016-11-22	Weight: <input type="text" value="96.0"/> <input type="button" value="Update"/> <input type="button" value="Delete"/>	Weight: <input type="text" value="95.0"/> <input type="button" value="Update"/> <input type="button" value="Delete"/>	
	MC%: <input type="text" value="46.6"/> Use in Avg MC: <input checked="" type="checkbox"/>	MC%: <input type="text" value="60.7"/> Use in Avg MC: <input checked="" type="checkbox"/>	

15. You will then be prompted to enter a “Loss/Day value. This determines schedule progression speed.

Return to IKS

Samples

Clear Table

	Sample1	Sample2	Add/Edit Samples
Initial Sample Date	20161122	20161122	Update Add
Species	Red Oak	Red Oak	
Thickness		6/4	
Green sample weight(grams)		120	
Dry sample weight(grams)		70	
Sample board in kiln initial weight(grams)		1020	
Calculated MC%		71.4%	
Add Insert from scale		Add Insert from scale	
2016-11-23	960.0 46.6	956.0 60.7	Set Avg MC

MC override is currently
On
Avg MC% = 53.6
Please enter a loss per day

OK Cancel

16. Navigate back to the IKS screen and you will see the “Manual Avg” MC% equals your samples average. Your MC based schedule is now advancing at your desired loss/day from this MC%

Overall Kiln Status | Stop | Probes | Overrides | Schedule | History | Samples | Settings | Graphical View

Individual Kiln Status

Change Setup | Pause | Rest

Kiln	Charge	Schedule	Operator	Final MC	Status
1	RO.12.22 RO Winter Ru	5 DM- 6/4 Northern Red Oak	cody	8.0	Running

Fans - Auto

Direction	Speed %	Rem Time
B	50	2:43 / 3:00

Temperature °F

Desired	Active	Inactive
110.0	71.8	74.0
Zone2	71.7	74.2

Internal desired Temp:73.9

EMC %

Desired	Active	Inactive
19.0	9.6	9.6

Internal desired EMC:10.6

MC #	1	2	3	4	5	6	7	8	Manual Avg
%	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	53.6
Species	1	1	1	1	1	1	1	1	
Active									

Elapsed Time

Total	0d 00:17
Heating	0d 00:17
Warming	0d 00:00
Drying	0d 00:00
Conditioning	0d 00:00
Cooling	0d 00:00
Heat Treatment	0d 00:00

Regulators - Auto

Heat	Auto	On
Vent	Auto	Off
Spray	Auto	Off
Steam Pressure	0	

17. To continue adding sample weights, navigate back to the “Samples” page from the IKS page.

[Return to IKS](#)

Samples			
Clear Table			
	Sample1	Sample2	Add/Edit Samples Update Add
Initial Sample Date	20161122	20161122	
Species	Red Oak	Red Oak	<input type="text"/>
Thickness	6/4	6/4	<input type="text"/>
Green sample weight(grams)	100	120	<input type="text"/>
Dry sample weight(grams)	65.5	70	<input type="text"/>
Sample board in kiln initial weight(grams)	1000	1020	<input type="text"/>
Calculated MC%	52.7%	71.4%	
Kiln Sample Weights			
	Add Insert from scale	Add Insert from scale	
2016-11-22	Weight: <input type="text" value="960.0"/> Update Delete MC%: 46.6 Use In Avg MC: <input checked="" type="checkbox"/>	Weight: <input type="text" value="956.0"/> Update Delete MC%: 60.7 Use In Avg MC: <input checked="" type="checkbox"/>	Set Avg MC

18. Place sample on scale and use the insert from scale button or add button as described on instruction number 8.

19. Each time you add a weight with the “Add” or “Insert from Scale” button it adds a row, one at a time for the respective sample column. The option to “Set Avg MC” is always available in the last row of column segments.

[Return to IKS](#)

Samples			
Clear Table			
	Sample1	Sample2	Add/Edit Samples Update Add
Initial Sample Date	20161122	20161122	
Species	Red Oak	Red Oak	<input type="text"/>
Thickness	6/4	6/4	<input type="text"/>
Green sample weight(grams)	100	120	<input type="text"/>
Dry sample weight(grams)	65.5	70	<input type="text"/>
Sample board in kiln initial weight(grams)	1000	1020	<input type="text"/>
Calculated MC%	52.7%	71.4%	
Kiln Sample Weights			
	Add Insert from scale	Add Insert from scale	
2016-11-23	960.0 46.6	956.0 60.7	
2016-11-23	850.0 29.8 -16.8	880.0 47.9 -12.8	
2016-11-23	800.0 22.1 -7.6	810.0 36.1 -11.8	
2016-11-23	740.0 13.0 -9.2	750.0 26.1 -10.1	Set Avg MC

20. As you hover your mouse over a row of sample weights/values, the row expands to give you more information and options for the row, and collapses as your mouse leaves the row.

21. The picture below has an expanded last row showing options and added info.

Return to IKS

Samples			
Clear Table			
	Sample1	Sample2	Add/Edit Samples
Initial Sample Date	20161122	20161122	Update Add
Species	Red Oak	Red Oak	<input type="text"/>
Thickness	6/4	6/4	<input type="text"/>
Green sample weight(grams)	100	120	<input type="text"/>
Dry sample weight(grams)	65.5	70	<input type="text"/>
Sample board in kiln initial weight(grams)	1000	1020	<input type="text"/>
Calculated MC%	52.7%	71.4%	
Kiln Sample Weights			
	Add	Insert from scale	Add Insert from scale
2016-11-23	960.0 46.6	956.0 60.7	
2016-11-23	850.0 29.8 -16.8	880.0 47.9 -12.8	
2016-11-23	800.0 22.1 -7.6	810.0 36.1 -11.8	
2016-11-23	Weight: <input type="text" value="740.0"/> Update Delete MC%: 13.0 (loss/day): -9.2 Use in Avg MC: <input type="checkbox"/>	Weight: <input type="text" value="750.0"/> Update Delete MC%: 26.1 (loss/day): -10.1 Use in Avg MC: <input type="checkbox"/>	Set Avg MC

22. If you have multiple sample scales connected to your network, select the correct sample scale from the drop down menu before you start inserting sample weights using the “Insert from Scale” button.

Samples			
<input type="button" value="Clear Table"/>			
	Sample1	Sample2	Add/Edit Samples <input type="button" value="Update"/> <input type="button" value="Add"/>
Initial Sample Date	20161122	20161122	
Species	Red Oak	Red Oak	<input type="text"/>
Thickness	6/4	6/4	<input type="text"/>
Green sample weight(grams)	100	120	<input type="text"/>
Dry sample weight(grams)	65.5	70	<input type="text"/>
Sample board in kiln initial weight(grams)	1000	1020	<input type="text"/>
Calculated MC%	52.7%	71.4%	
Kiln Sample Weights			
Select an IP scale: <input type="text" value="10.1.1.255"/> <input type="button" value="Add"/> <input type="button" value="Insert from scale"/> <input type="text" value=""/> <input type="button" value="Add"/> <input type="button" value="Insert from scale"/>			
2016-11-23	960.0 46.6	956.0 60.7	
2016-11-23	850.0 29.8 -16.8	880.0 47.9 -12.8	
2016-11-23	800.0 22.1 -7.6	810.0 36.1 -11.8	
2016-11-23	740.0 13.0 -9.2	750.0 26.1 -10.1	<input type="button" value="Set Avg MC"/>

For further questions on how to use the Samples feature please call Lignomat at 503-257-3708