

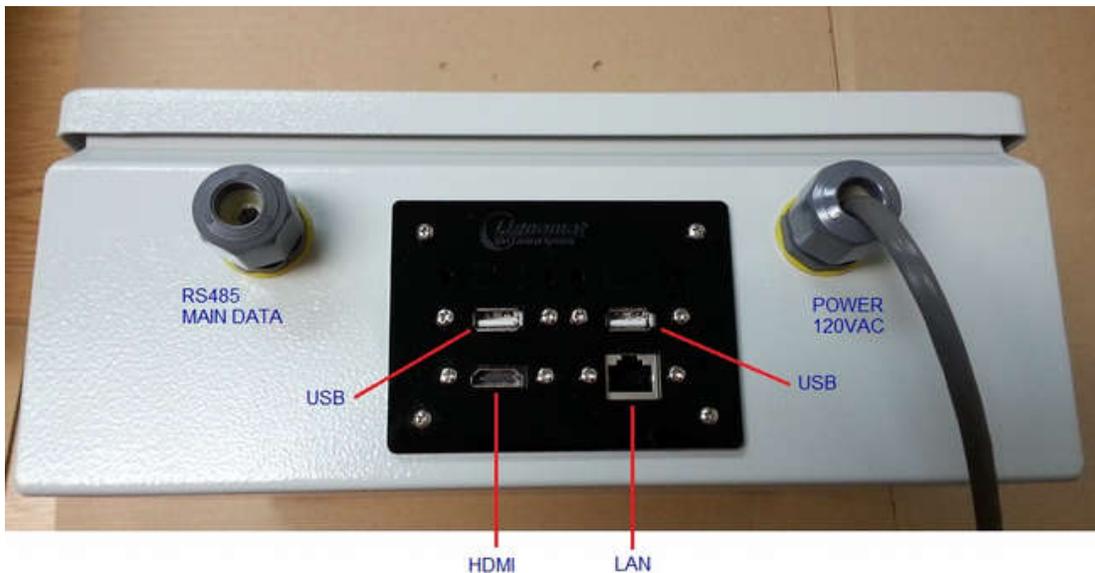


LIGNOMAT MP32 SETUP & CONFIGURATION GUIDE

1. CONNECT HARDWARE

1a. Place each MP32 unit in a suitable dry location.

Connect the Network Cable, and RS485 Cable, once all connections are made start the MP32 by connecting the power cable to an outlet. (highly recommended is a small 300W to 450W UPS). See recommended accessories for recommendations.



1b. LAN side

Connect Ethernet cable (Cat5, Cat5e, Cat5) to local network.

A network Router or Wireless Access Point must be connected at some point to provide DHCP service.

1c. KCU/KCM/PCM side - RS485

Daisy-chain up to 32 PCM and connect to the MP32.

If more than 32 kilns then additional MP32 is required. Repeat the above steps.

Refer to the attached diagram for wiring to MP32.

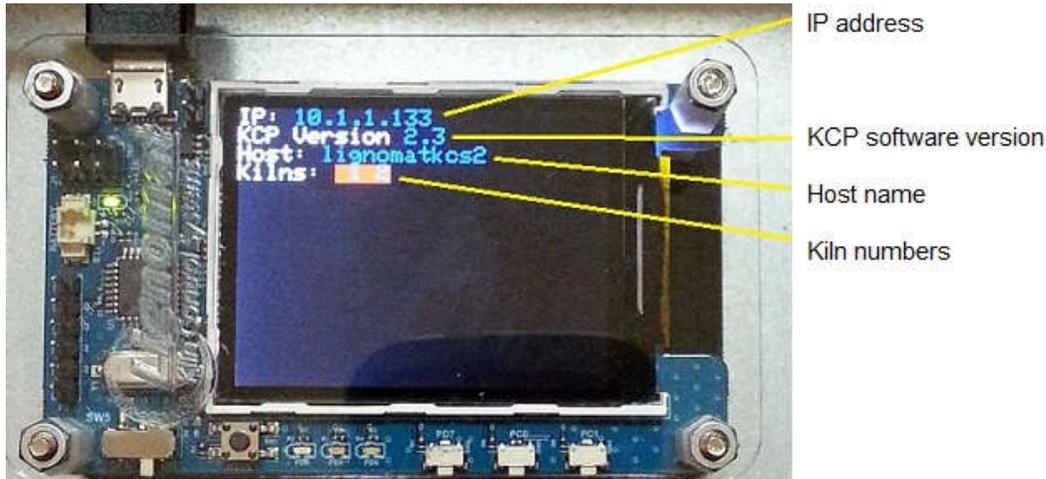
KCU/KCM/PCM main data bus cable connects to the green 5-pin connector inside the MP32.

2. CONFIGURE SOFTWARE

This step is done in order to make sure everything is connected and that the network works.

Power up the MP32. Keep in mind that MP32 is a computer and it needs **up to 2 minutes** to complete its boot up sequence.

Once fully started the attached screen will show its IP address.



In a web browser enter “[HTTP://lignomatks1](http://lignomatks1)” in the address bar.

(Note: Address will change based on hostname of your KCS...) OR

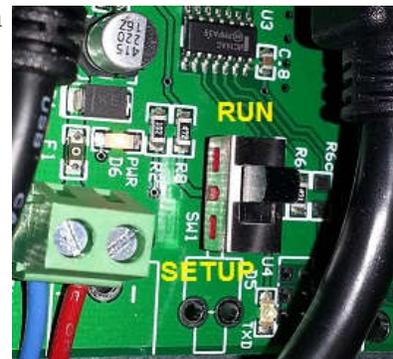
[HTTP://xxx.xxx.xxx.xxx](http://xxx.xxx.xxx.xxx) where xxx.xxx.xxx.xxx is your IP address shown on the attached screen.

It will take a few minutes for the router to pickup new device (MP32). If you get "Page not found" or similar messages just wait a few more minutes for routing table update, then try again. (If you are still having trouble please see below troubleshooting section.

2b. Setup Mode

To access the setup mode slide the Run/Setup selector switch down or towards the bottom of the box for setup and up or toward the fan for run.

Then reset by pressing the reset button (you should see the LED to the right turn off and it will reboot after all communication has completed.(note this can take up to 1 minute)



Once in the Setup Mode you will be able to set the initial settings for the MP32.

MP32 Setup page

Lignomat Kiln Control System		
Setup Mode		
Temperature Unit	F	<input type="button" value="Change"/>
New Master Password	<input type="text"/>	<input type="button" value="Change"/>
Kiln List: 1, 2, 3	Kiln ID <input type="text"/> Kiln Name <input type="text"/> IP Addr <input type="text"/> <input checked="" type="radio"/> Kiln <input type="radio"/> PreDryer <input type="radio"/> IP_DKC	<input type="button" value="Add Kiln"/> <input type="button" value="Remove Kiln"/>
Time	2017-04-17 08:16	<input type="button" value="Set Date from current PC"/>
Max Steam PSI	<input type="text" value="100"/>	<input type="button" value="Update"/>
Current IP address	10.1.1.33 fc00::21e:6ff:fe30:64ad	
Auto Charge Numbers	Initial Number: <input type="text"/> (blank = not used)	<input type="button" value="Set Auto Number"/>
Reboot	<input type="button" value="Reboot"/>	
Restore settings from a file	<input type="button" value="Upload"/> <input type="button" value="Browse..."/> No file selected. <input type="checkbox"/> : Schedules only	

Email Settings		<input type="button" value="Save Email Settings"/>
Mail host(SMTP):	<input type="text"/>	
Port(usually 25):	<input type="text"/>	
Username:	<input type="text"/>	
Password:	<input type="text"/>	
Use TLS:	<input type="checkbox"/>	
From address (required by some hosts):	<input type="text"/>	
Enter test email address:	<input type="text"/>	<input type="button" value="Send a Test Email"/>

The setup page refreshes periodically to verify current settings. It is possible to try and save settings as the page is refreshing. When this happens changes may not show after page has been refreshed. Please attempt the change again if you don't see your change after page was refreshed.

Set “**Master Password**” use something you will remember, and keep this in a secure place

Set “**Temperature Unit**” as desired

Set “**Kiln List**” add or remove kilns (one at a time)

Kiln ID: for kilns this is the hardware address aka kiln number as set on the KCU/KCM.
For predryers this is the hardware address of the DCM/KDM in the first zone.

Kiln Name: kiln number – may or may not be the same as kiln ID.
Typically used for predryers.

Example: 5-zone predryer, split to 3 + 2 zones: DCM #1-5
 PD#1: Kiln ID=1 (1st DCM, zone 1, S=1), Kiln Name=1
 PD#2: Kiln ID=4 (1st DCM, zone 4, S=4), Kiln Name=2

IP Addr: for DKC based controllers and future applications

Time:

If the time is off from current PC by more than 1 hour, choose to set Date from current PC.

Max Steam PSI:

Enter steam pressure in PSI to represents 100%. Must be equal or less than steam sensor rating.

Auto Charge Numbers:

Blank: If this box is left blank auto charge numbers will not be used.

Set: If you would like to use Automatically assigned charge numbers for each kiln run please enter the initial numeric only value in this box. When kilns are started they will get assigned the next available charge number.

Restore settings from file:

If you have previously backed up controller settings you can restore them by uploading configuration file. Click "Browse" to find the settings file (zip file) and then click "Upload" button. (Note: this will overwrite any current settings)

Email Settings:

To use the email settings the MP32 must be connected to a network with outbound internet access. Please contact your internet service provider for any questions on the settings alternatively you may also register for a new gmail address and configure using the settings available from gmail configuration.

Kiln List: 1, 3, 4, 6, 8	<input type="radio"/> PreDryer <input type="radio"/> Kiln	<input type="button" value="Add Kiln"/> <input type="button" value="Remove Kiln"/>
Time	2017-01-10 11:37	<input type="button" value="Set Date from current PC"/>
Max Steam PSI	<input type="text" value="300"/>	<input type="button" value="Update"/>
Current IP address	10.1.1.148 fc00::21e:6ff:fe30:147e	
Auto Charge Numbers	Initial Number: <input type="text"/> (blank = not used)	<input type="button" value="Set Auto Number"/>
Reboot	<input type="button" value="Reboot"/>	
Restore settings from a file	<input type="button" value="Upload"/> <input type="button" value="Browse..."/> No file selected.	<input type="checkbox"/> : Schedules only

Email Settings		<input type="button" value="Save Email Settings"/>
Mail host(SMTP):	<input type="text" value="smtp.gmail.com"/>	
Port(usually 25):	<input type="text" value="587"/>	
Username:	<input type="text" value="@gmail.com"/>	
Password:	<input type="password" value="....."/>	
Use TLS:	<input checked="" type="checkbox"/>	
From address (required by some hosts):	<input type="text" value="@gmail.com"/>	
Enter test email address:	<input type="text"/>	<input type="button" value="Send a Test Email"/>

2c. Exiting Setup Mode

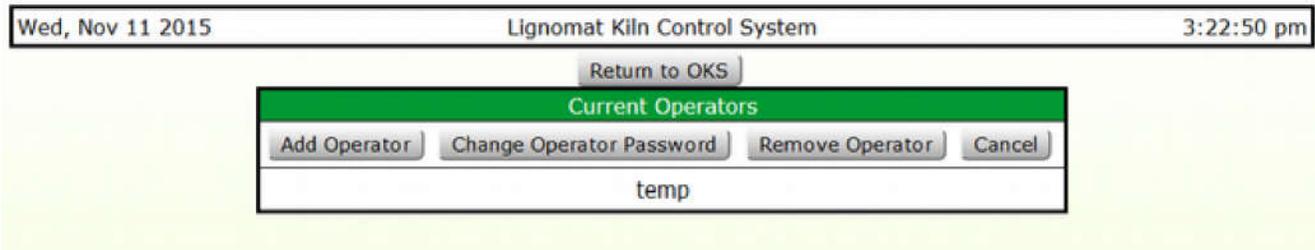
Once all configuration settings have been changed to desired values switch the Run/Setup switch back to Run, then push the Reboot button or power cycle the MP32. (Note: messages for page cannot be displayed or a search box may show up temporarily while the MP32 is rebooting. Please wait for 1-2 minutes after a power cycle then try accessing the MP32.

In a web browser enter “[HTTP://lignomatks1](http://lignomatks1)” in the address bar. (Note: Address ends with a number)
Or [HTTP://xxx.xxx.xxx.xxx](http://xxx.xxx.xxx.xxx) with the IP address of the unit that is shown on the attached screen

Lignomat Kiln Control System									
Schedules		Histories		Settings		Kiln Charges		FAQ	
Overall Kiln Status									
Kiln	Charge #	Schedule #	Started	Elapsed	Avg MC	Final MC	Description		
1		0		0d 00:00	0.0	0.0			
3		0		0d 00:00	0.0	0.0			
4		5	2017-01-04	2d 05:12	5.7	1.0			
6		0		0d 00:00	0.0	0.0			
8		0		0d 00:00	0.0	0.0			

2d. Run Mode configuration

First, from the Overall Kiln Status (OKS) go to *Settings*, and then to *Operators*.
Add at least 1 operator to the MP32, using the Master Password



The screenshot shows the Lignomat Kiln Control System interface. At the top, there is a header bar with the date 'Wed, Nov 11 2015', the system name 'Lignomat Kiln Control System', and the time '3:22:50 pm'. Below the header, there is a 'Return to OKS' button. The main content area is titled 'Current Operators' and contains a dialog box with the following elements:

- Buttons: 'Add Operator', 'Change Operator Password', 'Remove Operator', and 'Cancel'.
- Text input field: 'temp'.

Return to the *OKS* page

Select *Settings*

It is recommended to add a check to the *tooltip* option and a check to *Send Alerts*.

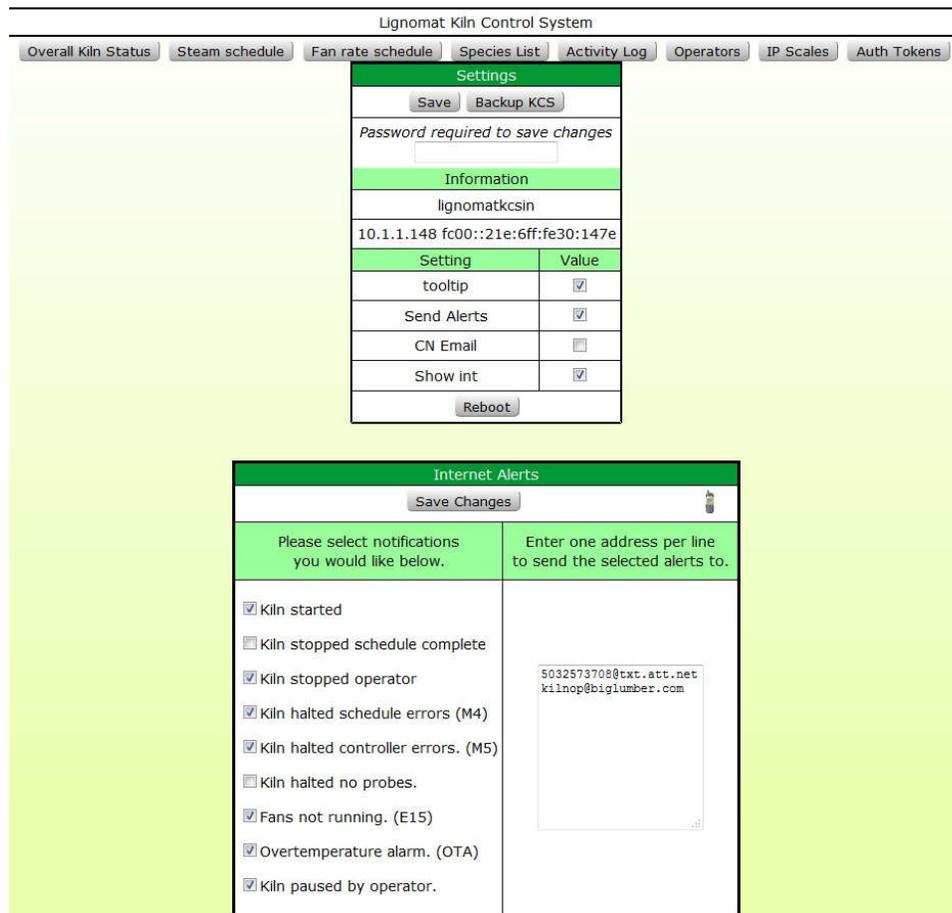
Tooltip: this will give additional hints while using the site.

Send Alerts: if not checked no alerts will be sent.

Save using the user password

In the Internet Alerts section enter phone numbers or email addresses that alerts will be sent to. (Note: to send as an SMS, enter the number@gateway IE an AT&T subscriber would enter #####@txt.att.net there is a short list of carrier gateways listed by hovering over the phone icon.)

Save changes using user password.



The screenshot shows the Lignomat Kiln Control System interface with the 'Settings' and 'Internet Alerts' sections visible. The 'Settings' section is titled 'Settings' and contains the following elements:

- Buttons: 'Save' and 'Backup KCS'.
- Text: 'Password required to save changes'.
- Section: 'Information'.
- Text: 'lignomatkcsin'.
- Text: '10.1.1.148 fc00::21e:6ff:fe30:147e'.
- Table:

Setting	Value
tooltip	<input checked="" type="checkbox"/>
Send Alerts	<input checked="" type="checkbox"/>
CN Email	<input type="checkbox"/>
Show int	<input checked="" type="checkbox"/>

- Button: 'Reboot'.

The 'Internet Alerts' section is titled 'Internet Alerts' and contains the following elements:

- Button: 'Save Changes'.
- Text: 'Please select notifications you would like below.'
- Text: 'Enter one address per line to send the selected alerts to.'
- List of notifications with checkboxes:

- Kiln started
- Kiln stopped schedule complete
- Kiln stopped operator
- Kiln halted schedule errors (M4)
- Kiln halted controller errors. (M5)
- Kiln halted no probes.
- Fans not running. (E15)
- Overtemperature alarm. (OTA)
- Kiln paused by operator.

Text input field containing:

```
5032573708@txt.att.net  
kilnop@biglumber.com
```

2e. Configure transmitters

From the OKS page select the kiln number

From the IKS select:

Settings then **Transmitters**

x

Lignomat Kiln Control System	
Kiln Transmitter Serial Numbers	
<input type="button" value="Save Changes"/> <input type="button" value="Cancel Changes"/>	
Password required for changes <input type="text"/>	
Probe	Serial Number
EMC A	<input type="text" value="20010"/>
EMC B	<input type="text" value="20011"/>
MC 1	<input type="text" value="20012"/>
MC 2	<input type="text" value="20013"/>
MC 3	<input type="text" value="20014"/>
MC 4	<input type="text" value="20015"/>
MC 5	<input type="text" value="20016"/>
MC 6	<input type="text" value="20017"/>
MC 7	<input type="text" value="20018"/>
MC 8	<input type="text" value="20019"/>
MC 9	<input type="text" value="0"/>

2f. Starting a kiln charge

Note: To start a kiln at least one schedule must be defined.

From the OKS page select the kiln number.

Select **Start** button.

Enter the charge info, select drying schedule and other info are needed. Enter operator password and then hit the **Start** button.

Lignomat Kiln Control System	
<input type="button" value="Return to IKS"/>	
Start Kiln # 1	
<input type="button" value="Start"/> <input type="button" value="Cancel"/>	
Password required to start kiln. <input type="text"/>	
Charge #	<input type="text" value="5678"/>
Description	<input type="text" value="Red Oak I"/>
Schedule	<input type="text" value="Curr Sched"/> ▾
Dump Schedule	<input type="checkbox"/> :Enable Dump
Final MC	<input type="text" value="1.0"/>
Avg MC Override	<input type="checkbox"/> :Use Avg MC Override Starting Avg MC (%) <input type="text"/> MC Loss/ Day (%) <input type="text"/>
Charge Details	Species: <input type="text" value="Wood Group 1"/> ▾ Thickness: <input type="text" value="6"/> / <input type="text" value="4"/> Board Feet: <input type="text" value="5000"/>

3. BACKING UP CONTROLLER SETTINGS

Periodic backup of the MP32 controller is highly recommended. This will help restore settings if the controller needs to be replaced with new one. Backup file can also be used for diagnostics and troubleshooting if delivered to Lignomat tech support.

1. From Overall Kiln Status select **Settings**

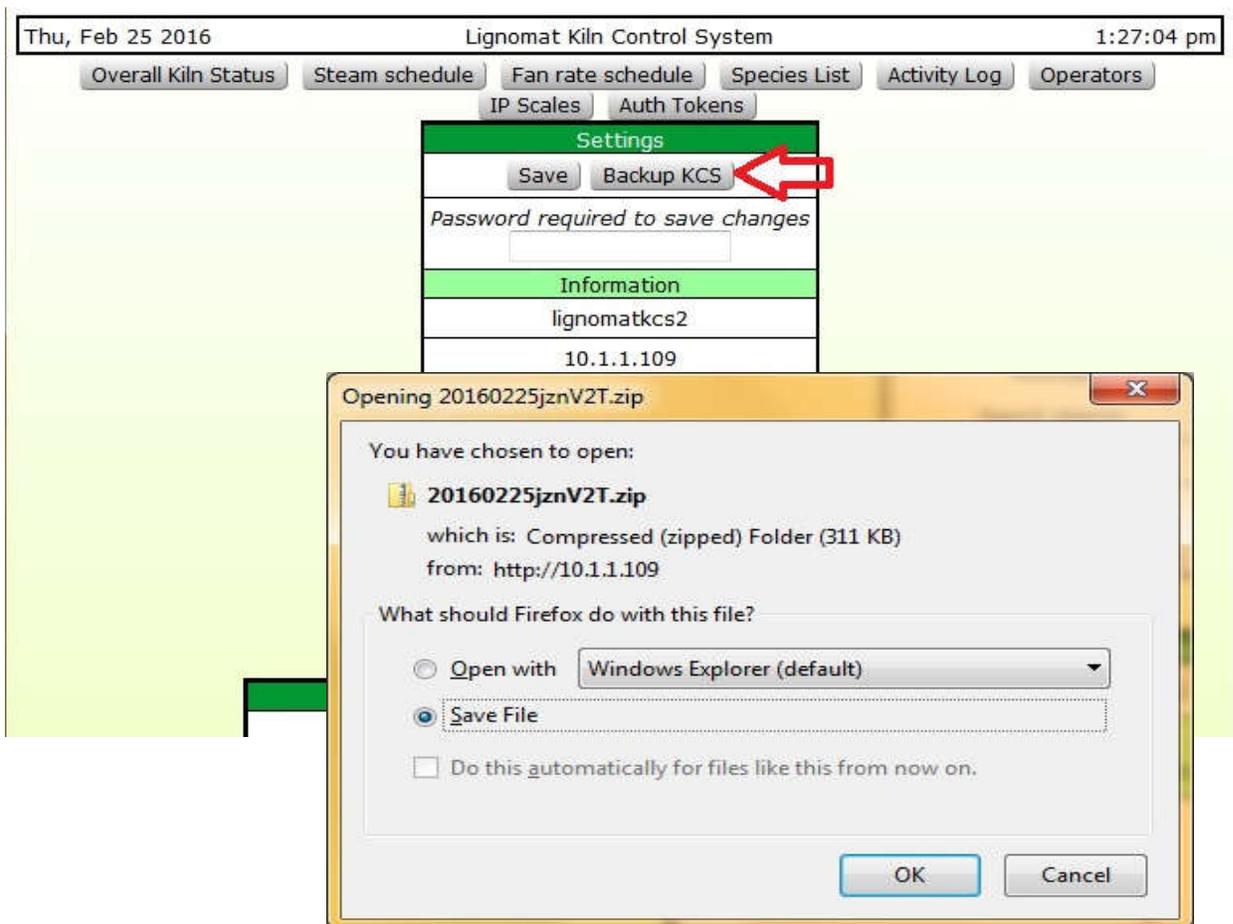


Thu, Feb 25 2016 Lignomat Kiln Control System 1:26:14 pm

Schedules Histories **Settings** Kiln Charges FAQ

Overall Kiln Status							
Kiln	Charge #	Schedule #	Started	Elapsed	Avg MC	Final MC	Description
1	17a	1	2016-02-17	1d 20:29	48.2	1.0	USvsCN probe
3		0		0d 00:00	54.2	0.0	
4	Testing	1	2015-11-13	36d 02:28	24.0	1.0	Testing

2. Click on **Backup KCS**.



Thu, Feb 25 2016 Lignomat Kiln Control System 1:27:04 pm

Overall Kiln Status Steam schedule Fan rate schedule Species List Activity Log Operators
IP Scales Auth Tokens

Settings
Save Backup KCS

Password required to save changes

Information
lignomatkcs2
10.1.1.109

Opening 20160225jznV2T.zip

You have chosen to open:
20160225jznV2T.zip
which is: Compressed (zipped) Folder (311 KB)
from: http://10.1.1.109

What should Firefox do with this file?

Open with Windows Explorer (default)

Save File

Do this automatically for files like this from now on.

OK Cancel

3. Save File to a location on your PC backup folder or similar location.

4. CREATING CUSTOM HISTORY VIEW

- From IKS select History
History graph with the most recent History View (Display Group) will be shown.
- Click “Edit” to bring up display group editor.



- Click on the parameter or sensor box you want to display.

For example: Desired EMC, Active EMC, MC1... MC8 are selected here.
- Enter a new name for display group.
For example: MC-EMC entered here.
- Click Save.

5. DOWNLOADING HISTORY

History files can be downloaded for data analysis, troubleshooting and archiving. Histories are downloaded in a Zip file containing history data and charge info for individual kiln. Data is in tab delimited format and it can be easily imported in a spreadsheet.

For troubleshooting purposes email Zip files from relevant kilns to Lignomat tech support.

1. From Overall Kiln Status select **Histories**

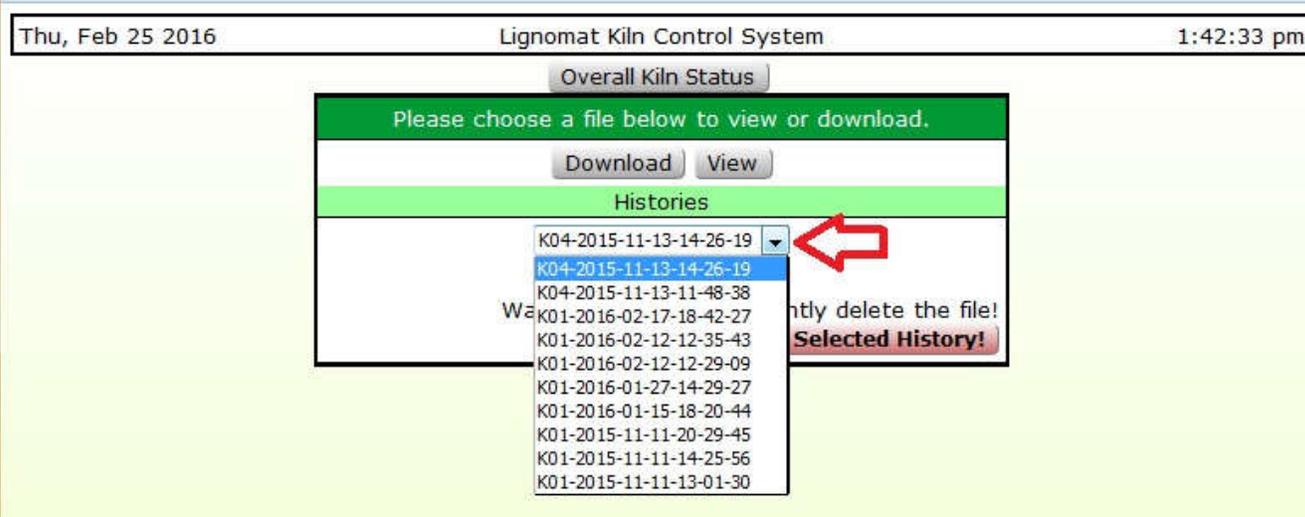


Thu, Feb 25 2016 Lignomat Kiln Control System 1:41:05 pm

Schedules Histories Settings Kiln Charges FAQ

Overall Kiln Status							
Kiln	Charge #	Schedule #	Started	Elapsed	Avg MC	Final MC	Description
1	17a	1	2016-02-17	1d 20:29	48.2	1.0	USvsCN probe
3		0		0d 00:00	54.2	0.0	
4	Testing	1	2015-11-13	36d 02:43	24.0	1.0	Testing

2. Expand kiln histories list (see arrow below) and select kiln history to download.



Thu, Feb 25 2016 Lignomat Kiln Control System 1:42:33 pm

Overall Kiln Status

Please choose a file below to view or download.

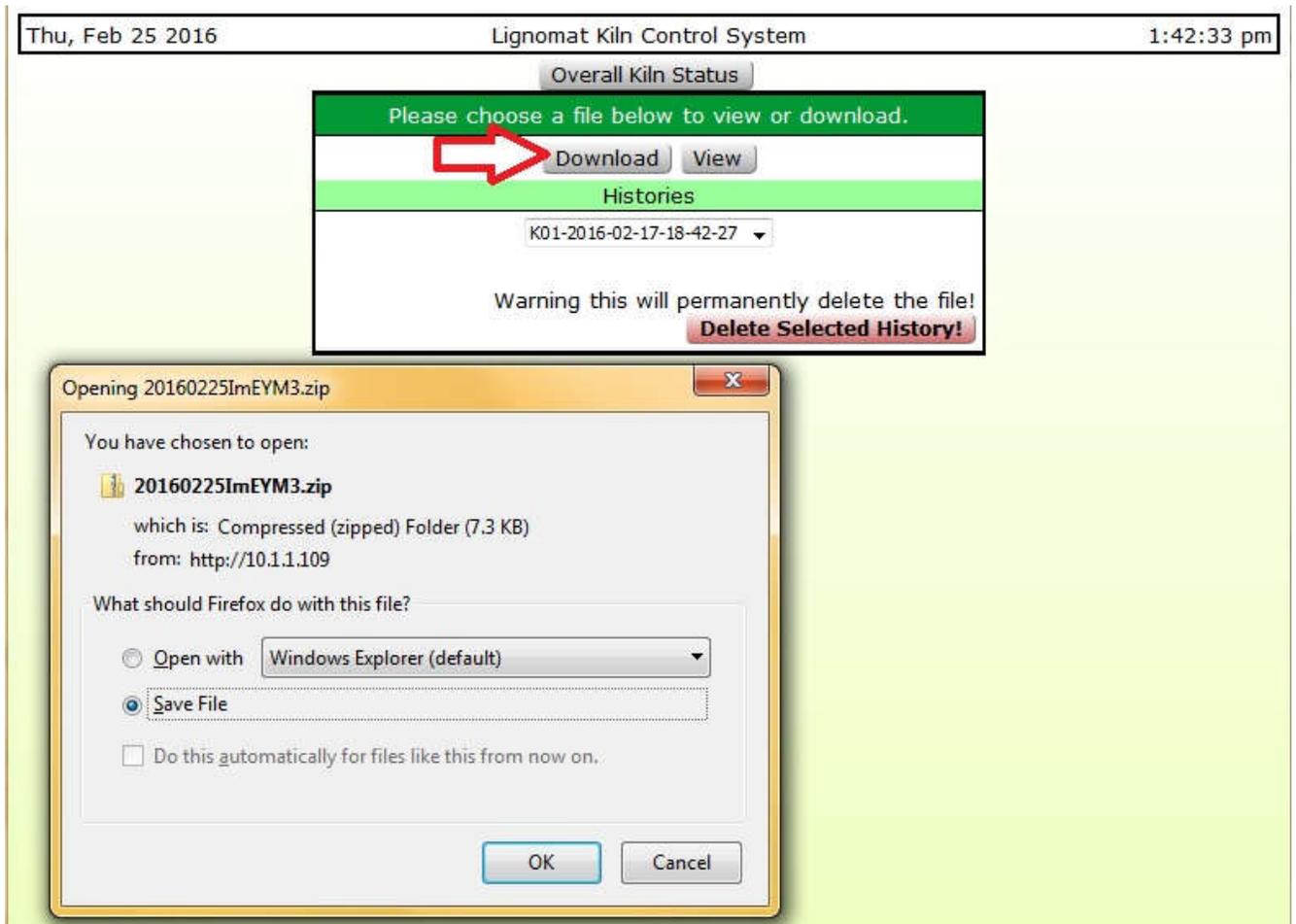
Download View

Histories

Wa K04-2015-11-13-14-26-19
K04-2015-11-13-11-48-38
K01-2016-02-17-18-42-27
K01-2016-02-12-12-35-43
K01-2016-02-12-12-29-09
K01-2016-01-27-14-29-27
K01-2016-01-15-18-20-44
K01-2015-11-11-20-29-45
K01-2015-11-11-14-25-56
K01-2015-11-11-13-01-30

ntly delete the file!
Selected History!

3. Click on Download button then OK to Save File to a location on your PC.



Attach the downloaded file to email message and send to Lignomat tech support: support@lignomat.com

6. TROUBLESHOOTING

If after several minutes with the MP32 turned on and connected to the network you are unable to access the web page try the following.

- Scan the network to determine the IP address of the MP32, typing <http://ipaddress> into your browser will also access the web page.
A possible option is to use NetScanTools Basic. A free network scanner to discover the MP32 host name and IP address.

Video about setting up MP32 is also posted on YouTube. Link:

<https://youtu.be/XneOBb9dVVU>

Recommended accessories

Uninterruptible Power Supply

http://www.apc.com/products/resource/include/techspec_index.cfm?base_sku=BE350G&total_watts=200