DeCloet DCS-3000

Computer Interface Software Operating Manual 2002

A DCS-3000 Expl	orer													
<u>F</u> ile ⊻iew <u>H</u> elp														
🖃 🔠 All Farms	DCS ID	Curing Method	Unit Status	Alarm	Dry	Wet	RTD	Mode	Start	Stop	Rate	Elapsed	Wet SP 1	
Farm 1														
Farm 2														
Farm 4														
NOT CONNECTED	1													

When you start the program for the first time you will be greeted by a blank screen. You now need to tell the program which kiln ID's you want to monitor on each of up to 4 farms. If you have more than one farm you can choose whether you will be connecting to a local farm which is hard wired or through a modem. If you have both types of connection choose COM1 for the local connection and COM2 for the modem connections. All remote farms can be connected one at a time through the same modem, since each farm can have its own unique telephone number.

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🖀 DCS-3000 Exp	lorer													
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All Farms	DCS ID	Curing Method	Unit Status	Alarm	Dry	Wet	RTD	Mode	Start	Stop	Rate	Elapsed	Wet SP 1	
Farm 1														
Farm 4														
		_	⊻iew	<u> </u>										
			Arrange [co	ins 🕨 🗄										
			Lin <u>e</u> up Ico	ns										
			<u>N</u> ew	•	Kiln									
			Properties											
			- 1											
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To tell the program which kilns to monitor, click on one of the farm icons and then right click the mouse on a blank part of the screen. The above menu will appear. Drag the mouse down to New, across to kiln and click.

ADCS-3000 Expl	orer													
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All Farms	DCS ID	Curing Method	Unit Status	Alarm	Dry	Wet	RTD	Mode	Start	Stop	Rate	Elapsed	Wet SP 1	
Farm 3 Farm 4														
Add Kiln X New Kiln ID: 001 Add														
			N	ew Kiln ID): <mark>001</mark>		₿ [. Add						
				**				Car	ncel					
NOT CONNECTED	J													CAF

Before you do this step you must first locally assign unique kiln ID's to each DCS-3000-A controller in setup. This is explained in the DCS Control System Manual

If you will be logging data from your kilns you should have unique numbers for all the kilns you monitor. You could have the kilns ID's for Farm 1 begin with 001 and kiln ID's for Farm begin with 050 for example. Since the logged data will be stored with kiln ID's this will prevent mixing up data from different farms. You can use ID's from 001 to 253

Select the first kiln ID to be added by using the arrow buttons in the scroll box and then clicking Add. The kiln added will appear in gray and the number will increase by one in the New Kiln ID box. If the kilns have sequential numbers you can continue to click add until all the kilns in the yard are shown. If you wish to skip some kilns you can use the scroll arrows to bypass certain numbers.

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🖃 🖓 A	ull Farms	DCS ID	Curing Method	Unit Status	Alarm	Dry	Wet	RTD	Mode	Start	Stop	Rate	Elapsed	Wet SP 1	
L G	Farm 1	6 001	~	~	~	~	~	~	~	~	~	~	~	~	
L G	Farm 2	6 002	~	~	~	~	~	~	~	~	~	~	~	~	
L L	Farm 3	603		~	~	~	~	~	~	~	~	~	~	~	
<u>ا</u> "د	Farm 4	604	~	~	~	~	~	~	~	~	~	~	~	~	
		6 005	~	~	~	~	~	~	~	~	~	~	~	~	
				Add	Kiln				:	>	<Ⅰ				
						_			<i></i>					······	
					ew Kiln IL	0: 006			Add						
									Car	ncel					
NOT CON	INECTED														CAF

Continue adding kilns until all the kilns at the specified farm have been added.

A DCS-3000 Explorer													
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Erint Ctrl+P	ID	Curing Method	Unit Status	Alarm	Dry	Wet	RTD	Mode	Start	Stop	Rate	Elapsed	Wet SP 1
Print Pre <u>v</u> iew	þ1	~	~	~	~	~	~	~	~	~	~	~	~
Print Setup	þ2	~	~	~	~	~	~	~	~	~	~	~	~
Notions	þ3	~	~	~	~	~	~	~	~	~	~	~	~
Real Provide American Ame American American Am American American A	Þ4	~	~	~	~	~	~	~	~	~	~	~	~
E <u>x</u> it	Þ5	~	~	~	~	~	~	~	~	~	~	~	~
La la	J06	~	~	~	~	~	~	~	~	~	~	~	~
Change application options.													

To set the alarm and choose how data will be displayed on all farms select File and then Options.



This dialog box appears to let you:

- Select whether you want an audible or silent alarm if the system detects that one of the temperature set points is more than 10 degrees away from the actual value
- What frequency this audible alarm has
- What columns of information will be displayed

Close the dialog box by clicking the X in the upper right corner when you have finished.

A DCS-3000 Explo	rer							
<u>F</u> ile <u>V</u> iew <u>H</u> elp								
🖃 🖓 All Farms	DCS ID	Curing Method	Unit Status	Alarm	Dry	Wet	RTD	Mode
L Connect		~	~	~	~	~	~	~
L Disconn	ect 2	~	~	~	~	~	~	~
Lisconn	β	~	~	~	~	~	~	~
^E P <u>r</u> opertie	2S 4	~	~	~	~	~	~	~
	11 005	~	~	~	~	~	~	~
	₩ 006	~	~	~	~	~	~	~
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To set up the kiln connection for each farm right click on the farm icon and choose properties.

CS-3000 Expl	orer				
<u>F</u> ile ⊻iew <u>H</u> elp		Farm 1 Properties (0x03) (0b00000011)	×		
All Farms Farm 1 Farm 2 Farm 3 Farm 4	DCS ID Curing Method 001 ~ 1002 ~ 1003 ~ 1004 ~ 1005 ~ 1006 ~	d General Logging Connection Type Connection Type C Local C Local with modern Remote with modern Dialup Phone Number: 1234567 Startup Connect on startup Serial Port Serial Port Serial Port Rame: COM1 : OK Cancel △pply		Elapsed ~ ~	Wet SP 1 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
Ready					CA

Complete the following information in the dialog box:

- Whether the kiln is local or connects through a modem
- If a modem will be used enter the telephone number for the farm
- Specify whether COM1 or COM2 should be used for this connection

Close the dialog box by clicking the X in the upper right corner.

🔏 D	CS-30	00 Explorer													
<u>F</u> ile	⊻iew	<u>H</u> elp													
	🐴 All F	arms	DCS ID	Curing Method	Unit Status	Alarm	Dry	Wet	RTD	Mode	Start	Stop	Rate	Elapsed	Wet SP 1
		Farm 1	🖀 001	Advance and Hold	Run	Low	73	75	N/A	Auto	90	90	1.0	77.5	100
	- Gu	Farm 2	🖀 002	Advance and Hold	Run	High	92	80	N/A	Manual	75	90	1.0	4.6	100
	- ش	Farm 3	6 003	Advance and Hold	Run	Normal	77	78	N/A	Auto	72	90	1.0	1.6	100
	- 6 I	Farm 4	6 004	Advance and Hold	Casing	Normal	77	77	N/A	Manual	70	90	1.0	1.6	100
			6 005	Advance and Hold	Standby	Normal	78	78	N/A	Manual	70	90	1.0	0.0	100
0000	00.10														
10000	:00:13:2	25: TT_DCS_	IT_PIU_0	(DCS.005)											

All kilns should now be displayed.

DCS ID Curing Me	ethod Unit Status	Alarm	Dry	Wet	RTD	Mode	Start	Stop	Rate	Elapsed	Wet SP 1
🔏 001 ~	~	~	~	~	~	~	~	~	~	~	-
₩ 002 ~	~	~	~	~	~	~	~	~	~	~	
🖓 003 ~	~	~	~	~	~	~	~	~	~	~	,
6 004 ~	~	~	~	~	~	~	~	~	~	~	
🖀 005 ~	~	~	~	~	~	~	~	~	~	~	
₩ 006 ~	~	~	~	~	~	~	~	~	~	~	

To view or change the setup of a kiln right click on a kiln icon and chose Setup. The kiln must be in standby to do this. If the kiln is operating this option will be ghosted or greyed out.

CS-3000 Explorer												_ & ×	Start
<u>File View H</u> elp													(AD
DCS ID Curing Method	Unit Status	Alarm	Dry	Wet	RTD	Mode	Start	Stop	Rate	Elapsed	Wet SP 1		
003 Advance and Hold	Standby	Normal	79	77	79	Auto	70	90	1.0	0.0	100		
1 107 Detta I	Step I	Normai	26	25	24	N/A	NZA	N/A	N/A	U.U	38		
	Setup Iden Firm Unit Curir TEM	ification C vare Revis Status: Ig Method PERATUF Engineerin Switching Start of R	iode: C sion: S S : [RE: ng Units Differer ange (*f	003 99.c01 ADVA! x mtial ("F	, NCE_AI	ND_HOLI FAHRE [0.7] 68]		► 	Apply Apply Apply Apply				
		Cycle Tim Startup D	e (Minu elay Tim	tes): ne (Sec	:onds):	10			Apply Apply Cance				
Ready													6:29 PM €€

From this dialog box you can change:
the temperature scale between Celcius and Fahrenheit
the start of range (the lowest setpoint you can program in operation mode)
The motor start up delay after a power failure (this feature only works for DCS controllers with backboard)

	DCS-3	000 Explorer						_ 8	×	🛃 Start
Eile	⊻iew	<u>H</u> elp	_	Operation	×	I				AD
	CS ID	Curing Method	Uni	(eltaT 1	Dry SP 2	Wet SP 2	De	
		Advance and Hold	Rui	Uperation Setup		N/A	N/A	N/A 20		
¹⁰	007		Ste	Identification Code: 003		-0	00	J0		
				Unit Status: Run						
				Curing Method: Advance and Hold						
				Alarm Status: Normal						
				Unit Heater Status: Off						
				Elapsed Time (Hours): 0.0						
				Current Dry Bulb Temperature (°F): 79						
				Current Wet Bulb Temperature (*F): 77						
				Operational Mode:	Apply					
				Fan Motor Cycling Option: OFF	Apply					
				Damper Opening Percentage:	Apply					
				Damper Control Mode:	Apply					
				Dry Bulb START Temperature (°F): 70	Apply					
				Dry Bulb STOP Temperature (°F): 90	Apply					
				Dry Bulb Advance Rate (°F/Hour):	Apply					
				Wet Bulb Setpoint Temperature (°F): 100	Apply					
					Cancel					
									►	6:25 PM
Rea	idy									

Advance and hold dialog box

To change the setpoints or any of the operating parameters double click the desired house icon to bring up this dialog box.

Use the arrow buttons to change values and then press "Apply" to send this information to the DCS-3000 controller.

If the arrow keys are ghosted (greyed pout) it means that this parameter can not be changed. For example you can not change the damper opening percentage if you are in auto damper control mode.

A DCS-3000 Explorer												_ 🗆	×
<u>File V</u> iew <u>H</u> elp													
DCS ID Curing Method	Unit Status	Alarm	Dry	Wet	RTD	Elapsed	Dry SP 1	Wet SP 1	DeltaT 1	Dry SP 2	Wet SP 2	DeltaT 2	
😭 003 Advance and Hold	Run	Normal	80	78	79	125.8	N/A	78	N/A	N/A	N/A	N/A	
⁽¹⁾ 003 Advance and Hold ⁽¹⁾ 017 Delta T ⁽¹⁾	Run Standby	Normal Normal	80	78	79	125.8	N/A 38	78 38	N/A -6	N/A 66	N/A 38	N/A -14	
Ready		I	1										//.

Right click on a house icon and chose Casing if desired.

CS-30	000 Explorer											_ 5	u×	😹 Start
	Curing Method	Unit Status	Alarm	Dry	Wet	RTD	Elapsed	Dry SP 1	Wet SP 1	DeltaT 1	Dry SP 2	Wet SP 2	De	d D
6 003	Advance and Hold	Standby	Normal	79	77	79	0.0	N/A	100	N/A	N/A	N/A		
🚰 QQ7	Delta T	Casing	Normal	26	25	24	8.0	38	38	-6	66	38		
		Casing]							×				
		Casir	19 Setup	1										
		Iden	tification C	ode:	00	7								
		Unit	Status:		Ca	asing								
		Time	e Remainin	g (Hou	rs): 0.1)								
				и т	22	(00)	20							
		Curre	ent Dry Bu ant Wat Bu	lb iemp ub Tem	perature	e (°C): •= (°C):	25							
					iperatur	e (C).	2.5							
		Casi	ng Status:				CASIN		Apply]				
		Dry I	Bulb Setpo	int Tem	nperatu	re (°C):	50	Ð	Apply	1				
		Wet	Bulb Setp	oint Tei	mperatu	ure (°C):	45		Applu					
		Casi	na Duratio	n (Hour	लोग					1				
			ny Duratio	n (nou	sj.		0.0	<u> </u>	Apply] .				
								[Cancel					
			: :											
														0.04 51
				6 () 			63: 6						►	6:24 PM
Ready														

From this dialog box you can start and stop casing as well as change setpoints and casing duration.

n D	CS-3	000 Explorer												_ 8 ×	Start Start
<u>F</u> ile	View	<u>H</u> elp													
DC	SID	Curing Method	Unit Status	Alarm	Dry	Wet	RTD	Mode	Start	Stop	Rate	Elapsed	Wet SP 1		DD
	003	Advance and Hold	Casing	Normal	79	77	78	Auto	70	90	1.0	0.0	100		
🗳	007	Delta T	Step 1	Normal	26	25	24	N/A	N/A	N/A	N/A	0.0	38		
						<u>V</u> 0	BW		Larg	e Icons	· •				
						Ar	range <u>l</u> o	cons 🕨	5 <u>m</u> a Liet	ill Icons					
						Lir	n <u>e</u> up lo	ons	Deta	ails					
						<u>N</u> e	ew	+	<u></u>						
						Pſ	operties	-							
															0.00 PM
															6:30 PM
Read	ly														

You may find it convenient to view the entire kiln yard in large icon format.

Right click on a blank part of the screen and select View and then Large Icons.

A DCS-3000 Explorer	Start
<u>Eile ⊻iew H</u> elp	
► DCS-3000 Explorer L ● □ File ⊻ew Help 003 007	Start
Ready	6:32 PM ≪ € [™]

A small picture (icon) will appear for each specified kiln in the yard. Kilns with operating temperatures within specifications will appear in green, those in alarm will be red and those not responding will be in grey.

Double click a house to bring up a dialog box.

A DCS-3000 Explorer		💶 🗗 🗶 🈹 Start
<u>File View H</u> elp	Operation X	(10)
PCS-3000 Explorer File View Help 003 007	Operation × Operation Setup Identification Code: 003 Unit Status: Run Curing Method: Advance and Hold Alarm Status: Low Vinit Heater Status: On Elapsed Time (Hours): 0.0 Current Dry Bulb Temperature (°F): 73 Current Wet Bulb Temperature (°F): 77 Operational Mode: RUN Apply Fan Motor Cycling Option: OFF Apply Damper Opening Percentage: O Apply Damper Control Mode: AUTO Apply Dry Bulb START Temperature (°F): 107 Apply	_ Ē X Start
	Dry Bulb STOP Temperature (*F): 90 Apply	
	Dry Bulb Advance Rate (*F/Hour): 1.0	
	Wet Bulb Setpoint Temperature (°F): 100 Apply	
	Cancel	6:33 PM
Ready		∢ ⊧⊡

From this dialog box you can see that kiln 003 is in low alarm. You can also see that this has happened because the current dry bulb temperature is 79, but the dry bulb start temperature (setpoint) is 107. An alarm occurs if the dry bulb temperature is more than 10 degrees away from the setpoint. An alarm also occurs if the wet bulb temperature is more than 10 degrees above the setpoint.

Retrieving Data from the optional data logger

To start: Click "house" icon on desktop to start DCS system. Right click "Farm1" icon and select properties from drop down menu. Setup as desired and close window. Right click "Farm1" icon and select connect from drop down menu. Houses on spread sheet should now be green or red.

To upload data to PC from alarm unit: Right click "Farm1" icon and select properties from drop down menu. From properties window select tab marked "Logging" Network status should say AMS (Alarm Monitoring System) was found. Press Start to upload data. The data will be uploaded in 1K blocks. The progress will be reported in this window. When all the blocks have been uploaded close the window.

Preparing the data for display: The data is now stored on the hard drive in a folder marked AMS_Logs. Open this folder. Select view as details and the "modified" heading to sort in date order. Double click the most recent file. A batch process will run to separate the data by kiln.

Displaying the data: Double click the "Graph" icon on the desktop. Press okay to the dialog box. Highlight the number 2. Press the LOAD button Double click the kiln to be graphed. Click print if desired.

Installing Software for the first time

Attach external 56K USR modem to Com1 or Com2 on home PC. Put 3Com-USR modem diskette int A: >From Start, Click on Settings, Control Panel, Double-Click on Modems. Click Add, "Do NOT detect my modem I will select it from a list". Click Have Disk. Click OK, Next, Com1, Next and Finish. Click USR 56 K ext. Click Properties and change maximum speed to 2400 from 19000. Click Port and change to Com1 or Com2 as appropriate. Click connection, Advanced and remove the checkmark at "Use Flow Control". Click Ok and Close.

Put the first DeCloet install disk in A: Click on a:NewFarm1.bat to install files to C: from first diskette. When asked "are you sure?", click "YES".

Click on a:NewFarm2.bat to install files to C: from second diskette. Click on a:NewFarm3.bat to install files to C: from third diskette.

Click on DCS icon on desktop to run DCS Explorer.

Any downloaded files from an AMS logging monitor appear in DCS\Ams_Logs on desktop. Double-click DCS on the desktop then double_click ams_logs. The files are in the form 001_020617101436.alf. This "alf" file can be dragged and dropped on the "Processdcs" icon on the desktop. This will create a text file for each kiln in the form 001.txt. This file can be graphed using the "Graphdcs" icon on the desktop. Double-click Graphdcs, click OK, click PORT COM2 in upper right. Click Load and select c:\windows\desktop\dcs\ams_logs\001.txt.

If downloading from more than one farm, create folders for each farm eg: c:\windows\desktop\dcs\ams_logs\farm1 using "NewFolder" and press the "control" key (bottom left of keyboard) then click and drag the alf and txt files for the current farm and release "control" just before dropping them in farm1. This will MOVE the files from ams_logs to ams_logs\farm1.