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## **INTRODUCTION**

The LFC 3000 software allows you to control your oil Monitoring System from an IBM compatible PC. This offers the possibility to use the network's capabilities to configure the whole system, to dispense oil and to view and print all reports from the PC.

The LFC 3000 package is composed of:

PC interface box

3 diskettes 3.5" containing the software

(2 for the Borland Database and 1 MDS2000 Master for Monitoring software)

Power supply for interface box

Serial cable – connects Interface box to PC

## **PC MINIMUM REQUIREMENTS**

IBM compatible PC 386 - 25 Mhz

2MB RAM memory

40MB Hard disk drive

3.5" floppy disk drive

VGA monitor

Operating system : Microsoft Windows version 3.11 or higher

Serial mouse

## **SOFTWARE INSTALLATION**

The installation of the software requires that Windows be running.

1. Insert the "MDS2000 Master Software" disk into the 3.5" floppy drive A.  
Note: if your drive is drive B, then use B instead of A throughout the rest of the installation procedure.
2. Select RUN from the file menu of the program manager.
3. Type A:SETUP and press "enter".  
From now on if you wish to exit the install routine, then simply click on the exit button.  
A message will be displayed. Then click the OK button and the install routine will be halted.
4. After a few seconds, the welcome screen appears. If you wish to continue installing the software, click on the continue button.
5. You will then be prompted to enter the directory into which the software will be installed.  
If you are not sure where to put it, then just click the continue button.  
If you wish to change the directory, type in the new directory and then click the continue button.
6. The software now installs the program in the required directory. The graph indicates the current percentage installed.
7. Once the files are copied, a screen will appear informing you that the installation is complete. Click the OK button.
8. A screen will appear allowing you to drag the MDS2000 icon on to your desktop. Once the icon is on your desktop close out this screen. You can now change the name of the MDS2000 icon if you wish.
9. Remove the "MDS2000 Master software" disk and insert the "Borland Database Engine" disk # 1 into drive A.
10. Select RUN from the program manager file menu
11. Type A:SETUP and press enter
12. After a small delay the welcome screen should appear. Click on OK.
13. You will now be prompted to enter the directories of various files. These should be left as the default. If you should wish to change them, make sure that both lines are identical. Now click on the continue button.
14. The next screen is a prompt to tell you that the files are about to be installed. To install the files, click on the install button.
15. The software will now start installing the files. After a while, you will be prompted to change the disk. When the prompt appears, remove "Borland Database Engine" disk # 1 and insert "Borland Database Engine" disk # 2 into drive A: then click continue.
16. Once the installation is complete, a message stating such is displayed. Just click on the Exit button.
17. This completes the installation.

## HARDWARE CONNECTIONS AND GUIDELINES

1. The following connections must be made to the PC Interface: Refer to the Instruction manual under "Wiring the PC Interface".
  - A) The network can bus communication line must be connected to the PC Interface.
  - B) The power supply must be connected to the PC Interface.
  - C) The serial cable supplied must be connected between the PC Interface and the PC.
2. When using multiple I/O's the address for each I/O must be set by using a keypad.
3. It is recommended that you first set up your system using the PC software before connecting to the network wiring.
4. You must configure the LFC 3000 using the software PC. The PC software will not recognize previous configurations made with the keypad except for the I/O address.
5. To change the language on the PC go to Options/Language. To change the language at the keypad go to Configuration/General and change the language box as needed. See the following:
  - US0011 reads in English and dispenses in quarts
  - GB4164 reads in English and dispenses in liters
  - ES3124 reads in Spanish and dispenses in liters
  - FR3093 reads in French and dispenses in liters

## USING THE SOFTWARE

Double click on the MDS 2000 icon to use the software. If you are not connected to the network a message will appear stating that it "Cannot communicate with network," "port not open" or "network not found." Click on either "OK" or "Cancel" to use the software without communicating with the network.

### CAUTION

You must configure all of the LFC 3000 from the PC. The PC software does not recognize the previous configuration made at the keypad.



On the right side of the bottom of the screen, there are 8 little squares. These squares represent the availability of the maximum of 8 I/O's connected. When an I/O is connected, the square is green. This feature allows you to check the network between the PC and all the I/O's.



In the case that none of the squares are green, it means you are not communicating on the network. Check the wiring on the LFC 3000 network. To bypass the network hit "Cancel" if the screen is "Network not found" or "OK" if the screen is "Cannot Communicate with Conductor" or "Port not Open".

On the bottom of the screen, you have different options:

### 1. Configuration button:

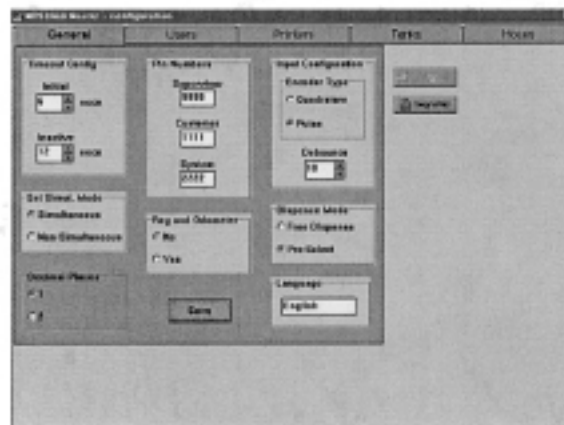
Click on it and enter your PIN number (different PIN numbers for three levels of security: Supervisor 9999 - Customer: 1111 - System: 2222)



### General:

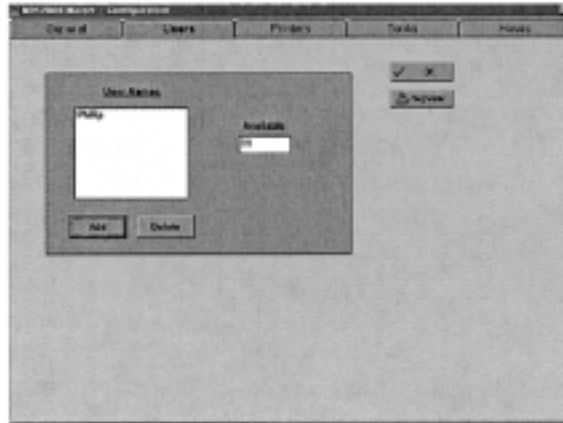
From there, you can configure the different codes, times and general configuration of the installation.

Click on the "change" button to enable the windows button and when all the changes are done, click the "save" button to save the configuration.



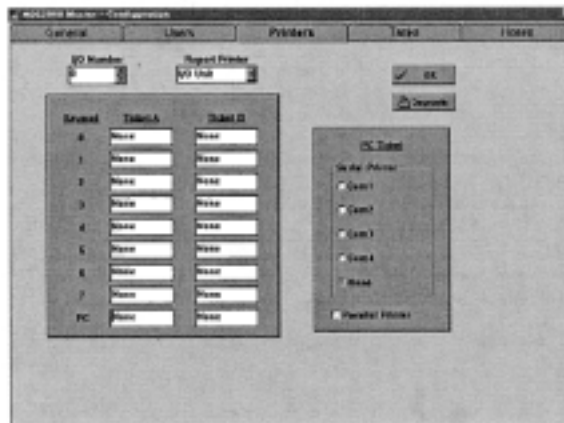
## Users:

You can configure the names and codes of the different users of the system. To add a new user, click the "add" button and follow the steps on the screen.



## Printers:

You can configure the allocation of the different printers located in the system. First select the ID number of the I/O (0-7). Then choose where you want to print reports and transactions from each keypad. If you have a PC printer, also select where it is located.



## Examples:

- Select I/O 0
- I/O 0 will communicate with keypad 0 to 7 only, and with the PC.
- Select the location of the report printer if you have a report printer connected to a keypad or an I/O unit (this only applies to the report requested from the keypad, not the reports at the PC)
- Select the Location of the ticket A and, if desired, the location of a copy (ticket B)

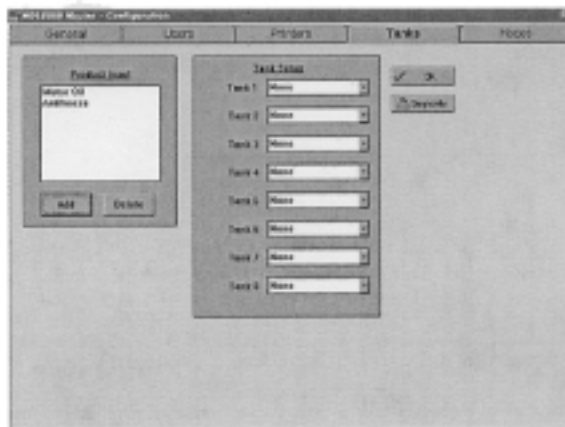
## PC Ticket:

The MDS 2000 allows you to print the transaction ticket at the PC station, select Parallel port.

## Tanks:

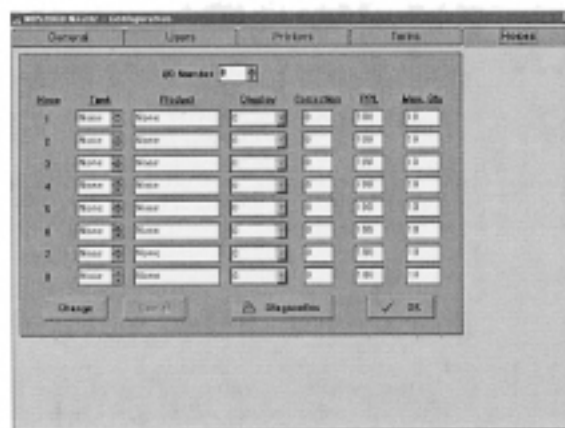
Configure the product names and allocate them to the respective tank.  
Click on the "add" button and follow the steps to create a new product.

## Hose configuration:



Allocate your hose outlets to the respective tank and the respective display ID number.  
For each selected I/O, enter the hose, tank and display allocation, the correction factor, the PPQ and the max. quantity to be dispensed at this outlet. Then click "save" to save your configuration. (for more information, see "user manual").

## 2. Display button:



Click on the display button and enter the system PIN number.  
Two different buttons will appear:



- Tank level
- Oil usage

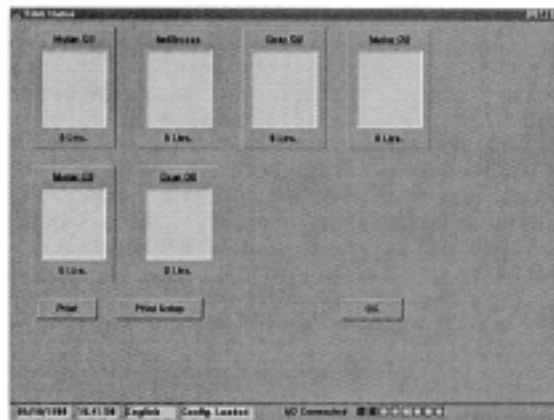
The oil usage button is disabled at this time.

Click on "Tank status"



Click on a tank to configure it.

**How to proceed:**



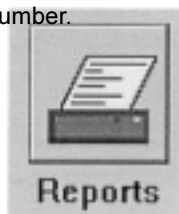
- The stock level may be in liters or gallons
- The tank size may also be in liters or gallons
- The warning level : when the stock falls below the warning level, a message will be printed on each transaction ticket and displayed on the keypad when the corresponding hoses are required
- The stop level: it will prevent dispenses of the selected product when the level in the tank is below the stop level limit. This will prevent air to enter the oil line and prevent any risk of impurities entering the line as well.

**To change any values, just click on it !**

### 3. Report button:



Click on the report button and enter the system PIN number.



Different types of transaction reporting are available:

- Report all: no selection, you receive all the reports
- Report by user: you can select the user through the scroll menu
- Report by product: you can select the product through the scroll menu
- Report by hose: type the hose number
- Report by registration: type the registration number
- Report by job number: type the job number

For each report you will have to select a date: from ... to ...

#### 4. Dispense button:



Click on the dispense button.



You use the PC like a standard keypad to make a transaction.  
If the registration and odometer option is on, it will also appear  
on this screen.

#### 5. Exit button: Just click and you are out of the program.

The choices **SEND & OPTIONS** are on the top of the menu bar.



**SEND:** If you activate the option **SEND**, the configuration stored in the memory of your PC will be transferred on the MDS 2000 network.

**OPTIONS:** allows you to choose one of the following:

1. To change only the language of the PC Master Software
2. To enable or disable the sound - each time a transaction arrives on the PC Hard Disk through the MDS 2000 network, a sound can be heard.
3. To activate "Transactions to disk" which allows you to transfer a copy of each transaction in a ASCII file on your hard disk. Each ASCII file can be treated by any software program (such as Excel - Word,... or into your accounting package software).

You will need a special procedure to get this option enabled or disabled.  
Please contact your installer.

## EXPORT FILE

**Two possibilities available:**

1. On request of a transaction report (any available: by job - registration - hose - user - etc...), you have the choice between "printer" or "export".

If you choose "export", an ASCII file will be issued (you have the choice where to place this file). This file is an ASCII file (CSV format) and it is exactly the same as a report issued in standard on the MDS 2000 system.

This option is more used for occasional applications (to make "spreadsheet" report)

2. The "transaction to disk" option is activated. Each time a transaction is terminated and arrived in the PC, a "copy" is written on the hard disk (or floppy - the place where to copy the file needs to be specified at the activation of the option). The transaction's copy is an ASCII file (CSV format)

**Transaction to disk option:**

**A. How does it work?**

- Enter the code \*\*\* (contact your installer)
- Select where you want to place the transaction to disk and define the file
- The file is composed with 16 lines.

For each line select the information you want (select the line, double click on the required information)

- As last operation, you have to put "End of File" to close the procedure.



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**B. General description:**

The PC is collecting informations from the system, processing and sending the date on a transaction base. The PC is responsible for delivering an ASCII file in a local or shared filesystem in the customer's computer transfer area, by means of different techniques (or via Lanmanager or FTP, in a network environment, via RS232 in non networked environments, via local hard disk, or even floppy may be possible for emergencies). The customer should then from this area, read and merge data into his own software.

**C. Transactions:**

The PC delivers each transactions in separate files named "transaction number." Each transaction possess an unique number and so, one transaction is equal to one ASCII file. The numeration is growing from transaction number 0 to 9999, after the numeration returns to 0 again, until 9999. The transaction is available no later than 1 minute after the transaction has been terminated in the workshop.

**D. Responsibility:**

It is the responsibility of the MDS 2000 to deliver secured transactions in the DOS file system. It is the responsibility of the customer to pick or move datas from this area and to remove or to merge transactions when used.

**E. Security:**

The MDS 2000 Master Software secures that each use of the system, generates a transaction.

This transaction should then be read by the customer and controlled for:

Correct sequence number:

If sequence numbers are missing, the customer's software should generate a warning.

Action:

- a. find the missing transactions and enter it manually
- b. search reason for missing transaction and correct

Correct Job number:

If job numbers are not recognized, the customer's software should generate a warning.

Action:

- a. find the right job number and enter it manually
- b. search for the wrong job number and correct

Correct Part number:

If part numbers are not recognized, the customer's software should generate a warning.

Action:

- a. find the part number and enter it manually
- b. change part number in the PC software or in the customer's software so they match

## BACKUP, RESTORE OR ARCHIVE DATA

You have the option to backup the database you are using. You have to go into the top menu bar in "file" \ Backup Database.

Enter the system PIN number and chose where you want to make your backup.  
 The second option you have is to restore a database.



Follow the same step as for the backup, the system will tell you that this will clear the current database.  
 You can also archive your database. Follow the same procedure as to backup.



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