



# AS/400 HARDWARE MONITORING AND REPORTING

NYCO Ltd

# NEMS/400 - SYSTEM OVERVIEW

## Problem Management Centre

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- Designed to monitor an AS/400 or iSeries and report problem log faults.
- Automatically receive and redirect messages to field engineers via e-mail, text or SMS.
- The PMC (Problem Management Centre) logs and archives all calls.
- The PMC is installed on a “central site” AS/400 or iSeries.
- Connection is via IP using FTP or an asynchronous modem attached to a V24 port.
- Detailed “archived” problem message logs allow report production based on machine, client, date, history, number of problems etc.

# NEMS/400 - SYSTEM OVERVIEW

## Client Control System

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- Client System is installed at the clients' site.
- Messages are transmitted back to the PMC via IP or an asynchronous modem.
- Unwanted messages are filtered out using advanced filtering parameters.
- Received messages are stored in a message log file.
- Two jobs run in a dedicated subsystem on the client machine, a data queue monitor and transmission monitor.
- All NEMS/400 messages are sent via IP or dial up to the PMC.

# NEMS/400 - INFORMATION FLOW

## Client AS/400 Problem Created



```
NNV061                                NEMS/400                                23/04/02
                                NEMS Problem Management Centre          09:30:46
View Problem Messages
                                View: Hide Heartbeats
1=Client Details Enquiry 2=Machine Details Enquiry 5=Display 6=Print
Client      System
Opt Id     Name      Date      Message
- NYCOLTD   NYCOC   22APR02   This machine has not yet been polled
- NYCOLTD   NYCOC   22APR02   No contact since 16/04/02 at 16:37:02
- NYCOLTD   NYCOC   16APR02   PB NO:0206358855 DSR signal connection failed
- NYCOLTD   NYCOC   16APR02   PB NO:0206357859 Line failed. Probable local
- NYCOLTD   NYCOC   16APR02   PB NO:0206358856 Line failed. Probable local
- NYCOLTD   NYCOC   16APR02   PB NO:0206357860 DSR signal connection failed
- NYCOLTD   NYCOC   16APR02   PB NO:0206056568 DSR signal connection failed
- NYCOLTD   NYCOC   16APR02   PB NO:0206056567 Line failed. Probable local
- NYCOLTD   NYCOC   16APR02   PB NO:0206055362 Line failed. Probable local
- NYCOLTD   NYCOC   16APR02   PB NO:0206055361 DSR signal connection failed
- NYCOLTD   NYCOC   16APR02   PB NO:0205839189 Line failed. Probable local
- NYCOLTD   NYCOC   16APR02   PB NO:0205837334 Line failed. Probable local
- NYCOLTD   NYCOC   16APR02   PB NO:0205837333 DSR signal connection fai +
Key: Blue=Not Active Red=Unknown <=Client >=Machine +=Both
F3=Exit F5=Refresh F12=Cancel F14=Change View F15=Current Status F17=Filter
```



Reports Available From Problem Management Centre

Machine Detail

Problem Detail

Rack Configuration

All the generated reports can be sent out as an E-Mail, Text or SMS Message. The engineer can then evaluate and take the required action.

# PROBLEM MANAGEMENT CENTRE

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The main purpose of the Problem Management Centre is to receive system generated problem log messages and “heartbeats”, from associated AS/400s or iSeries, and to have those e-mailed to the hardware engineers to assess the nature and cause of that particular problem. Client details are logged onto this system along with machine information. Detailed on the following screen is some of the system information that we can receive: -

# SYSTEM INFORMATION RETRIEVED BY NEMS/400

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- .A system generated problem number.
- .A message ID.
- .The current rack configuration.
- .The problem function.
- .System Reference Code.
- .Machine Serial Number.
- .Date and Time of the problem.
- .First level text.
- .Problem log details.
- .Pertinent hardware and software details.

## NEMS/400 - CLIENT SOFTWARE

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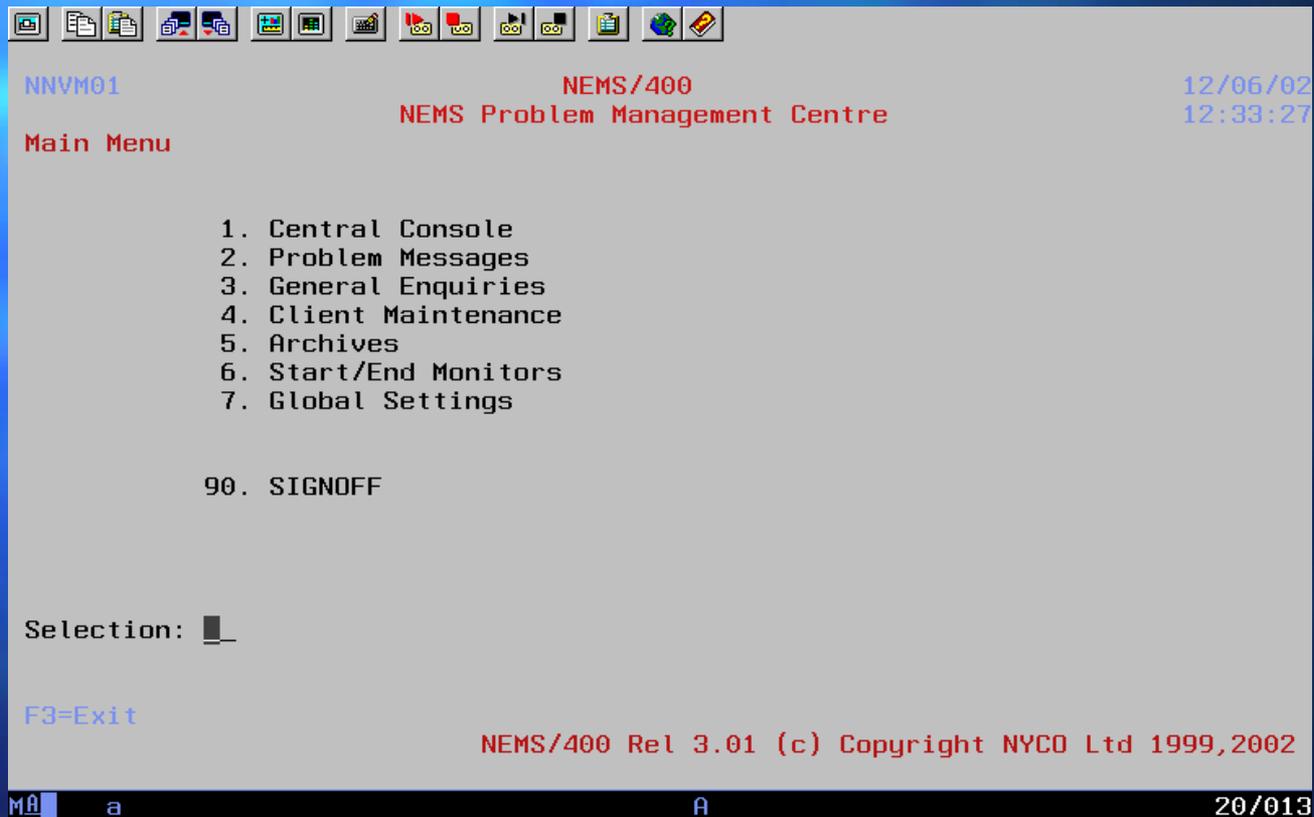
The Client software is as the name suggests installed on the client's AS/400 or iSeries. It is from here that the intervals for the "heartbeat" to be produced and the time intervals that are needed for the monitors to check the data queues and logs are actioned. You will also notice that we have a heading called System Type H/N. NEMS/400 Client software is delivered in 2 "flavours", Hub and Network. The difference between the two is in the sending of the problem message to the main control point. The Client Hub system "dials up" the PMC directly. The Client Network system dials the PMC via the client Hub. This feature is of benefit where the client has multiple machines that are required to be monitored and those machines are linked together.

## NEMS/400

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In the following few screens we will show you how to add a client and their machine details to the PMC, and the transmission of a problem message from that client.

# NEMS/400 - PMC Main Menu



```

NNVM01                                NEMS/400                                12/06/02
                                NEMS Problem Management Centre        12:33:27

Main Menu

    1. Central Console
    2. Problem Messages
    3. General Enquiries
    4. Client Maintenance
    5. Archives
    6. Start/End Monitors
    7. Global Settings

    90. SIGNOFF

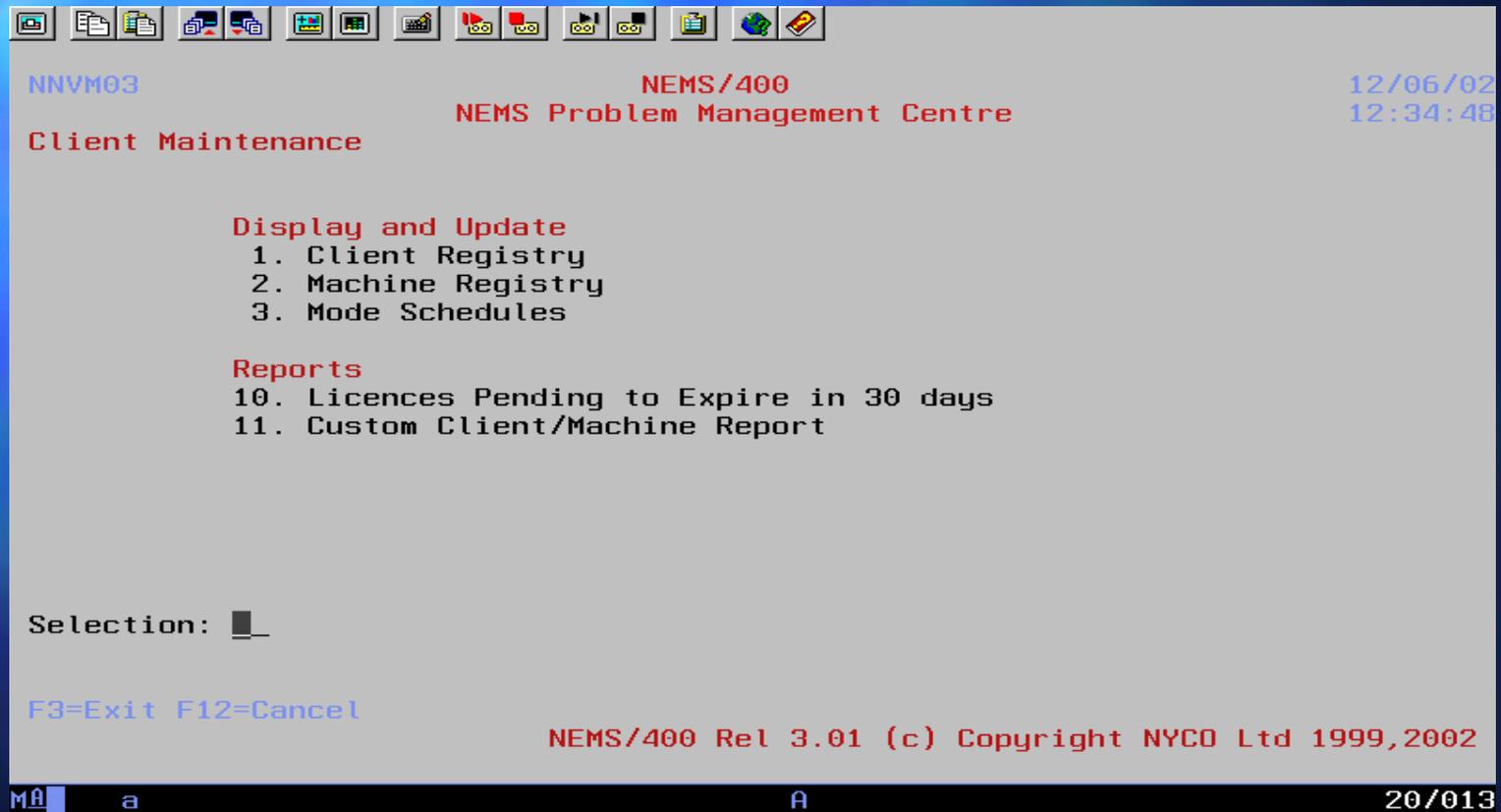
Selection: █

F3=Exit                                NEMS/400 Rel 3.01 (c) Copyright NYCO Ltd 1999,2002

Mâ a                                    A                                    20/013
```

We select option 4 to begin the client set up.

# NEMS/400 - CLIENT MAINTENANCE



To register the client details we select option 1. To register the machine details we select option 2.

# NEMS/400 - CLIENT REGISTRY

NNV002 12/06/02  
NEMS/400 12:36:34  
NEMS Problem Management Centre

Client Registry

2=Work with Client Details 5=Machine Registry

Opt	Client Id	Client Name	Status	Machines	
			A or N	Act	Not
-	NYCOC	NYCO Ltd	A Active	2	0
-	NYCOD	nyco	A Active	1	0

F3=Exit F6=Add New Client F12=Cancel F13=Machine Registry  
NEMS/400 Rel 3.01 (c) Copyright NYCO Ltd 1999,2002

MA a A 08/006

To add a new client, select F6.

# NEMS/400 - CLIENT DETAILS

NNV0021 NEMS/400 12/06/02  
NEMS Problem Management Centre 12:42:08

Work with Client Details

Client Id.....: 100001  
Client Name....: FRED SMITH & CO.  
Client status... A Active

Street.....: LYON ROAD  
Town.....: HARROW  
City, County...: MIDDLESEX  
Postcode.....: HA1 4WE  
Fax Number....: 020 8834 5678  
E-Mail.....: FRED@SMITH.CO.UK  
Contact 1 + Tel: FRED SMITH 020 8834 2345  
Contact 2 + Tel: JOE SMITH 020 8834 2345

Comments.....: CLOSED ALL DAY ON SUNDAY  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

F3=Exit F10=Update F12=Cancel  
NEMS/400 Rel 3.01 (c) Copyright NYCO Ltd 1999,2002

MA a A 06/019

Once all the client details are entered press F10 to update the record.

# NEMS/400 - CLIENT MACHINE DETAILS

```

NNV0031                                NEMS/400                                13/06/02
                                NEMS Problem Management Centre        10:21:36

Work with Machine Details
Client Id.....: 100001
Serial number.....: 4441264
System name.....: NYCOC
Machine licence date.....: 12/11/03           Machine status: A Active
Description.....: BIG BLACK BOX
Location.....: COMPUTER ROOM
Comments.....: _____
                _____
                _____

Last contact.....: 13/06/02 at 9:49           Poll interval (mins): 15

OS/400 Product Code.....: 5716SS1           Processor Model Number...: 150
OS/400 Version-Release Mod: 030700           Processor Feature.....:
                                           Interactive Card Feature.:
Cumulative PTF Level.....: TC97056           Cage Number.....: 9401
Cumulative PTF Status.....: Temporarily applied

F3=Exit F7=Update Licence F10=Update F12=Cancel F15=Display Rack F16=Prt Rack
                                NEMS/400 Rel 3.01 (c) Copyright NYCOC Ltd 1999,2002

MA  b                                07/062
```

Enter all the relevant details about the client's machine. F10 to update the record. Note that the lower section of the screen will be updated by the system automatically.

## NEMS/400

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We have now set up our client and the machine that we will be monitoring on the PMC. We should now look at how we set up the software on the client's machine. The next screen will show us the NEMS/400 Client Hub configuration screen. It is from here that the time intervals for the "heartbeat" and data queue monitors are set up. To reach the screen you need to select option 1 from the NEMS/400 Client Hub Main Menu.



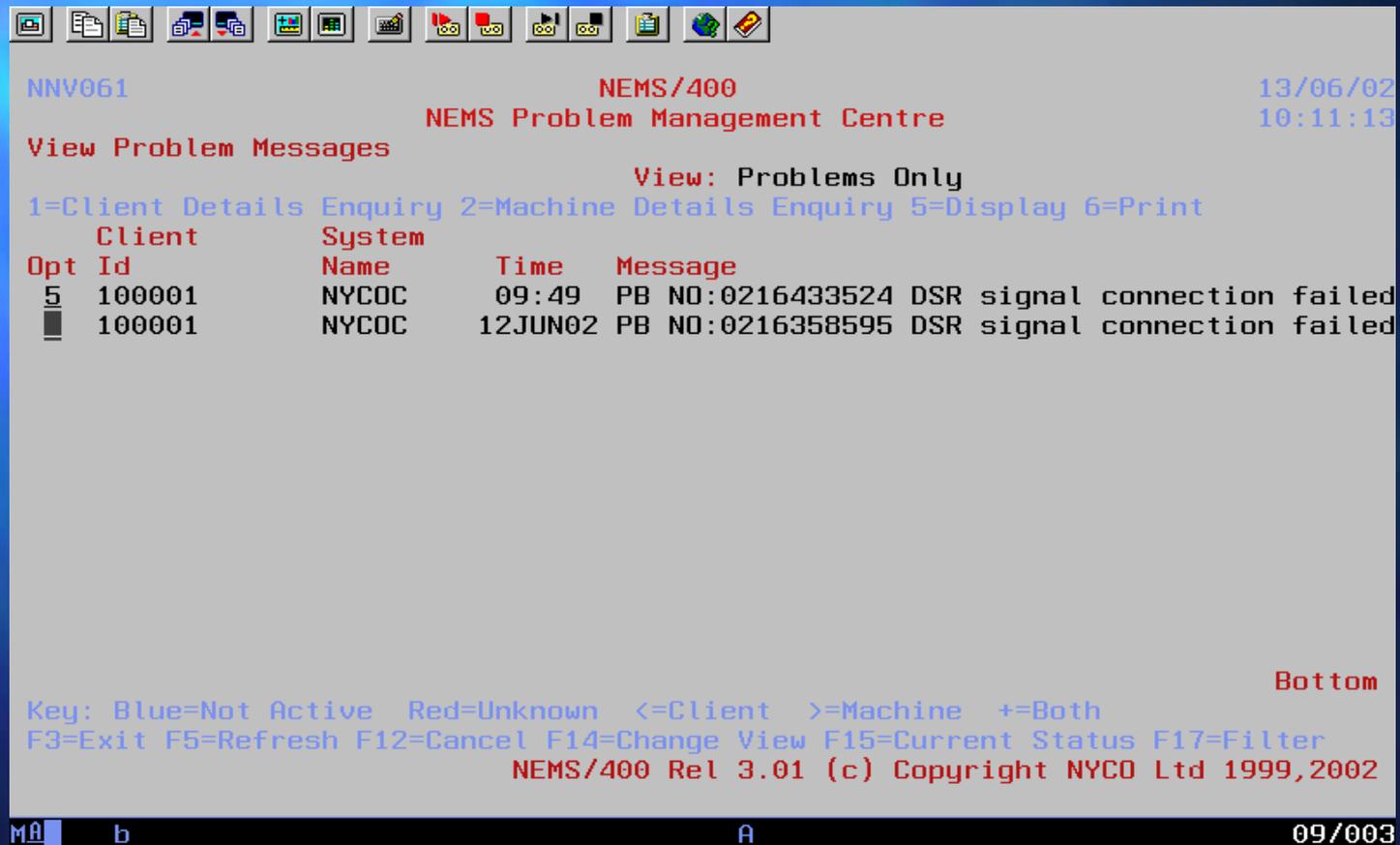
## NEMS/400

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Having completed the set up of both “ends” of NEMS/400, it is now a case of waiting for a problem message to be generated. Obviously from the client’s point of view they hope they will be very few and far between.

Over the next few screens you will be able to see the detailed information that is stored on the PMC relating to the problem message and its machine

# NEMS/400 - VIEW PROBLEM MESSAGES



The screenshot displays the NEMS/400 software interface. At the top, there is a toolbar with various icons. The main window shows the following text:

```
NNV061                                NEMS/400                                13/06/02
                                NEMS Problem Management Centre        10:11:13
View Problem Messages
                                View: Problems Only
1=Client Details Enquiry 2=Machine Details Enquiry 5=Display 6=Print
  Client      System
Opt Id       Name      Time  Message
 5  100001     NYCOC   09:49  PB NO:0216433524 DSR signal connection failed
█  100001     NYCOC  12JUN02 PB NO:0216358595 DSR signal connection failed
```

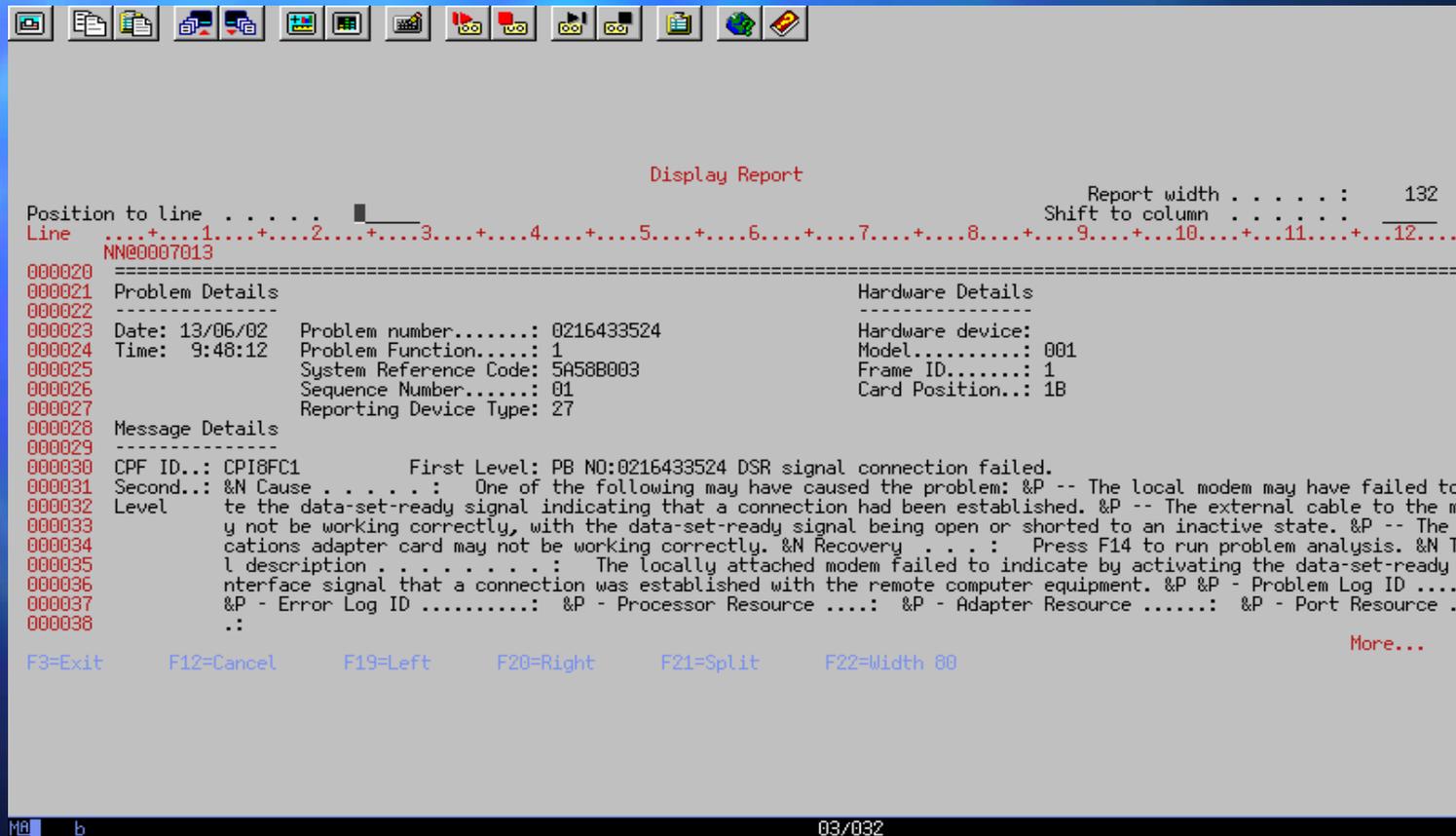
At the bottom of the window, there is a key legend and copyright information:

```
Key: Blue=Not Active Red=Unknown <=Client >=Machine +=Both
F3=Exit F5=Refresh F12=Cancel F14=Change View F15=Current Status F17=Filter
                                NEMS/400 Rel 3.01 (c) Copyright NYCO Ltd 1999,2002
```

The status bar at the very bottom shows 'MA', 'b', 'A', and '09/003'.

Option 5 will obtain a full detailed description of the problem.

# NEMS/400 - PROBLEM MESSAGE DETAILS



```

Display Report
Report width . . . . . : 132
Shift to column . . . . . :
Position to line . . . . . █
Line . . . . . 1 . . . . . 2 . . . . . 3 . . . . . 4 . . . . . 5 . . . . . 6 . . . . . 7 . . . . . 8 . . . . . 9 . . . . . 10 . . . . . 11 . . . . . 12 . . . . .
NN00007013
=====
000020
000021 Problem Details
000022
000023 Date: 13/06/02 Problem number.....: 0216433524 Hardware Details
000024 Time: 9:48:12 Problem Function.....: 1 Model.....: 001
000025 System Reference Code: 5A58B003 Frame ID.....: 1
000026 Sequence Number.....: 01 Card Position..: 1B
000027 Reporting Device Type: 27
000028 Message Details
000029
000030 CPF ID...: CPI8FC1 First Level: PB NO:0216433524 DSR signal connection failed.
000031 Second...: &N Cause . . . . . : One of the following may have caused the problem: &P -- The local modem may have failed to
000032 Level te the data-set-ready signal indicating that a connection had been established. &P -- The external cable to the m
000033 y not be working correctly, with the data-set-ready signal being open or shorted to an inactive state. &P -- The
000034 cations adapter card may not be working correctly. &N Recovery . . . . . : Press F14 to run problem analysis. &N T
000035 l description . . . . . : The locally attached modem failed to indicate by activating the data-set-ready
000036 nterface signal that a connection was established with the remote computer equipment. &P &P - Problem Log ID ....
000037 &P - Error Log ID .....: &P - Processor Resource ....: &P - Adapter Resource .....: &P - Port Resource .
000038 ..
F3=Exit F12=Cancel F19=Left F20=Right F21=Split F22=Width 80 More...
MA b 03/032
```

First and second level text is displayed together with further system details.

# NEMS/400 - VIEW PROBLEM MESSAGES

```

Display Report
Report width . . . . . : 132
Shift to column . . . . . :
Position to line . . . . . █
Line 1 2 3 4 5 6 7 8 9 10 11 12
NN@0007013
000001 NNR030 NEMS/400 Date: 13
000002 NEMS Problem Management Centre Time: 9
000003 Customer Details Machine Details
000004 -----
000005 Number.: 100001 System Name.....: NYCOC Serial: 444126
000006 Name....: FRED SMITH & CO Cage Number.....: 9401
000007 Comments: CLOSED ALL DAY ON SUNDAY Processor Model Number....: 150
000008 Processor Feature.....:
000009 Interactive Card Feature..:
000010 OS/400 Product Code.....: 5716SS1
000011 OS/400 Version-release-mod: 030700
000012 Cumulative PTF Level.....: TC97056
000013 Address.: LYON ROAD Cumulative PTF Status....: Temporarily applied
000014 : HARROW
000015 : MIDDLESEX
000016 : HA1 4WE
000017 Fax.....: 020 8834 5678 Contact 1: FRED SMITH
000018 E-Mail...: FRED@SMITH.CO.UK Telephone: 020 8834 2345
000019 Contact 2: JOE SMITH
Telephone: 020 8834 2345
More...

F3=Exit F12=Cancel F19=Left F20=Right F21=Split F22=Width 80

```

Client and machine details available from the “problem” machine.

# NEMS/400 - VIEW RACK CONFIGURATION

Display Report

Report width . . . . . : 132  
Shift to column . . . . .

Position to line . . . . . █  
Line . . .+ . . .1 . . .+ . . .2 . . .+ . . .3 . . .+ . . .4 . . .+ . . .5 . . .+ . . .6 . . .+ . . .7 . . .+ . . .8 . . .+ . . .9 . . .+ . . .10 . . .+ . . .11 . . .+ . . .12 . . .

NN@0007013

Local Work Station Resources List

Resource	Configuration	Description	Bus	Board	Card	Chl	I/O bus	Adpt	Port	Dev	Session
000118	CMB01		1	0	1						
000120	CTL01	CTL01	1	0	1		14	9			
000121	CTL01	QCTL	1	0	1		14	9			

Display Hardware Resources

5716SS1 V3R7M0 961108

NYCOC 12/06/02 10

Storage Resources List

Resource	Type-Model	Serial Number	Part Number	Frame ID	EIA	Card Pos	Device Pos	Text
000127	CMB01	6756-001	53-7978010	0000045H2391	1	1		Combined function IOP
000129	DC01	6607-050	68-0BC7966	86G9125	1		1	Disk Storage Controller
000130	DD001	6607-050	68-0BC7966	86G9125	1		1	Disk Unit
000131	DC02	6321-002	00-00000		1		6	Optical Controller
000132	OPT01	6321-002	00-00000		1		6	Optical Storage Unit
000133	DC03	63A0-001	00-4268024		1		5	Tape Controller

F3=Exit F12=Cancel F19=Left F20=Right F21=Split F22=Width 80

More...

MA b 03/032

The rack configuration details from the “problem” machine.

## NEMS/400

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The information that we have seen from the last four screens is all stored by the PMC. Upon receipt of that information the PMC can relay the details automatically using an e-mail, text or SMS message via a mobile phone or pager to the designated engineer or service centre of your choice.

Speed of reaction, clarity of reaction and above all else reduction in client “downtime”, resulting from higher service standards, are the key issues that face the computer maintenance industry today. NEMS/400 is the solution to help you achieve these goals.

# NEMS/400 MANUFACTURER DETAILS

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**NEMS/400**

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Thank you for viewing this presentation of

**NEMS/400 from NYCO Ltd**