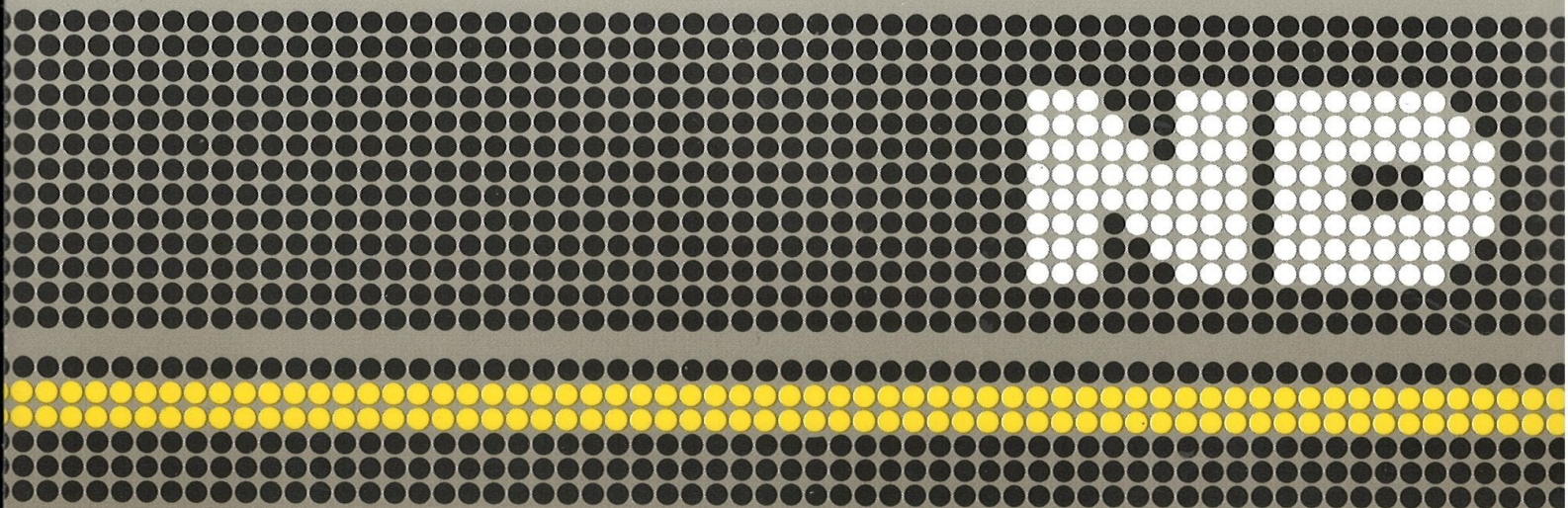


# **COSMOS Network Monitor Operator Guide**

● ND 30.067.1 EN





## Preface:

### THE PRODUCT

This manual describes the product:

COSMOS Network Monitor      ND-211104A

as implemented under SINTRAN III version J or later.

### THE READER

This manual should be read by all system operators (supervisors) in charge of installing, loading, testing and maintaining the COSMOS group of network products.

### PREREQUISITE KNOWLEDGE

You should have knowledge of the operating procedures of SINTRAN III (version J or later) and the COSMOS Basic Module with Inter System Xmessage. XMSG version J or later is assumed.

### THE MANUAL

Chapter 1 is an introduction to the product COSMOS Network Monitor.

Chapter 2 describes the COSMON-MAIN RT-program, which checks the status of servers and network connections.

Chapter 3 describes the COSMON-SERVICE program, which enables you to produce reports from the log file.

Chapter 4 describes how to set up the configuration file.

Chapter 5 describes how the changes in the network status may be watched on a terminal.

Chapter 6 describes how the network status is printed on a log file.

Chapter 7 contains advice on how to run the COSMOS Network Monitor.

Appendixes A and B give examples of a configuration file and a log file.

RELATED MANUALS

The following manuals supply additional information on the operation of the COSMOS range of products.

SINTRAN III System Supervisor Manual ND-30.003

COSMOS Operator Guide ND-30.025

# TABLE OF CONTENTS

Section	Page
1 INTRODUCTION TO THE COSMOS NETWORK MONITOR . . . . .	1
1.1 Introduction . . . . .	3
1.2 External functionality . . . . .	3
2 THE COSMON-MAIN RT-PROGRAM . . . . .	7
2.1 Internal Functionality . . . . .	9
2.2 Installation Considerations . . . . .	10
2.3 Capability Limitations . . . . .	11
3 HOW TO PRODUCE REPORTS . . . . .	13
3.1 How to Produce Reports . . . . .	15
4 HOW TO EDIT THE CONFIGURATION FILE . . . . .	21
4.1 Description . . . . .	23
4.2 The Configuration File Format . . . . .	24
5 WATCHING OUTPUT ON A RESERVED TERMINAL . . . . .	27
5.1 Description . . . . .	29
5.2 How to Interpret the Status Shown . . . . .	31
6 THE LOG FILE . . . . .	35
6.1 Description . . . . .	37
7 SOME IMPORTANT NOTES . . . . .	41



Section	Page
---------	------

APPENDIX

A	EXAMPLE OF A CONFIGURATION FILE . . . . .	45
---	---	----

B	EXAMPLE OF A LOG-FILE . . . . .	49
---	---------------------------------	----

Index		
-------	--	--

C H A P T E R 1

INTRODUCTION TO THE COSMOS NETWORK MONITOR







## 1 INTRODUCTION TO THE COSMOS NETWORK MONITOR

### 1.1 Introduction

The COSMOS Network Monitor is a program that periodically checks out a COSMOS network. The program provides the system supervisor or network operator with an online monitory function. The results of the checking may also be stored in a log file for later long-term statistics of the network performance (as the end-user sees it). In this version it is possible to monitor and log status of;

- connections between any two systems in a COSMOS network
- servers on any system in a COSMOS network

### 1.2 External functionality

The COSMOS Network Monitor consists of two major parts; a RT-program which performs the status checking (described in chapter 2), and a user program which displays status information on a terminal (described in chapter 5). These are called COSMON-MAIN and COSMON-WINDOW from here on. The COSMON-MAIN program is normally running in one machine only (per operator domain), but the two programs may be run on different systems. The figure below illustrates this:

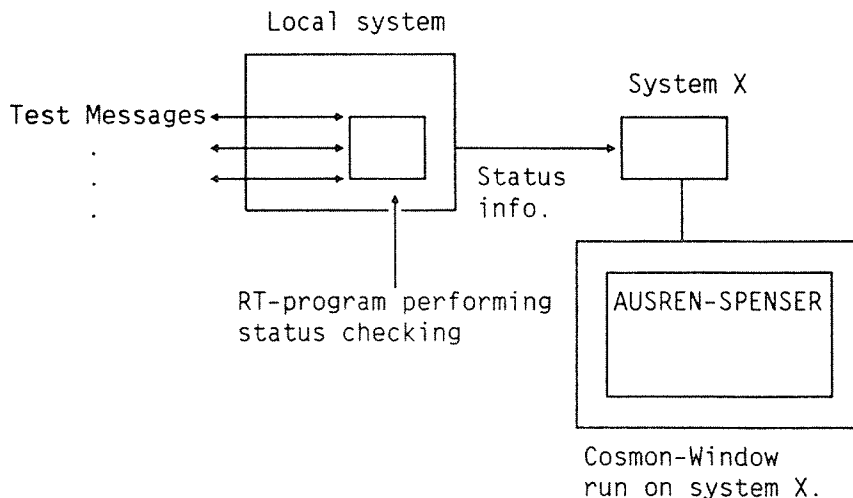


Figure 1. The COSMON-MAIN RT-program and the COSMON-WINDOW program

The picture below illustrates the surroundings of the Cosmos Network Monitor.

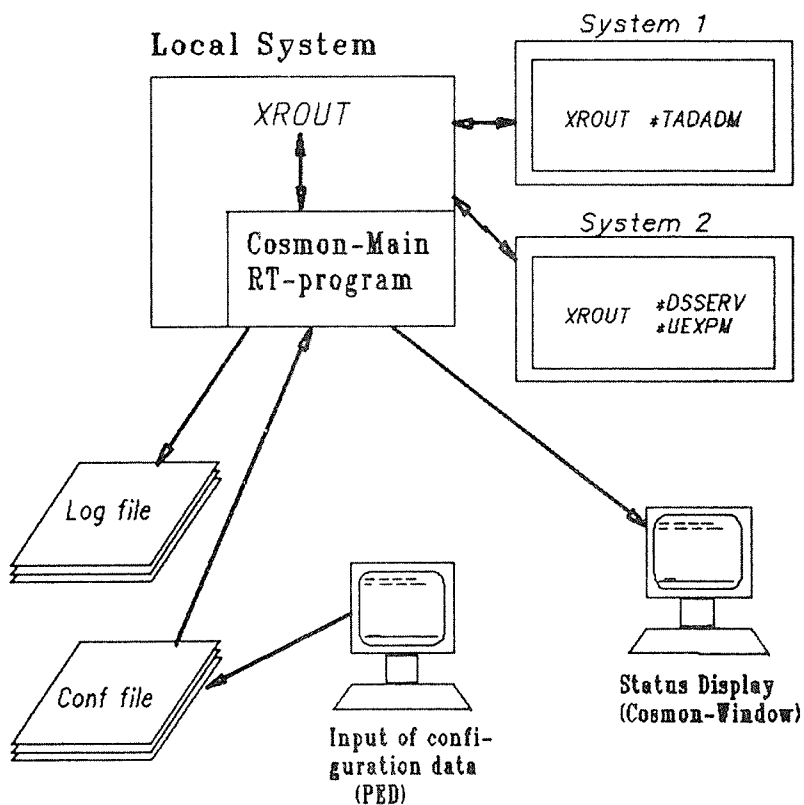


Figure 2. The Surroundings of the COSMOS Network Monitor

You must set up a configuration file (COSMON-DEF:CONF) for the program, specifying which connections or servers are to be checked for status and how often they are to be checked (in minutes). A connection or server that is to be checked is from here on called a **target**.

These are the alternatives:

WATCH <target> : When the COSMON-WINDOW program is started, the status of a target is written on the reserved terminal every minute (at test rate).

LOG <target> : CHANGES in status are written on a log -file, COSMON-LOG:LOGS, which is created as contiguous and loops round when full. You specify the maximum number of lines in the log file (see chapter 4 "How to edit the conf. file").

On the configuration file you indicate what kind of reporting you want to be done.

You set up the configuration file, and install and start the RT-program by following the installation procedure (see the PROGRAM DESCRIPTION SHEET).

The COSMON-MAIN program will then keep status information on each of these targets (at the operator-defined rate) and keep a log of all status changes. Whenever the user-program <COSMON-WINDOW> is started, the status is also displayed on the terminal.

COSMON-MAIN checks the configuration file every minute to see whether or not it has been updated, and reads it again if necessary. This means that you can edit the configuration file on one terminal, look at the log file on another and run the COSMON-WINDOW program on a third.



Status information for targets (output on terminal and log file) will typically appear as follows:

<target name> <date/ time> <status> <test rate>

<state> := OK ! No access to 1st system ! etc.etc.

Example:

<u>From</u>	<u>To</u>	<u>Time</u>	<u>Status</u>	<u>Test rate</u>
BYRON	MARVELL	850624-0900	OK	10
SHAKESPEARE	BRONTE	850624-0900	No access Sys1-Sys2	5

#### Example 1. Status Information displayed on the Terminal

The COSMOS Network Monitor includes a program called COSMON Service. With the COSMON-SERVICE program it is possible to produce reports from the log file.

It is possible to get detailed and global reports of connections between systems you may also produce status reports of the servers on the systems.

For a more detailed description of the COSMON-SERVICE program, see chapter 3.

CHAPTER 2

THE COSMON-MAIN RT-PROGRAM







## 2 THE COSMON-MAIN RT-PROGRAM

### 2.1 Internal Functionality

In order to interpret the status reporting correctly, the operator should know a little about how the COSMON-MAIN RT-program checks status.

#### **Connections:**

When checking the status of a connection between a local and a remote system or between two remote systems, COSMON-MAIN sends a letter to the first system (mail office). This letter is addressed to a dummy port (it does not exist) on the 2nd system.

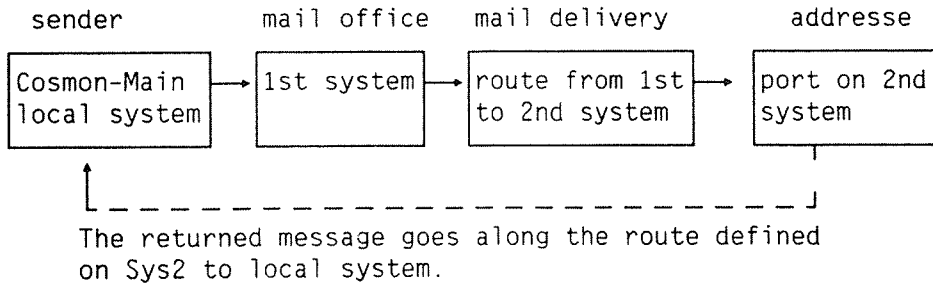
If the 1st system is unavailable from the local system, an error message is returned to COSMON-MAIN. Otherwise, XROUT on the 1st system sends the letter to the 2nd system. The letter follows the same route as an end user would normally set up when trying to reach the 2nd system from the 1st.

If the letter reaches the 2nd system, it will bounce back to the local system with a message saying that there exists no port with this name. This means that the connection is OK.

If the letter does not reach the 2nd system, it is returned to the local system with an error code telling what went wrong.

#### **NOTE !**

All information returned to the local system is sent via the route defined on the system it is sent from. Therefore all systems must know the local system, have a route defined to it and also have access to it. A status request that has not been answered within a certain time (specified in the program by a timeout constant) is interrupted and a timeout status on this target is returned.



### Servers :

A server on the local or a remote machine is checked by using a new XROUT-facility in XMSG-K (or later). COSMON-MAIN simply sends a question to XROUT on the target system and an answer is returned if the target system was reached. If not, a message is returned with an error code telling what went wrong.

An abbreviated server-name returns collected information on all servers that match the partial name.

Example:

Server-name	*FA
would return	#Ports=3
if there were servers	*FA-SERVER,
	*FA-FSA,
	*FA-USER.

## 2.2 Installation Considerations

For meaningful test results, the COSMON-MAIN program (the part that performs status checking) should be run on a central system in the network (an isolated system knows little about the surroundings and the surroundings probably know less about it).

The facility for checking servers is only available when XMSG on the target system is of version K or later. If the version is too old, an error message is displayed. For detailed description of the installation procedure, see the Product Description Document.

### 2.3 Capability Limitations

The following constants are worth noting:

- maximum number of targets = 60
- " targets of type connection = 30
- " targets of type server = 30
- " unique system-names = 100
- " pending requests = 10
- maximum pending time for a request = 1 minute





CHAPTER 3

HOW TO PRODUCE REPORTS





### 3 HOW TO PRODUCE REPORTS

#### 3.1 How to Produce Reports

Report types available from the COSMON-SERVICE program:

- DETAIL - an easier-to-read version of the log file for connections
- GLOBAL - a statistics report on access via connections (Uptime and downtime in % and minutes)
- SERVER - an easier-to-read version of the log file for servers

Before you execute the REPORT-command, you must merge the configuration file and the log file. This is done by the SAVELOG command. The merged file is saved and you may use it later to produce reports. The figure below illustrates the commands in the COSMON-SERVICE program.

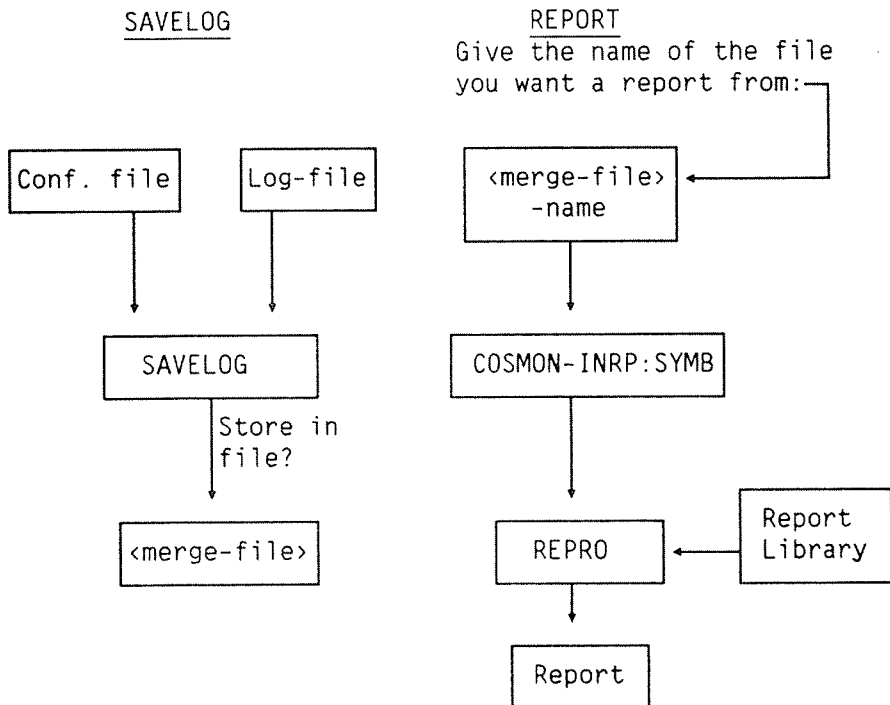


Figure 3. The Commands in the COSMON-SERVICE Program

The example below shows you how to start the COSMON-SERVICE program:

```
@COSMON-SERVICE ↵  
  
COSMON-SERVICE : HELP ↵  
  
HELP           - DISPLAY THIS PAGE  
  
SAVELOG        - MERGE THE LOG FILE AND THE CONFIGU-  
                  RATION FILE AND PUTS THE RESULT  
                  IN A FILE FOR RUNNING A REPORT  
  
REPORT         - START REPRO, WHICH PRODUCES A  
                  REPORT FROM THE MERGED FILE.  
  
EXIT           - EXIT THE COSMON-SERVICE PROGRAM  
  
COSMON-SERVICE :
```

Example 2. How to start the COSMON-SERVICE program

If you type HELP, after having started the COSMON-SERVICE program, all the alternative commands are displayed.

The SAVELOG-command merges the configuration file and the log file into one file. You use this command before you produce a report over the network status.

NOTE !

If, for example, you have chosen to run the report jobs on another system than the local, be sure that you merge the log file with the right configuration file.

```
COSMON-SERVICE : SAVELOG ↵  
  
GIVE NAME OF MERGE-FILE (default file-type = SYMB) :
```

Example 3. The SAVELOG-command



The SAVELOG-command creates the "merge-file" if it does not exist. You can use any of your merged files when later producing a report. Remember always to use the SAVELOG-command (to update your merge file) before you produce a report based on the current log-file.

The REPORT-command gives you four options. You can choose whether the report should be DETAIL or GLOBAL, or just contain SERVERs. The example below illustrates the REPORT-command.

```
COSMON-SERVICE:REPORT ↵  
  
    - 4 OPTIONS  
      DETAIL  
      GLOBAL  
      SERVER  
      EXIT  
    (WRITE OPTION WANTED <CR>)  
  
REPORT:
```

#### Example 4. The REPORT-command

Whether you choose DETAIL, GLOBAL or SERVER, you are always asked to give the name of the file you want a report from. Here you write the name of one of the merged files you have got after using the SAVELOG-command.

You are asked to specify the output file you want the report to be written to. It might be wise to store the report in a text file, which you can write to the printer. You may also specify the printer directly as the output file.

You are also asked to specify the 'from-system' and the 'to-system' or 'server'. Each of the three options, DETAIL, GLOBAL and SERVER, asks for the start and stop date of log print, and the start and finish hour of log print. If instead of specifying this information you just type RETURN, you get a report of connections between all the systems or a report of the status of every server.

The example below shows how a report from the option DETAIL might appear. This example gives a report on the connection between the two systems 'COLERIDGE' and 'MELVILLE'.

```

=====
Test from system: COLERIDGE                      To: MELVILLE
=====
DATE      TIME      STATUS CHANGE      SAMPLE-RATE  UPTIME  DOWNTIME
-----
1986-11-20 13:02    No access Sys1-Sys2          1        0        15
-----
1986-11-20 13:17    OK                          1       174        0
-----
1986-11-21 15:18    No access Sys1-Sys2          1        0       58
-----
174 mins. or 70.5 % uptime      73 mins. or 29.5 % downtime
=====

```

#### Example 5. Output when using the option DETAIL

The example below shows how the output from the option GLOBAL might appear. The report lists the access from COLERIDGE.

```

=====
Network access time from system : COLERIDGE
=====
To system:   Sample rate:  Uptime in %:  Uptime m.:  Downtime m.
=====
MELVILLE           1           29.5           73           174
LONGFELLOW           3          100.0          247            0
EMERSON              3           96.9          6779           220
=====

```

#### Example 6. Output when using the option GLOBAL

The example below shows how the report from the option SERVER might appear. It is a report on the server \*IDSERVER on system COLERIDGE.

```
=====
Test of server : *IDSERVER          on system : COLERIDGE

Sample rate in minutes :      1
=====
DATE          TIME  STATUS                      #PORTS  #CONN-PORTS  #FSPs
-----
1986-11-20 13:02 OK                               1        1           20
1986-11-20 16:59 Unknown name of server  0        0           0
1986-11-25 09:41 Change of COSMON cond.  0        0           0
=====
```

Example 7. Output when using the option SERVER

'Change of COSMON cond.' - means that the operator, at that moment, edited the configuration file. Or that the SAVELOG command was executed at that time.



C H A P T E R 4

HOW TO EDIT THE CONFIGURATION FILE





## 4 HOW TO EDIT THE CONFIGURATION FILE

### 4.1 Description

The configuration file is created by using a text editor with 7-bit storage format (e.g. PED). In this file, COSMON-DEF:CONF, the operator specifies all input data to the program. The file is set up in a fixed format, and any departure from this might cause errors. Therefore, use the example of a configuration file on the floppy diskette as a pattern the first time.

As mentioned in chapter 2, you must be aware of the following constants in the program when you are editing the configuration file:

- maximum number of targets = 60
- " targets of type connection = 30
- " targets of type server = 30
- " unique system-names = 100
- " pending requests = 10
- maximum pending time for a request = 1 minute

The figure below illustrates the configuration file format.

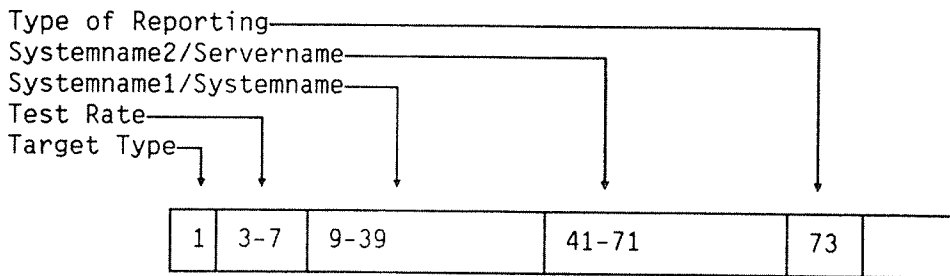


Figure 4. The configuration file format



## 4.2 The Configuration File Format

The first line in the configuration file specifies the maximum number of lines in the log file. See Appendix A for an example of a configuration file. The format should be:

- position      1: L
- position      3-7: Number of lines in the log file (minimum 1 line, maximum 32767 lines)

All the following lines in the file specify target information.

- position      1: Type of target:
  - 0: Connection between two systems
  - 1: Server on a system
  - ?: This target is ignored
- position      3-7: Test rate (minimum 1 minute, maximum 32767 minutes)
- position      9-39: System-name
  - system-name of first system for target-type connection
  - target-system for target-type server
- position      41-71: System-name/server-name
  - system-name of 2nd system for target-type connection
  - server-name (full/abbreviated) for target-type server
- position      73: Type of reporting, WATCH/LOG
  - 0: WATCH/LOG-Output on terminal and log-file = default
  - 1: WATCH-Output on terminal only
  - >1: LOG-Output on log-file only

There are three ways of getting information about the connections and the servers in the network; you can use WATCH, LOG or both.

Here is an example of how you can choose different types of reporting:

Target

Type of reporting

Connection:

SHAKESPEARE	MARVELL	WATCH & LOG	This is an important connection. The operator wants to be alerted when a change of status occurs as well as running statistics over a long period of time.
-------------	---------	-------------	--

Connection:

BYRON	BRONTE	WATCH	If, for example, the connection is currently down the operator might want to be alerted when it is available again. It is not necessary to log status changes on this target.
-------	--------	-------	---

Server:

BYRON	*DSSERVER	LOG	This information is assumed not to be vital network information (and needs not therefore be displayed on the terminal) but it might still be interesting to log changes in server status for later statistics.
-------	-----------	-----	--



C H A P T E R 5

WATCHING OUTPUT ON A RESERVED TERMINAL





## 5 WATCHING OUTPUT ON A RESERVED TERMINAL

### 5.1 Description

Status for those targets that have been specified as 'WATCH'-targets in the configuration file, is displayed when the COSMON-WINDOW is started.

@COSMON-WINDOW ↵

Give the name of the system where the Cosmon-Main program resides  
Default = local system

#### Example 8. Starting the COSMON-WINDOW

#### NOTE !

The COSMON-WINDOW program is stopped by pressing either the EXIT or the RETURN key.

This program does not have to be run on the same system as the COSMON-MAIN RT-program. The COSMON-WINDOW program asks for the name of the system where the COSMON-MAIN RT-program resides. Default = local system.

Only one COSMON-WINDOW per running COSMON-MAIN RT-program can be started at the same time.

As long as the COSMON-WINDOW program is running, status on each target that has been specified to be 'watched' is displayed every minute (at the operator-defined test rate).

There are headers for each type of target on the screen and all connection targets are written first. Furthermore, the format of the output is very much the same as output on the log-file except that status is explicitly written out and no date or target-type is displayed.

The following example shows how this output might appear on the terminal:

(T = Test rate).

Sys1	Sys2	TIME	STATUS	HISTORY	T	
BYRON	MARVELL	16:34	OK.....	-----	2	
WHITMAN	HAWTHORNE	16:30	No access Sys1-Sys2.		5	
SPENSER	COLERIDGE	15:00	Sys2 unknown on Sys1	----■	120	
SysName	Servername	Time	#Ports	#ConnPorts	#FSPs	T
MARVELL	*IDSERVER	16:00	1	1	24	60
BYRON	*DSSERVER	16:30	0	0	0	5
AUSREN	*TADAM	16:15	No access to system			30
Cosmos Network Monitor						

Example 9. Output on a Terminal

You might scroll the screen by using the up and down arrows on your keyboard.

The "HISTORY"-field, shows the access during the last 8 periods (8\*T minutes) for a connection:

- Inverse video      Means that there has been no access via that connection.
- Normal video      Means that the connection has been OK.
- -----          Means that the state of the connection was unknown, for example that there was no access to the 1st system.
- The character to the right represents the most recent status.



Supposing that T means time for last testing, this would mean:

Example: █--█ █

T-7 : There was no access via this connection  
T-6 : The state of the connection was unknown  
T-5 : The state of the connection was unknown  
T-4 : There was no access via this connection  
T-3 : Connection was OK  
T-2 : Connection was OK  
T-1 : Connection was OK  
T : There are no access via this connection

## 5.2 How to Interpret the Status Shown

OK

- the connection is OK

No access to Sys1

- The 1st system in a connection cannot be reached. This can mean any of the following:
  - No route defined on local system to 1st system
  - Network failure on the way to 1st system
  - No route defined on 1st to local system

No access Sys1-Sys2

- 2nd system cannot be reached from 1st  
This could have been caused by any of the following:
  - Network failure somewhere between the two systems
  - No routing to Sys2 defined on 1st system or one of the systems on the route from 1st to 2nd system

- There is a loop in the routing from Sys1 to Sys2
- The second system is unknown to one of the systems on the route between Sys1 and Sys2
- The name specified for Sys2 is not recognized by Sys2

Sys1 unknown

- The first system in a connection is unknown to the local system

Sys2 unknown to Sys1

- The name of Sys2 is unknown to Sys1

No access to system

- Server system cannot be reached from the local system for the same reasons as "No access to 1st system" above

System unknown

- The server system is unknown to local system

Unknown name of server

- No match found on the (abbreviated) server name

Requires SINTRAN K or later

- A server-status check has been ordered on a system that runs a SINTRAN-version K or earlier.

Timeout on request

- Timeout on a status request. This can be interpreted in any of the following ways:
  - There are no routing defined on/no access from Sys2 to the local system
  - The test message did not reach the 2nd system because something went wrong on the way and the last system handling the message has no route defined or no access to the local system

The message has been discarded.

This is the information displayed on the servers when no errors have occurred in trying to reach the server system or finding the specified server name:

#Ports = Total number of ports matching the  
specified (abbreviated) server name

#ConnPorts = Number of connection ports among  
total number of ports

#FSPs = Total number of free service points  
for this server





CHAPTER 6

THE LOG FILE







## 6 THE LOG FILE

### 6.1 Description

Every change in the status of the targets that the operator has decided to log is written to the log-file. The changes are written in the order they appear and are not sorted in any way.

This file is created as contiguous by the program and the operator specifies its maximum number of lines in the configuration file. When the file is full, the program will begin writing at the beginning of the file again. To avoid overwriting any logging information, you must try to match the number of targets and the number of lines in the log file.

#### NOTE !

When the configuration file is changed, all targets specified to be logged in the old as well as the new configuration file are written to the log-file (even if their status has not changed). If you want to change the configuration file very often and still not risk overwriting logging information, you should specify a log file with many lines.

When changing the number of lines of the log file, the contents of the log file will be erased.

Starting up the program or changing the contents of the configuration file will cause lines to be written to the log file telling what action was taken and when.

Changes in number of free-service points (#FSPs) for a target of type server is only logged if :

- The previous number was zero (current number is > 0)
- The current number is zero (previous number > 0)

Output on log file for connection

The output format illustrated below is used for connections.

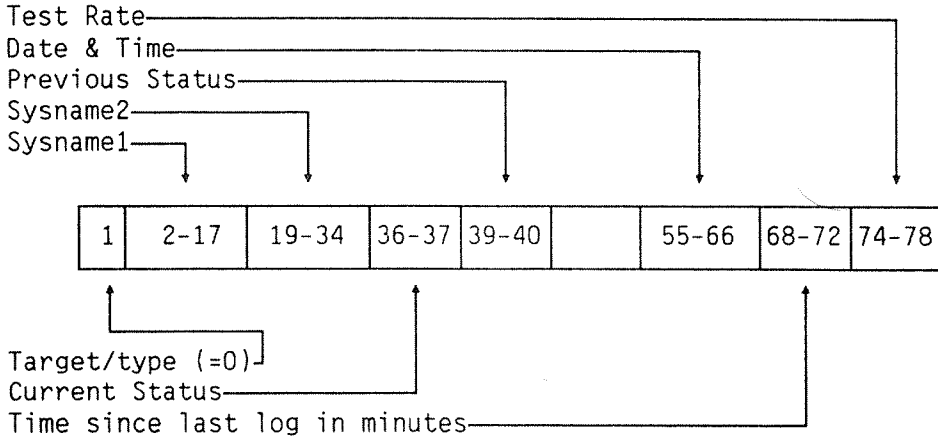


Figure 5. Output format on log file for connections

Output on log file for server

The output format illustrated below is used for servers.

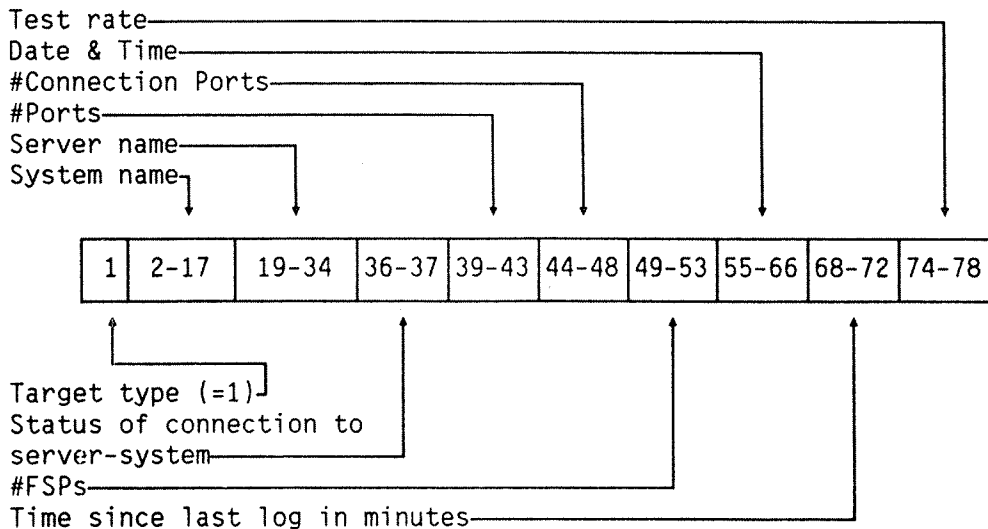


Figure 6. Output format on log file for servers

Starting at the beginning of a line, this is the output data and format (see also Appendix B).

- position 1: Type of target
  - 0: Connection between two systems
  - 1: Server on a system
  - ?: Special information, COSMON-MAIN started', 'Change in configuration file', 'Size of log file changed'
- position 2-17: System-name
  - system-name of first system for target-type connection
  - target-system for target-type server
- position 19-34: System-name/server-name
  - system-name of 2nd system for target-type connection
  - server-name (full/abbreviated) for target-type server
- position 36-37 : Status of target presented as an integer, see explanation below
- position 39-40 : For target-type connection, previous status of target presented as an integer
- position 39-43 : For target-type server, total number of ports matching given server-name
- position 44-48 : For target-type server, number of connection ports matching given server-name
- position 49-53 : For target-type server, number of free service points for all connection ports matching given server-name
- position 55-66 : Date and time when change of status occurred
- position 68-72 : Time since last logging of this target
- position 74-78 : Test rate for this target, as specified by operator



Status on the log-file is presented as an integer and these are to be interpreted as follows :

- 0 = Initial state when starting up the program changing the configuration or merging the configuration file and the the log file.
- 1 = OK
- 2 = No access to Sys1
- 3 = No access Sys1-Sys2
- 4 = Sys1 unknown
- 5 = Sys2 unknown to Sys1
- 6 = No access to system
- 7 = System unknown
- 8 = No such server running
- 9 = Requires SINTRAN K or later
- 10 = Timeout on request

C H A P T E R 7

SOME IMPORTANT NOTES







## 7 SOME IMPORTANT NOTES

When running the COSMOS Network Monitor, you should be aware of the following:

- Testing connections which run over public networks (X.25, X.21) may cost a lot of money if you set a small test rate.
- The COSMOS Network Monitor may give an unreliable status response if the routing back to the local system is down.

As a reminder from chapter 2:

For meaningful test results, the COSMON-MAIN program (the part that performs status checking) should be run on a central system in the network.

To be able to use the facility of checking servers, XMSG on the target system has to be of version K or later. If the version is too old, a status telling this is returned. For a detailed description of the installation procedure, see the Product Description Document.



A P P E N D I X   A

EXAMPLE OF A CONFIGURATION FILE





The following is an example of what a configuration file might look like:

L 1000			
%0 10	SHAKESPEARE	WORDSWORTH	0
1 1	BYRON	*DUMMYSERVER	0
1 1	SHAKESPEARE	*XM-X25NS	0
0 1	BLAKE	COLERIDGE	1
0 3	BYRON	MILTON	0
%0 1	BYRON	THOREAU	2
%0 1	THACKERAY	HEMINGWAY	2

Example 10. Example of a Configuration File

L 1000 at the top of the file, means that the operator reserved 1000 lines for this log file.

After specifying the number of lines in the configuration file, you write the names of the systems and servers you wish to check. It is important that you write the target information in the correct positions.

% - in the first position means that this target should be ignored. In this way you may change the contents of the configuration list without deleting any of the targets you have specified.

We will here explain the format for one connection and one server from the example above.

- Checking a server on a system:

\*XM-X25NS is a server (position 1 = 1 :server) on system SHAKESPEARE. The server is checked every minute (position 3 = 1 :test rate in minutes). And the test results are displayed on a terminal and a log-file (position 73 = 0 :type of reporting).

- Checking a connection between two systems:

The connection between the two systems (position 1 = 0 :connection), BLAKE and COLERIDGE, is checked every minute (position 3 = 1). And the test results are displayed on a terminal (position 73 = 1 :output on terminal).

For explanation of how to set up a configuration file, see chapter 2.





A P P E N D I X   B

EXAMPLE OF A LOG-FILE





The illustration below shows an example of how a log-file might appear:

1SHAKESPEARE	*XM-X25NS	1	1	1	0	198611071347	10	1
1BYRON	*DUMMYSERVER	8	.....			198611071347	10	1
ODICKENS	CHAUCER	1	3	.....		198611071355	10	1
ODICKENS	SHELLEY	1	2	.....		198611071403	10	1
OBYRON	MILTON	1	10	.....		198611071403	10	3
1STEINBECK	*FA-SERVER	1	5	5	5	198611071425	10	3

#### Example 11. Example of a Log File

As an example on what the output on the log file means, we will explain the connection between the two systems DICKENS and CHAUCER:

A 0 in position 1 means that it is the connection between two systems, DICKENS and CHAUCER, that has been checked. The connection between DICKENS and CHAUCER is OK (position 36 = 1).

Position 39 tells us the previous status of the connection. Position 39, in this example, has the value 3, and that means that there was no access between DICKENS and CHAUCER when the status changed to OK.

In position 55 the date and time for the log are written. 1 in position 68 means that the previous status lasted for 10 minutes. The last position (position 78) is the test rate. In this case it is 1 minute.

Chapter 6 gives a more detailed description of the log file.





INDEX LIST

Index term	Reference
Configuration file . . . . .	5, 23
Connections . . . . .	9
ConnPorts . . . . .	33
COSMON-MAIN program . . . . .	3, 10
COSMON-WINDOW . . . . .	3, 5, 29
COSMOS Network Monitor . . . . .	3
Example of a configuration file . . . . .	47
Example of a log file . . . . .	51
Example: output from DETAIL . . . . .	18
Example: output from GLOBAL . . . . .	18
Example: output from SERVER . . . . .	19
Example: output on a terminal . . . . .	30
Example: starting the COSMON-SERVICE . . . . .	16
Example: starting the COSMON-WINDOW . . . . .	29
Example: status information . . . . .	6
Example: the REPORT-command . . . . .	17
Example: the SAVELOG-command . . . . .	16
Figure: output on log file for connections . . . . .	38
Figure: output on log file for servers . . . . .	38
Figure: the configuration file format . . . . .	23
Figure: the COSMON-MAIN and COSMON-WINDOW . . . . .	3
Figure: the COSMON-SERVICE program . . . . .	15
Figure: the COSMOS Network Monitor . . . . .	4
FSPs . . . . .	33
How to edit the Configuration File . . . . .	23
How to start the COSMON-SERVICE program . . . . .	16
How to start the COSMON-WINDOW . . . . .	29
How to stop the COSMON-WINDOW . . . . .	29
Internal Functionality . . . . .	9
Inverse video . . . . .	30
Local System . . . . .	9
LOG . . . . .	5, 25
No access to Sys1 . . . . .	31
No access to Sys1-Sys2 . . . . .	31
No access to system . . . . .	32
Normal video . . . . .	30
OK . . . . .	31
Ports . . . . .	33
Remote system . . . . .	9
Reporting status . . . . .	5
Report-type DETAIL . . . . .	15
Report-type GLOBAL . . . . .	15
Report-type SERVER . . . . .	15
Requires SINTRAN K or later . . . . .	32
RT-program . . . . .	3, 9

< II >

<u>Index term</u>	<u>Reference</u>
Servers . . . . .	10
Status information . . . . .	31
Sys1 unknown . . . . .	32
Sys2 unknown to Sys1 . . . . .	32
System unknown . . . . .	32
Target . . . . .	5, 9
The COSMON-SERVICE program . . . . .	15
The log file . . . . .	37
Timeout on request . . . . .	32
Unknown name of server . . . . .	32
WATCH . . . . .	5, 25
WATCH-targets . . . . .	29



The information in this manual is subject to change without notice. Norsk Data A.S. assumes no responsibility for any errors that may appear in this manual. Norsk Data A.S. assumes no responsibility for the use or reliability of its software on equipment that is not furnished or supported by Norsk Data A.S. Copyright © 1987 by Norsk Data A.S.

## UPDATING

Manuals can be updated in two ways, new versions and revisions. New versions consist of a completely new manual which replaces the old one, and incorporate all revisions since the previous version. Revisions consist of one or more single pages to be merged into the manual by the user, each revised page being listed on the new printing record sent out with the revision. The old printing record should be replaced by the new one.

New versions and revisions are announced in the ND Customer Support Information and can be ordered from the address below.

The reader's comments form at the back of this manual can be used both to report errors in the manual and give an evaluation of the manual. Both detailed and general comments are welcome.

PRINTING RECORD	
PRINTING	NOTES
02/87	Version 1 EN

COSMOS Network Monitor Operator Guide  
Publ.No. ND-30.067.1 EN

## RING BINDER OR PLASTIC COVER

The manual can be placed in a ring binder for greater protection and convenience of use. Ring binders may be ordered at a price of NOKr. 45.- per binder.

The manual may also be placed in a plastic cover. This cover is more suitable for manuals of less than 100 pages than for larger manuals.

Please send your order, as well as all types of inquiries and requests for documentation to the local ND office, or (in Norway) to:

Graphic Center  
Norsk Data A.S  
P.O.Box 25 BOGERUD  
N-0621 OSLO 6 - Norway

I would like to order

..... Ring Binders, B5, at NOK 35.- per binder

..... Ring Binders, A4, at NOK 45.- per binder

..... Plastic Covers, A4, at NOK 10.- per cover

Name: .....

Company: .....

Address: .....



\*\*\*\*\*

**SEND US YOUR COMMENTS!!!**

\*\*\*\*\*



Are you frustrated because of unclear information in this manual? Do you have trouble finding things? Why don't you join the Reader's Club and send us a note? You will receive a membership card — and an answer to your comments.

Please let us know if you

- find errors
- cannot understand information
- cannot find information
- find needless information

Do you think we could improve the manual by rearranging the contents? You could also tell us if you like the manual!



\*\*\*\*\*

**HELP YOURSELF BY HELPING US!!**

\*\*\*\*\*

Manual name: COSMOS Network Monitor Operator Guide

Manual number: ND-30.067.1 EN

What problems do you have? (use extra pages if needed)

---



---



---



---



---

Do you have suggestions for improving this manual ?

---



---



---



---



---



---

Your name: \_\_\_\_\_ Date: \_\_\_\_\_

Company: \_\_\_\_\_ Position: \_\_\_\_\_

Address: \_\_\_\_\_

What are you using this manual for ? \_\_\_\_\_

**NOTE!**

This form is primarily for documentation errors. Software and system errors should be reported on Customer System Reports.

**Send to:**

Norsk Data A.S  
Documentation Department  
P.O. Box 25, Bogerud  
0621 Oslo 8, Norway

→ Norsk Data's answer will be found on reverse side



Answer from Norsk Data \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

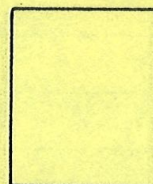
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Answered by \_\_\_\_\_ Date \_\_\_\_\_

-----



**Norsk Data A.S**  
Documentation Department  
P.O. Box 25, Bogerud  
0621 Oslo6, Norway



