CIMCO DNC-Max Cycle Start and Cycle Stop Monitoring

The CIMCO DNC-Max Monitoring function utilises the Fanuc Macro-B functions to passively monitor Cycle Start and Cycle Stop. The following describes how to set it up:

Insert a Macro Call Command at the beginning of the NC Program, right after the 'Onumber', and another Macro Call Command at the end, just before 'M30'. These quite simple macros utilise the DPRNT declaration to transmit a short character string from the serial port of the CNC.

At the beginning of all NC programs, insert this Macro Call:

- O9xxxx
- POPEN
- DPRNT[START]
- PCLOS
- M99

At the end of all NC programs, insert this Macro Call:

- O9xxxx
- POPEN
- DPRNT[STOP]
- PCLOS
- M99

DNC-Max will now passively monitor all serial ports simultaneously.

DNC-Max can now be configured to write to an Excel spreadsheet, which will then show time of day of tooling start and end.

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Double-click on the CIMCO DNC-Max Server icon in the Windows System Tray

📧 CIMCO DNC-Max Server - Licensed to DEMO Version	
Setup Help	
CIMCO DNC-Max Server V. 4.33.05 Copyright 1992-2003 CIMCO Integration	
Licensed to: DEMO Version	
Server name: DNCSERVER16749	
[12:55:32] Starting server DNCSERVER16749 - Licensed to 4 ports. [12:55:33] Server ready.	
□ Scroll <u>H</u> ide <u>A</u> dministration <u>S</u> top S	ierver
Administrator Active ports: 0/2 Clients: 1 Transmitted: 0 Re	ceived: 0 🥢

Click on Setup, then select Configure Server.

Server configuration		? 🗙
 Server configuration Directories Printers E-Mail settings Log export Operator messages NC-Base Web monitor Serial Test 	Log export Log export configuration Enable log exporting Lot storage: Mixrosoft Excel Log database/filename: \$ROUTLOG\DNC-Max Real name (example): [C:\NC-trata\LOG\DNC-Max.xls] Log table/worksheet name: \$PORTGROUP Real name (example): PortGroup Image: Database source requires user ID and password: User ID: Password:	
CIMCO Integration	Help Default OK Ca	ancel

Activate Enable log exporting.

Server configuration		? 🛛
Server configuration Directories Printers Context Directories Derator messages NC-Base Web monitor Serial Test	Log export Log export configuration ✓ Enable log exporting Log storage: Microsoft Excel Log database/filename: \$R00TL0G\$DNC:Max: Real name (example): C:\NC-Data\LOG\DNC-Max.xls Log table/work/sheet name: \$PORTGR0/IP Real name (example): PortGroup □ Dat/base source requires user ID and password: User ID: Password:	
CIMCO Integration	Help Default OK (Cancel
Def	/ Type the name of your Excel spreadsheet after '\$ROO ault is 'DNC-Max'. The '.xls' extension is added auton	TLOG\'.

Click on the '+' next to 'Log export' and select Log format.

Server configuration			? 🗙
 Server configuration Directories Printers E-Mail settings Log export Log format Operator messages NC-Base Web monitor Serial Test 	Log format Log format configuration Column 1: \$DATETIME Column 2: \$PORTNAME Column 3: \$INF0TAG Column 4: \$INF0TEXT Column 5: \$INF0FILENAME	Column 6: \$INFOPRGNAME Column 7: \$INFOTIME Column 8: \$INFOFILESIZE Column 9: \$MSGTEXT Column 10: \$OPERATOR	•
	Log entry types ✓ Log start send (DNC -> CNC) ✓ Log end send (DNC -> CNC) ✓ Log start receive (CNC -> DNC) ✓ Log end receive (CNC -> DNC)	 Log error messages Log info messages Log operator messages Log paging messages 	
M Integration	Help	Default OK	Cancel

De-activate all Log entry types except Log operator messages.

Server configuration		? 🗙
 Server configuration Directories Printers E-Mail settings Log export Log format Operator messages NC-Base Web monitor Serial Test 	Log format Log format configuration Column 1: Column 6: \$DATETIME \$INFDPRGNAME Column 2: Column 7: \$PORTNAME \$INFDTIME Column 3: Column 8: \$INFOTAG \$INFOFILESIZE Column 4: Column 9: \$INFOTEXT \$M\$GTEXT Column 5: Column 10: \$INFOFILENAME \$0 PERATOR I Log start send (DNC -> CNC) Log error messages I Log start receive (CNC -> DNC) Log operator messages I Log end receive (CNC -> DNC) Log paging messages	
CIMCO Integration	Help Default OK	Cancel

Click on Operator messages.

Server configuration	? 🔀
 Server configuration Directories Printers E-Mail settings Log export Log format Operator messages NC-Base Web monitor Serial Test 	Operator messages Enable operator messages Program Message 8001 Job Start: \$MSGTEXT 8002 Job Stop: \$MSGTEXT 8003 Cycle Start 8004 Cycle Stop 8005 Break Start
	Reserved program name: Message type: 8001 Operator message Trigger: Message tag: JOBSTART Must be inside first comment Extract value (\$MSGTEXT): First comment Image: Log Text: Job Start: \$MSGTEXT
CIMCO Integration	Help Default OK Cancel



Server configuration		? 🗙
 Server configuration Directories Printers E-Mail settings Log export Log format Operator messages NC-Base Web monitor Serial Test 	Operator messages Image: Program Program B001 Job Start: \$MSGTEXT 8003 Cycle Stop 8004 Cycle Stop 8001 B003 Cycle Stop 8004 Cycle Stop 8001 Break Start Import Reserved program name: Message tag: JOBSTART Must be inside first comment Log Text: Job Start: \$MSG TEXT	
CIMCO Integration	Help Default OK C	ancel

Click on '8003 Cycle Start'.

Server configuration	
 Server configuration Directories Printers E-Mail settings Log export Log format Operator messages NC-Base Web monitor Serial Test 	Operator messages Image: Comparison of the state
	Import Remove Add Reserved program name: Message type: 80003 Operator message Trigger: Message tag: Import CYCLESTART
	Must be inside first comment Extract value (\$MSGTEXT): First comment Image: Comment inside first comment i

Erase Reserved program name 8003, type START in the Trigger field.

Server configuration	?	X
 Server configuration Directories Printers E-Mail settings Log export Log format Operator messages NC-Base Web monitor Serial Test 	Operator messages Image: Program Im	
CIMCO Integration	Help Default OK Cance	

Click on '8004 Cycle Stop'.

Server configuration Directories Printers E-Mail settings Log export Log format Dperator messages Image: Cycle Stat Web monitor Serial Test Seriel Test Reserved program name: Message tag: Cycle Stat 1004 Cycle Stat 1005 Break Stat 1111 Program name: 1111 Message tag: 1111 Cycle Stat 1111 Serial Test	Server configuration		? 🛛
Import Remove Add Reserved program name: Message type: \$\$\$0041: Operator message Trigger: Message tag: CYCLESTOP Must be inside first comment Extract value (\$MSGTEXT): First comment Import Log Text: Cycle Stop	 Server configuration Directories Printers E-Mail settings Log export Log format Operator messages NC-Base Web monitor Serial Test 	Operator messages Operator messages ✓ Enable operator messages Ø Program Ø Messag 8001 Job Start: \$M 8002 Job Start: \$M 0022 Stop: \$M Cycle Start 8004 Cycle Stop 8005 Break Start	ge ISGTEXT ISGTEXT
Must be inside first comment Extract value (\$MSGTEXT): First comment		Imp Reserved program name: 18004.: Trigger:	Message type: Operator message Message tag: CYCLESTOP
Help Default OK Cancel		Must be inside first comment Log Text: Cycle Stop Help	Extract value (\$MSGTEXT): First comment Default DK Cancel

Erase Reserved program name 8004, type STOP in the Trigger field.

Server configuration		? ×
 Server configuration Directories Printers E-Mail settings Log export Log format Operator messages NC-Base Web monitor Serial T est 	Operator messages Image: Program Image: Message 8001 Job Start: \$MSGTEXT 8002 Job Stop: \$MSGTEXT 002 Job Stop: \$MSGTEXT 003 Cycle Stop 8005 Break Start Import Remove Add Reserved program name: Message type: Operator message Trigger: Message tag: STOP Import Must be inside first comment Extract value (\$MSGTEXT): First comment Log Text: Cycle Stop Upperator message	
CIMCO Integration	Help Default OK Ca	ancel

Click OK.

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Setyp <u>H</u> elp		
	MCO DNC-Max Server V. 4.33.05 yright 1992-2003 CIMCO Integration	
Licensed to:	DEMO Version	
Server name:	DNCSERVER16749	
[13:44:43] Server ready.		
☐ Scr <u>o</u> ll	Hide <u>Administration</u> Stop Server Lock	
Administrator	Active ports: 0/2 Clients: 1 Transmitted: 0 Received: 0	- //
	Minimize Cimco DNC-Max Server.	

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Cimco DNC-Max Server icon will be placed in the Windows System Tray.

You are now ready to test, whether any data import to your Excel spreadsheet. Run an NC program from the control. Make sure the two macro programs are copied into the program as shown on page 1 of this guide. You should now be able to open your Excel spreadsheet and monitor online when the execution of the program starts on your machine, and when it is finished. In this case you will find the spreadsheet at C:\NC-Data\Log\DNC-Max.xls (default).

🖾 Microsoft Excel - DNC-Max.xls											
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1	Datetime	Portname	Infotag	Infotext	Infofilenam	Infoprgnar	Infotime	Infofilesize	Msgtext	Operator	
2	23-01-2004 15:54:24	FANUC_TRIGGERPRG_LCJ	CYCLESTART	Cycle Start			0	0	Trigger Start	NONE	
3	23-01-2004 19:55:07	FANUC_TRIGGERPRG_LCJ	CYCLESTOP	Cycle Stop			0	0	Trigger Stop	NONE	
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