

Case Study 1. Documented success with DNC



Company A is a contract machining job shop with 37 CNC machines running two full shifts. Each machine was set-up an average of 10 times per week and each time the operator needed a program, it took an average of ten minutes per transaction. Company A was operating with two partially functional DNC systems, one to support the Mazatrol format and another for all other controllers. Both systems required operators to leave their machines and queue programs at a remote computer. Likewise both systems were prone to “go down” at the most inopportune time. A number of the machines were no longer connected to the system and required support with a laptop. As a result the programmer spent 30-40% of every day supporting and trouble-shooting the DNC system.

After researching the variety of solutions available, eNETDNC was selected based on its reputation for reliability, ease of use, flexibility, security and cost effectiveness. eNETDNC allowed operators to upload and download CNC programs directly from the machine control. What previously took minutes now takes seconds. The eNET system was able to service all machine control types and the previous system problems were eliminated. As a result the amount of support time was quickly reduced to zero. Based on the significant reduction in downloading time and the reduced support cost Company A was able to document a payback period of less than 3 months.

DNC cost justification worksheet for Company A

Number of CNC machines in shop	<input type="text" value="37"/>
Number of set-ups per week on each machine	<input type="text" value="10"/>
Time spent downloading per setup	<input type="text" value="10"/>
Hourly shop rate	<input type="text" value="45"/>

Download Cost	\$144,300.00
Eng. Support Cost	<u>\$23,200.00</u>
Total Annual Cost	\$167,500.00

eNET DNC Install Cost \$26,050.00

The Bottom Line: You cannot afford to operate without eNETDNC!



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Case Study 2 - Documented success with DNC



Company B is a contract fabrication shop with 7 CNC machines running two full shifts to support the fabrication operations. All programming was done at the machine control, by the machinist \ set-up person. While some of the machines had the ability to back-up files to disk there was no formal system in place to preserve this data. After a period of time, the machine controllers became full and the operators needed to select and delete a program every time a new program was written. The programs written at Company B were usually very complicated and each program represented a minimum of five hours of machine time. This included the writing, typing, proofing and optimizing the program.

After deleting several critical programs and searching for files that were supposedly saved to disk the employees finally became frustrated enough and forced Company B to research a DNC system. After management became involved and understood what had been happening a DNC made perfect sense. They came to this decision not only because of the level of frustration on the shop floor. Someone finally sat down and calculated the value of the programs that were being dumped on a regular basis and the potential loss if a one or all of the controllers lost the programs. The calculation below allowed Company B to realize that with the 7 machines and a minimum of 25 programs in each machine, by purchasing a DNC system they were protecting a significant investment. When they added in the loss associated with dropping programs, the decision was even more clear.

DNC cost justification worksheet for Company B

Number of CNC machines in shop	<input type="text" value="7"/>
Programs stored in each machine	<input type="text" value="25"/>
Time spent programming each program Including verification and optimization (min)	<input type="text" value="300"/>
Hourly shop rate	<input type="text" value="55"/>

Potential cost of system failure	<u>\$48,125.00</u>
Annual cost associated with losing 1 program per week per machine	<u>\$100,100.00</u>
DNC System Cost	<u>\$6,700.00</u>

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