NCSIMUL: Benefits and Return On Investment

Example No.1. Machine shop Company

In this case, the company is working on multiple customers programs, with low cost material (ie. Aluminum, steel...), with several setup on different machines due to complex geometries the operators have to realize.

	USD
NC programmer / CAM user - hourly rate	77
Hourly cost of running the machine (CNC & Operator)	105
	per year
Number of new NC programs per year	200

	Program validation	Program correction	Test on the CNC machine	CNC Rework	Workshop downtime	Machine setup	Tool breaks	Scrapped parts
Related to	NC Programmer		Machinist				Other	
Average hours spent per NC program	1	2	4	3	1	1		
Average instance/occurrence per program	100%	20%	100%	5%	5%	5%		
Average cost per program in USD	77	30.8	420	15.75	5.25	5.25		
Annual cost in USD	15,400	6,160	84,000	3,150	1,050	1,050	4,200	6,300
Expected gain % with simulation	60%	30%	75%	75%	30%	60%	95%	95%

Total annual cost for proving out program without simulation	$ 121,310
Expected savings with NCSIMUL	$ 87,371
Project Simulation cost (Including software, maintenance, training & services)	$ 42,000

Return On Investment (in months)	6