

Minimum requirements: PC Pentium or above Windows XP or above **Ethernet connection** DVD/CDROM reader 1 USB port

> CUSTOMIZABLE Peculiar needs? Integration needs? Tool ID manager can be customized according to Your needs



20821 MEDA (MB) - Italy - Via San Giorgio, 21 **T.** +39 0362 342745 - **F.** +39 0362 342741 www.elbocontrolli.it - info@elbocontrolli.it

Tool ID Manager System (TID)

The perfect instrument to manage the tool identification in workshops

With the development of Tool ID manager ELBO CONTROLLI it has created the perfect instrument to manage the tool identification data.

Thanks to the great experience in the workshop enviroment, ELBO CONTROLLI has gained the necessary knowledge to be able to develop a versatile system, suitable for the unique needs of those who want to work with a tool identification system. The need of today workshops is to have an instrument easy to use and which limit the possibility of operators errors. TID has an intuitive graphical interface (based on current standards) and minimize the errors, guiding the operator



	BRIDGEPORT Tool database					
	10010					
	TOOL ID					
•	1					
		I				
4						
-						
Ζ						
R						
T	OOL CODE	T1000				
Т	ool ID					

TID allows to configure the format and to map of the data needed for the tool identification. Moreover, it is possible to manage different configuration, according to the machine tool manufacturer specifications. TID application is born from the need to have an instrument that allows to create, easily and at a reasonable price, a tool identification system interface with:

- tool presetter unit:

through each step.

- machine tool NC (FANUC, HEIDENHAIN, MAZAK, SIEMENS, MAKINO, OKUMA and more).

The tool identification system uses is a matrix bidimentional barcode called **Data Matrix**.





Traditional tool identification

Memory data chips/tags and electronic control unit

Normally the system used for tool identification consists of a memory data chip or tag which is applied to the tool. This data chip or tag for each tool holder is used together with an electronic control unit which allows reading and writing of the data.

The data chips or tags are normally fitted and glued within a toleranced pocket on the side of the tool-holder or glued into the pull stud.

Problems and disadvantages

- Existing tool holders not ready for the fitting of data tags/chips. In such case the tool holders will require modification for the pocket to be made.

- Difficulty to remove/transfer or use again the tag/chip.

- High cost for each data tag/chip.

Identification system integration

Several problems raise to integrate the identification system into a workshop environment :

- CNC machines will also require read/write capability. So electronic control unitsfor the reading and writing the memory chips/tags are necessary.

- Modification of the CNC machine logic and parameters to provide capability for the electronic control unit. Such as: tool loading/unloading management and the management and transfer of data stored in the memory chips/tags. - Tool presetter with a reading/writing electronic control unit should be provided.

- Interface and configure the management system of the tool presetter to match it to the memory chip/tag so that the whole system conforms to the machine NC.

There is currently no standard format to define how information and data should be formatted to allow the use of memory chips/tags. Each machine manufacturer adopts different formatts, when this capability is required (binary,

text, BCD ecc...).

TOOL ID

Problems and disadvantages

To sort out CNC machine integrations problems is very difficult because of the skillnes required (mechanical application of reading/writing unit into the loading/unloading station, PLC machine logic and parameters editing, responsability).

This means potentially high costs are required for the necessary modifications for each CNC machine.

> CHIRON-TID Tools dataBas

New Tool ID Manager

Alternative memory provision and electronic control unit

The storage media (chips and tags) are replaced by identifyin tool-holder with a unique code BARCODE DATAMATRIX. This code/mark can be applied by a laser marking system or using labels with specific printer.

The electronic control unit is a 2D DataMatrix reader.

The data for each tool is stored within a database that is queried loading and updated when unloading the tool and managed by the s TID.

Advantages

The system allows users to avoid additional costs for the purch modification of tool-holders and for the cost of the electronic contr for each CNC machine.

Identification system integration

For integration with CNC machines, is possible to exploit new techn developed by NC manufacturers which, through libraries, allows inte directly with the data available in the CNC machine (Fanuc Focas, R olsHeidenahain, etc...)

For integration with the tool presetting unit, the system allows acquis the measurements directly from the tool presetter.

The system allows full customization and configuration of the data for the NCto load a new tool.

Advantages

The solution prevents additional costs for mechanical modificati settings of the CNC machine PLC

			TOOLID	00.ini - 1	
;	File Modifica E	ormato Visualizz	a ?		
g each	[VERSION] Version=Ch	elh		ont.r	
unique printed	[FOCAS] IP=192.168 Port=8193				
d when oftware	Timeout=1		Madi		
hase or rol units	Head=1 Delay_Start = Delay_Write = TotFields=10 SQLTable=sel FieldLabel=TC CncLibrary=FC	0 = 0 ect ToolCodeI DOL ID DCAS ETHERN	D from ToolID IET		
nologies eraction Remoto-	[FIELD0] Label=T Locked=0 Visible=-1				
sition of	A F			DBUN00.	dsn - Bloo
needed	File Modifi [ODBC] DRIVER=	ca Formato Microsoft A	Visualizza CCess D	FANUC	Series 3
on and	UserCom Threads= SafeTrans PageTime MaxScanF MaxBuffer FIL=MS A DriverId= DefaultDi DBQ=C:\	mitSync=Ye 3 sactions=0 cout=5 Rows=8 rSize=2048 Access 25 r=C:\ToolId ToolIdmana	s manag ger\too	N0. 001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016	GEDM 0.000
					the second se

TID is the perfect instument that allows integration with all the existing systems without limitations. It is possible to read the tool data and send it to the machine tool or, read the data from the machine tool and update the tool data is not a problem anymore.



TID allows interfacing a 2D reader for data Matrix codes. The system is supplied with a single reader for each workstation.

