Sommario

DC21FlyCut

D = *Device(cam01,camming,camming2, camming3, camming4)*

C = *Calculation functions*

The DC21FlyCut function execute the calculations necessary to be able to perform a *linear fly cut*. Passing parameters of length piece, acceleration/deceleration Slave, maximum speed of the masters in this type of cut, maximum speed Slave and various times needed to cut, the function calculates the areas of the cam program and writes about arrays special. Next is another function (WrCam) that deals with writing data to the device that you want. If there are problems in calculations, why physically not be execute, the type of error that occurred is returned in the “Error” variable.

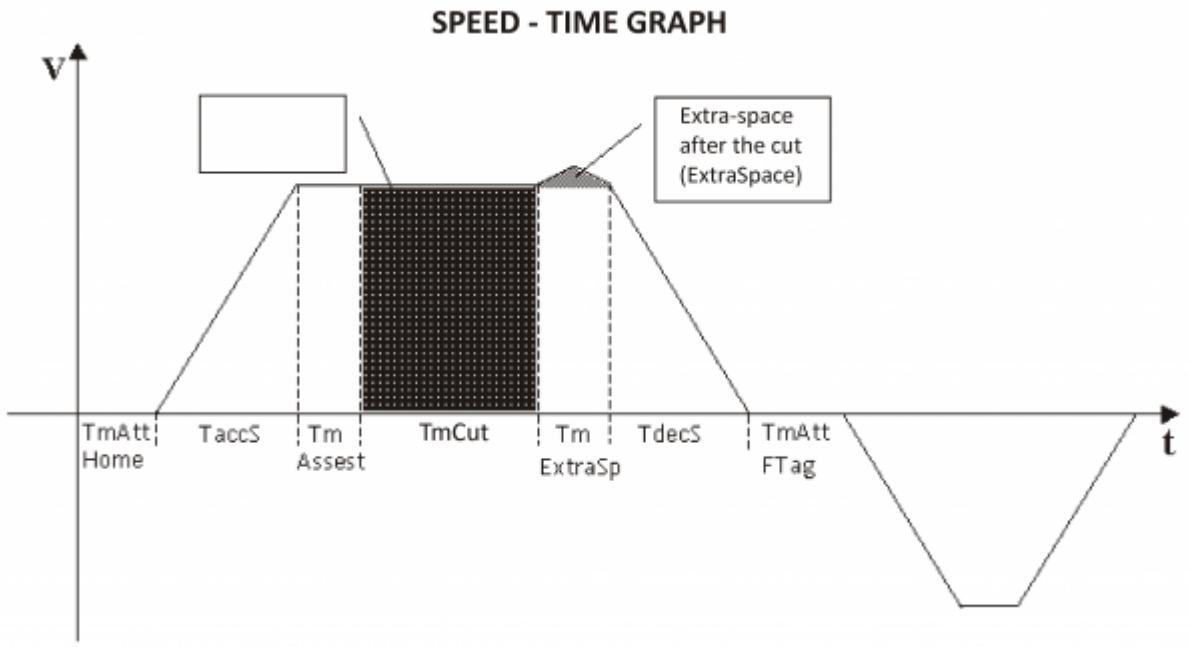
Use this function to search the highest productivity of the machine running the slightest stroke can cut tank.

IMPLEMENTATION

DC21FlyCut (TipoStart, LunPez, VriferM, VmaxS, TaccS, TdecS, TmAttHome, TmAttFTag, TmTaglio, TmAssest, TmExtraSp, ExtraSpaz, CodeG, CodeM, CodeQm, CodeQs, Error, NumSett, LunMin, SpazioRitM, SpazioRitS)

Parameters:

IN/OUT	VARIABLE TYPE	EXAMPLE NAME	DIM	
IN	SYSTEM	TipoStart	F	Choosing your first start Slave after docking in cam (Startcam) 0 = immediate departure for cutting 1 = departure after a length piece
IN	SYSTEM	LunPez	L	length of workpiece to cut (UM)
IN	SYSTEM	VriferM	L	Reference Master speed for calculations of the cam ((UM/s)
IN	SYSTEM	VmaxS	L	max speed Slave (UM/s)
IN	SYSTEM	TaccS	L	Slave acceleration time (s/100)
IN	SYSTEM	TdecS	L	Slave deceleration time (s/100)
IN	SYSTEM	TmAttHome	L	waiting time carriage in Home before of the start (opzional) (s/100)
IN	SYSTEM	TmAttFTag	L	waiting time carriage at the end of the cut (opzional) (s/100)
IN	SYSTEM	TmTaglio	L	cutting time (s/100)
IN	SYSTEM	TmAssest	L	settling time prior to cutting (opzional) (s/100)
IN	SYSTEM	TmExtraSp	L	time in which to perform an extra space after the cut to remove the piece (s/100)
IN	SYSTEM	ExtraSpaz	L	detachment blade after cutting before braking (space to be performed over time TmExtraSp) (UM)
OUT	ARRSYS	CodeG	W	Array containing calculated G Code
OUT	ARRSYS	CodeM	W	Array containing calculated M Code
OUT	ARRSYS	CodeQm	L	Array contaning calculated Master Space
OUT	ARRSYS	CodeQs	L	Array contaning calculated Slave Space
OUT	SYSTEM	Errore	B	Var of cam error
OUT	SYSTEM	NumSett	L	Sectors number of calculated cam (output variable)
OUT	SYSTEM	LunMin	L	minimum length of the cam (output variable)
OUT	SYSTEM	SpazioRitM	L	Space Master in return (output variable)
OUT	SYSTEM	SpazioRitS	L	Space Slave in return (output variable)



Error

After calling the function, if there are any errors the error variable takes certain values, the meaning of these values is summarized below:
0: calculation execute without errors
1: Master speed or Slave speed equal to 0
2: calculated slave speed greater than the maximum extra space-cutting
3: insufficient piece length
4: negative return space (insufficient piece length)
5: slave return speed greater than the maximum
6: insufficient time for the return

Operation notes

- This function always calculates the cam dividing it into 15 sectors
- The cutting sector is the sector 4 (rowex = 4). In this sector the codeM = 1000 to enable management of cutting output from the device ('funout' parameter of Camming device)
- If, during operation, the speed of the Master exceeds that set as Master reference speed (“VriferM” parameter) the good operation of the cam is no longer guaranteed (the analog output of the slave could go into saturation)