# Machine Mileage (Oil Change) Counter

- Need to add Mileage counter for every axis X, Y and Z.
- Need to add Mileage Display with reset button for each axis
- Need to add Service Led on the main screen if any of mileage value exceed Service value. The led should blink 1 time per second.

We will add Oil change configuration into separated XML-include file for simple integration into different profiles. We take **1280M5** profile as based profile to add **Oil Change Counter** .

```
main()
{
//touch global variables 6890,6891,6892 to save its values in cnc-
variables.xml
gvarset(6890,gvarget(6890));
gvarset(6891,gvarget(6891));
gvarset(6892,gvarget(6892));

//get initial machine coordinates  for x,y,z
pos_x=gvarget(5021);
pos_y=gvarget(5022);
pos_z=gvarget(5023);

//initialize ticks counter
ticks=0;


//endless loop to handle Oil-Change Counter
do{

//read limit Limit values for all axes x,y,x and arrange it to Meters
limit_x=gvarget(6890)*1000;
limit_y=gvarget(6891)*1000;
limit_z=gvarget(6892)*1000;


//X axis handler
//Check if X position changed
dx=pos_x-gvarget(5021);
if (dx!=0)
{
    pos_x=gvarget(5021);//update changes
    if (dx<0){dx=0-dx;};//get absoluet value of x moves
//check move length does not exceed 10mm (to exclude possible error)
//and add move length to variable #6090
    if (dx<10){gvarset(6090,gvarget(6090)+dx); };
};
```

```
//Y axis handler
dy=pos_y-gvarget(5022);
if (dy!=0)
{
    pos_y=gvarget(5022);
    if (dy<0){dy=0-dy;};
    if (dy<10){gvarset(6091,gvarget(6091)+dy); };
};

//Z axis handler
dz=pos_z-gvarget(5023);
if (dy!=0)
{
    pos_z=gvarget(5023);
    if (dz<0){dz=0-dz;};
    if (dz<10){gvarset(6092,gvarget(6092)+dz); };
};



//Check is any axis mileage exceed limit
alarm=0;
if (gvarget(6090)>limit_x) { alarm=1; };
if (gvarget(6091)>limit_y) { alarm=1; };
if (gvarget(6092)>limit_z) { alarm=1; };



//In case Oil-Change event handle varaible #6085 blink 1 time per second
if (alarm!=0)
{
  ticks++;
  if (ticks<8) {gvarset(6085,0);}
  else {gvarset(6085,1);};

  if (ticks>10) {ticks=0;};
}else
{
  gvarset(6085,0);portclr(0);
};


}while(1);


exit(99);
};
```

From:
http://docs.pv-automation.com/ - **myCNC Online Documentation**

Permanent link:
**http://docs.pv-automation.com/plc/oil_change_counter?rev=1512969827**

Last update: **2017/12/11 00:23**