

## PLC procedure Aliases

Let's suppose we have plasma cutting profile and M procedures for Cutting On (M71) and Cutting Off (M74)-

- M71 - Cutting On
- M74 - Cutting Off

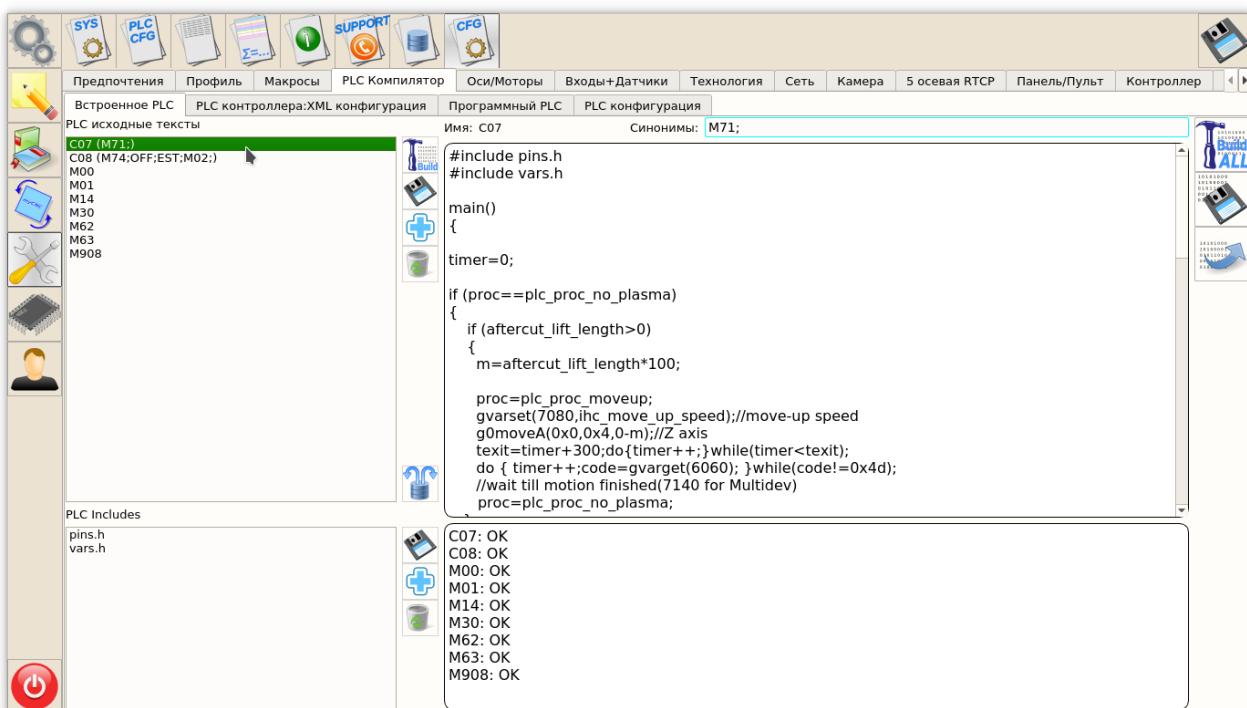
Q: What to do if need to cut g-code file from different CA</post-processor which uses different codes for Cutting On/Off (M3/M5 for example).

We need to run this codes M3/M5 exactly as our current codes M71/M74. There are 2 solutions in this case - bad and good :).

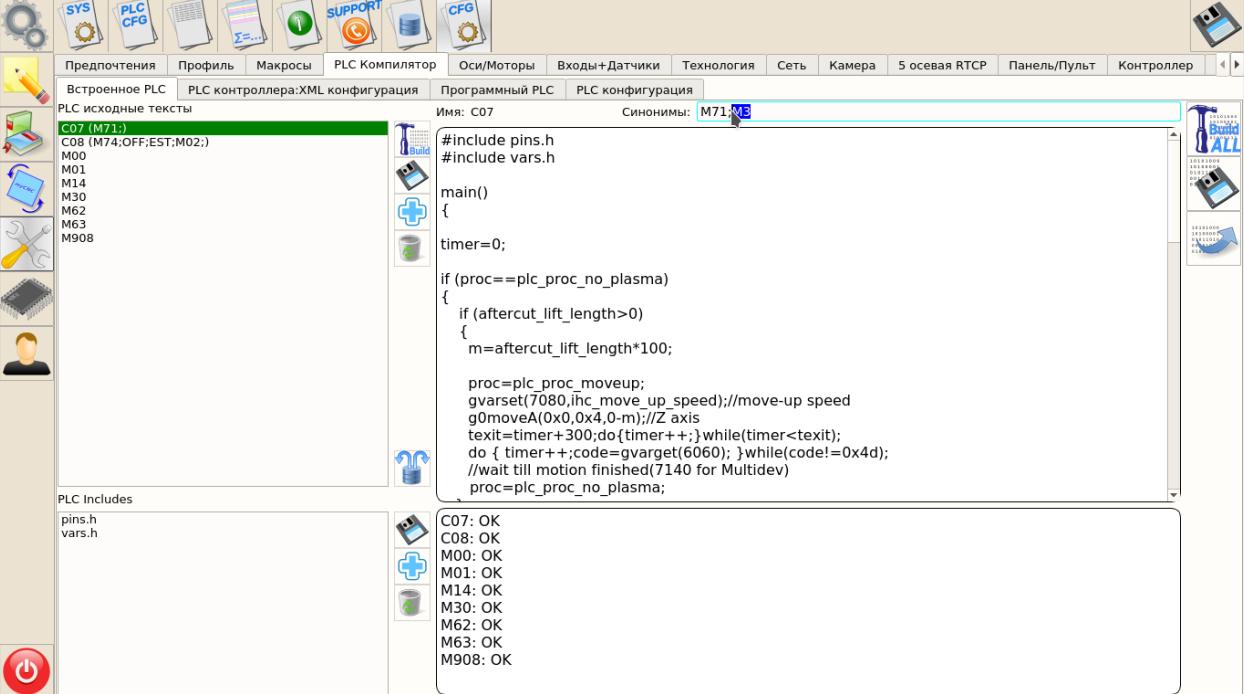
1. **(bad)** Add to PLC Builder 2 procedures M3 and M5 and copy content from M71 to M3 (Cutting On) and from M74 to M5 (Cutting Off), then Rebuild All procedures and send to Controller )press 3 buttons on the right side of PLC Builder widget - **Save**, **Rebuild All** and **Send**. Con of this method: if you need to fix one of procedures (for example **M71**) then you need to do the same fixes in **M3** manually.
2. **(good)** Assign **M3** as Alias to **M71**, and **M5** as Alias to **M74**. In this case if you edit and compile M71 procedure myCNC will automatically create identical binary procedure for M3 as well. No need to worry about it.

There is how to create Alias instruction below:

1. Open **PLC builder** (Settings → Cfg → PLC Builder → Hardware PLC)



2. Click in window **PLC Sources** line with Procedure M71
3. On the top-right side of PLC Builder window there will be Input Line for **Aliases**. Enter **M3** name there (if there are other names, add M3 with ";" separator)



```

#include pins.h
#include vars.h

main()
{
    timer=0;

    if (proc==plc_proc_no_plasma)
    {
        if (aftercut_lift_length>0)
        {
            m=aftercut_lift_length*100;

            proc=plc_proc_moveup;
            gvarset(7080,ihc_move_up_speed);//move-up speed
            g0moveA(0x0.0x4.0-m);//Z axis
            texit=timer+300;do{timer++;}while(timer<texit);
            do { timer++;code=gvarget(6060); }while(code!=0x4d);
            //wait till motion finished(7140 for Multidev)
            proc=plc_proc_no_plasma;
        }
    }
}

```

PLC Includes

- pins.h
- vars.h

Синонимы: M71:ME

Имя: C07

PLC исходные тексты

C07 (M71)

C08 (M74;OFF;EST;M02;)

M01

M14

M30

M62

M63

M908

Синтаксис: C07:OK

С08:OK

М00:OK

М01:OK

М14:OK

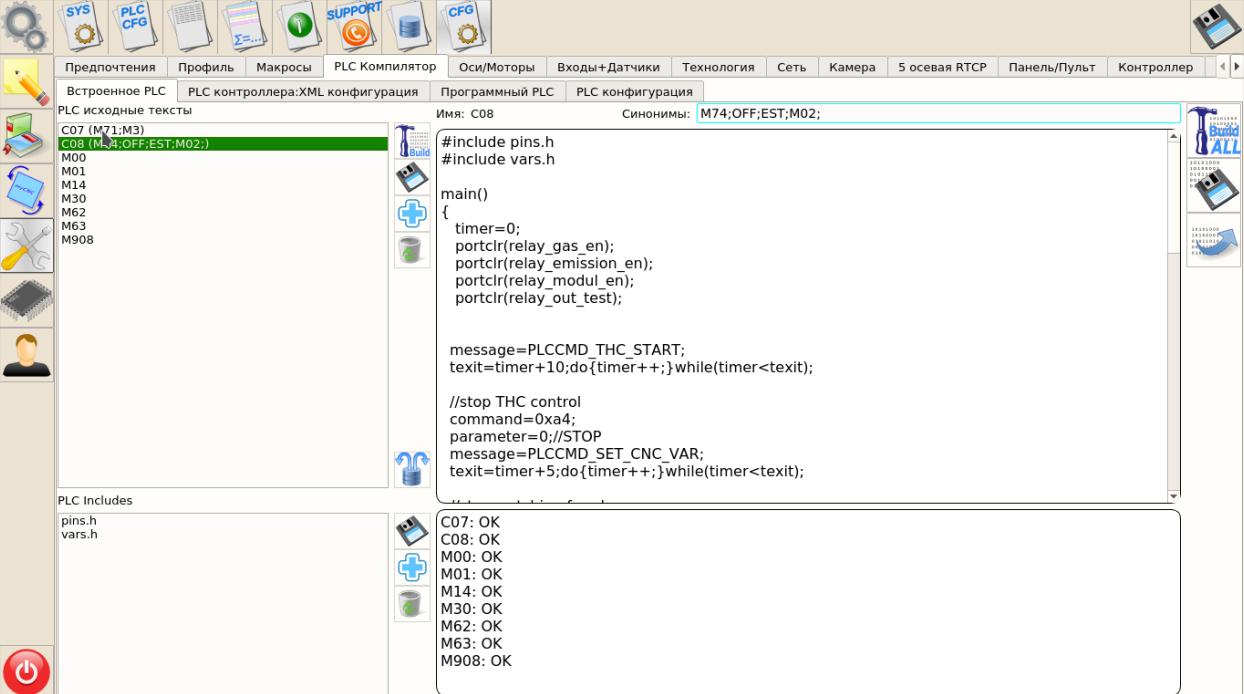
М30:OK

М62:OK

М63:OK

М908:OK

4. Click in **PLC Sources** om any other line AND CHECK if in the line with **M71** appear **M3** in brackets



```

#include pins.h
#include vars.h

main()
{
    timer=0;
    portclr(relay_gas_en);
    portclr(relay_emission_en);
    portclr(relay_modul_en);
    portclr(relay_out_test);

    message=PLCCMD_THC_START;
    texit=timer+10;do{timer++;}while(timer<texit);

    //stop THC control
    command=0xa4;
    parameter=0;//STOP
    message=PLCCMD_SET_CNC_VAR;
    texit=timer+5;do{timer++;}while(timer<texit);
}

```

PLC Includes

- pins.h
- vars.h

Синонимы: M74:OFF;EST;M02;

Имя: C08

PLC исходные тексты

C07 (M71;M3)

C08 (M74;OFF;EST;M02;)

M01

M14

M30

M62

M63

M908

Синтаксис: C07:OK

С08:OK

М00:OK

М01:OK

М14:OK

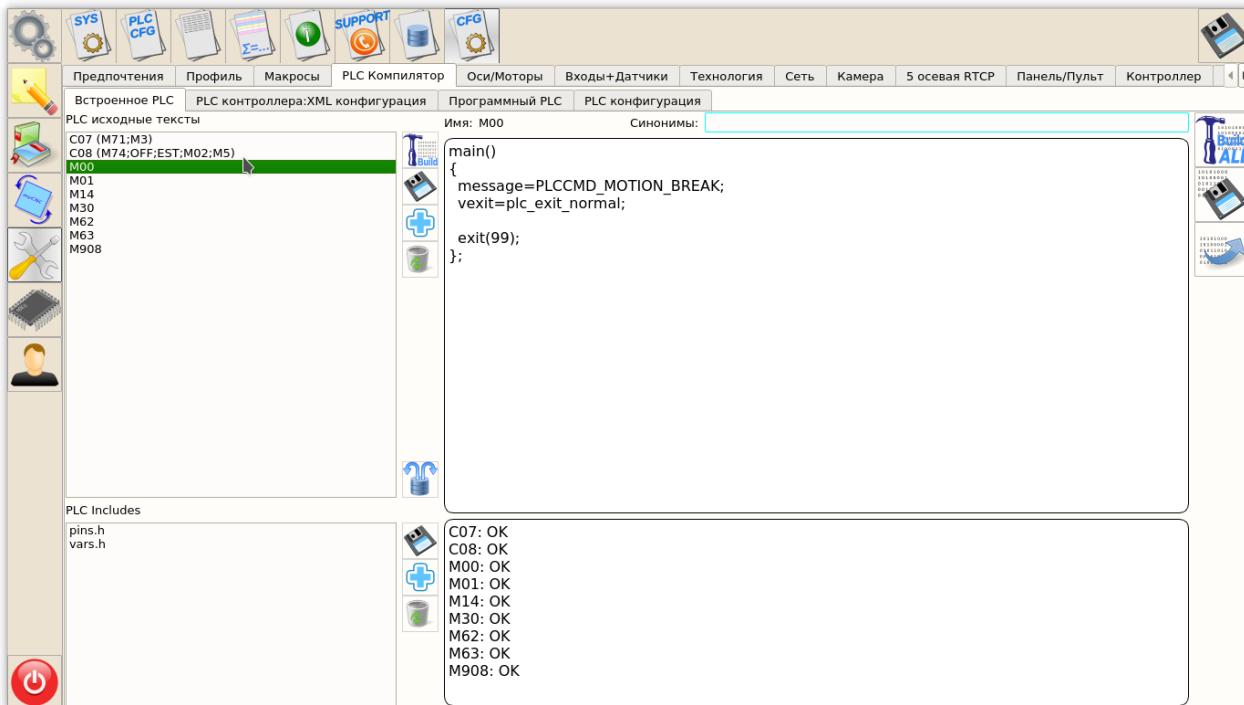
М30:OK

М62:OK

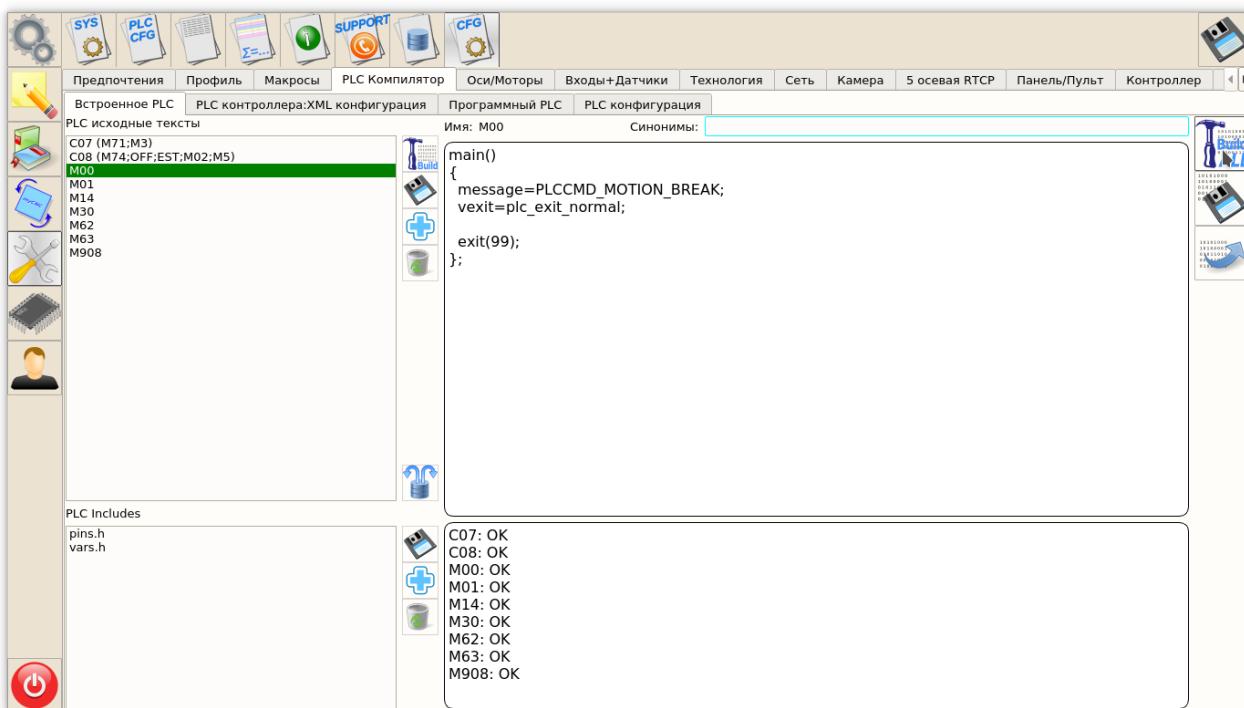
М63:OK

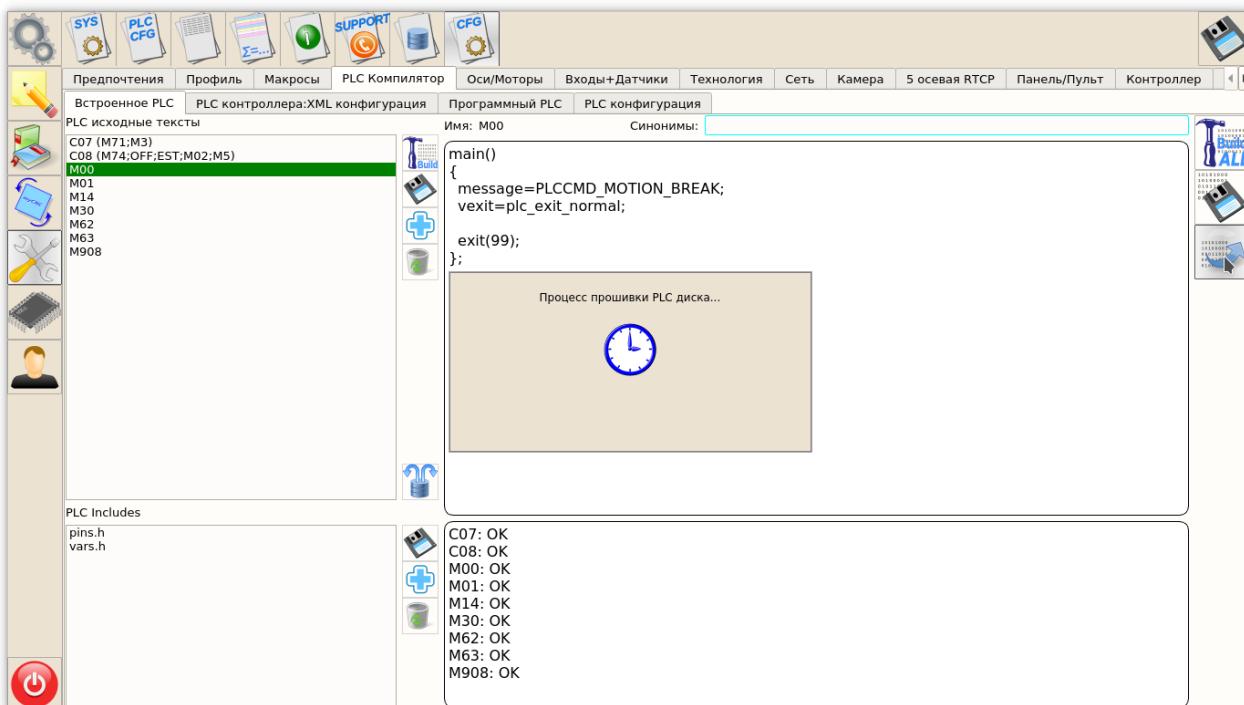
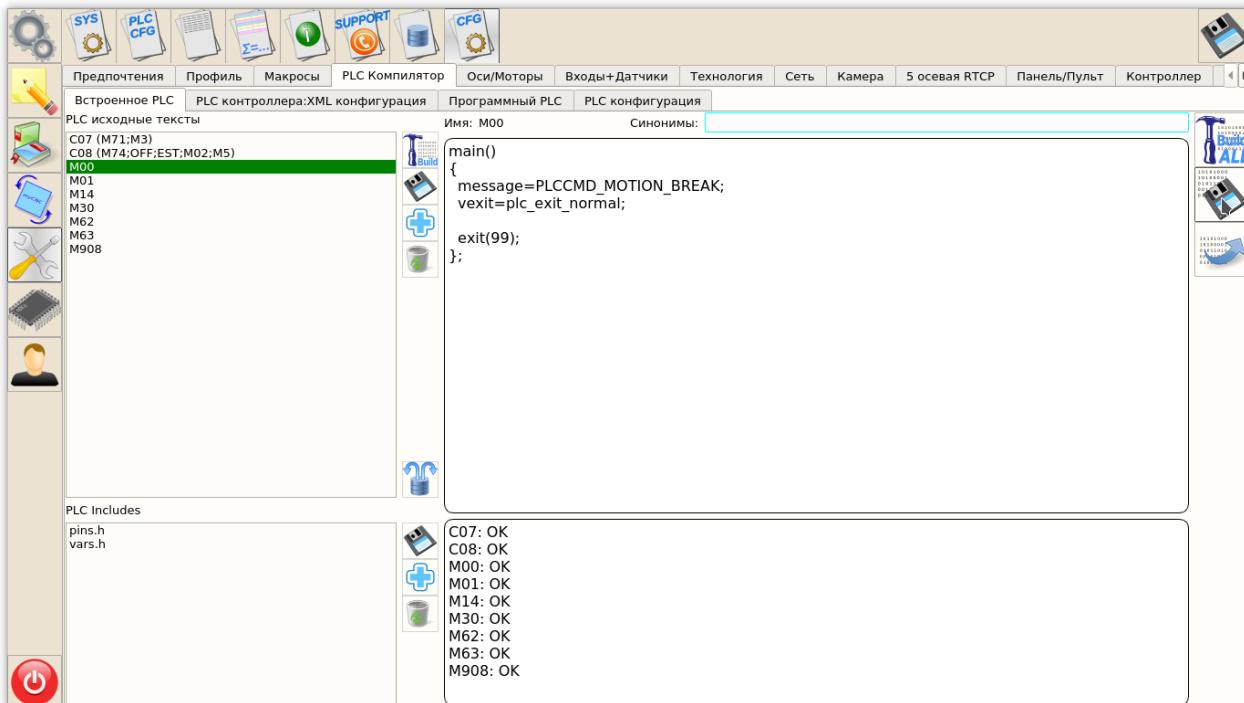
М908:OK

5. Do the same for **M74** and add **M5** procedure as Alias



6. Press in series 3 buttons on right side of PLC Builder - **Build All, Save All, Send**





M3 and M5 are ready to go!

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