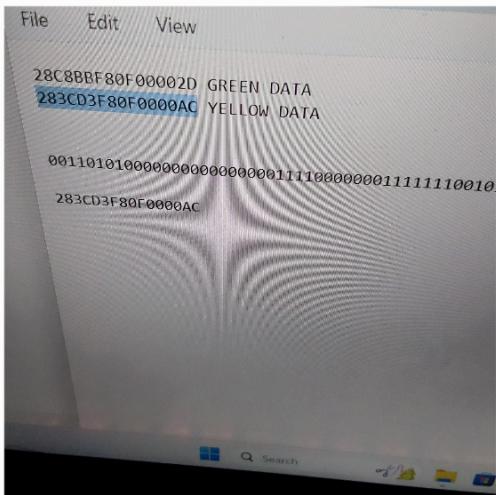


Me and morgan got bussed Dallas one wire to function.

Using a previously made single channel Dallas one wire we figured out that we can address each sensor one by one by using a special code that each sensor comes preprogrammed with. We used arduino IDE to extract the IDs



Dallas one wire execution goes like
Presence all sensors
Address bus with sensor ID
Match rom-tells sensor to start comms
Presence all sensors
Address bus with id
Request a temperature read
Presence all sensors
Address bus with id
Request a temperature encode
Presence all sensors
Address bus with id
Request a temperature send

This is how the above sequence looks like in code
It's a bit scuffed and hard to read might change it later to
make it more streamlined

The screenshot shows a software development environment with a toolbar at the top and several tabs open in the background. The main window displays a block of C code for interacting with a DS18B20 temperature sensor. The code includes numerous comments explaining the purpose of each write operation, such as setting addresses and writing ROM commands. The code is organized into two main sections, each starting with a call to `DS18B20_Start()`. The first section handles the ROM command sequence, while the second section continues the interaction. The code uses `DS18B20_Write()` for all data transfers. A note in the code suggests reading from a forum for more details on the `HAL_Delay(750)` call.

```
Presence = DS18B20_Start ();
DS18B20_Write (0x55); //MATCH ROM COMMAND - only device with following
//283CD3F80F000AC
DS18B20_Write (0x28); //addr of one with yellow data wire
DS18B20_Write (0x3c); //addr of one with yellow data wire
DS18B20_Write (0xd3); //addr of one with yellow data wire
DS18B20_Write (0xf8); //addr of one with yellow data wire
DS18B20_Write (0x0f); //addr of one with yellow data wire
DS18B20_Write (0x00); //addr of one with yellow data wire
DS18B20_Write (0x00); //addr of one with yellow data wire
DS18B20_Write (0xac); //addr of one with yellow data wire
//Presence = DS18B20 Start ();
//DS18B20_Write (0xCC); // skip ROM
DS18B20_Write (0x44); // convert t
HAL_Delay(750); //maybemaybemaybe-read this on a forum to let device finish read
Presence = DS18B20_Start ();
DS18B20_Write (0x55);
DS18B20_Write (0x28); //addr of one with yellow data wire
DS18B20_Write (0x3c); //addr of one with yellow data wire
DS18B20_Write (0xd3); //addr of one with yellow data wire
DS18B20_Write (0xf8); //addr of one with yellow data wire
DS18B20_Write (0x0f); //addr of one with yellow data wire
DS18B20_Write (0x00); //addr of one with yellow data wire
DS18B20_Write (0x00); //addr of one with yellow data wire
DS18B20_Write (0xac); //addr of one with yellow data wire
DS18B20_Write (0x4E); //write scratchpad(sensor perspective)
Presence = DS18B20 Start ();
```

Build Analyzer Static Stack Analyzer Cyclomatic Complexity Debug Console

No consoles to display at this time.