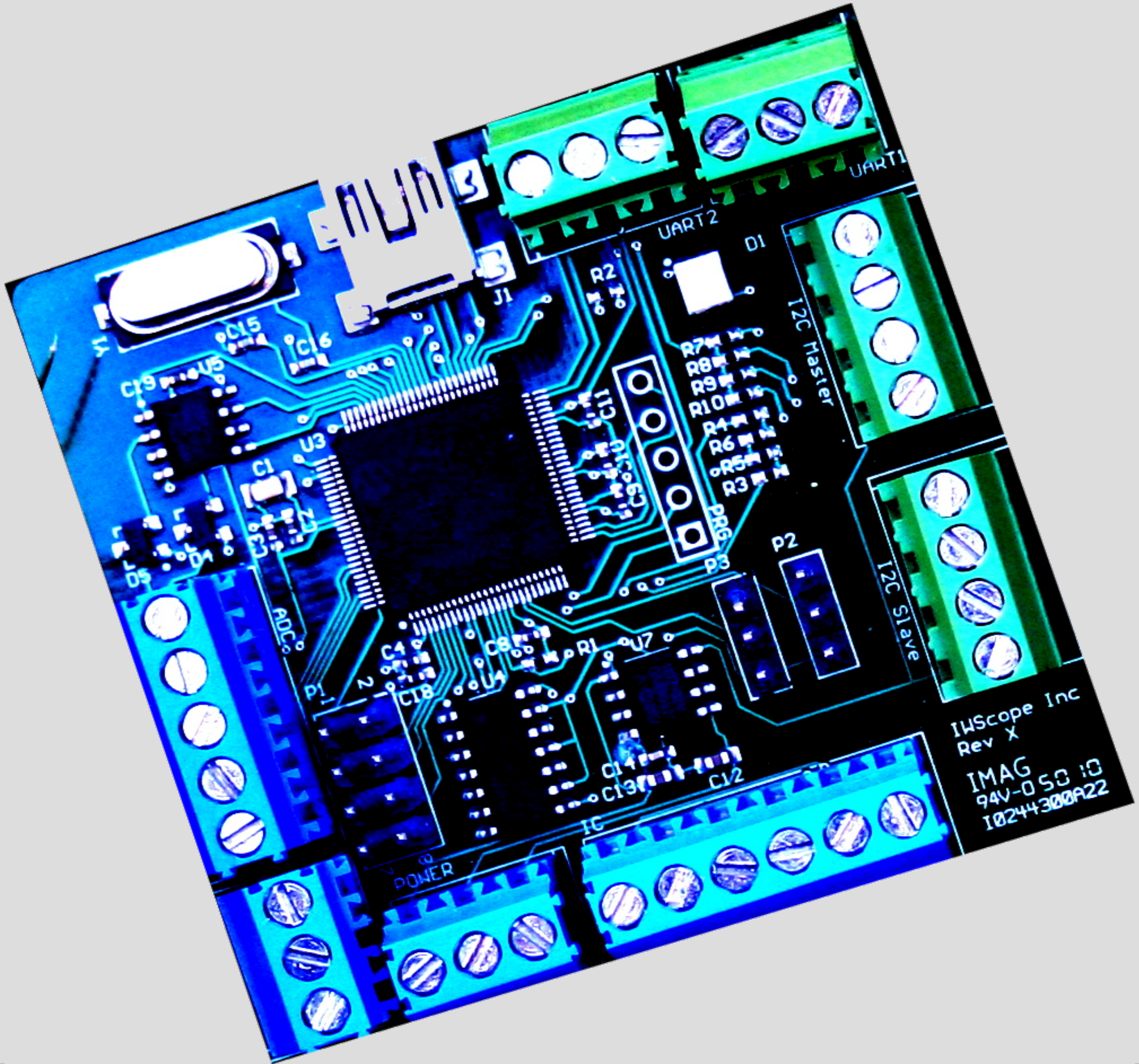
OScope V01/Script Control
General Purpose Script Controlled Oscilloscope Script Features



Vijay Singh
Date Aug 11th 2016

Notice

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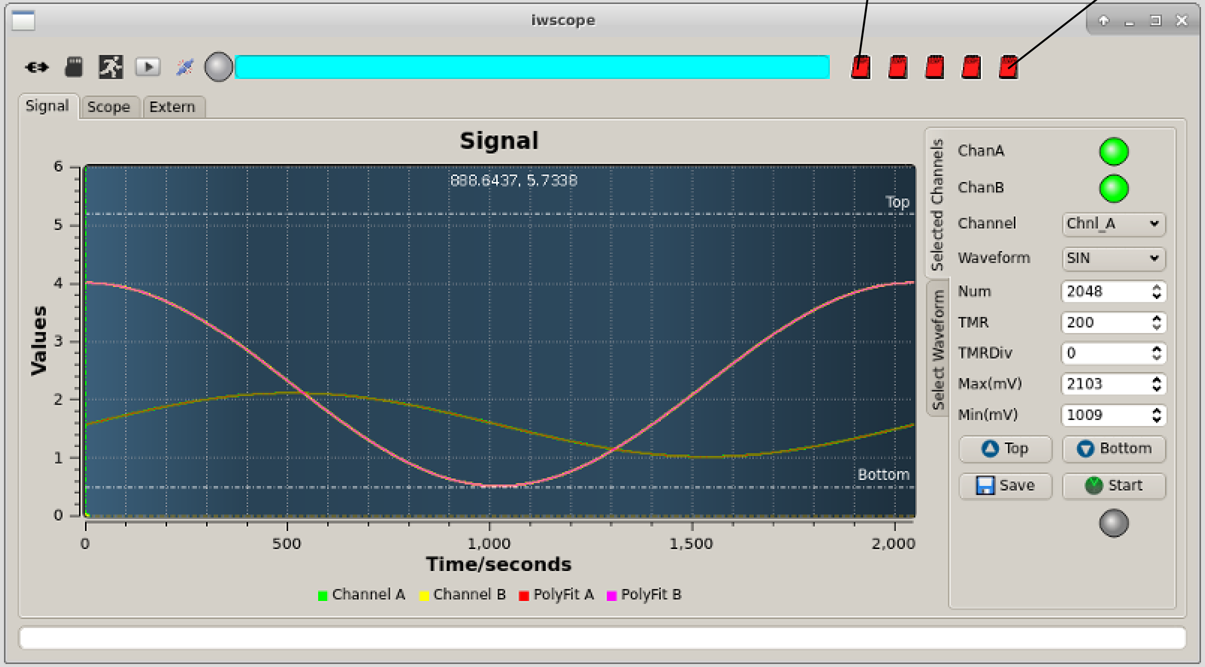
Oscope Script Feature

- Simple “C” script which enables end user how GUI application interacts with hardware.
- There are 5 Scripts placeholder in GUI application, at one time application can execute one instance of application.
- Multi platform (ARM,Linux,x86,Windows). Raspberry PI/Beagle bone Black/FreeScale/Windows/Intel Ubuntu and XP/7/8.
- Although scripts are interpreted “C”, are super fast in execution speed as it executes in RAM.
- Scripts are deployed in various production floor for calibration/production testing alternate to Labview.
- There are 5 Red icons on top right corner of application. Each one from left to right tied to “scrip1.c”,”script2.c”.. .. “script5.c”
- Sample application scripts are provided with application.

How to Start Script

Click to Script1.c execution

Click to Script5.c execution



Channel: Chnl_A

Waveform: SIN

Num: 2048

TMR: 200

TMRDiv: 0

Max(mV): 2103

Min(mV): 1009

“C” Sample Script

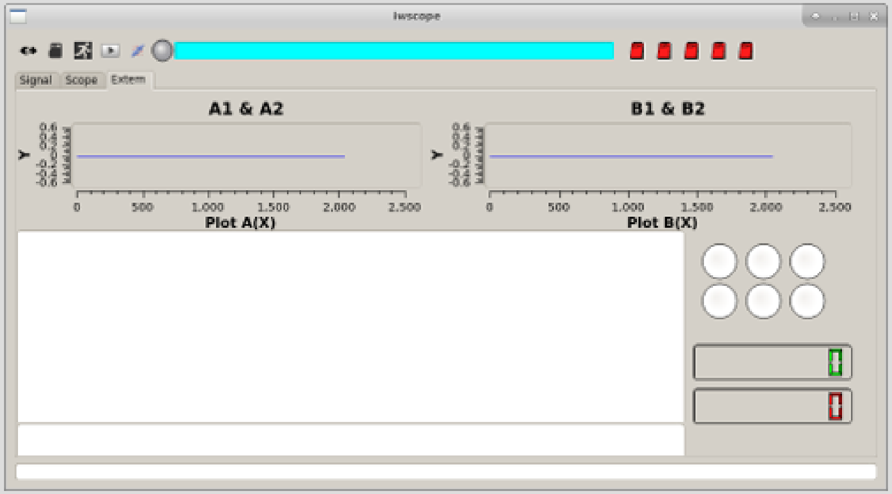
(Remote PC and Local PC may run on same host)

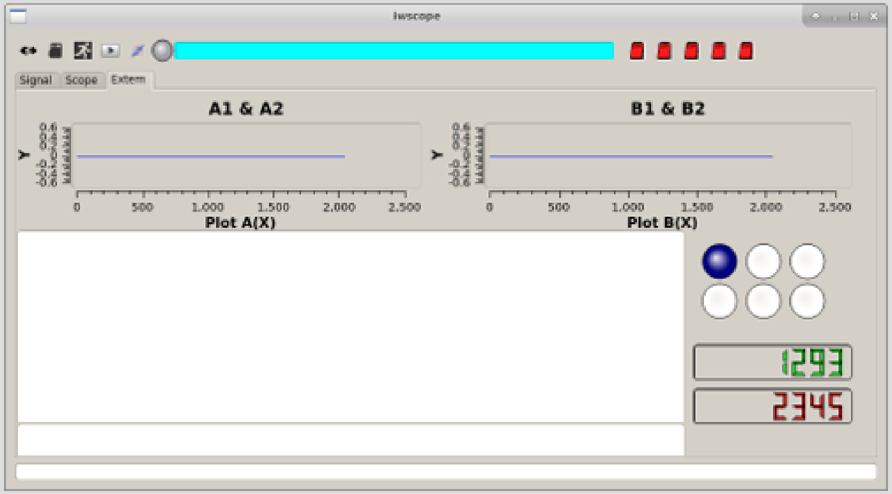
Used does not need oscilloscope, in order
To test “C” script interface,Just download
Software from following link,

https://github.com/vijayandra/oscopev1

(Please use only notepad,vi or emacs
In order to create “C” script)

```
#include <stdio.h>
int main()
{
    setGUILed(0,7);
    LCDDec_Write(1293,2345);
    return 0;
}
```





“C” Sample Script

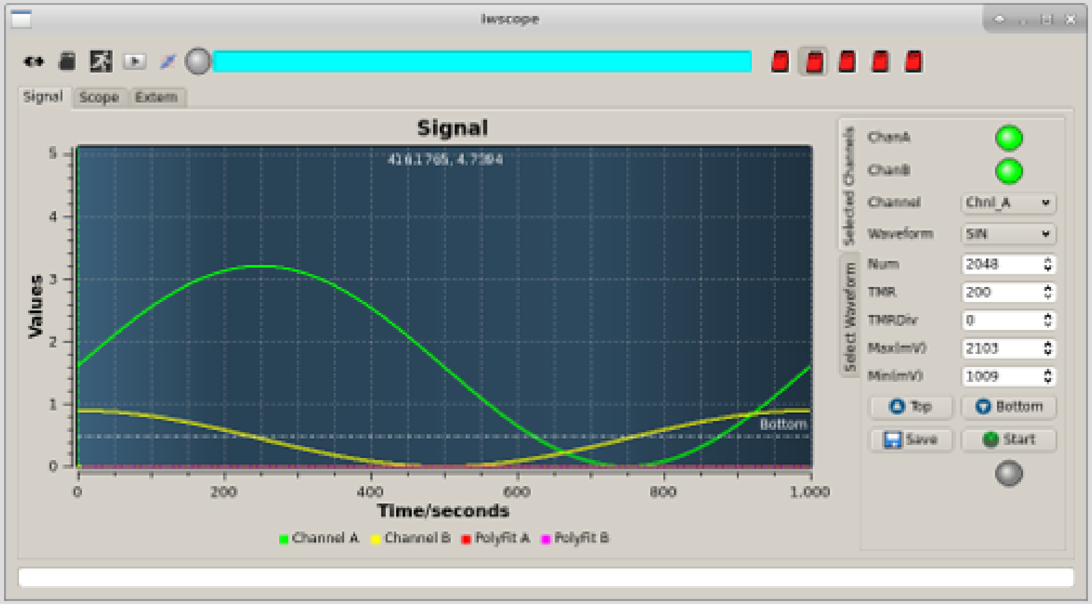
(Remote PC and Local PC may run on same host)

```
#include <stdio.h>
int main()
{
    int i;
    int j;
    j=0;
    i=0;
    // void Argument (int sig1type,int sig2type
    //              int sig1min,int sig1max,
    //              int sig2min,int sig2max,
    //              int TMR,int TMRDIV
    //              ,int numElem)
    // 0 SIN,1 COS,2 Rect, 3 Triangle,
    // you can also put it in loop
    mysignal(0,1,0,4095,1000,4000,,1000,0,1000);
    ms_sleep(500);

    for(j=200;j<4095;j+=50)
    {
        mysignal(0,1,0,j,0,4095-j,1000,0,1000);
        ms_sleep(100);

    }
    return 0;
}
```

Running this script produces dancing SIN/COS waveform, in case You happen to be owner of hardware you can see it produces real Signal on hardware. People have put lot of efforts and time to make System bug free.



ChanA ●
ChanB ●
Channel Chnl_A
Waveform SIN
Num 2048
TMR 200
TMRDiv 0
Max(mV) 2103
Min(mV) 1009

“C” Sample Script

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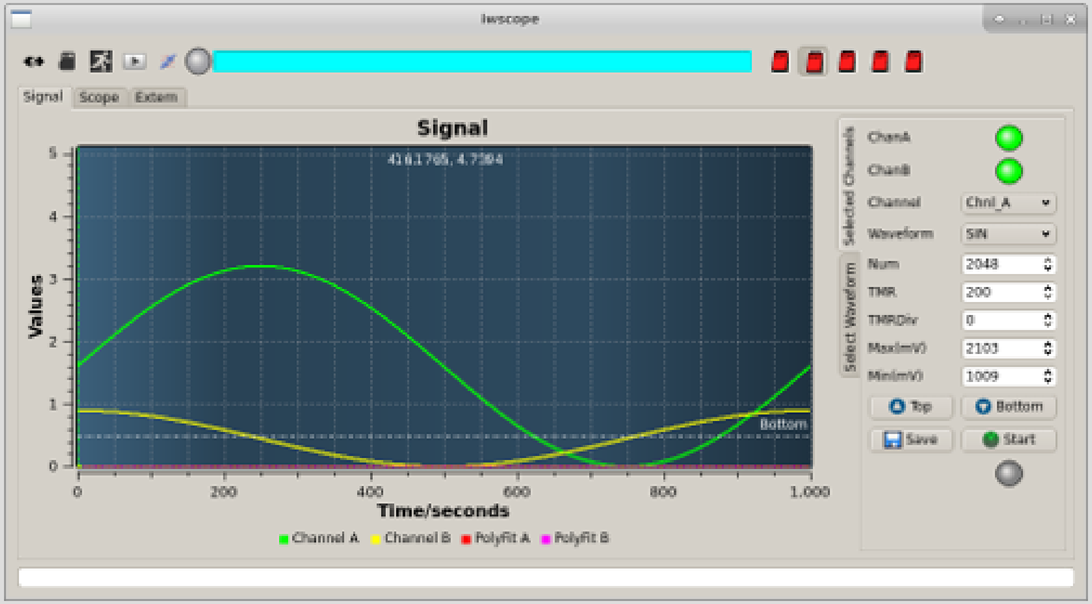

Channel Chnl_A
Waveform SIN
Num 2048
TMR 200
TMRDiv 0
Max(mV) 2103
Min(mV) 1009

List of “C”functions

```
int setCurrTab(int)
int ms_sleep(int)
  int myscope(int,int,int)
  int mysignal(int,int,int,int,int,int,int,int,int)
  int BannerMsg(char *,int)
  int setGUILed(int,int)
  int LCDHex_Write(int,int)
  int LCDDec_Write(int,int)
  int LogWinClear()
  int LogWinAppnd(char *,int)
  int setGraph(int,int *arr,int len)
  int setGraph(int,int *arr,int len)
  int setGPIODir(int)
  int readGPIO(int)
  int SetInCapPar()
  int SetOutCapPar()
```

```
int ReadInputCap()
int WriteOutputCap()
int ReadADC1()
int ReadADC2()
int WriteDAC1()
int WriteDAC2()
int WriteTTLUart1()
int WriteTTLUart2()
int ReadTTLUart1()
int ReadTTLUart2()
```