

LAMPIRAN

Unit Form pertama

```
unit SS;

interface

uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics,
  Controls, Forms,
  Dialogs, ExtCtrls, StdCtrls, CPort, CPortCtl, jpeg;

type
  TFrGPS = class(TForm)
    Label1: TLabel;
    Button1: TButton;
    Button2: TButton;
    Button3: TButton;
    Button4: TButton;
    Button5: TButton;
    ComPort1: TComPort;
    Label2: TLabel;
    ComLed1: TComLed;
    Memo1: TMemo;
    Image1: TImage;
    Timer1: TTimer;
    Timer2: TTimer;
    Shapel: TShape;
    Panel1: TPanel;
    Label3: TLabel;
    ComboBox1: TComboBox;
    Button6: TButton;
    Timer3: TTimer;
  procedure Button1Click(Sender: TObject);
  procedure Button2Click(Sender: TObject);
  procedure Button3Click(Sender: TObject);
  procedure Button4Click(Sender: TObject);
```

```

procedure Button5Click(Sender: TObject);
procedure ComPort1RxChar(Sender: TObject; Count: Integer);
procedure Timer1Timer(Sender: TObject);
procedure Timer2Timer(Sender: TObject);
procedure ComboBox1Change(Sender: TObject);
procedure Button6Click(Sender: TObject);
procedure Timer3Timer(Sender: TObject);
private
  { Private declarations }
public
  { Public declarations }
end;

var
  FrGPS: TFrGPS;

implementation

uses UGPS, UInfGPS;

{$R *.dfm}

procedure TFrGPS.Button1Click(Sender: TObject);
begin
  comport1.ShowSetupDialog;
  shapel.Visible := false;
end;

procedure TFrGPS.Button2Click(Sender: TObject);
begin
  comport1.Connected :=true;
  button1.Enabled :=false;
  button4.Enabled :=false;
  button5.Enabled :=false;
  timer3.Enabled := true;
  if Length(memor1.Lines.Text) >= 1 then
  begin
    timer1.Enabled := true;

```

```

        comboBox1.Enabled :=true;
        ComboBox1.ItemIndex := 0;
    end;
end;

procedure TFrGPS.Button3Click(Sender: TObject);
begin
timer1.Enabled := false;
timer2.Enabled := false;
shapel.Visible := false;
comport1.Connected :=false;
button1.Enabled :=true;
button4.Enabled :=true;
button5.Enabled :=true;
comboBox1.Enabled :=false;
combobox1.ItemIndex := 0;
image1.Picture.LoadFromFile('C:\GPS_Delphi\semarang-map-800.jpg');
timer3.Enabled := false;
end;

procedure TFrGPS.Button4Click(Sender: TObject);
begin
    memo1.Clear;
    shapel.Visible := false;
end;

procedure TFrGPS.Button5Click(Sender: TObject);
begin
application.Terminate;
end;

procedure TFrGPS.ComPort1RxChar(Sender: TObject; Count: Integer);
var
    Str: String;
begin
    ComPort1.ReadStr(Str, Count);
    Memo1.Text := Memo1.Text + Str;
    frInfoGPS.Memo1.Text := Memo1.Text + Str;
end;

```

```
end;
```

```
procedure TFrGPS.Timer1Timer(Sender: TObject);
```

```
begin
```

```
timer2.Enabled :=false;
```

```
shapel.Visible :=true;
```

```
shapel.Brush.Color := clblue;
```

```
if shapel.Brush.Color = clblue then
```

```
timer2.Enabled := true;
```

```
end;
```

```
procedure TFrGPS.Timer2Timer(Sender: TObject);
```

```
begin
```

```
timer1.Enabled := false;
```

```
shapel.Visible :=true;
```

```
shapel.Brush.Color := clred;
```

```
if shapel.Brush.Color = clred then
```

```
timer1.Enabled := true;
```

```
end;
```

```
procedure TFrGPS.ComboBox1Change(Sender: TObject);
```

```
begin
```

```
case combobox1.ItemIndex of
```

```
0:      imagel.Picture.LoadFromFile('C:\GPS_Delphi\semarang-map-800.jpg');
```

```
1: imagel.Picture.LoadFromFile('C:\GPS_Delphi\zoom peta.jpg');
```

```
2: imagel.Picture.LoadFromFile('C:\GPS_Delphi\peta3.jpg');
```

```
end;
```

```
end;
```

```
procedure TFrGPS.Button6Click(Sender: TObject);
```

```
begin
```

```
FrInfoGPS.Show;
```

```
end;
```

```
procedure TFrGPS.Timer3Timer(Sender: TObject);
```

```
begin
```

```
memo1.Clear;  
timer3.Enabled := false;  
sleep(1000);  
button2.Click;  
end;  
  
end.
```



Unit Form kedua

unit UInfGPS;

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics,
Controls, Forms,
Dialogs, StdCtrls;

type

TFrInfoGPS = class(TForm)

 Memo1: TMemo;

 GroupBox1: TGroupBox;

 Memo2: TMemo;

 Tutup: TButton;

 Label1: TLabel;

 Label2: TLabel;

 Label3: TLabel;

 Label4: TLabel;

 Label5: TLabel;

 Label6: TLabel;

 Label7: TLabel;

 Label8: TLabel;

 Label9: TLabel;

 Label10: TLabel;

 Label11: TLabel;

 Label12: TLabel;

 Label13: TLabel;

 Label14: TLabel;

 Label15: TLabel;

 GroupBox2: TGroupBox;

 Memo3: TMemo;

 Label16: TLabel;

 Label17: TLabel;

 Label18: TLabel;

 Label19: TLabel;

 Label20: TLabel;

```
Label21: TLabel;  
Label22: TLabel;  
Label23: TLabel;  
Label24: TLabel;  
Label25: TLabel;  
Label26: TLabel;  
Label27: TLabel;  
Label28: TLabel;  
GroupBox3: TGroupBox;  
Memo4: TMemo;  
Label29: TLabel;  
Label30: TLabel;  
Label31: TLabel;  
Label32: TLabel;  
Label33: TLabel;  
Label34: TLabel;  
Label35: TLabel;  
Label36: TLabel;  
Label37: TLabel;  
Label38: TLabel;  
Label39: TLabel;  
Edit1: TEdit;  
Edit2: TEdit;  
Edit3: TEdit;  
Label40: TLabel;  
Label41: TLabel;  
Label42: TLabel;  
procedure TutupClick(Sender: TObject);  
procedure MemolChange(Sender: TObject);  
private  
  { Private declarations }  
public  
  { Public declarations }  
end;  
  
var  
  FrInfoGPS: TFrInfoGPS;
```

implementation

```
uses SS;
```

```
{$R *.dfm}
```

```
procedure Split(aValue : string; aDelimiter : Char; Result :  
TStrings);
```

```
var
```

```
x:integer;
```

```
s:string;
```

```
begin
```

```
if result = nil then result:= TStringList.Create;
```

```
result.Clear;
```

```
S:='';
```

```
for x:=1 to length(aValue) do begin
```

```
if aValue[x]<>aDelimiter then
```

```
  S:=S +aValue[x]
```

```
  else begin
```

```
    result.Add(S);
```

```
    S:='';
```

```
  end;
```

```
end;
```

```
if S<>' 'then result.Add(S);
```

```
end;
```

```
procedure TFrInfoGPS.TutupClick(Sender: TObject);
```

```
begin
```

```
Close;
```

```
end;
```

```
procedure TFrInfoGPS.MemolChange(Sender: TObject);
```

```
Var H,I,J : String;
```

```
x,y,z,pj: integer;
```

```
begin
```

```
x:=pos('$GPGGA',Memol.Lines.Text);
```

```
y:=pos('$GPRMC',Memol.Lines.Text);
```

```
z:=pos('$GPVTG',Memol.Lines.Text);
```

```
  pj:=length(Memol.Lines.Text);
```



```

H := copy(Mem1.Lines.Text,x,pj);
I := copy(Mem1.Lines.Text,y,pj);
J := copy(Mem1.Lines.Text,z,pj);
x:=pos(#$D,H);
y:=pos(#$D,I);
z:=pos(#$D,J);
FrInfoGPS.Edit1.Text := copy(H,1,x-1);
FrInfoGPS.Edit2.Text := copy(I,1,y-1);
FrInfoGPS.Edit3.Text := copy(J,1,z-1);

Split(FrInfoGPS.Edit1.Text,',',FrInfoGPS.Memo2.Lines);
Split(FrInfoGPS.Edit2.Text,',',FrInfoGPS.Memo3.Lines);
Split(FrInfoGPS.Edit3.Text,',',FrInfoGPS.Memo4.Lines);
end;

end.

```



Listing Mikrokontroller

```
$regfile = "89s52.dat"
$crystal = 1200000

Dim I As Byte
Dim Y As Byte
Dim Tmp As Byte
Dim Fdata As Byte
Dim Message1 As Byte
Dim Msg As String * 4
Dim Msg3 As String * 4
Dim Msg2 As Byte
Dim Msg4 As Byte
Dim Dum As Byte
Dim Msg5 As String * 6
Dim Var As Byte , Puluhan As Byte , Satuan As Byte
Declare Sub Loc1
Declare Sub Loc2
Declare Sub Command
Declare Sub Tunggu
Declare Sub Delay1ms
Open "com2.1:4800" For Output As #1
Open "com2.3:4800" For Input As #2
Do
Y = 0
Msg = " "
Msg3 = " "
Msg5 = ""

Do
    Fdata = Lookup(y , Message)
    If Fdata = 0 Then Exit Do
    Get #2 , Tmp
    If Fdata = Tmp Then Incr Y
Loop
Do
    Get #2 , Tmp
```

```

    If Tmp = "," Then Exit Do
    Msg = Msg + Chr(tmp)
Loop
Msg = Msg + " Time "
Do
    Get #2 , Tmp
    If Tmp = "," Then Exit Do
    Msg2 = Tmp
Loop

Do
    Get #2 , Tmp
    If Tmp = "," Then Exit Do
    Msg3 = Msg3 + Chr(tmp)
Loop
Msg3 = Msg3 + "" "
Msg3 = Msg3 + Msg5
Do
    Get #2 , Tmp
    If Tmp = "," Then Exit Do
    Msg4 = Tmp
Loop
For I = 1 To 6
    Get #2 , Tmp
    Msg5 = Msg5 + Chr(tmp)
    If I = 1 Then
        Puluhan = Tmp - &H30
    Else
        If I = 2 Then Satuan = Tmp - &H30
    End If
Next
Var = Puluhan * 10
Var = Var + Satuan
Var = Var + 7
If Var > 24 Then Var = Var - 24
Puluhan = Var / 10
Puluhan = Puluhan + &H30
Satuan = Var Mod 10

```

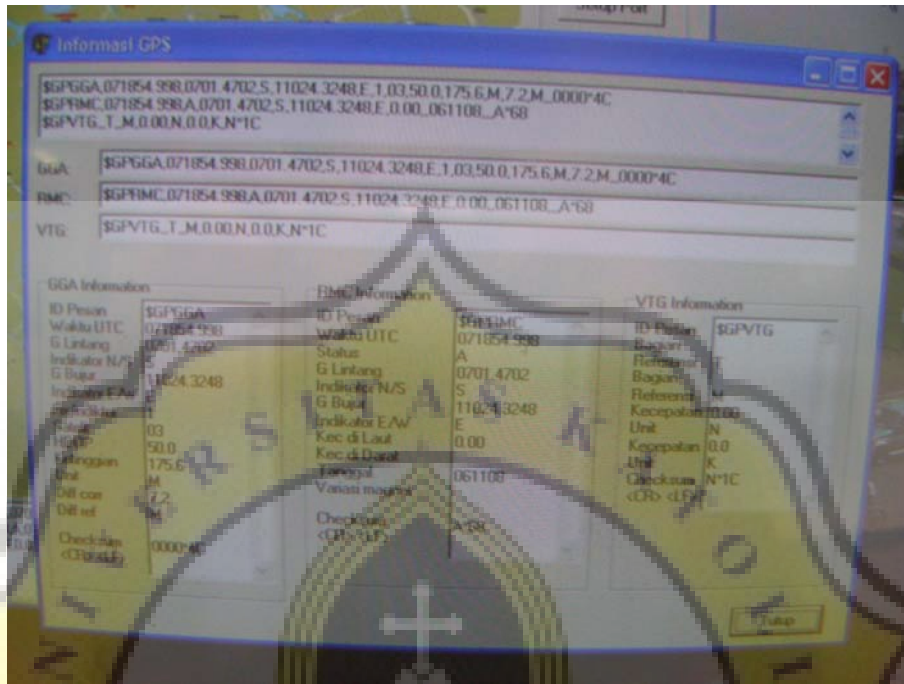
Satuan = Satuan + &H30

Mid(msg5 , 1 , 1) = Puluhan

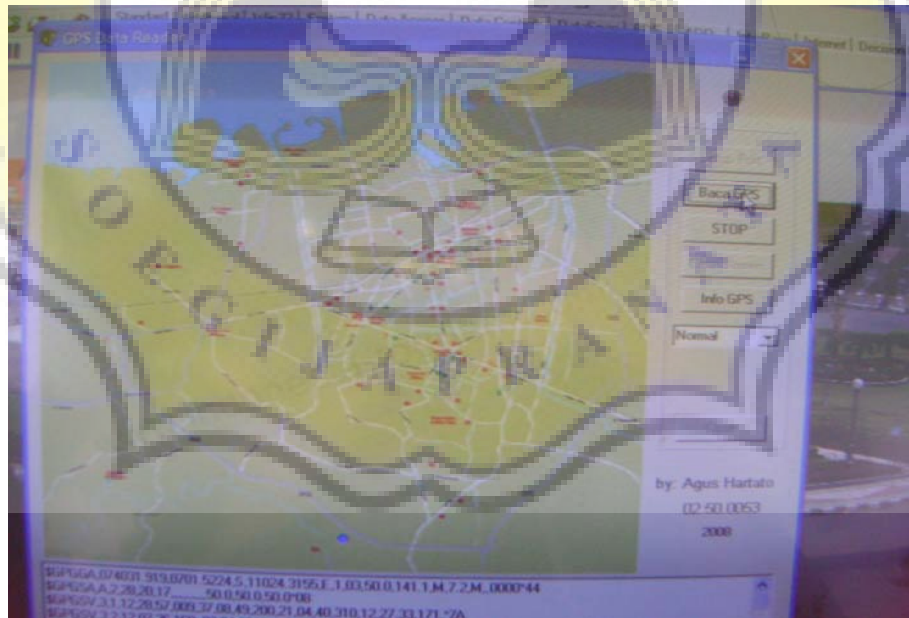
Mid(msg5 , 2 , 1) = Satuan

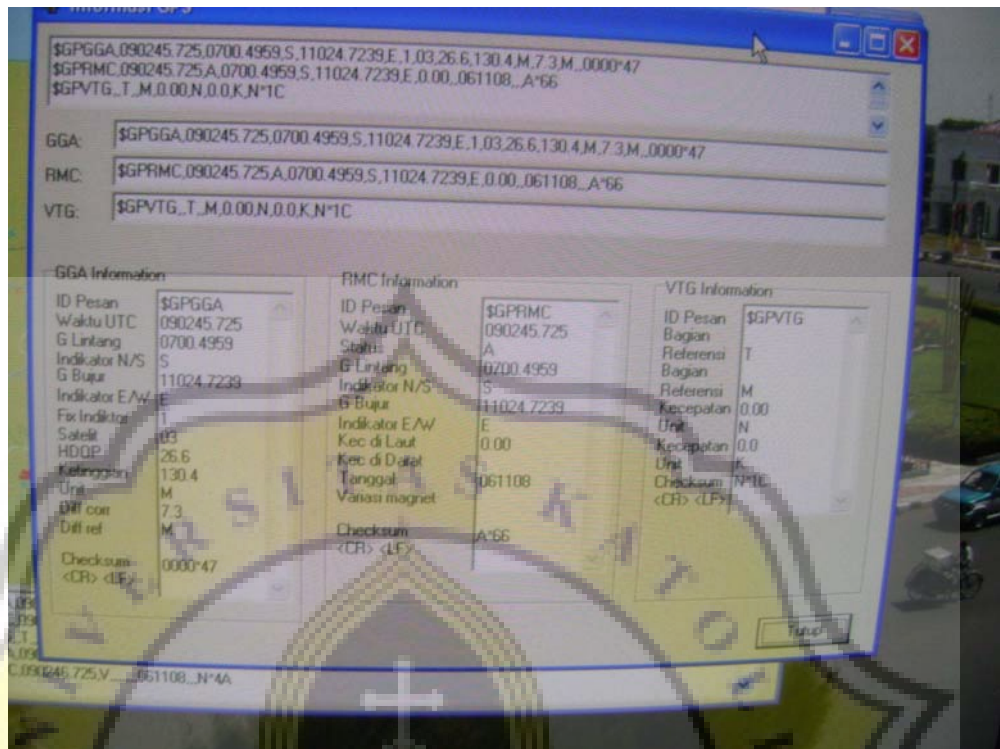


LAMPIRAN HASIL UJI COBA



Hasil di unika bendan dhuwur





Hasil di daerah jalan slamet

