

WEINTEK LABS., INC.

Solar Day Converter

Demo Project

Contents

1. Overview and Operation 1
2. Setting up the Screen 2

1. Overview and Operation

Overview

This demo project introduces how to convert a Gregorian date to a solar day. The solar day is represented by 4 digits. The first digit represents the last digit of C.E., and the rest three digits represent the sequence number of the day counted from the first day of the year. For example, February 1st, 2014 C.E will be written as 4032 in solar day.

Operation

Enter the year, month, day, and then click [Convert to Solar day] button to trigger the macro to do the conversion.



2. Setting up the Screen

Step 1. Build Macro as shown below:

```
macro_command main()
```

```
short y, m, d, y1, m1, d1, solar
```

```
GetData(y, "Local HMI", LW, 9022, 1)
```

```
GetData(m, "Local HMI", LW, 9021, 1)
```

```
GetData(d, "Local HMI", LW, 9020, 1)
```

```
y1=y%10
```

```
if m==1 then
```

```
m1=0
```

```
end if
```

```
if m==2 then
```

```
m1=31
```

```
end if
```

```
if m==3 then
```

```
m1=59
```

```
end if
```

```
if m==4 then
```

```
m1=90
```

```
end if
```

Solar Day Converter



```
if m==5 then
m1=120
end if
if m==6 then
m1=151
end if
if m==7 then
m1=181
end if
if m==8 then
m1=212
end if
if m==9 then
m1=243
end if
if m==10 then
m1=273
end if
if m==11 then
m1=304
end if
if m==12 then
m1=334
end if
```

Solar Day Converter

```
solar = y1*1000+m1+d
```

```
if y==2000 or y==2004 or y==2008 or y==2012 or y==2016 or y==2020 then
```

```
  if m >= 3 then
```

```
    solar = y1*1000+m1+d+1
```

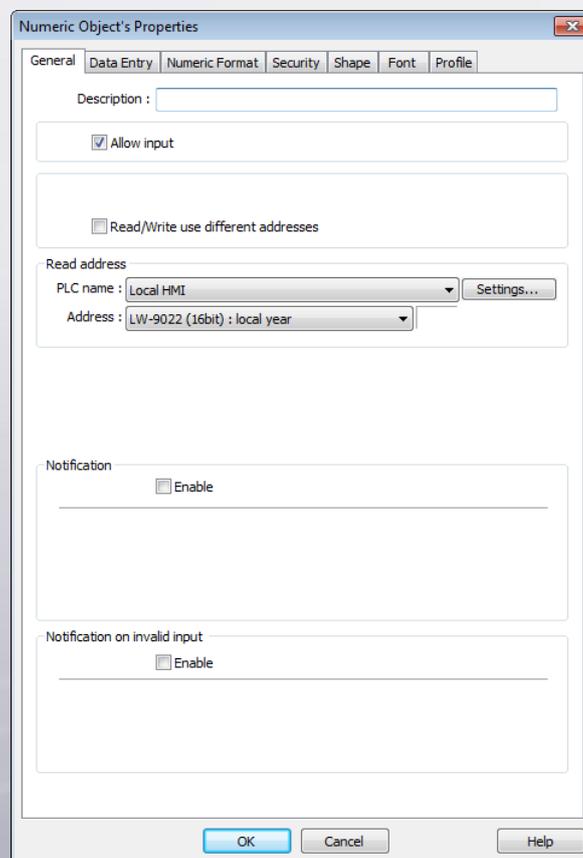
```
  end if
```

```
end if
```

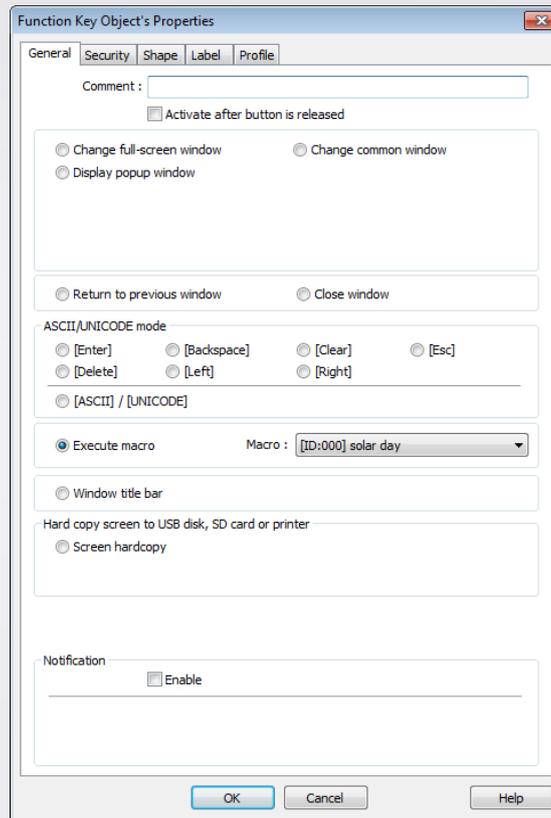
```
SetData(solar, "Local HMI", LW, 10, 1)
```

```
end macro_command
```

- Step 2. Create three Numeric objects, set address to LW-9022, LW-9021, LW-9020 respectively, to read/write year, month, day.



Step 3. Create a Function Key to trigger the Macro.



Step 4. Create another Numeric object to display the result of conversion.

