



Abmtek Co., Ltd.
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OPOS Driver for ABMtek VFD/LCM

ABMtek



1. Introduction

1.1. Overview

This document describes how to use the ABMTEK OPOS driver for the ABMTEK VFD/LCM. The ABMTEK OPOS driver is a software program for controlling VFD/LCM from Windows applications to the VFD/LCM.

1.2. System Requirements

This VFD/LCM driver can be used with the following system configurations.

- **VFD**
 - 20x2
- **LCM**
 - 20x2
- **Hardware Platform**
 - **COM port dependence (9600/19200/38400/57600/115200)**
- **Supported Operating System (OS)**
 - Microsoft® Windows Embedded® POSReady 2009
 - Microsoft® Windows Embedded® POSReady 7
 - Microsoft® Windows 8/8.1/10

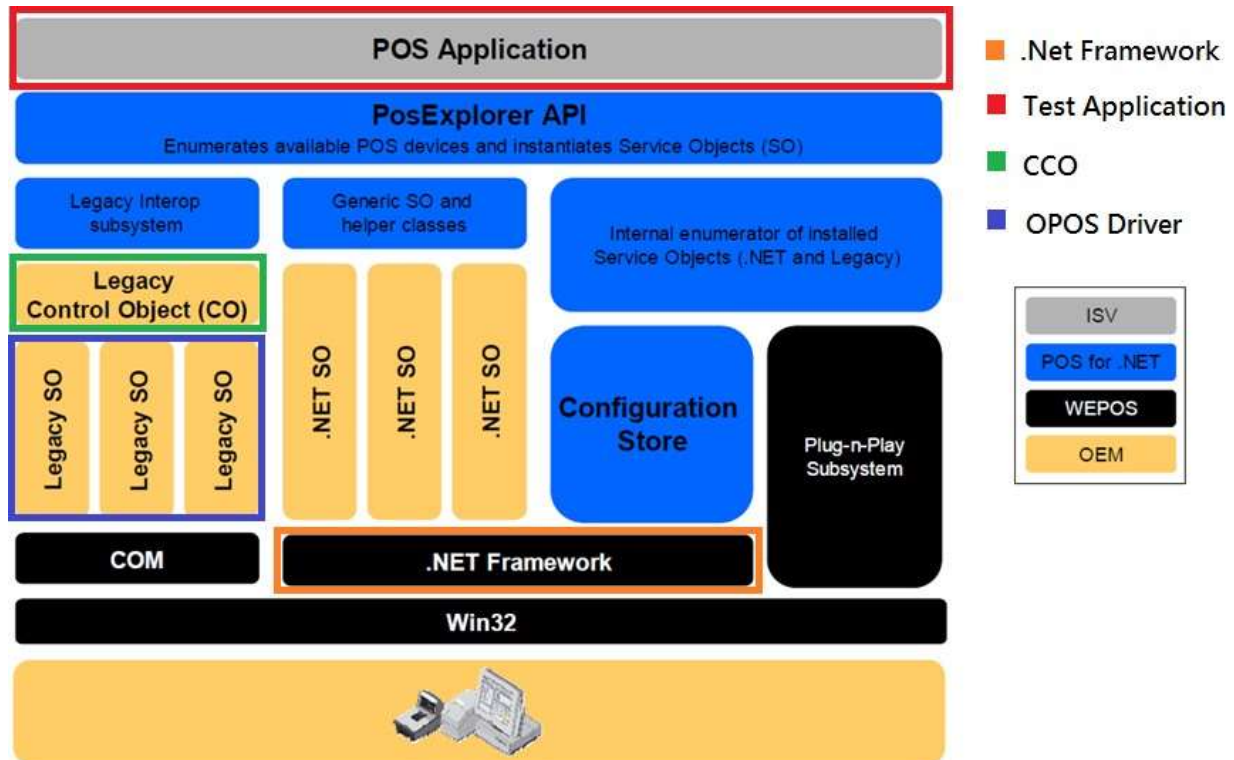
The 32-bit/64-bit OS versions are also supported

- **Additional Requirements include:**
 - .NET 4.0 and above



2. Installing for ABMTEK OPOS Driver

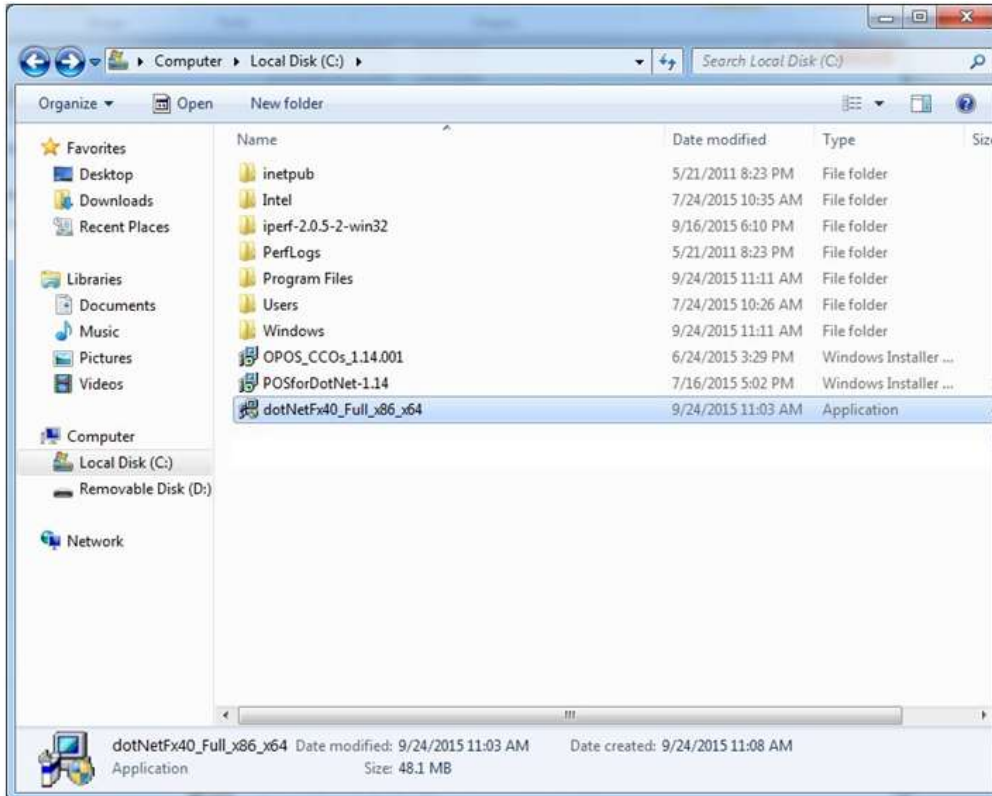
This section describes the installation all software about ABMTEK VFD/LCM OPOS driver, these software contain .Net Framework, Testing Application, Common Control Object (CCO) and ABMTEK OPOS Driver.



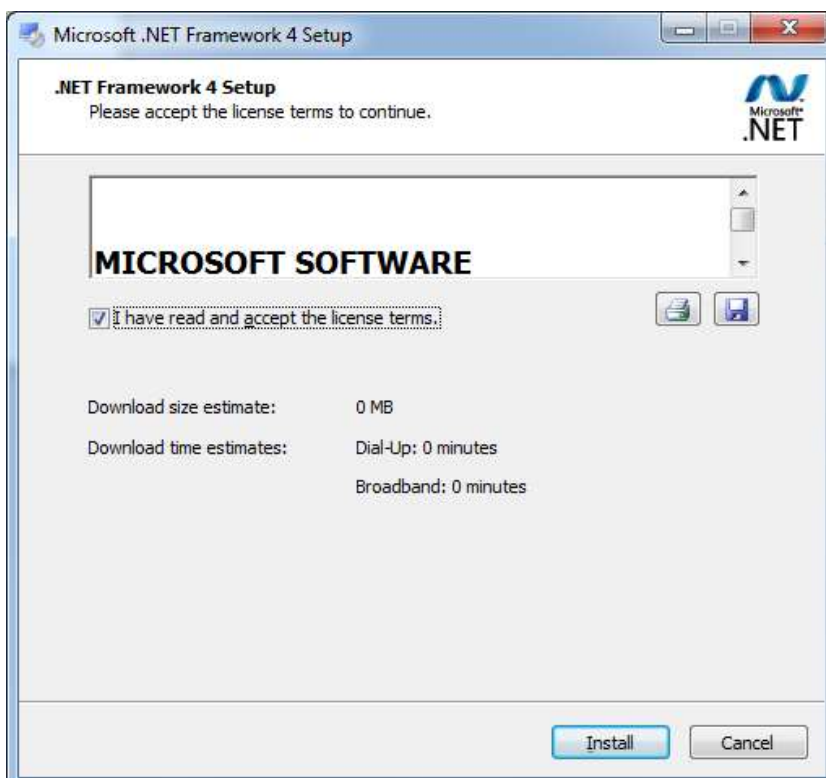


2.1. Microsoft .Net Framework 4.0 installation

- Double-Click for dotNetFx40_Full_x86_x64 to begin install.



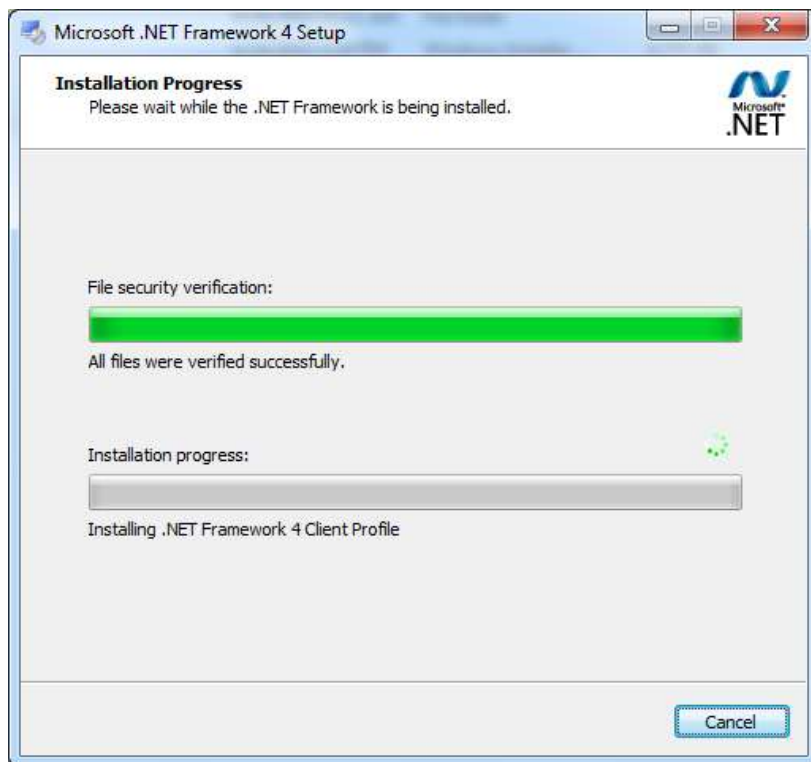
- To accept the license agreement



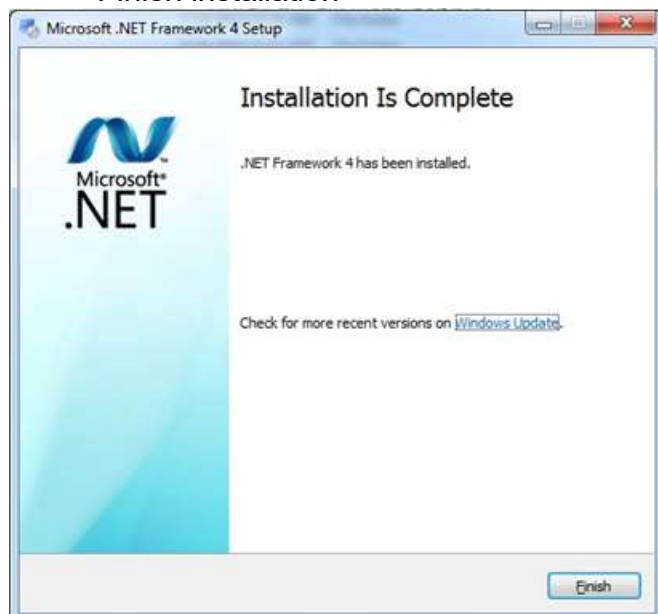


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- Begin install process

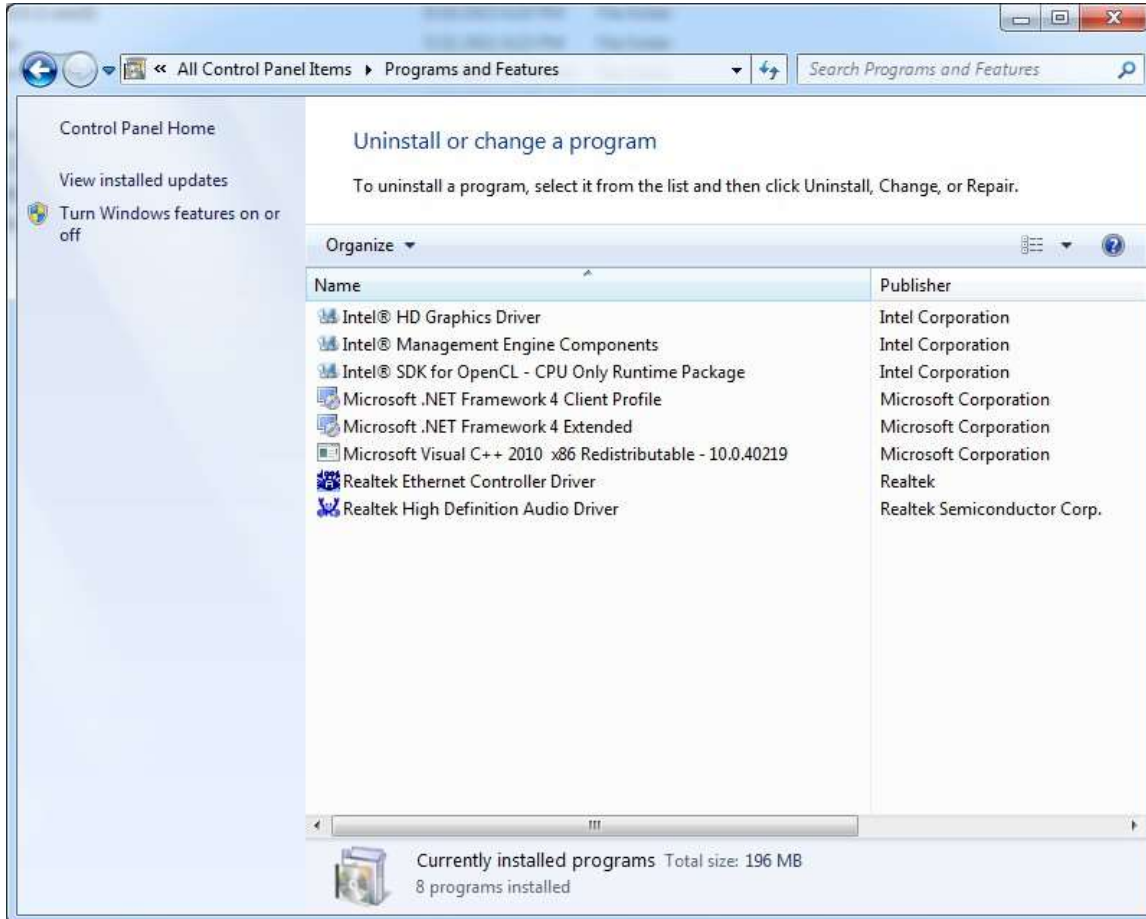


- Finish installation





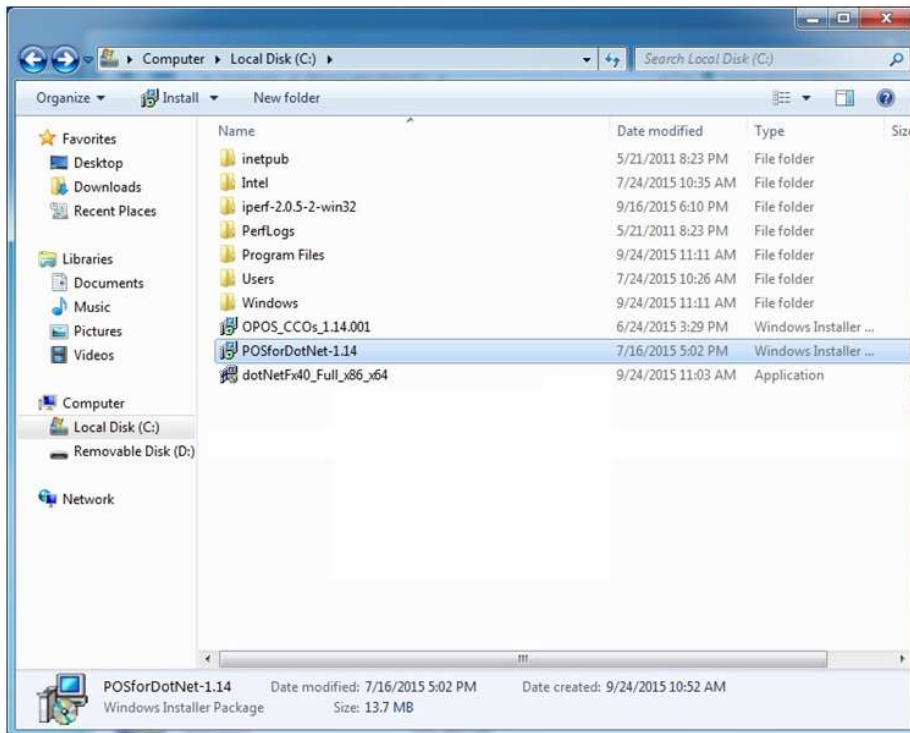
- Check .Net Framework has been installed



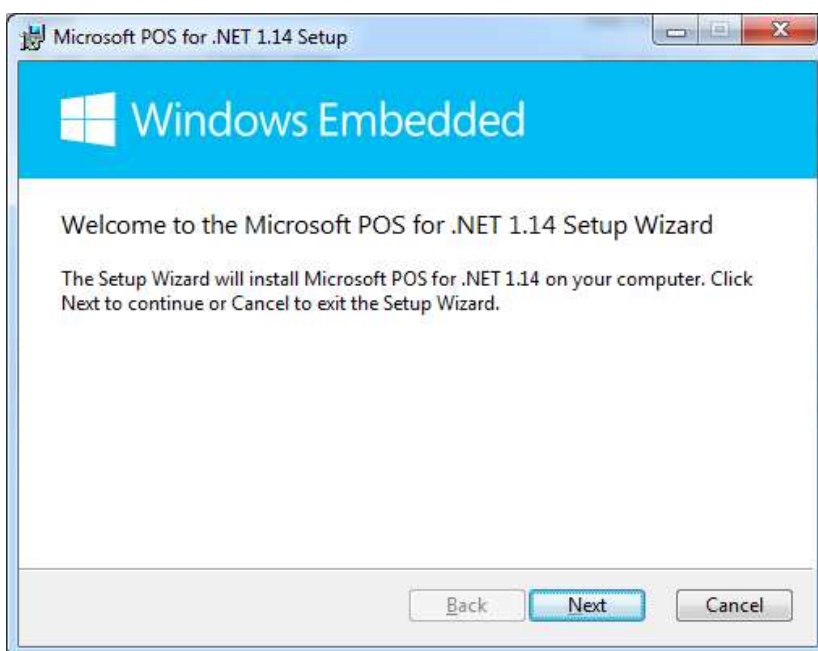


2.2. Testing Application of POS for .Net

- Double-Click for POSforDoNet-1.14 to begin install



- First Screen for installation



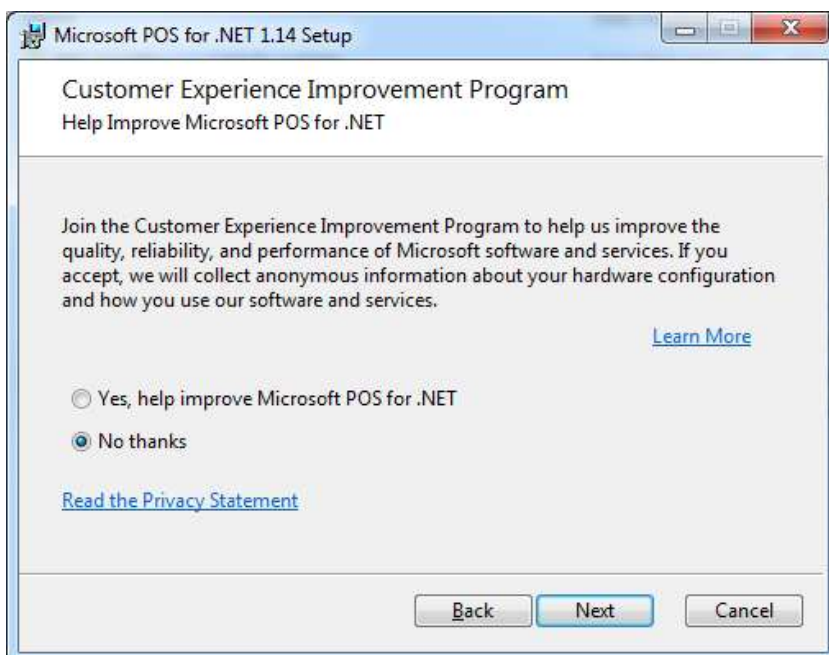


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- To accept the license agreement

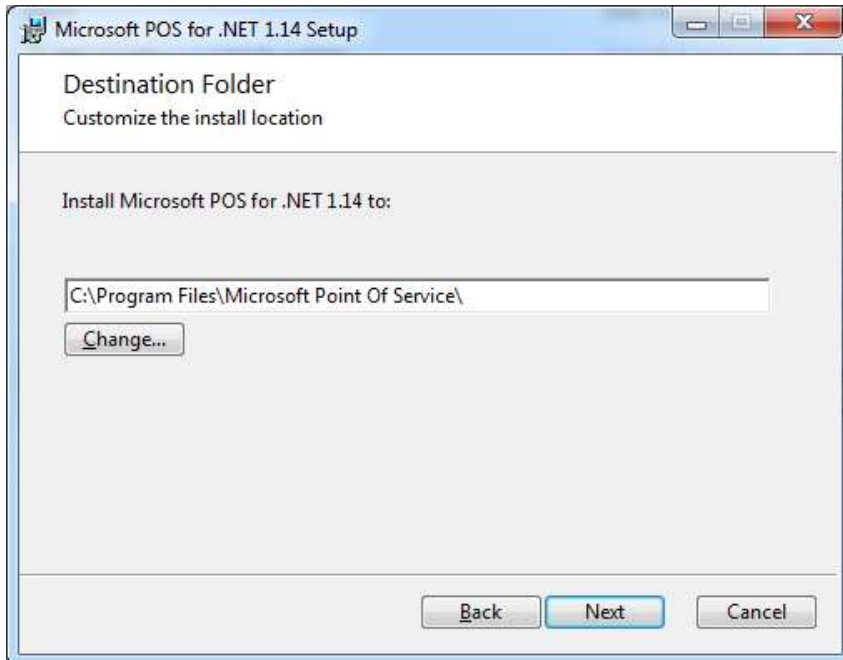


- Option for Customer Experience Improvement Program, Set “No thanks” for this step

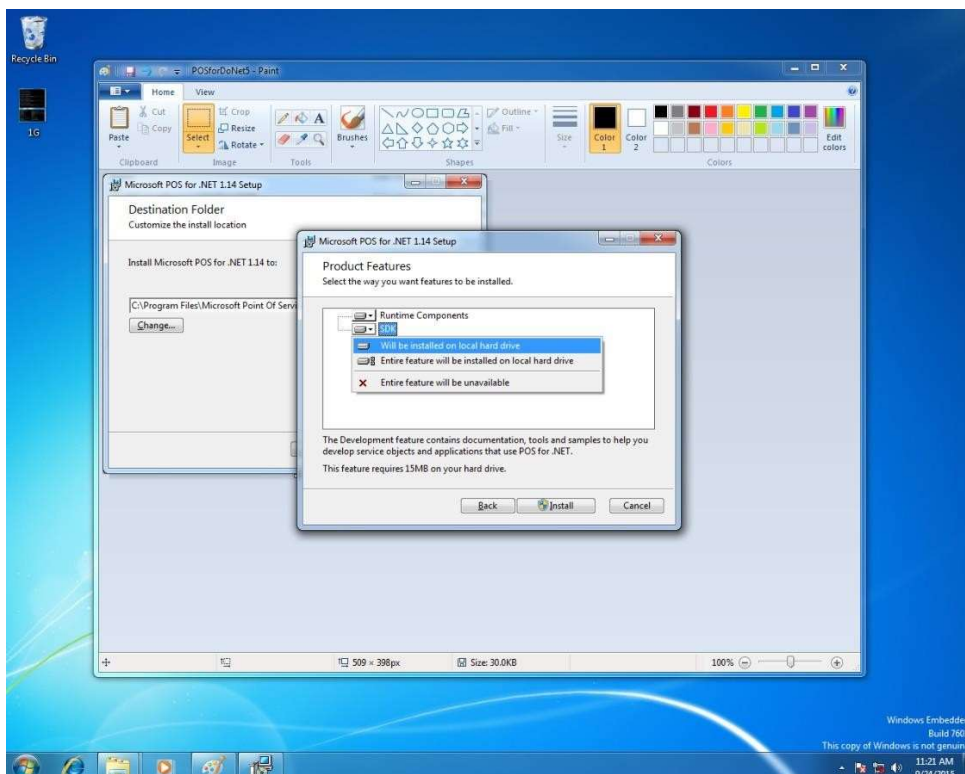




- Set up the install path for the program

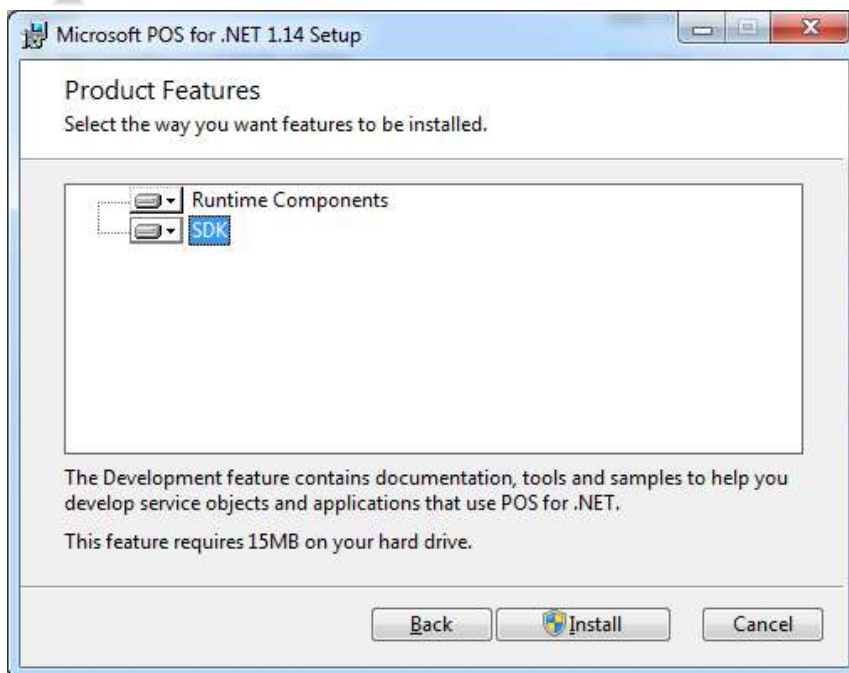


- Select install package for SDK

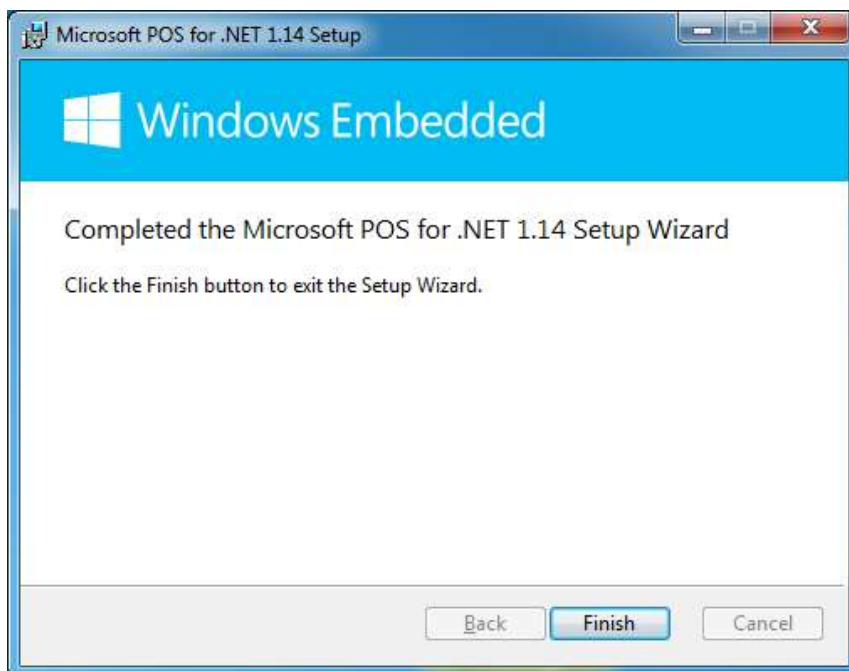




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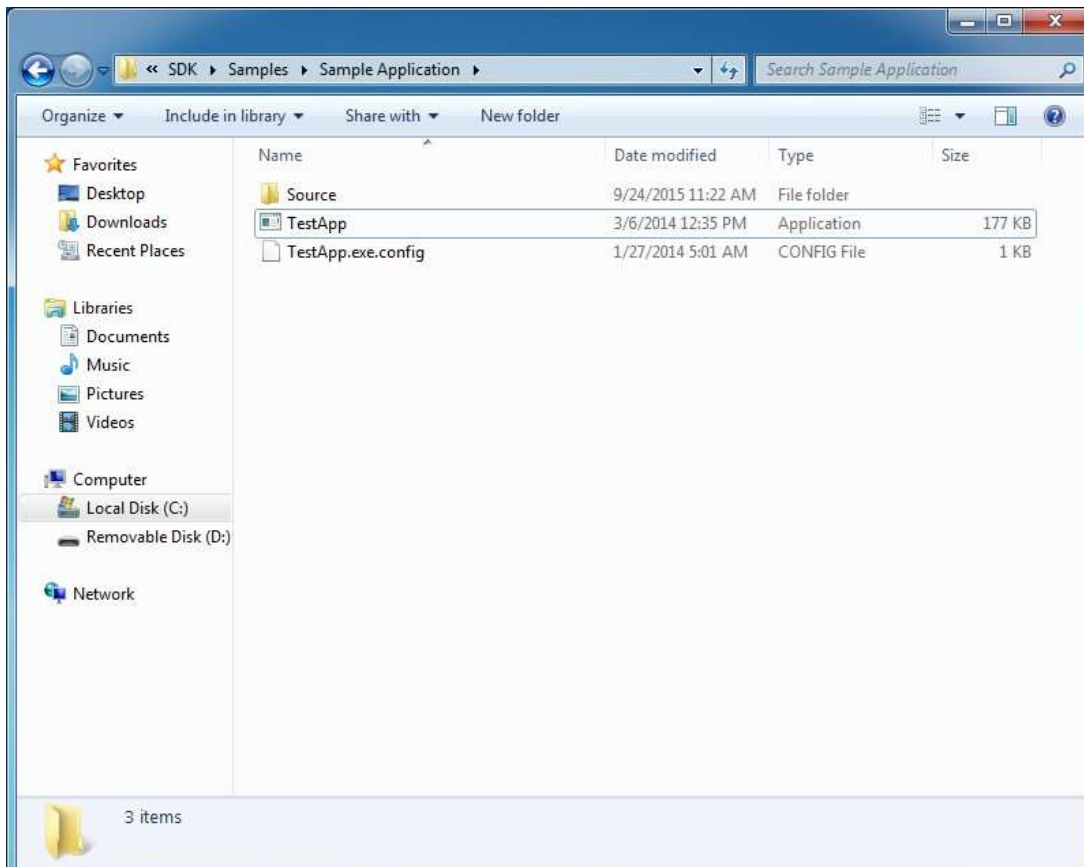
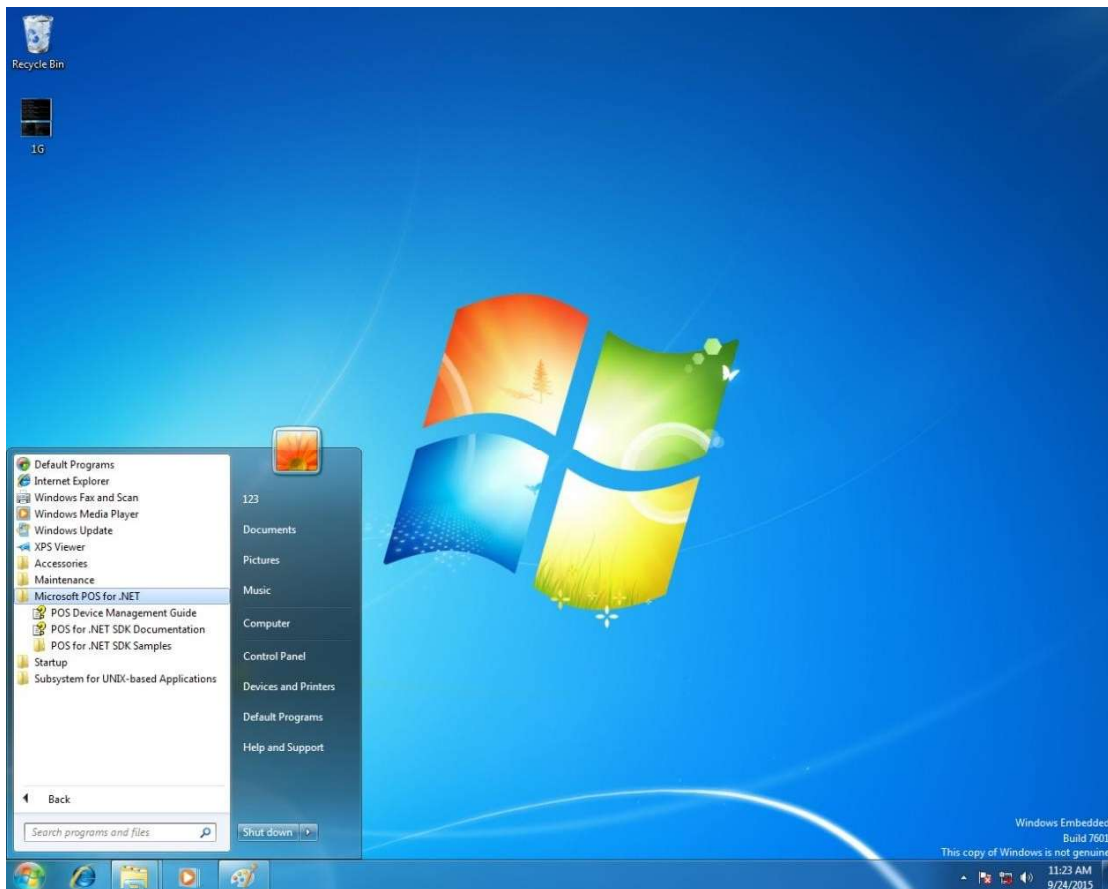
- Finish installation





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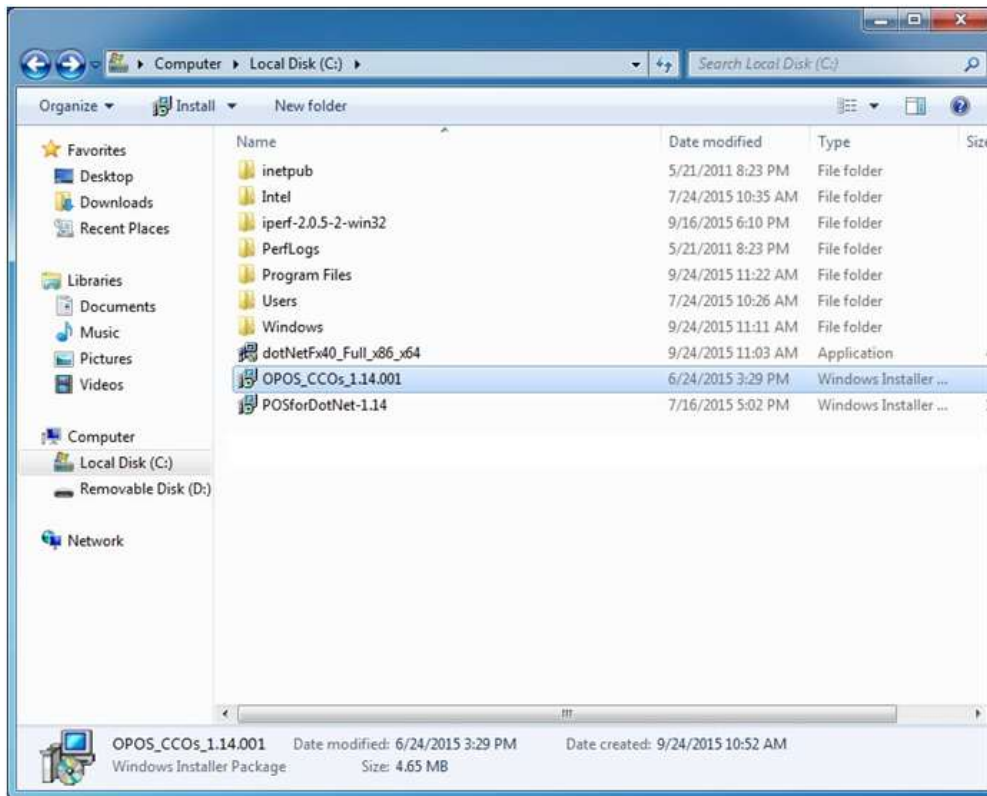
- Check Test Application of POSfor.Net has been installed



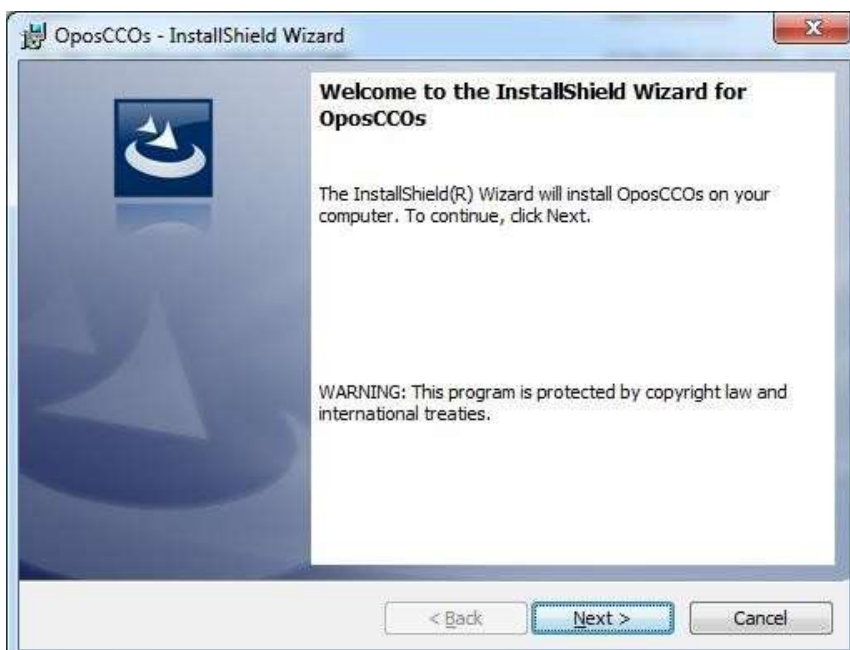


2.3. Common Control Object (CCO)

- Double-Click for POSforDoNet-1.14 to begin install



- First Screen for installation





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- Set up the install path for the program



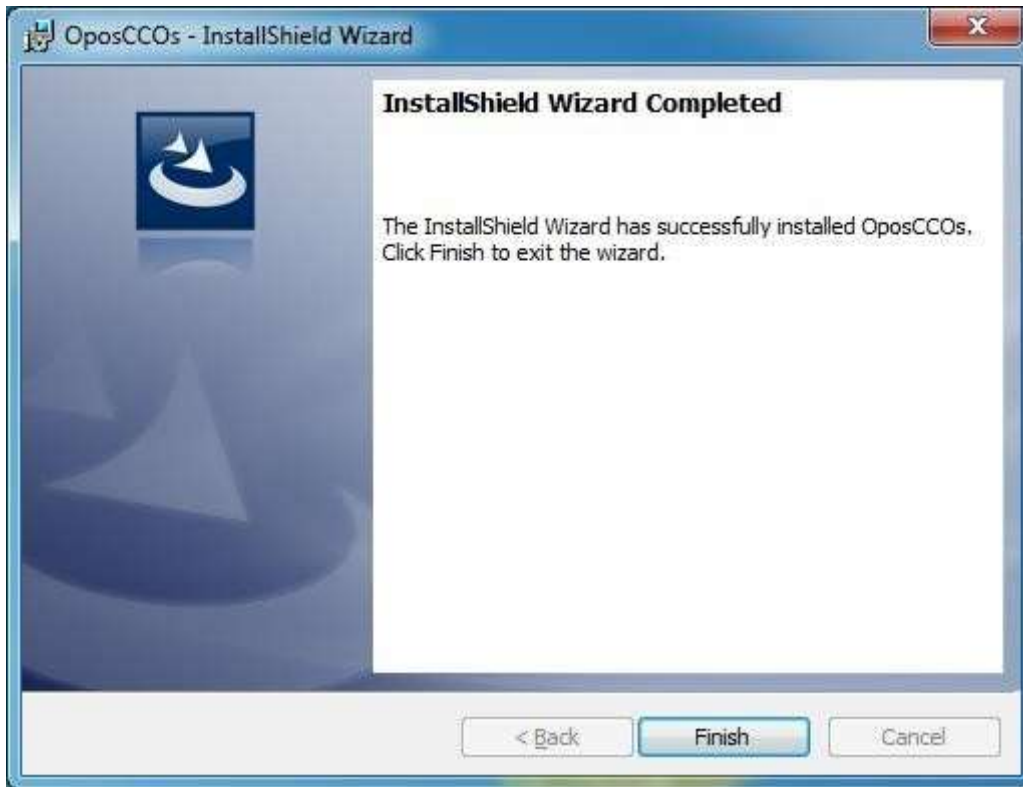
- Select setup type for complete



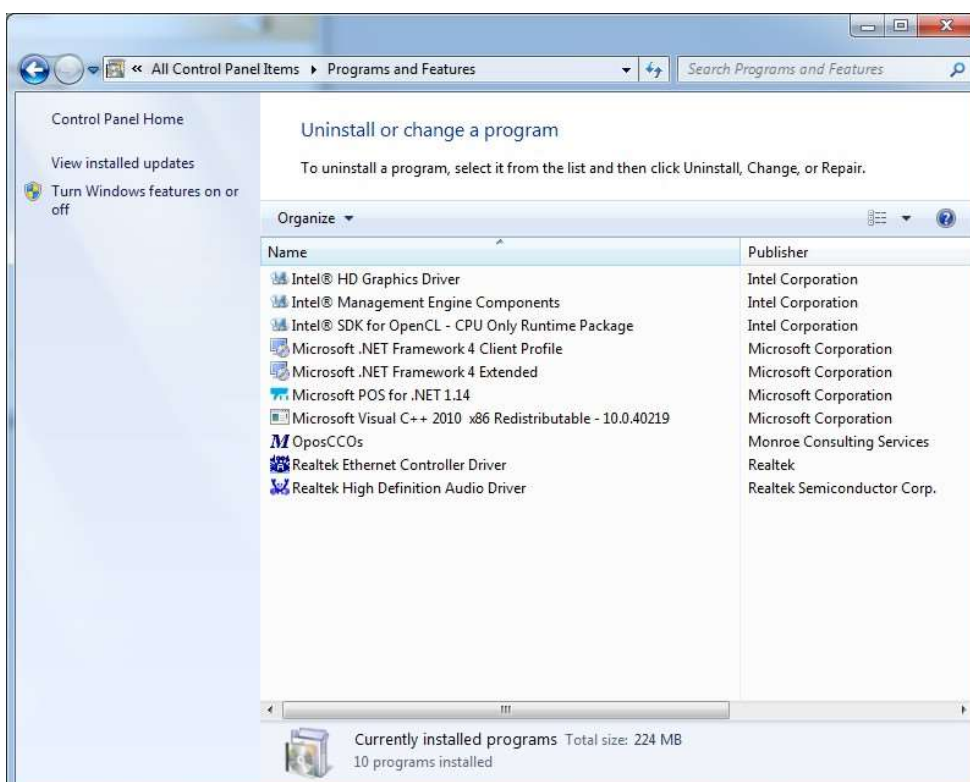


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- Finish installation



- Check CCOs has been installed





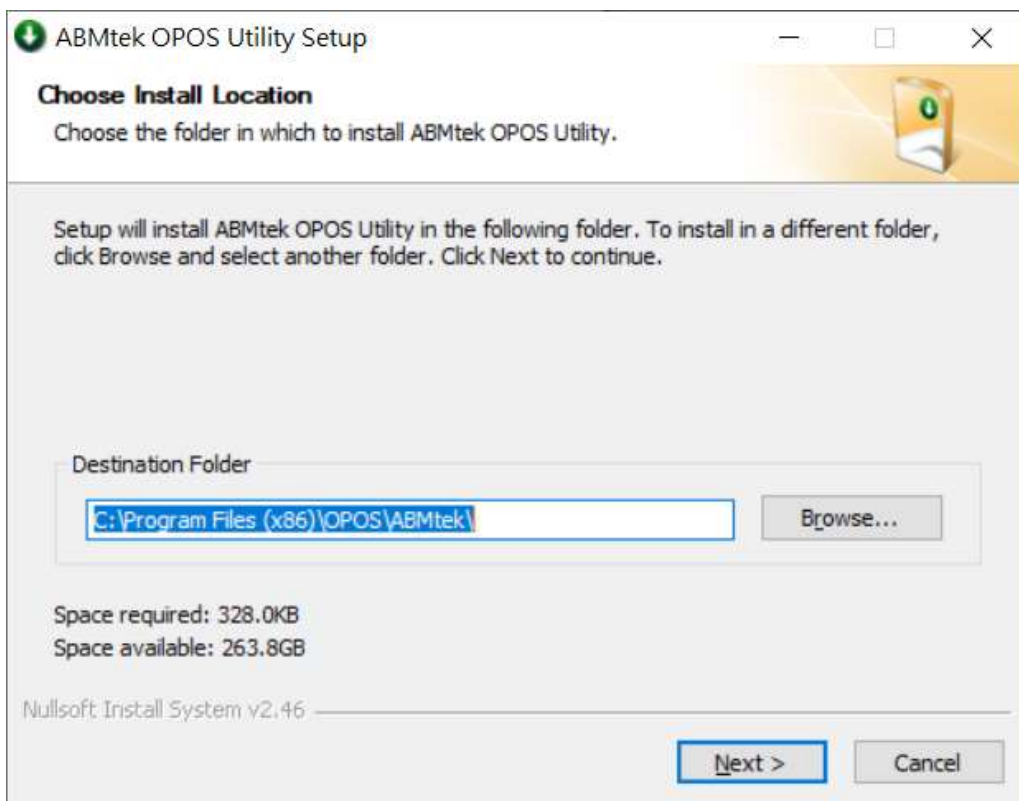
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2.4. ABMTEK OPOS Driver for VFD/LCM

- Double-Click for ABMTEKSETUP to begin install
- Select Language for English



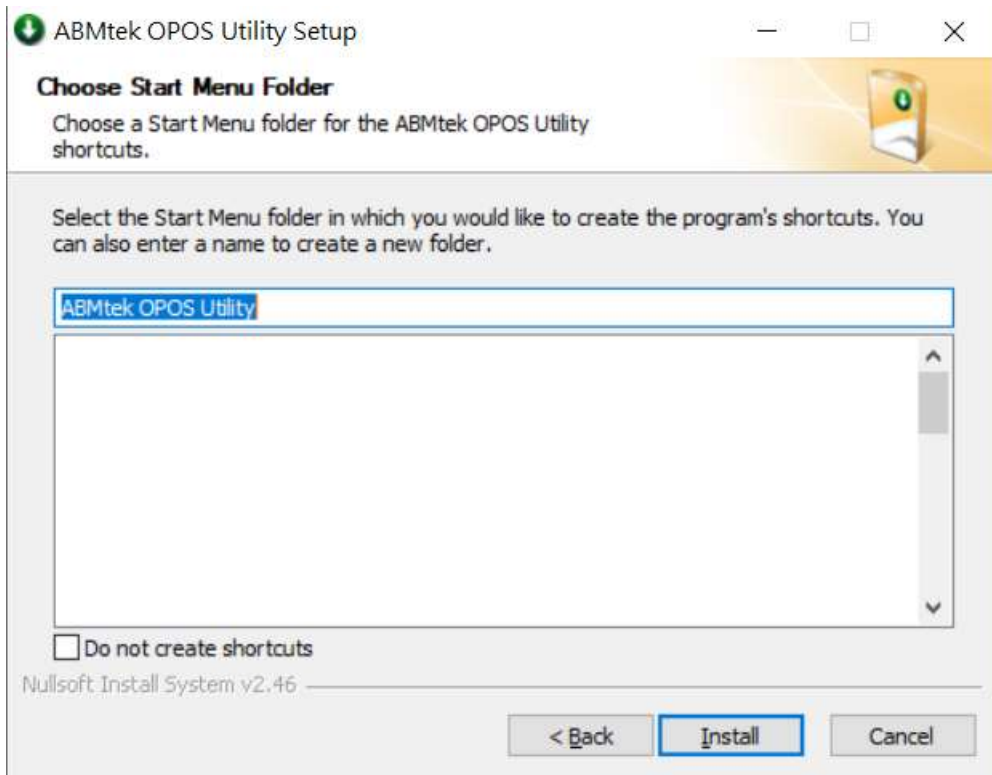
- Set up the install path for the program



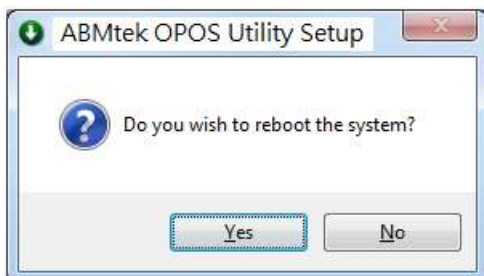


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- Choose start menu folder



- Request for Reboot Windows

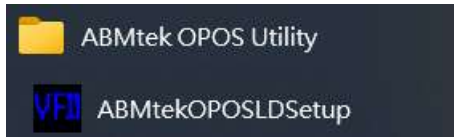




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3. Setting up the VFD/LCM configuration

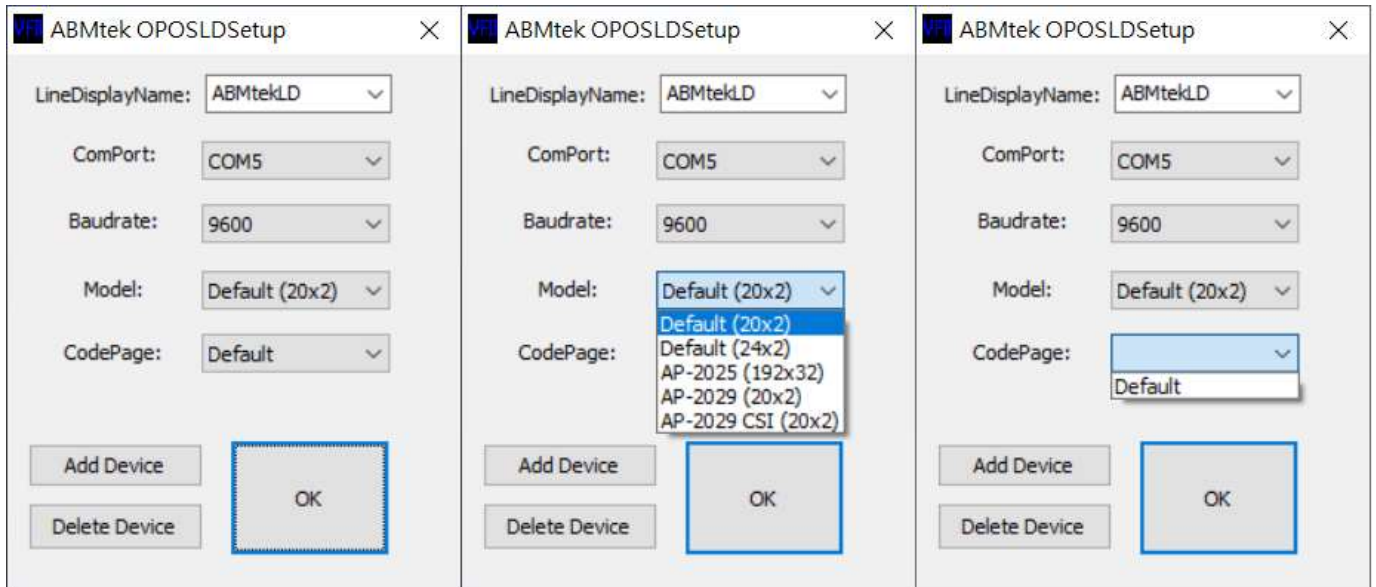
- Run ABMTEKOPOS�DSetup program for setting up VFD/LCM



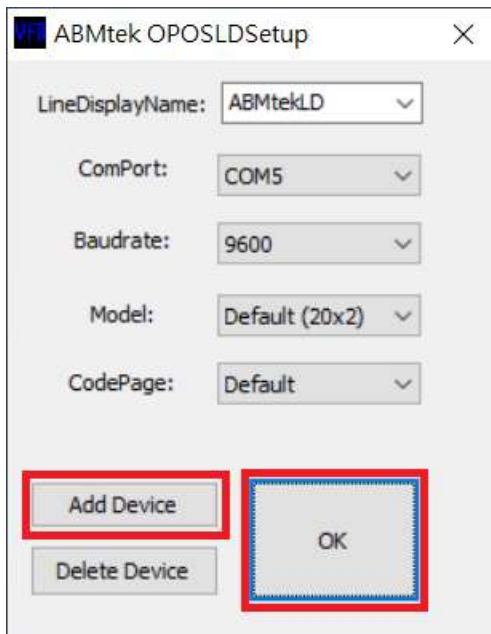


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- Modify LineDisplayName for new configuration of Line Display, and also set up parameter for COM Port, BaudRate, Type and Model.
- For the Model selection, please select the option: Default (20x2)" for Line Display Name: AMBtekLD (PLD-3340).



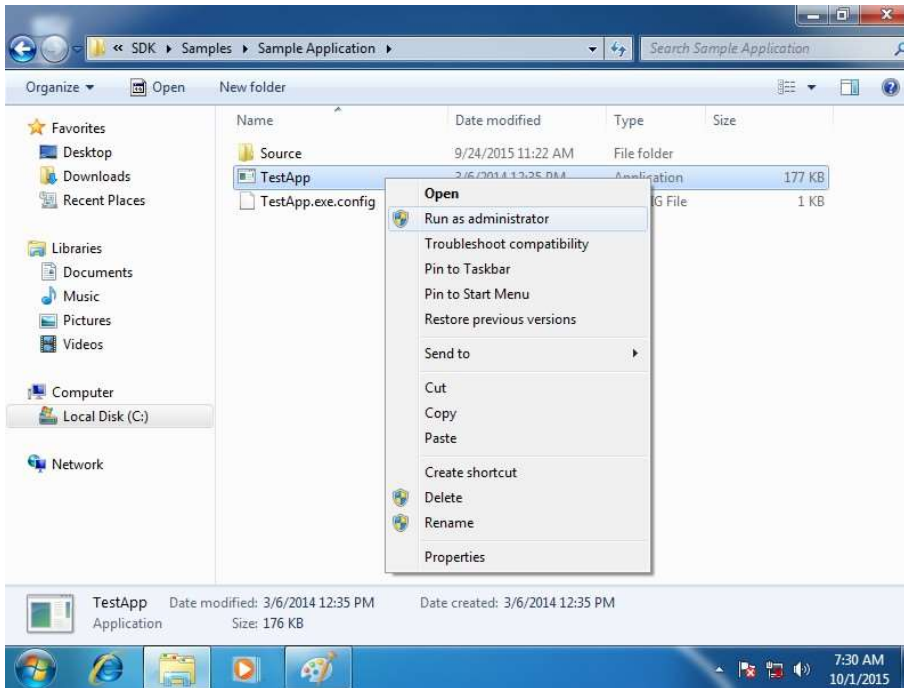
- Press “Add Device” button to add configuration, and Press “OK Button” to exit





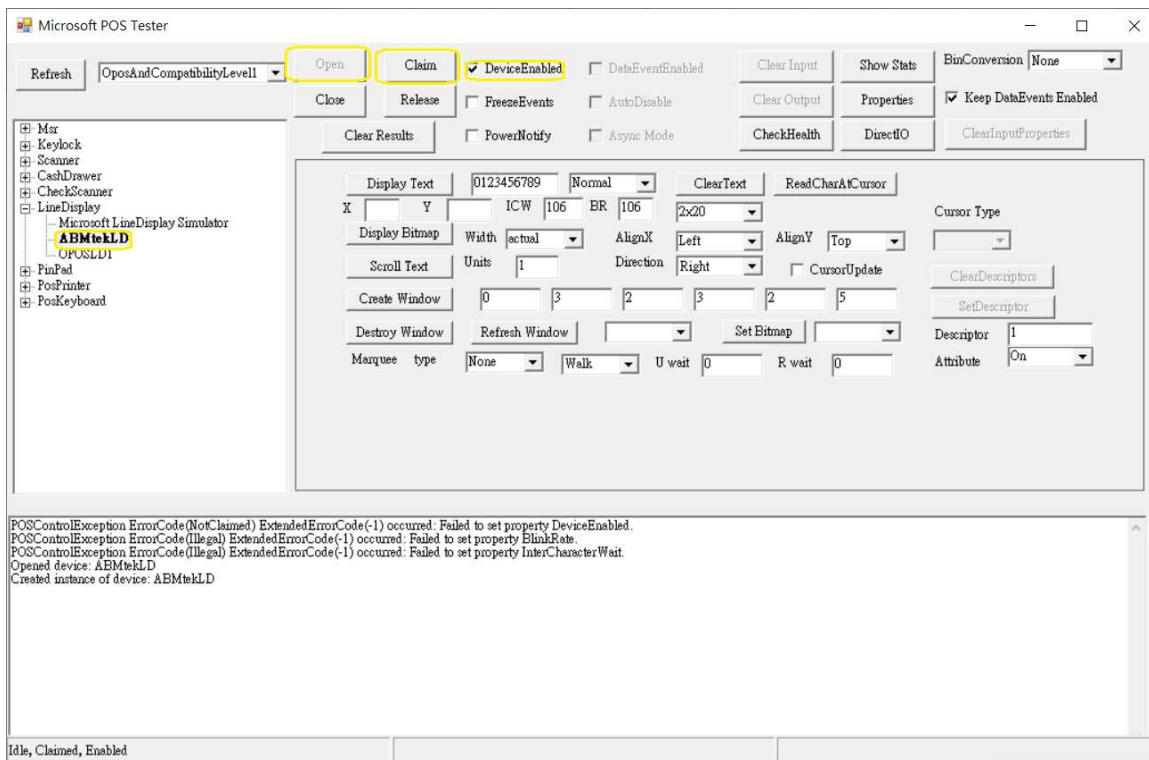
4. How to test the VFD/LCM by POS for .Net TestAPP

- Run TestApp program for testing VFD/LCM with administrator permission



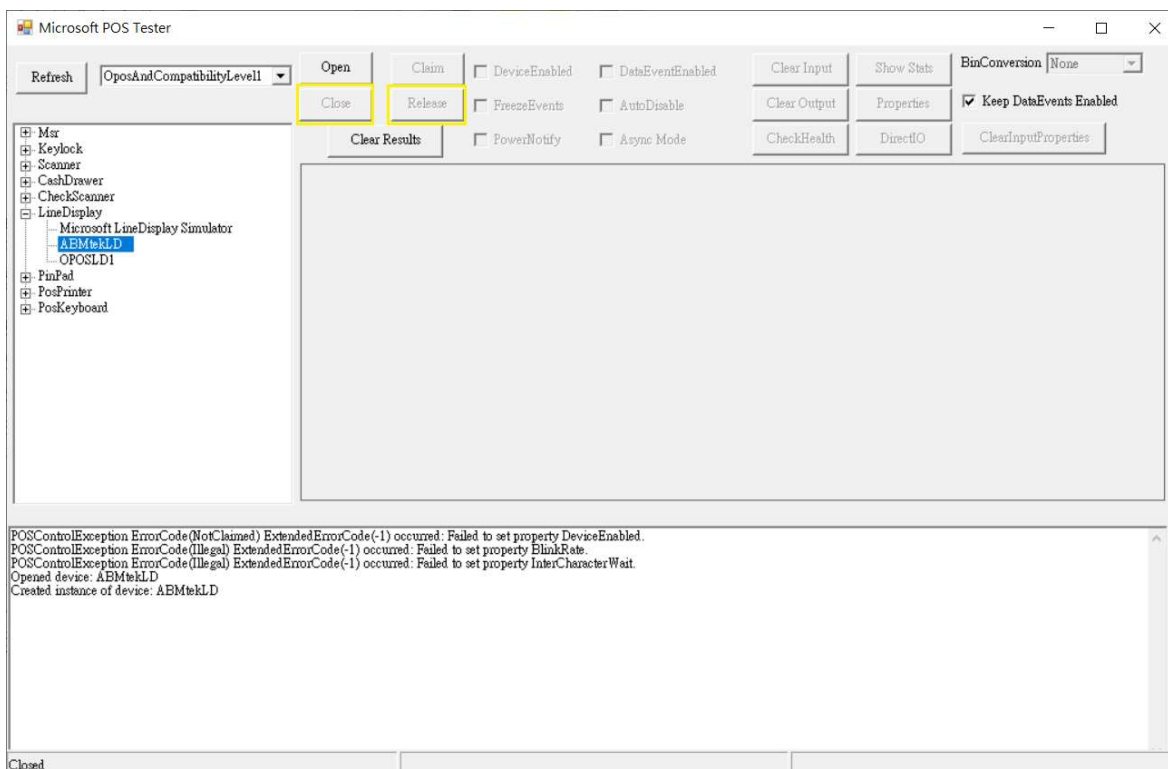
4.1. Initialize

- Select device for VFD/LCM setting
- Continued according to press “Open” and “Claim” button and then checked DeviceEnabled check box to initialize VFD/LCM OPOS driver



4.2. Terminate

Continued according to un-check DeviceEnabled check box, and then press “Release” and “Close” to terminate VFD/LCM OPOS driver

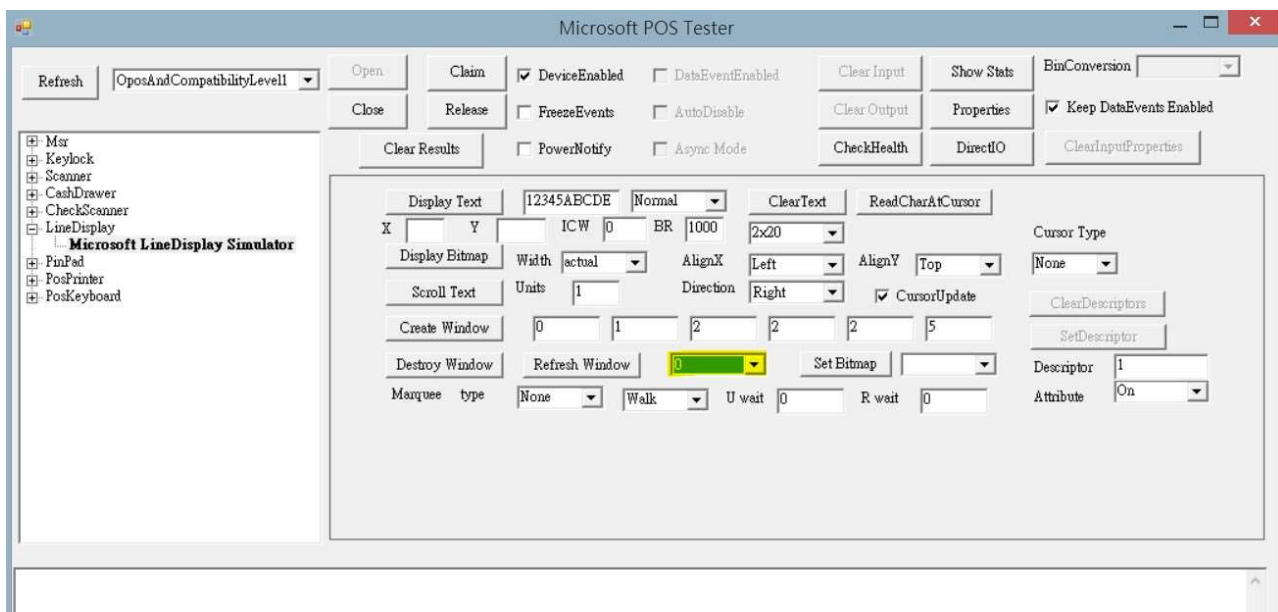




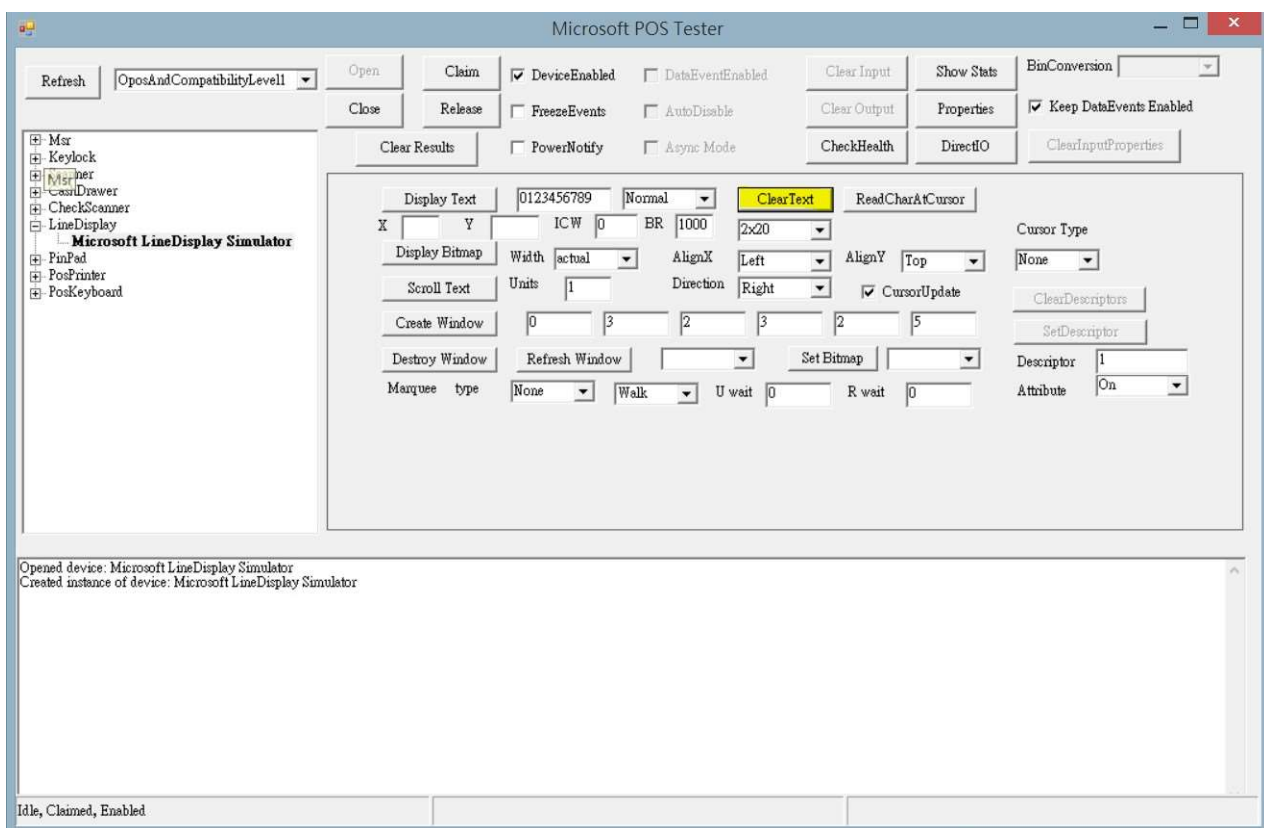
4.3. Display Text

4.3.1. Set Current Window

Sets the current window display to be operated



4.3.2. Clear Text



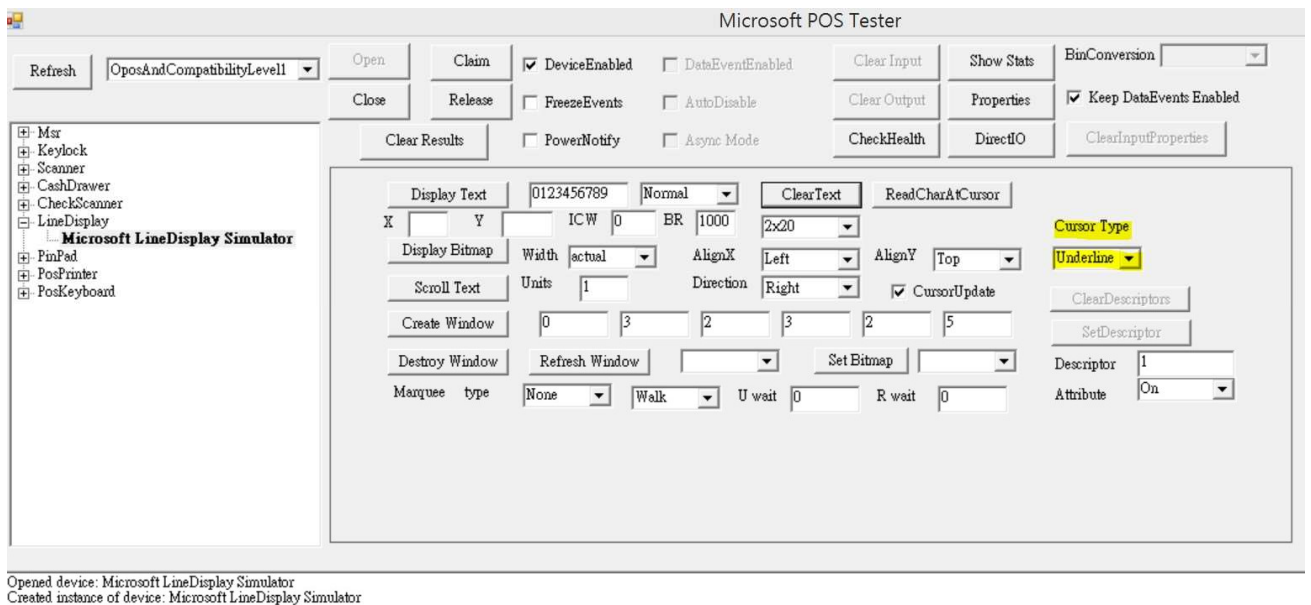


Microsoft LineDisplay Simulator

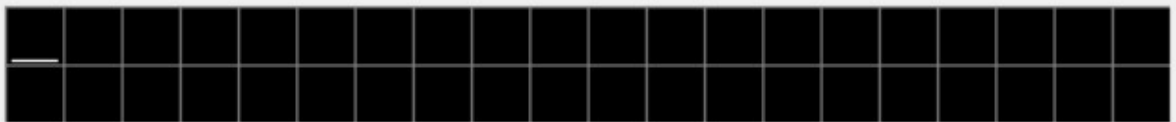


4.3.3. Display Text for Position

- Show text by current cursor position



Microsoft LineDisplay Simulator

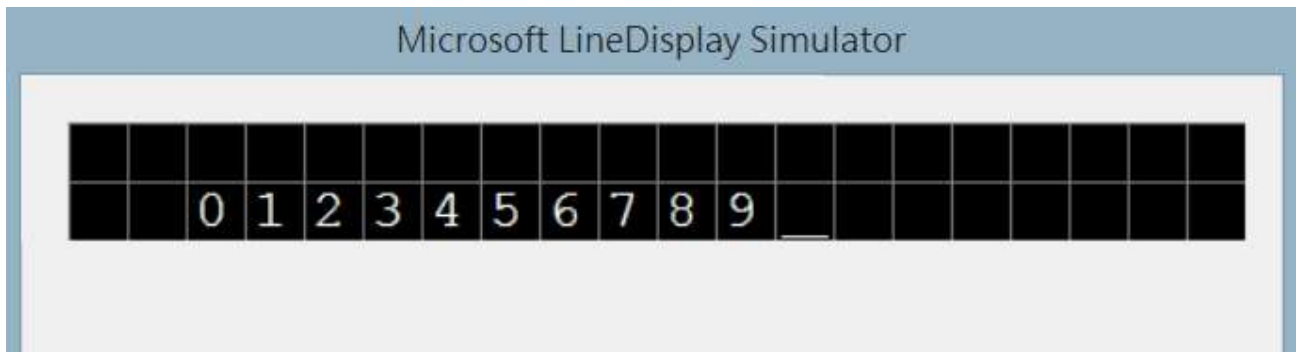




A screenshot of the "Microsoft LineDisplay Simulator". It displays a grid representing memory or storage. The top row contains indices from 0 to 9, followed by an underscore and several empty slots. The bottom row consists of corresponding empty slots.

- **Show Text by specific position**

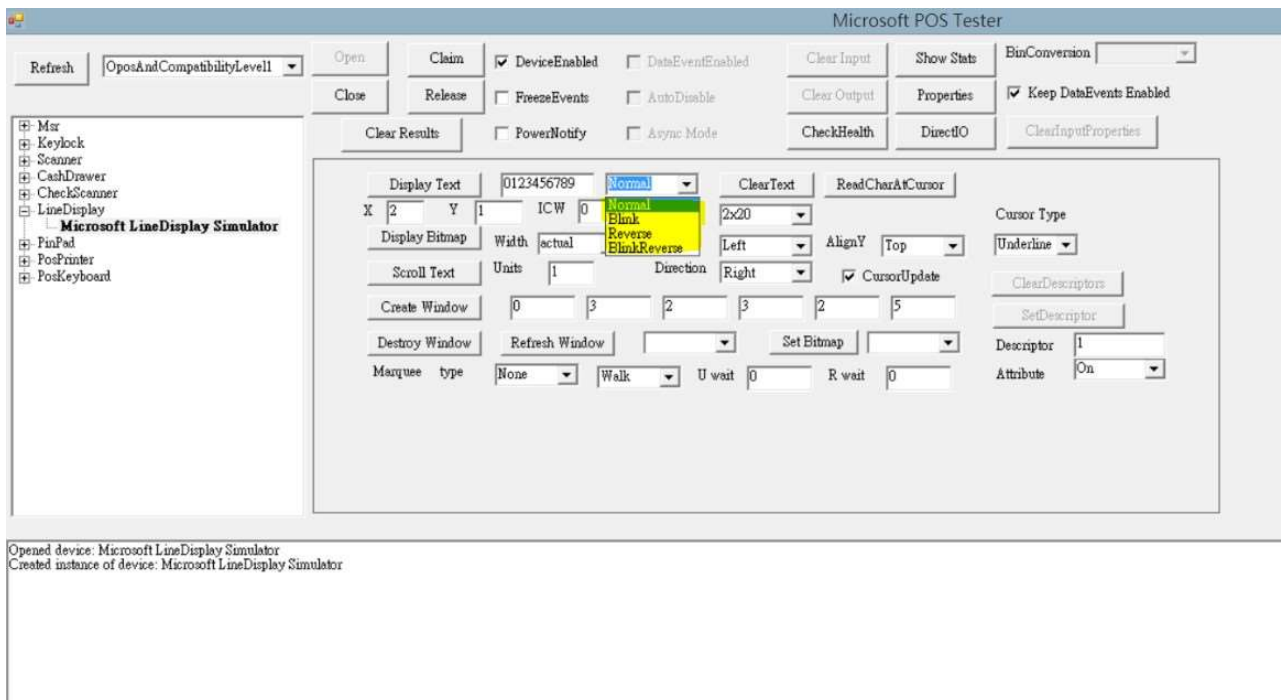
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4.3.4. Display EfABMtekt Type

- Normal
- Blink & Blink Rate (Not support yet)
- Reverse
- Reverse & Blink (Not support yet)

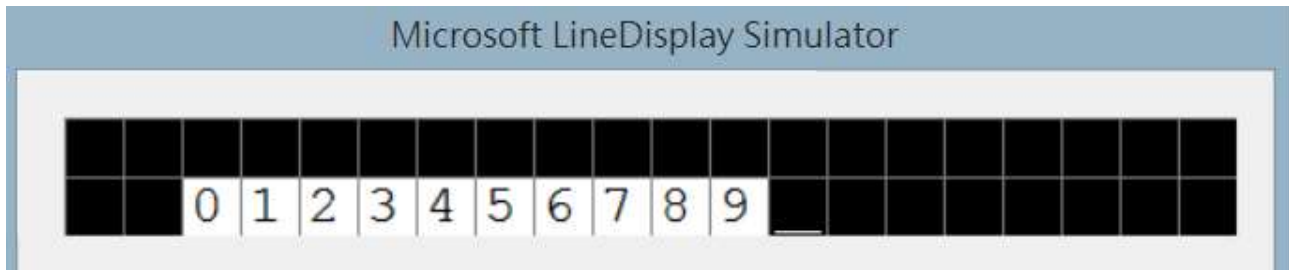
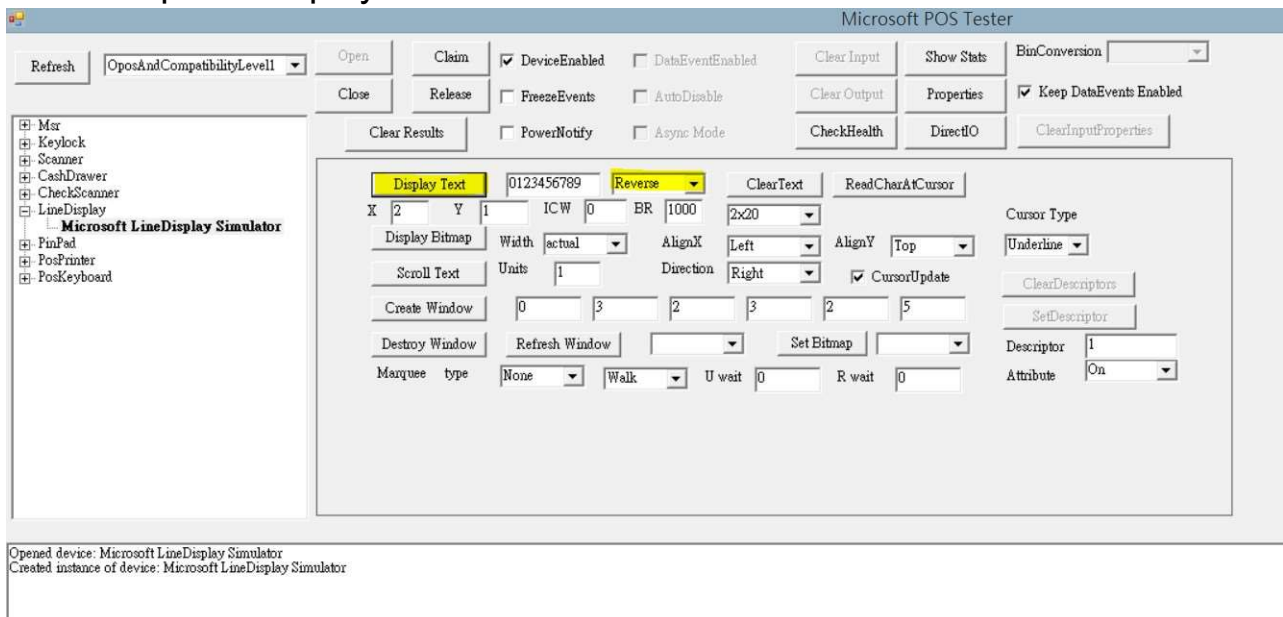
Select Display Type First for Normal, Blink, Reverse and Reverse & Blink First



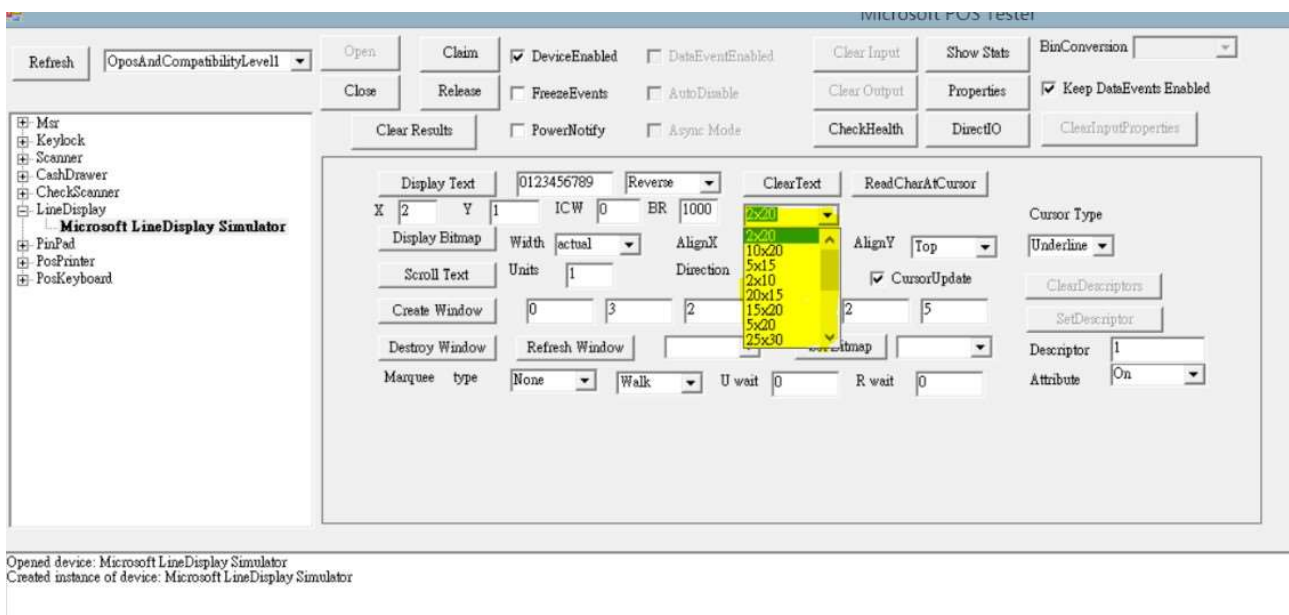


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And then press display text button to showed text



4.3.5. Screen Resolution (Not Support Yet)





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4.3.6. Blink Rate (**Not Support Yet**)

Blink time for displayed ON/OFF interval



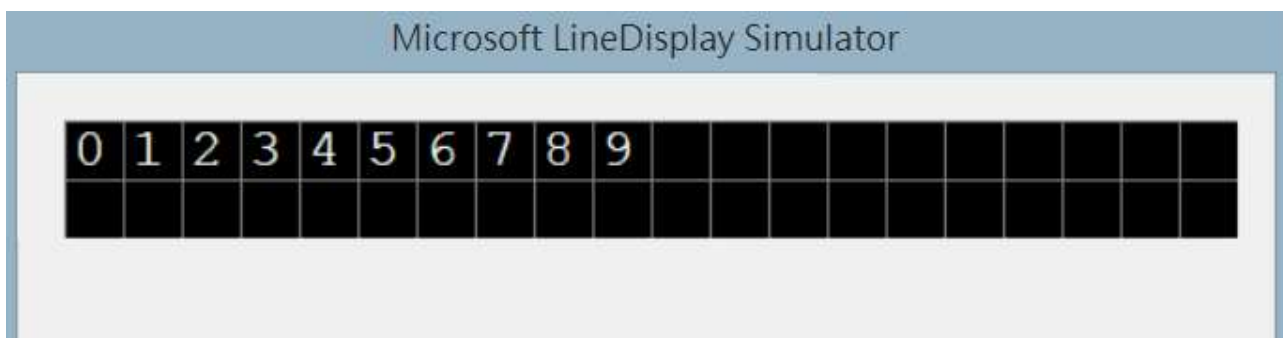
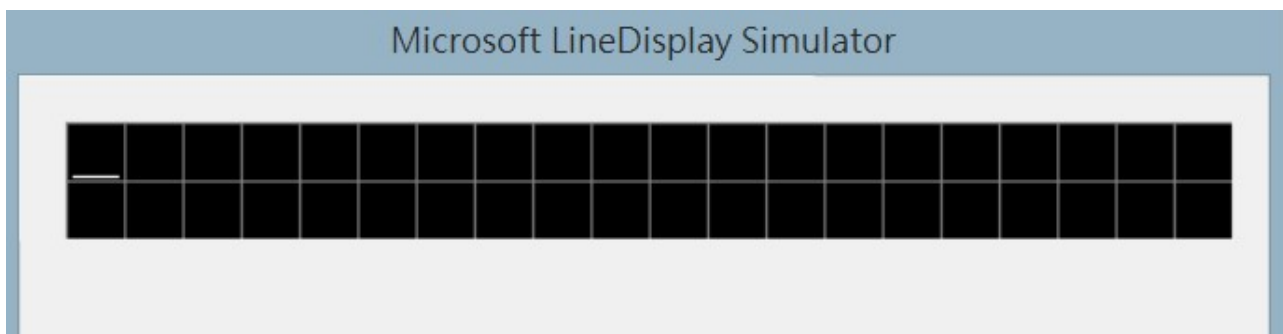
- The screenshot displays the Microsoft POS Tester application window. The title bar reads "Microsoft POS Tester".

Left Panel:

 - A tree view lists hardware components: Msr, Keylock, Scanner, CashDrawer, CheckScanner, LineDisplay, PinPad, PosPrinter, and PosKeyboard.
 - The "LineDisplay" component is selected and expanded, showing a sub-item "Microsoft LineDisplay Simulator".

Main Control Area:

 - Buttons:** Refresh, OposAndCompatibilityLevel (dropdown), Open, Claim, Close, Release, Clear Results, DeviceEnabled (checkbox), DataEventEnabled (checkbox), FreezeEvents (checkbox), AutoDisable (checkbox), PowerNotify (checkbox), Async Mode (checkbox), Clear Input, Show Stats, BinConversion (dropdown), Clear Output, Properties, Keep DataEvents Enabled (checkbox), CheckHealth, DirectIO, ClearInputProperties.
 - Text Entry Fields:** Display Text (0123456789), Blink (dropdown menu), ClearText, ReadCharAtCursor.
 - Coordinates and Dimensions:** X, Y, ICW (0), BR (1000), Width (actual dropdown), AlignX (Left dropdown), AlignY (Top dropdown), 2x20 (dropdown).
 - Scrolling Options:** Scroll Text, Units (1), Direction (Right dropdown), CursorUpdate (checkbox).
 - Window Management:** Create Window, Destroy Window, Refresh Window, Set Bitmap, Marquee type (None dropdown), Walk (dropdown), U wait (0), R wait (0).
 - Cursor Settings:** Cursor Type (None dropdown), ClearDescriptors, SetDescriptor, Descriptor (1), Attribute (On dropdown).



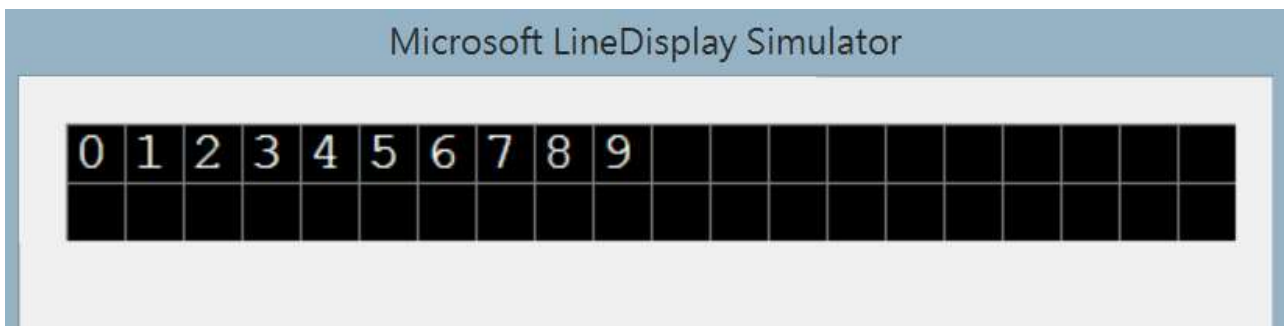
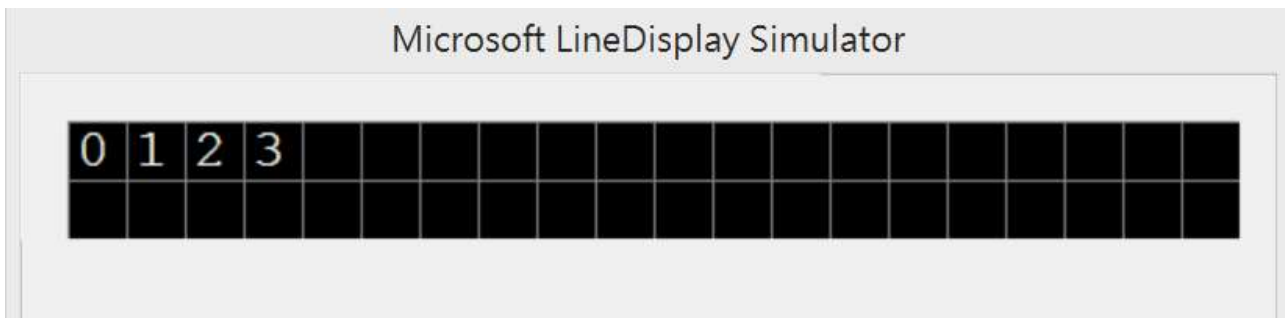
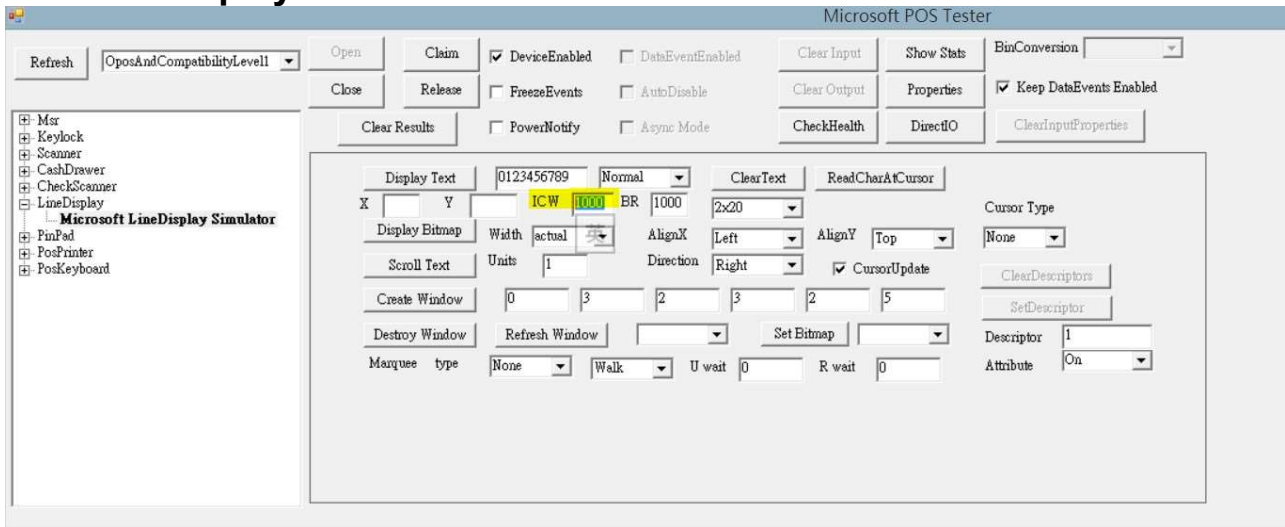
Delay waiting time for Inter-Character display

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2. Press Display Text button to showed text

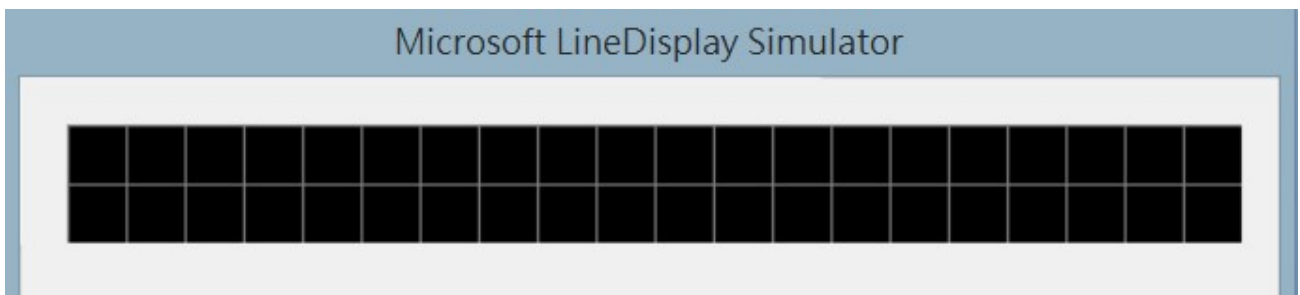




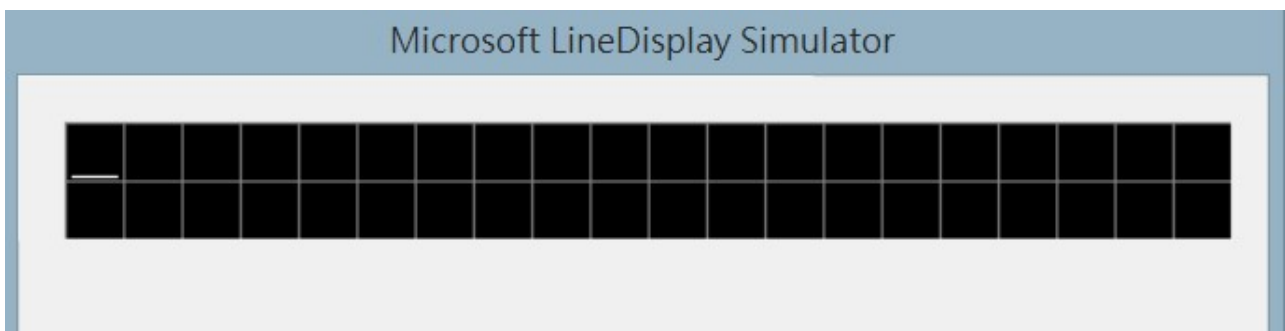
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4.4. Cursor Type (Not Support Yet)

None

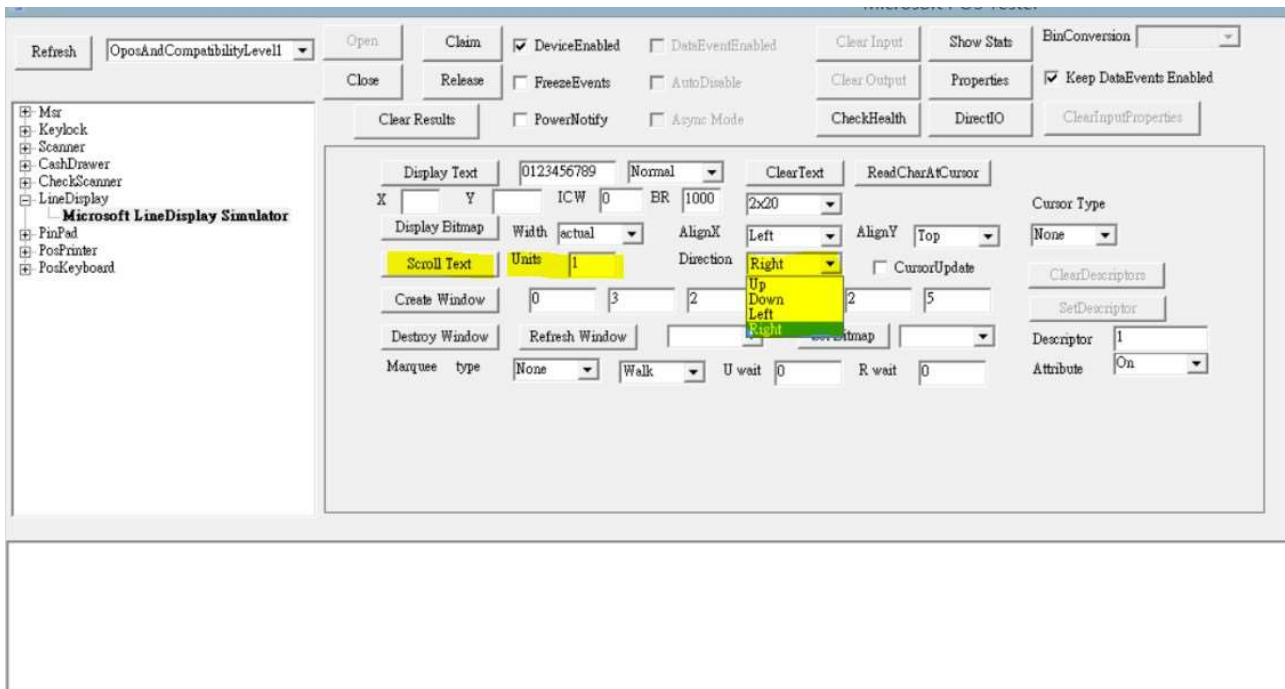


Underline

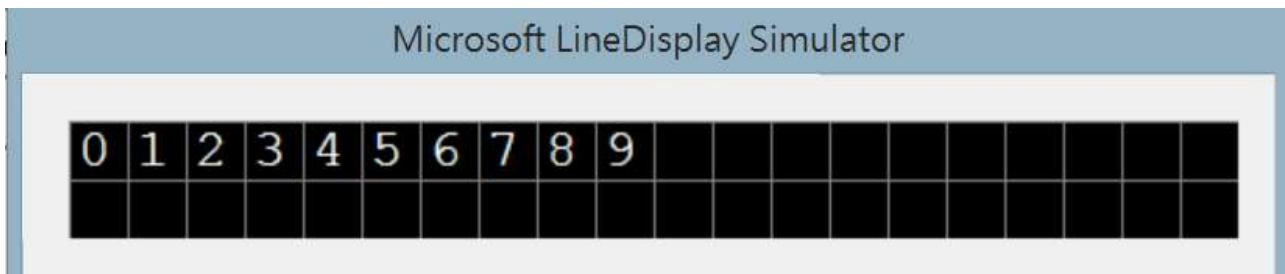




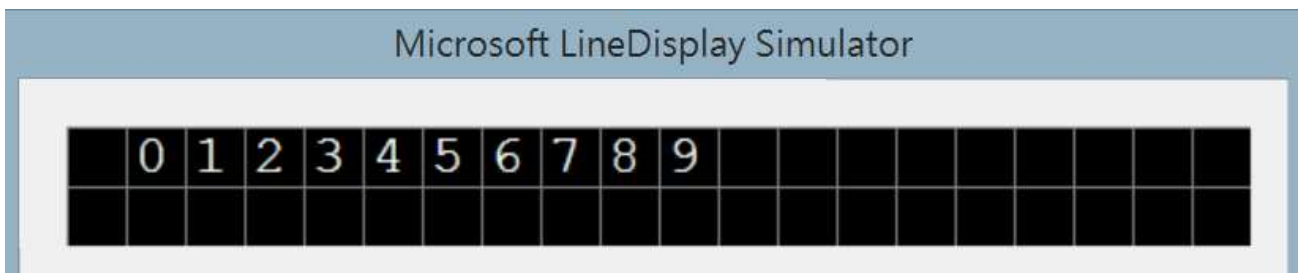
4.5. Scroll Text



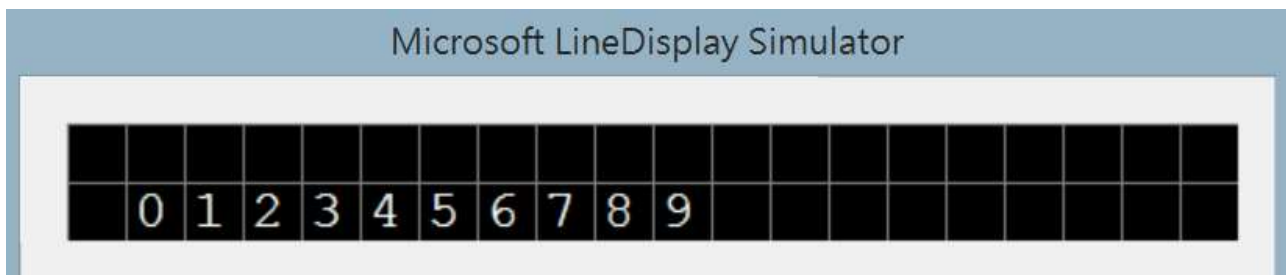
Display Text



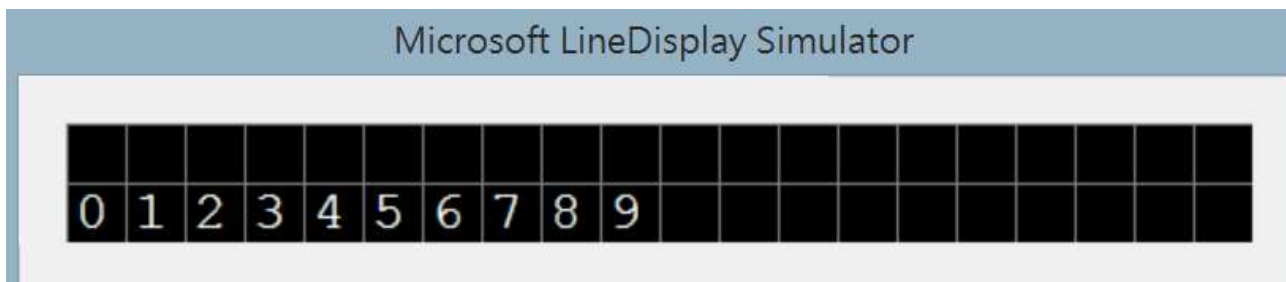
Right



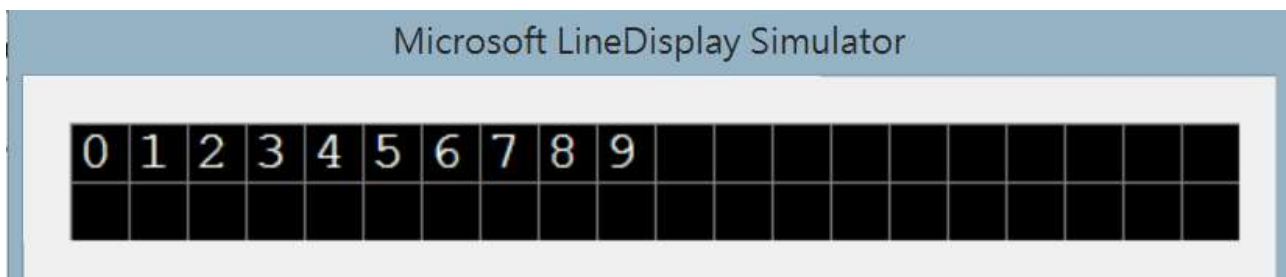
Down



Left



Up



4.6. Window

4.6.1. Create Window

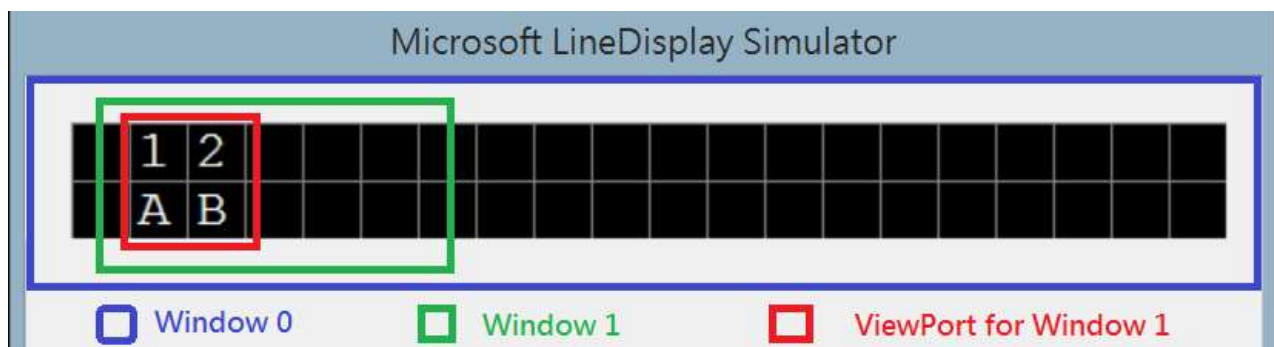
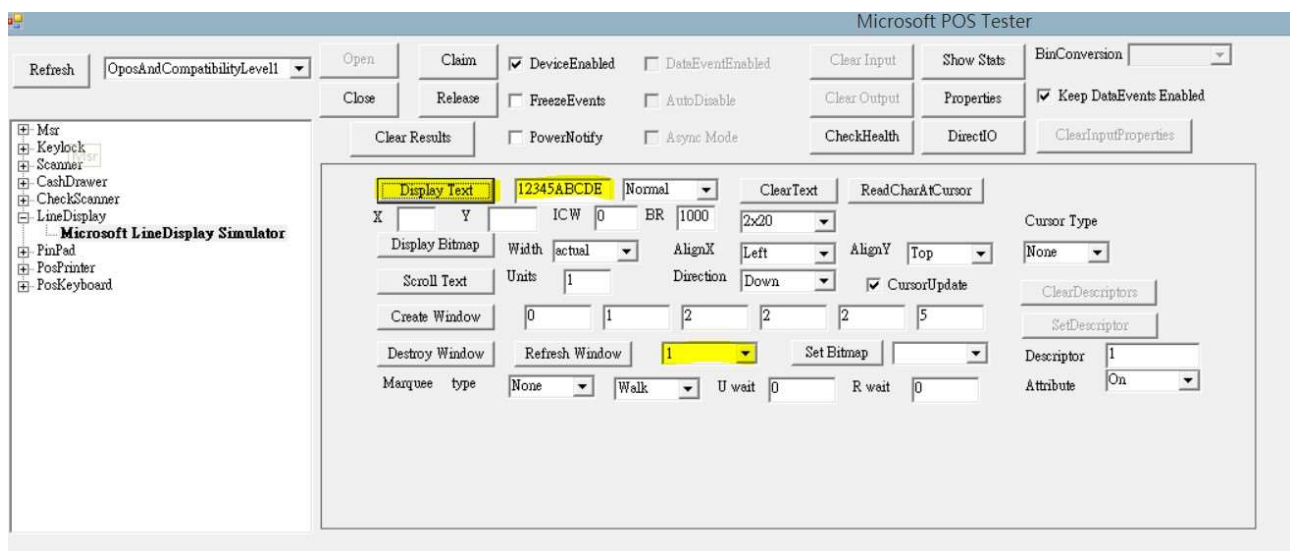
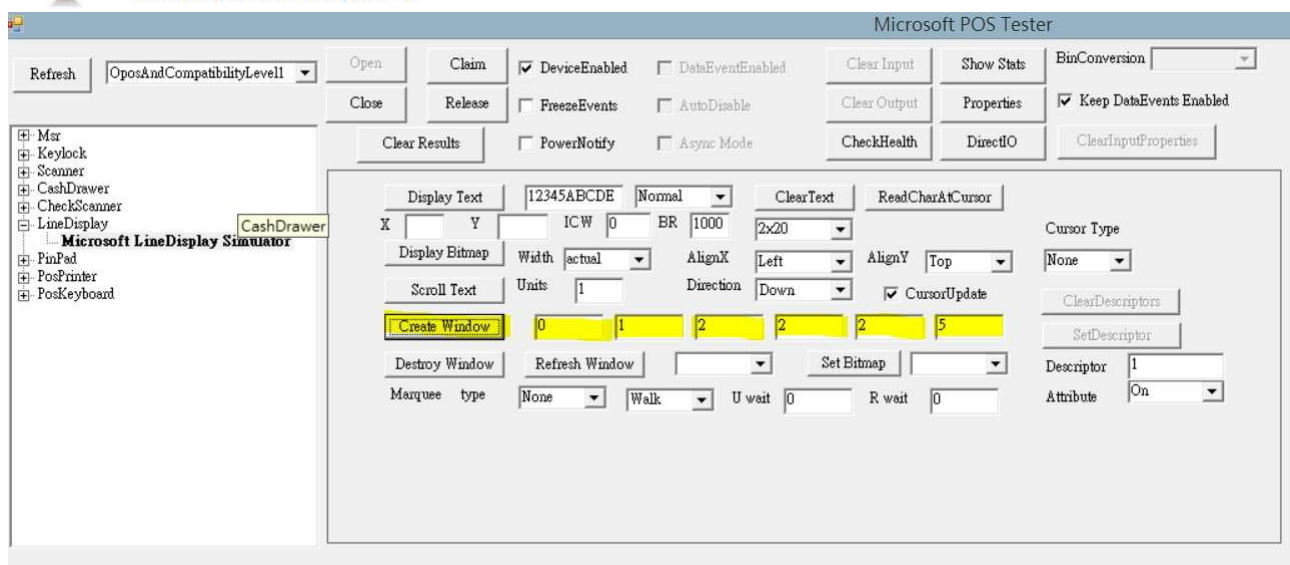
Example: ViewportColumn = 0, ViewportROW= 1

ViewportHeight = 2, ViewportWidth= 2

WindowHeight = 2, WindowWidth = 5



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Microsoft POS Tester

Refresh OposAndCompatibilityLevel1 Open Claim ☒ DeviceEnabled ☐ DataEventEnabled Clear Input Show Stats BinConversion
Close Release ☐ FreezeEvents ☐ AutoDisable Clear Output Properties ☒ Keep DataEvents Enabled
Clear Results ☐ PowerNotify ☐ Async Mode CheckHealth DirectIO ClearInputProperties

Microsoft LineDisplay Simulator

Msr Keylock Scanner CashDrawer CheckScanner LineDisplay PinPad PosPrinter PosKeyboard

Display Text 12345ABCDE Normal ClearText ReadCharAtCursor
X Y ICW 0 BR 1000 2x20 Cursor Type
Display Bitmap Width actual AlignX Left AlignY Top None
Scroll Text Units 1 Direction Left ☒ CursorUpdate ClearDescriptors
Create Window 0 1 2 2 2 5 SetDescriptor
Destroy Window Refresh Window 1 Set Bitmap Descriptor 1
Marquee type None Walk U wait 0 R wait 0 Attribute On

Microsoft LineDisplay Simulator

2	3																		
B	C																		



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4.6.2. Destroy Window

Microsoft POS Tester

Refresh OposAndCompatibilityLevel

Open Claim ☒ DeviceEnabled ☐ DataEventEnabled Clear Input Show Stats BinConversion

Close Release ☐ FreezeEvents ☐ AutoDisable Clear Output Properties ☒ Keep DataEvents Enabled

Clear Results ☐ PowerNotify ☐ Async Mode CheckHealth DirectIO ClearInputProperties

Display Text 12345ABCDE Normal ClearText ReadCharAtCursor

X Y ICW 0 BR 1000 2x20 Cursor Type

Display Bitmap Width actual AlignX Left AlignY Top None

Scroll Text Units 1 Direction Right ☒ CursorUpdate ClearDescriptors

Create Window 0 1 2 2 2 5 SetDescriptor

Destroy Window Refresh Window 1 Set Bitmap Descriptor 1

Marquee type None Walk U wait 0 R wait 0 Attribute On

Microsoft POS Tester

Refresh OposAndCompatibilityLevel

Open Claim ☒ DeviceEnabled ☐ DataEventEnabled Clear Input Show Stats BinConversion

Close Release ☐ FreezeEvents ☐ AutoDisable Clear Output Properties ☒ Keep DataEvents Enabled

Clear Results ☐ PowerNotify ☐ Async Mode CheckHealth DirectIO ClearInputProperties

Display Text 12345ABCDE Normal ClearText ReadCharAtCursor

X Y ICW 0 BR 1000 2x20 Cursor Type

Display Bitmap Width actual AlignX Left AlignY Top None

Scroll Text Units 1 Direction Right ☒ CursorUpdate ClearDescriptors

Create Window 0 1 2 2 2 5 SetDescriptor

Destroy Window Refresh Window 0 Set Bitmap Descriptor 1

Marquee type None Walk U wait 0 R wait 0 Attribute On



Refresh

OposAndCompatibilityLevel ▾

Open

Claim

☒ DeviceEnabled
 ☐ DataEventEnabled

Clear Input

Show Stats

BinConversion ▾

Close

Release

☐ FreezeEvents
 ☐ AutoDisable

Clear Output

Properties

☒ Keep DataEvents Enabled

Clear Results

☐ PowerNotify
 ☐ Async Mode

CheckHealth

DirectIO

ClearInputProperties

+

Msr

+

Keylock

+

Scanner

+

CashDrawer

+

CheckScanner

+

LineDisplay

+

PinPad

+

PosPrinter

+

PosKeyboard

Microsoft LineDisplay Simulator

Display Text

12345ABCDE

Normal ▾

ClearText

ReadCharAtCursor

X

Y

ICW

0

BR

1000

2x20 ▾

Display Bitmap

Width

actual ▾

AlignX

Left ▾

AlignY

Top ▾

Scroll Text

Units

1

Direction

Right ▾

☒ CursorUpdate

Create Window

0

1

2

2

2

5

Destroy Window

Refresh Window

1 ▾

Set Bitmap

Marquee type

None ▾

Walk ▾

U wait

0

R wait

0

Cursor Type

None ▾

ClearDescriptors

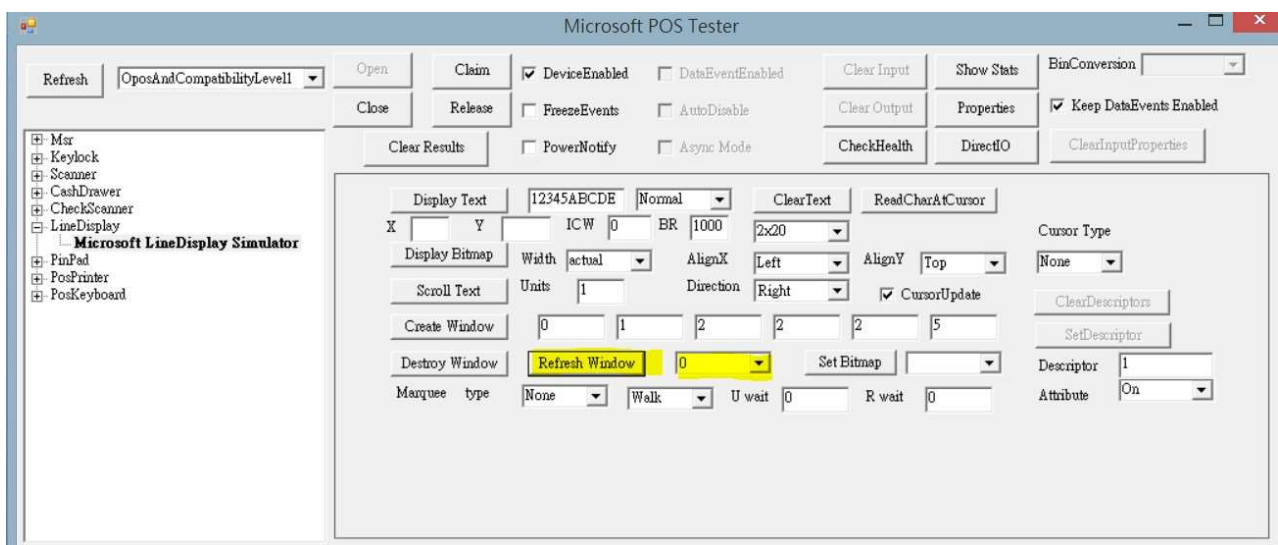
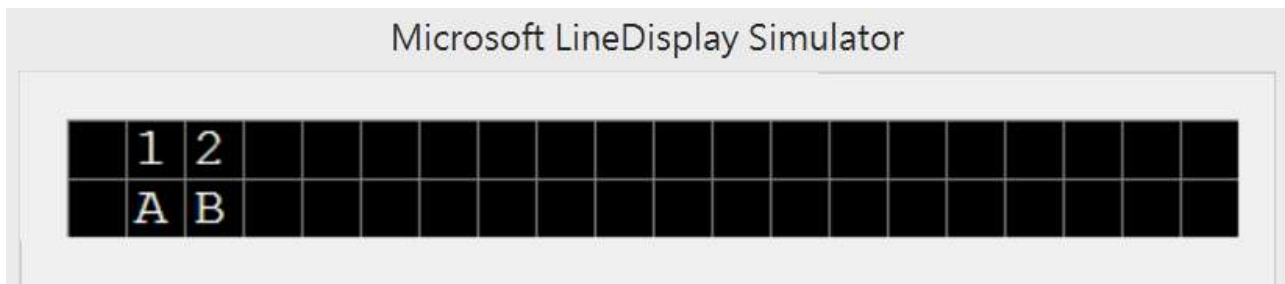
SetDescriptor

Descriptor

1

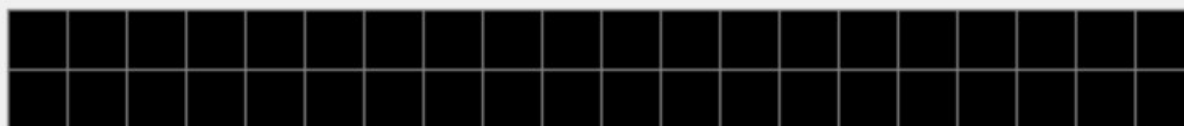
Attribute

On ▾





Microsoft LineDisplay Simulator



4.6.4. Set Current Window

