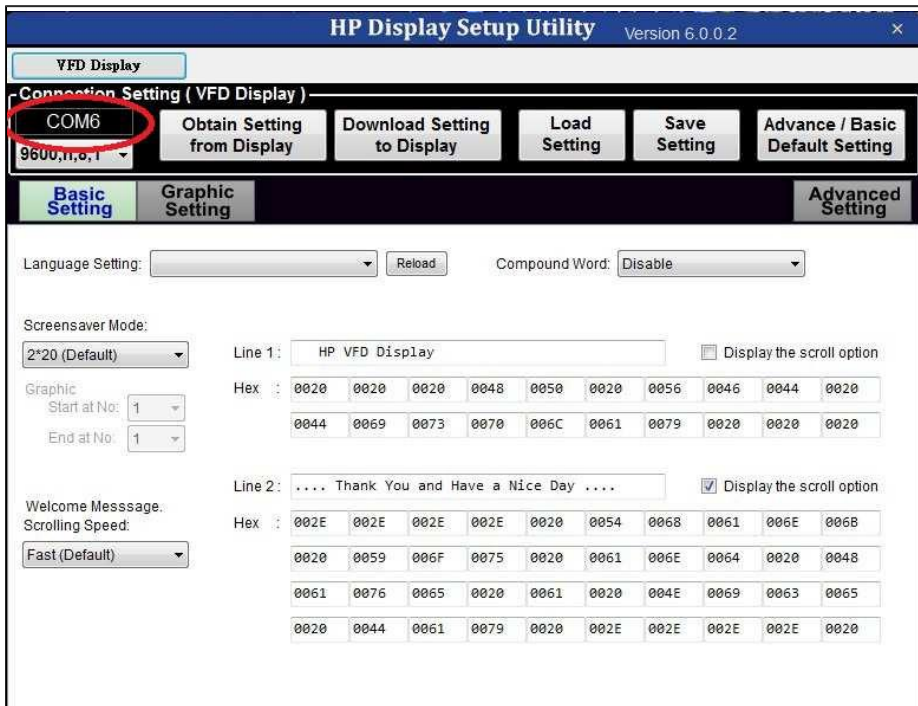


SEARCH COM PORT AND UTILITY INTERFACE

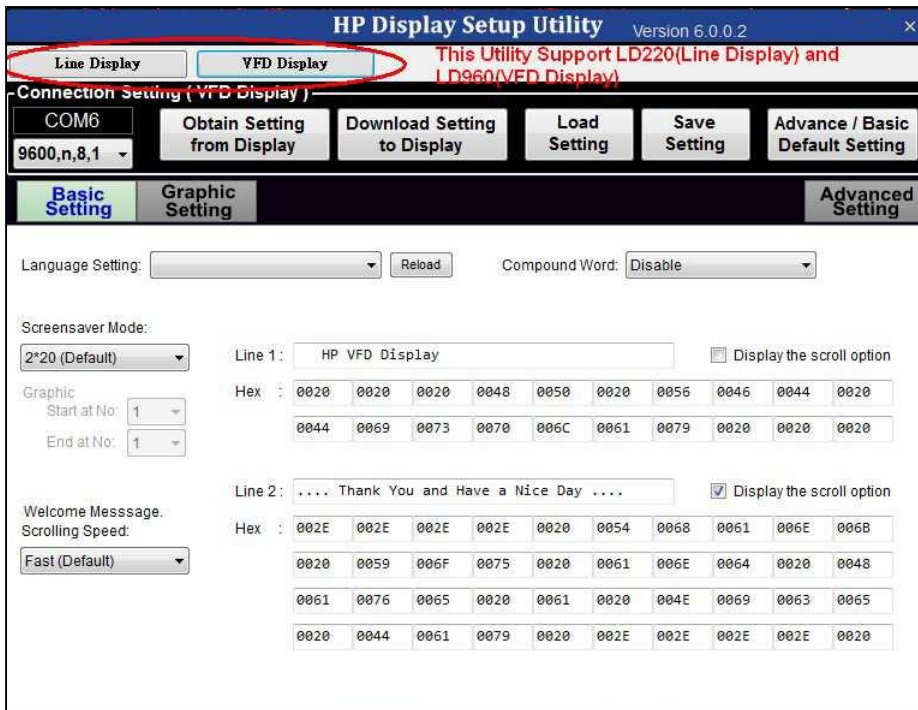
When you start up HP Display Setup Utility, it will automatically search out the available COM Port for you.



The screenshot shows the 'HP Display Setup Utility' window, Version 6.0.0.2, with the 'VFD Display' tab selected. The 'Connection Setting (VFD Display)' section is highlighted, showing 'COM6' selected in a dropdown menu. Below this are buttons for 'Obtain Setting from Display', 'Download Setting to Display', 'Load Setting', 'Save Setting', and 'Advance / Basic Default Setting'. The 'Basic Setting' tab is also visible. The 'Language Setting' is set to 'English' and 'Compound Word' is set to 'Disable'. The 'Screensaver Mode' is set to '2*20 (Default)'. The 'Graphic' section shows 'Start at No.' and 'End at No.' both set to '1'. The 'Welcome Message' section shows 'Scrolling Speed' set to 'Fast (Default)'. The 'Line 1' and 'Line 2' sections show hex values and a 'Display the scroll option' checkbox.

Line	Hex
Line 1	0020 0020 0020 0048 0050 0020 0056 0046 0044 0020 0044 0069 0073 0070 006C 0061 0079 0020 0020 0020
Line 2	002E 002E 002E 002E 0020 0054 0068 0061 006E 006B 0020 0059 006F 0075 0020 0061 006E 0064 0020 0048 0061 0076 0065 0020 0061 0020 004E 0069 0063 0065 0020 0044 0061 0079 0020 002E 002E 002E 002E 0020

This Utility supports 2 model of Customer Display both. So if you plug 2 VFD on one PC device at the same time, this utility will show 2 modes, Line Display for LD220 and VFD Display for LD960.



The screenshot shows the 'HP Display Setup Utility' window, Version 6.0.0.2, with the 'Line Display' tab selected. The 'Connection Setting (VFD Display)' section is highlighted, showing 'COM6' selected in a dropdown menu. Below this are buttons for 'Obtain Setting from Display', 'Download Setting to Display', 'Load Setting', 'Save Setting', and 'Advance / Basic Default Setting'. The 'Basic Setting' tab is also visible. The 'Language Setting' is set to 'English' and 'Compound Word' is set to 'Disable'. The 'Screensaver Mode' is set to '2*20 (Default)'. The 'Graphic' section shows 'Start at No.' and 'End at No.' both set to '1'. The 'Welcome Message' section shows 'Scrolling Speed' set to 'Fast (Default)'. The 'Line 1' and 'Line 2' sections show hex values and a 'Display the scroll option' checkbox.

Line	Hex
Line 1	0020 0020 0020 0048 0050 0020 0056 0046 0044 0020 0044 0069 0073 0070 006C 0061 0079 0020 0020 0020
Line 2	002E 002E 002E 002E 0020 0054 0068 0061 006E 006B 0020 0059 006F 0075 0020 0061 006E 0064 0020 0048 0061 0076 0065 0020 0061 0020 004E 0069 0063 0065 0020 0044 0061 0079 0020 002E 002E 002E 002E 0020

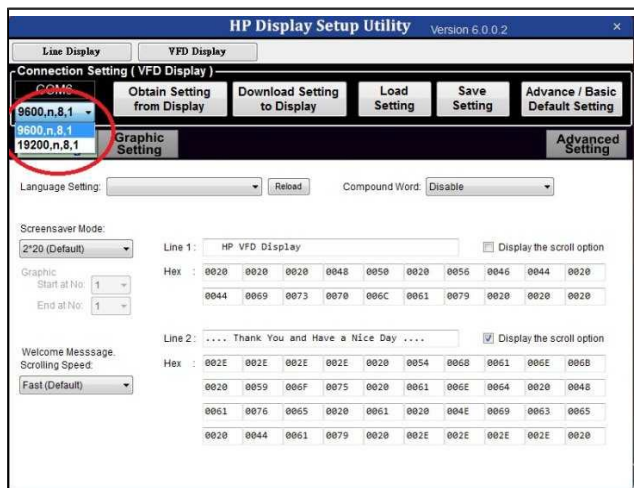


A. COM Port Status

The Utility will search the available COM port for your Customer Display. By here you can know which COM port is occupied for now.

B. Baud Rate Choosing

The Utility support 2 kinds of Baud Rate, 9600 and 19200 bps. And default setting would be **9600bps**. You could select the current baud rate status here to connect your customer display successfully.



C. Obtain Setting from VFD

The Utility can help you get back all the current setting from VFD.

D. Download Setting to Display

When you have finished any new settings for Customer Display, you must apply all the settings by press this button.

E. Load Setting

If you already have a previous setting file, which is modified by this Utility.

Here you could easily restore all your previous setting at once.

F. Save Setting

By here you can save all your current setting from this Utility as a VFD File (*.gcd). Then you don't need to re-proceed your settings.

G. Advance / Basic Default Setting

This can help you wipe out all the current settings and back to default.

Please be noticed, Graphic Setting is not included of this function. The graphics which are downloading to

Customer Display cannot be clear by applying this button.

Note: The Default Language is **ENGLISH**, and the Default Command is **ULTIMATE**.

BASIC SETTING

Users can finish all the basic setting in this part. All the individual setting introduction as below.

A Language Setting: US English [CP437] Reload

B Compound Word: Disable

C Screensaver Mode: 2*20 (Default)

Graphic Start at No: 1 End at No: 1

Welcome Message: Fast (Default) Scrolling Speed: Fast (Default)

D Line 1: HP VFD Display ☐ Display the scroll option

Hex : 0020 0020 0020 0048 0050 0020 0056 0046 0044 0020
0044 0069 0073 0070 006C 0061 0079 0020 0020 0020

E Line 2: Thank You and Have a Nice Day ☒ Display the scroll option

Hex : 002E 002E 002E 002E 0020 0054 0068 0061 006E 006B
0020 0059 006F 0075 0020 0061 006E 0064 0020 0048
0061 0076 0065 0020 0061 0020 004E 0069 0063 0065
0020 0044 0061 0079 0020 002E 002E 002E 002E 0020

A. Language Setting

The Utility supports 36 countries, 11 code pages. And default Setting would be **USEnglish[CP437]**.

HP Display Setup Utility Version 6.0.0.2

Connection Setting (VFD Display)

COM6 Obtain Setting from Display Download Setting to Display Load Setting Save Setting Advance / Basic Default Setting

9600,n,8,1

Basic Setting **Graphic Setting** **Advanced Setting**

Language Setting: US English [CP437] Reload Compound Word: Disable

Screensaver Mode: 2*20 (Default)

Graphic Start at No: 1 End at No: 1

Welcome Message: Fast (Default) Scrolling Speed: Fast (Default)

Display: ☐ Display the scroll option

0 0020 0048 0050 0020 0056 0046 0044 0020

9 0073 0070 006C 0061 0079 0020 0020 0020

You and Have a Nice Day ☒ Display the scroll option

E 002E 002E 0020 0054 0068 0061 006E 006B

9 006F 0075 0020 0061 006E 0064 0020 0048

6 0065 0020 0061 0020 004E 0069 0063 0065

4 0061 0079 0020 002E 002E 002E 002E 0020

B. Compound Word

LD960 supports multi-language, which includes 2-byte-language, like Traditional Chinese, Simplified Chinese, Korean and Japanese.

C. Screensaver Mode

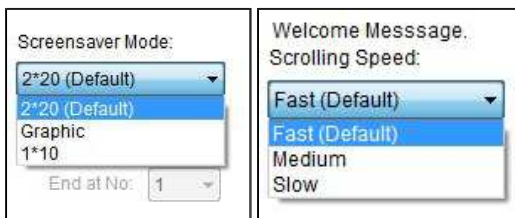
By this you can select which mode would you like to be set when Customer Display receive no data until certain period of time, which is the screensaver function.

LD960 supports 3 kinds of Screensaver Mode, **2*20Mode/GraphicMode/1*10Mode.**



At the meantime, you can set up the scrolling speed for these 3 screensaver mode.

LD960 support 3 types of scrolling speed, which are Fast, Medium and Slow. Default Scrolling Speed Setting is **Fast**.



(1) **2*20 Mode**, which can show 40 characters, with 2 Lines and 20 Columns, which can be set in the Line 1 and Line 2 Column.



Line 1 Setting:

Line 1 :	*** VFD DISPLAY ***									<input checked="" type="checkbox"/> Line1_scroll
Hex :	002A	002A	002A	0020	0056	0046	0044	0020	0044	0049
	0053	0050	004C	0041	0059	0020	002A	002A	002A	0020

Line 2 Setting:

Line 2 : ☒ Line2_scroll

Hex :	002A	002A	0048	0041	0056	0045	0020	0041	0020	004E
	0049	0043	0045	0020	0044	0041	0059	0020	0041	004E
	0044	0020	0054	0048	0041	004E	004B	0020	0059	004F
	0055	002A	002A	0020	0020	0020	0020	0020	0020	0020

Usually, this utility can read all HEX or ASCII code on this blank. But be sure of the correction of the characters, we suggest that you type the HEX will be perfect.

(2) **Graphic Mode**, which can show a true graphic, with 320x32 dot matrix. BMP, JPEG, GIF, PNG and TIF file can all work with VFD .



(2.1) When you select Graphic Mode, you have to set up all the detail at the Graphic setting sheet. And the Line 1 and Line 2 setting area will not be selectable, and turn to grey.

HP Display Setup Utility Version 6.0.0.2

VFD Display

Connection Setting (VFD Display)

COM6

Basic Setting **Graphic Setting** **Advanced Setting**

Language Setting: Compound Word:

Screensaver Mode:

Graphic Start at No: End at No:

Welcome Message. Scrolling Speed:

Line 1: ☐ Display the scroll option

Hex :

0020	0020	0020	0048	0050	0020	0056	0046	0044	0020
0044	0069	0073	0070	006C	0061	0079	0020	0020	0020

Unable to set

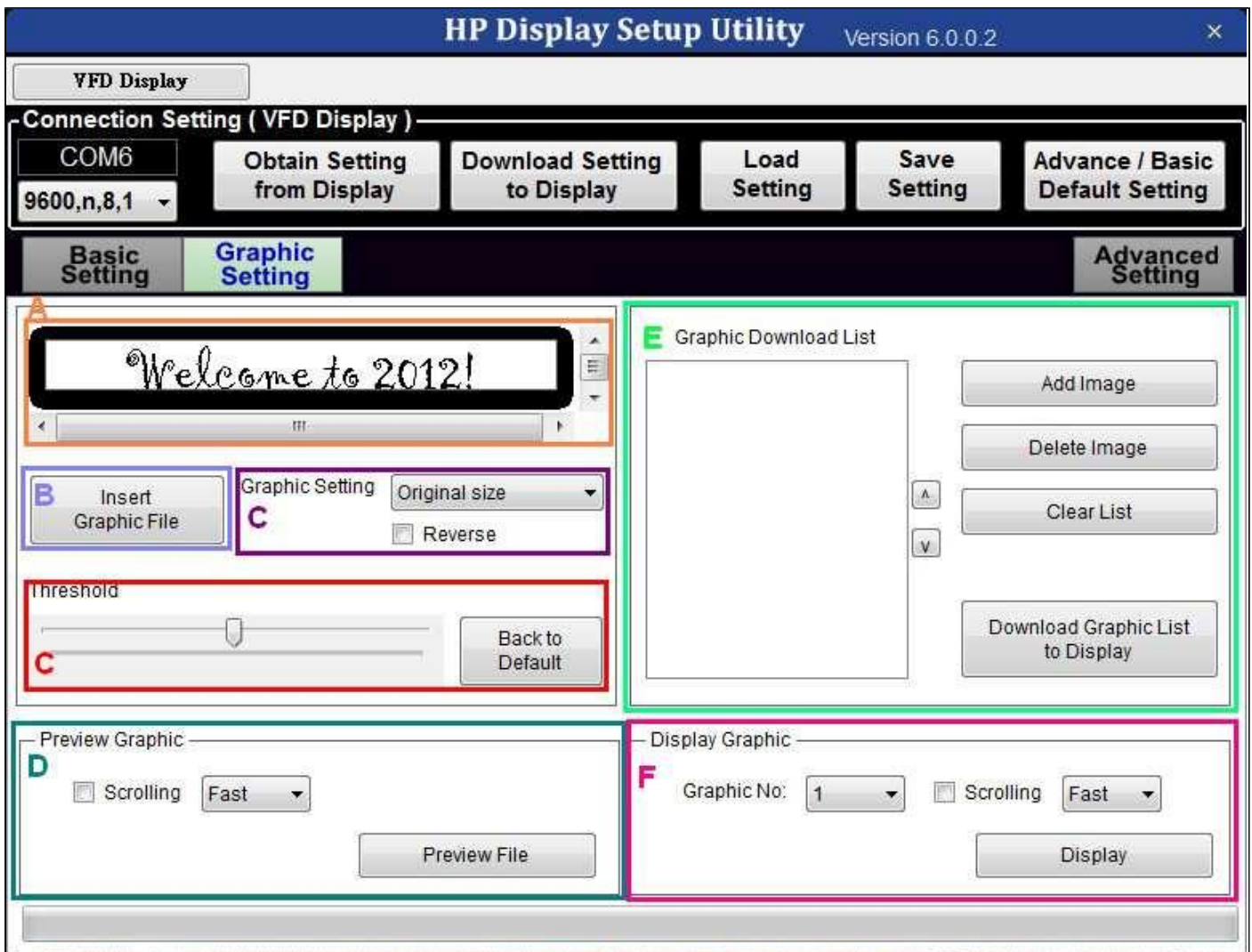
Line 2: ☒ Display the scroll option

Hex :

002E	002E	002E	002E	0020	0054	0068	0061	006E	006B
0020	0059	006F	0075	0020	0061	006E	0064	0020	0048
0061	0076	0065	0020	0061	0020	004E	0069	0063	0065
0020	0044	0061	0079	0020	002E	002E	002E	002E	0020

(2.2) Graphic Display Demo

In this sheet, you can insert the graphic file(must be a bmp file with 320x32 dot), and finish all the graphic setting without downloading the graphic into VFD.



A. Graphic Preview Area

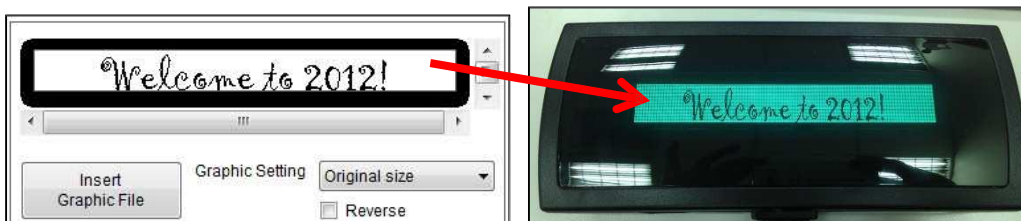
After you inserting graphic file, you could see the file preview in this window.

B. Insert Graphic File

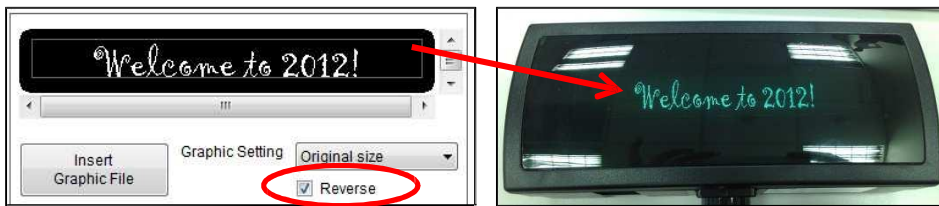
LD960 could support various graphic file, like JPEG, BMP, PNG, GIF.

C. Graphic Setting

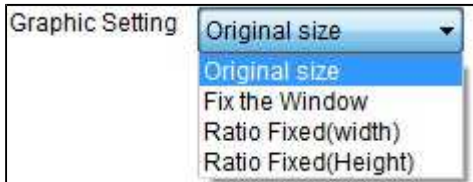
LD960 could support 32x320 dots of graphic. So if you insert a graphic which has bigger or smaller size than 32x320 dots, you could adjust the graphic size by this function. And you could also REVERSE the graphic here. For example, the origin graphic file will show on Customer Display like this:



If you want the Graphic shown as black ground, which will make the “Welcome to 2012” more clear-to-read, you could select the REVERSE box, then it will turn to:



The Utility supports 4 types of adjustment as below.



D. Preview Graphic

Before you downloading the graphic to LD960, you could preview it on Customer Display first without downloading the file to the memory of LD960. You could also choose the scrolling speed when you previewing the graphic file.

E. Graphic Download List

LD960 could save **128graphicfiles** in its memory. So you could arrange the graphic list here, then download the entire list at once by pressing “Download Graphic List to Display” button.

But please be noticed, if there are already 14 graphic files in LD960, then you want to change one graphic file only, you need to rearrange the list one more time then download it one more time.

F. Display Graphic

Here you could assign certain graphic then decide the scrolling speed.

(3) **1*10 Mode**, which can show 10 characters, with 1 Lines and 10 Columns.

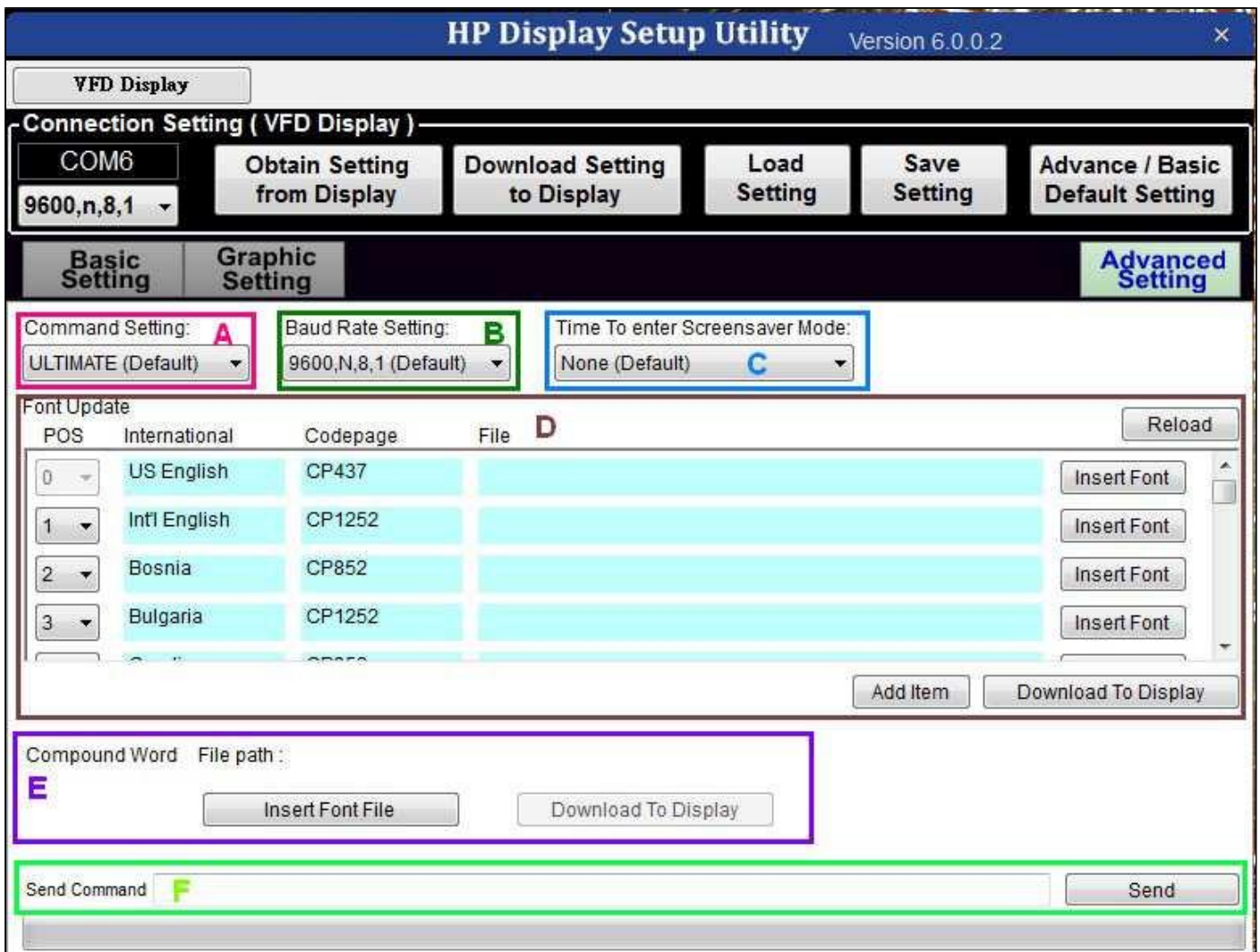
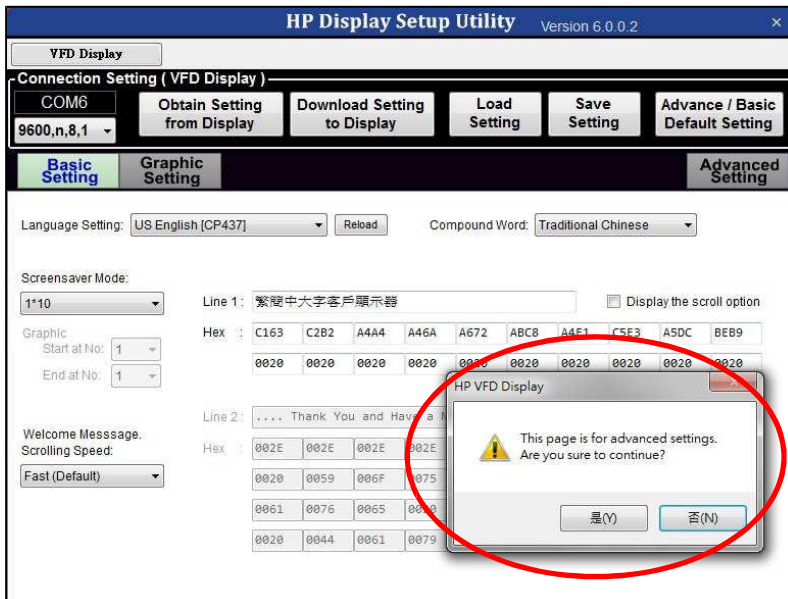


Line 1 Setting:

Screensaver Mode:		Line 1: 繁體中文字客戶顯示器		<input type="checkbox"/> Display the scroll option	
1*10		Hex :		C163 C2B2 A4A4 A46A A672 ABC8 A4E1 C5E3 A5DC BEB9	
Graphic					
Start at No:	1				
End at No:	1				

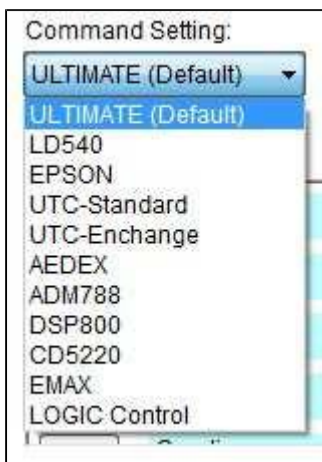
ADVANCED SETTING

When you click the Advanced Setting, the Utility will pop out a message box to confirm. confirm the procedure by a message box. So please press YES to continue the Advanced Setting.



A. Command Setting

Here you could change the command mode of your Customer Display. LD960 has 11 kinds of command set for you to choose. Default Command Setting is **ULTIMATE**.



B. Baud Rate Setting

The Utility support 2 kinds of Baud Rate, 9600 and 19200 bps. And default setting would be **9600bps**.

Here you could change the baud rate setting.

C. Time to enter Screensaver Mode

You can decide after how many minutes without operation, this LD960 will enter to the screensaver mode automatically.



D. Font Update

You could insert Font file here and finish the font updating procedure here. Also can you decide the font order in list, then press "Download To Display" button to finish the procedure.

E. Compound Word

When you need to update compound word file, please insert and update the file here.

F. Send Command

Here is testing area. You could send command here then check this LD960 is work on everything or not.