

Operation Manual

BCP-8000 Job Generator Utility

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1. Introduction

The Job Generator Utility for Windows is a tool assistant for users to create their own data collecting applications without developing program code. The utility can help user to simulate the working sequences when developing applications on PC. The whole process of the application development is just by keying parameters or required factors in the dialogue boxes in the job generator utility and downloading it to the terminal. A new application can be developed promptly and the job of collecting data can be started at once.

2. How to execute the Job Generator Utility

Running the utility, the Main Menu, Figure 1 will be shown.

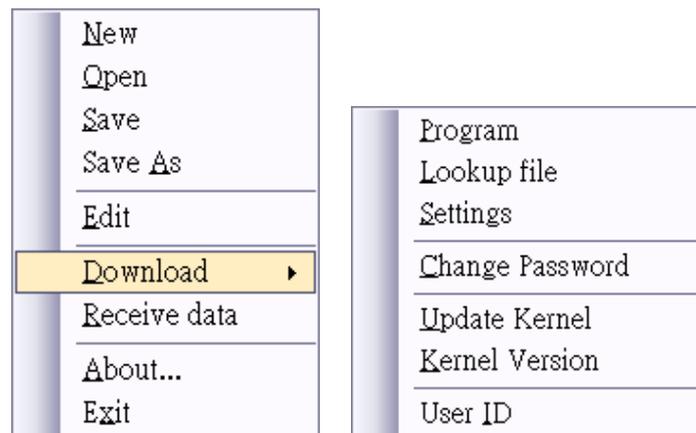


Main Menu, Figure 1

At this window, following two operational ways are available to lead the utility into Main Setting Window.

Move the mouse cursor to any location on the picture of the terminal and click right button. or move the cursor to the location of "PWR" key of the terminal and click left button.

The Main Setting Window (figure 2) will be shown as below:.



Main Setting Window, Figure 2

3. Main Setting Window

Main Setting Window comprises of a set of commands which are aimed to manage application files such as create, save,...functions and communicate application files between PC and terminal.

The commands are listed below:

- 3.1. New: To create a new application file.
- 3.2. Open: To open an old application file.
- 3.3. Save: To save the current editing application file.
- 3.4. Save As: To save the current editing application file to a new file.
- 3.5. Edit: To edit the current editing application file.
- 3.6. Download: To receive files from PC.
 - 3.6.1. Program: To receive application file from PC.
 - 3.6.2. Lookup File: To receive the lookup file(s) from PC.
 - 3.6.3. Setting: To receive setting file from PC.
 - 3.6.4. Change Password: To receive the password setting file from PC.
 - 3.6.5. Update Kernel: To receive the kernel file from PC.
 - 3.6.6. Kernel Version: To receive the kernel version file from PC.
 - 3.6.7. User ID: Allow 5 levels login-account – one “Admin” level and 4 “User” level. There are total 64 user ID can be set.
- 3.7. Receive Data: To upload data to PC.
- 3.8. About: To display information pertaining to the Job Generator Utility.
- 3.9. Exit: To close the Job Generator Utility.

4. Application Template

Move the mouse cursor to the “New” item of the Main Setting Window (figure 2) and click mouse left button, the Application Template, will be shown (figure 3).

Line	Data Type	Prompt	Input Source	Min Length	Max Length	Lookup	Properties
#1	None		Both	0	50	None	More..
#2	None		Both	0	50	None	More..
#3	None		Both	0	50	None	More..
#4	None		Both	0	50	None	More..
#5	None		Both	0	50	None	More..
#6	None		Both	0	50	None	More..
#7	None		Both	0	50	None	More..
#8	None		Both	0	50	None	More..

Application Template, Figure 3

The Application Template which includes Form, Menu, and Lookup, Barcode, and Startup settings to formulate the application's running sequence and data attributes.

The template can help user develop an application by clicking mouse button and entering parameters or factors into the dialogue boxes.

4.1. Form

The Form is aimed to regulate the data attributes and make the path of the application's routine. The user is requested to key in all the needed information in the dialogue boxes of the template which may design the running sequence or may define data attributes.

There are up to 10 forms can be defined and every form can be defined up to 8 input fields which contains maximum data length up to 50 characters.

4.1.1. Name:

Assign a name of the form (form ID). There are up to 10 name# can be assigned.

4.1.2. Esc:

Map out the running route of the form# to one of the next steps, “Main Menu” or “form#” or “menu#”.

4.1.3. Next:

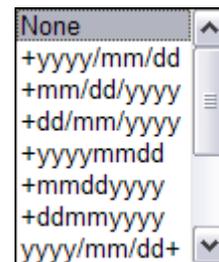
Map out the running route of the form# to one of the next steps, “Main Menu” or “form#” or “menu#”.

4.1.4. Date Stamp:

None: No Date Stamp appends to the record.

+yyyy/mm/dd: Date Stamp to be appended to the rear of the record in the format of yyyy/mm/dd.

yyyy/mm/dd+: Date Stamp to be appended to the front of the record in the format of yyyy/mm/dd.

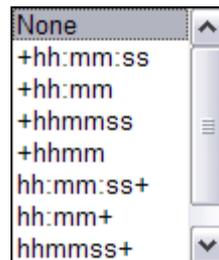


4.1.5. Time Stamp:

None: No Time Stamp appends to the record.

+hh:mm:ss: Time Stamp to be appended to the rear of the record in the format of hh:mm:ss.

hh:mm:ss+: Time Stamp to be appended to the front of the record in the format of hh:mm:ss.



4.1.6. Lookup

Assign the form# to refer to which lookup file or not to do lookup function. One form refer to one lookup file only if lookup function is enabled..

None: Not to enable the lookup function.

Lookup1: Refer to Lookup1 file.

Lookup2: Refer to Lookup2 file.

Lookup3: Refer to Lookup3 file.

4.1.7. Record

Save: Save is the default value. The data which collected in the field by running the designed sequence in this form will be saved to record immediately.

Update Lookup: To update the lookup file that the form is current referred to.

Save & Update: Save the record to the data file also update the current lookup file which the form is referred to.

Passdown: The form will not be saved as a data file. It will link to the next assigned menu(s) or form(s).

4.1.8. Data Type:

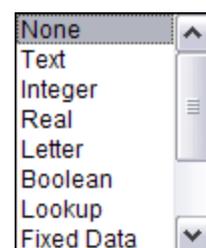
None: The field is blocked, which does not allow any data key in.

Text: Allow any characters (e.g. &*abe123...) key in to the field.

Integer: Allow any integer (e.g. 12345...) key in to the field.

Real: Allow any real number (e.g. 1.23) key in to this filed.

Letter: Allow any alphabet character (A to Z) key in to this filed.



Boolean: Allow only "0","1","y" or "N" key in to this field.

Lookup: This setting can call the Lookup at this manual designated as 4.1.6. to find a referred file and to manage the key in data to check with referred lookup file.

Fixed Data: Prompts will be shown when the filed is presented at the terminal and the prompts to be saved to record (data file).

Prompt: Prompts will be shown when the filed is presented at the terminal and the prompts will not be saved to record (data file).

Counter: The record counts will be shown but not to save to record (data file).

Passdown: This field's data is from the preceding form or menu which Record (please refer to 4.1.7 Record) type is defined as passdown.

Extension: Duplicate the preceding line's Data Type except the prompts in this filed. This function is for data display purpose when preceding line doesn't have enough space to display the content of data in the terminal. When data input is over the space of the preceding line, the overflowed data would be shown at this duplicate line. The maximum data length of proceeding filed minus preceding field's prompt length is the maximum data length of this extension line.

4.1.9. Prompt

Specify the heading of the input field.

4.1.10. Input Source

Assign the data input by keypad, scanner, or by both of them.

4.1.11. Min Length

Min Length can define the minimum length of the data. If set to "0", then, it doesn't limit any data input. Press "enter" to jump to next data input field if it intends to leave empty. If the min. length is set over "0" and the input data number is less than set value, then the system would give a warning message.

To purge the setting and re-define the length, press "ESC" to restart the job and input data again.

4.1.12. Max Length

Max Length can define the maximum length of the data input (up to 50 digits).

If the data input is over the area that the field can display, then, the input data will be left-scroll or the overflowed. The input data would be display to next the line if the line is set to Extension.

If the input data is over the maximum length setting there would have a warning message
Press “ESC” and input data again.

4.1.13. Lookup

Here the lookup field to be set to update or refer to the lookup file (4.1.6.) whenever the matched lookup setting call at Data Type (4.1.8.) is called. One more important notice that if the numeric input data comes a “+” or “-” symbol in front of it; it means any updated data will be added or subtracted from the original lookup file. Please notice that it is designed the lookup file data won't be subtracted to below “0”.

4.1.14. Properties

Move mouse cursor to the “Properties” item and click left button, the Properties, figure 4 will be shown.

Properties, Figure 4

4.1.14.1. Fixed data length

It limits the length of the inputted data. Tick the box of "Fix data length," and there are 4 options of alignment will be shown as shown in Figure 5.

The screenshot shows a 'Properties' dialog box with two main sections: 'Form #1' and 'Line #1'. Under 'Form #1', the 'Field Data' section has a checked 'Fix data length' checkbox with a value of '0'. Below it, a dropdown menu is open, listing four alignment options: 'Left aligned (padded with space)', 'Left aligned (padded with 0)', 'Right aligned (fill with space)', and 'Right aligned (fill with 0)'. The 'Barcode Input' section under 'Line #1' includes options for 'Read partial barcode', 'Start position' (set to 1), 'Maximum length' (set to 0), 'Check leading code', and a checked 'Auto ENTER' checkbox. 'OK' and 'Cancel' buttons are at the bottom.

Alignment Setup, Figure 5

4.1.14.1.2. Left aligned (padded with space)

In Figure 6, select "Left aligned (padded with space)", the input data which is less than the setting of data length will be filled with space.

This screenshot is similar to Figure 5 but shows the 'Left aligned (padded with space)' option selected in the dropdown menu. The 'Fix data length' checkbox is checked, and the 'Add prefix code' checkbox is also checked, with 'User ID:' entered in the adjacent text field. The 'Barcode Input' section remains the same as in Figure 5.

Figure 6

Example

Fix data length: 10

Barcode data	Display data
54321	54321_____

4.1.14.1.3. Right aligned (padded with space)

In Figure 7, select “Right aligned (padded with space)”, the input data which is less than the setting of data length will be filled with space.

The screenshot shows a 'Properties' dialog box with a blue title bar and a green background. It is divided into two main sections: 'Form #1' and 'Line #1'. Under 'Form #1', there is a 'Field Data' section with the following options:

- Fix data length: []
- Right aligned(fill with space) [v]
- Initial value or text: []
- Add prefix code: User ID: []
- Add suffix code: []

 Under 'Line #1', there is a 'Barcode Input' section with the following options:

- Read partial barcode
- Start position: [1]
- Maximum length: [0]
- Check leading code: []
- Auto ENTER

 At the bottom, there are 'OK' and 'Cancel' buttons.

Figure 7

Example

Fix data length: 10	
Barcode data	Display data
54321	____54321

4.1.14.1.4. Left aligned (padded with 0)”

In Figure 8, select “Left aligned (padded with 0)”, the input data which is less than the setting of data length will be filled with 0.

The screenshot shows a 'Properties' dialog box with a blue title bar and a green background. It is divided into two main sections: 'Form #1' and 'Line #1'. Under 'Form #1', there is a 'Field Data' section with the following options:

- Fix data length: []
- Left aligned(padded with 0) [v]
- Initial value or text: []
- Add prefix code: User ID: []
- Add suffix code: []

 Under 'Line #1', there is a 'Barcode Input' section with the following options:

- Read partial barcode
- Start position: [1]
- Maximum length: [0]
- Check leading code: []
- Auto ENTER

 At the bottom, there are 'OK' and 'Cancel' buttons.

Figure 8

Example

Fix data length:10	
Barcode data	Display data
54321	5432100000

4.1.14.1.5. Right aligned (padded with 0)

In Figure 9, select “Right aligned (padded with 0)”, the scanned data which is less than the setting of data length will be filled with space.

The screenshot shows a 'Properties' dialog box with two main sections: 'Field Data' and 'Barcode Input'. In the 'Field Data' section, the 'Fix data length' checkbox is checked, and a dropdown menu is set to 'Right aligned(fill with 0)'. Other options include 'Initial value or text', 'Add prefix code' (checked), and 'Add suffix code'. The 'Barcode Input' section includes 'Read partial barcode', 'Start position' (set to 1), 'Maximum length' (set to 0), 'Check leading code', and 'Auto ENTER' (checked). 'OK' and 'Cancel' buttons are at the bottom.

Figure 9

Example

Fix data length: 10	
Barcode data	Display data
54321	0000054321

4.1.14.2. Initial value or text

Assign the initial value (default value) or text in the input field.

4.1.14.3. Add prefix code

Prefix code can be appended to the data. The prefix code can be any string (e.g. BFR:345*&) or any a 3-digits decimal ASCII codes which is led by “\” (e.g. “\065\097” equals to “Aa”).

Examples:

“\” equals to “\”, “\n” or “\N” equals to “\010”, “r” or “R” equals to “\013”, or “\t” or “\T” equals to “\009”, “\e” or “\E” equals to “\027”.

4.1.14.4. Add suffix code

Suffix the code can be appended to the data. The suffix code can be any string (e.g. BFR:345*&) or any a 3-digits decimal ASCII codes which is led by “\” (e.g. “\065\097” equals to “Aa”).

Examples:

“\” equals to “\”, “\n” or “\N” equals to “\010”, “r” or “R” equals to “\013”, or “\t” or “\T” equals to “\009”, “\e” or “\E” equals to “\027”.

4.1.14.5. Read partial barcode

The barcode data can be displayed partially at the data field.

The default value of the field is 50 digits.

Start Position: Set the first digit of the barcode data to display at the data field.

The default value is from 1st digit.

Maximum Length: Set the maximum barcode data length at the data field.

The default value is 50 digits.

Example:

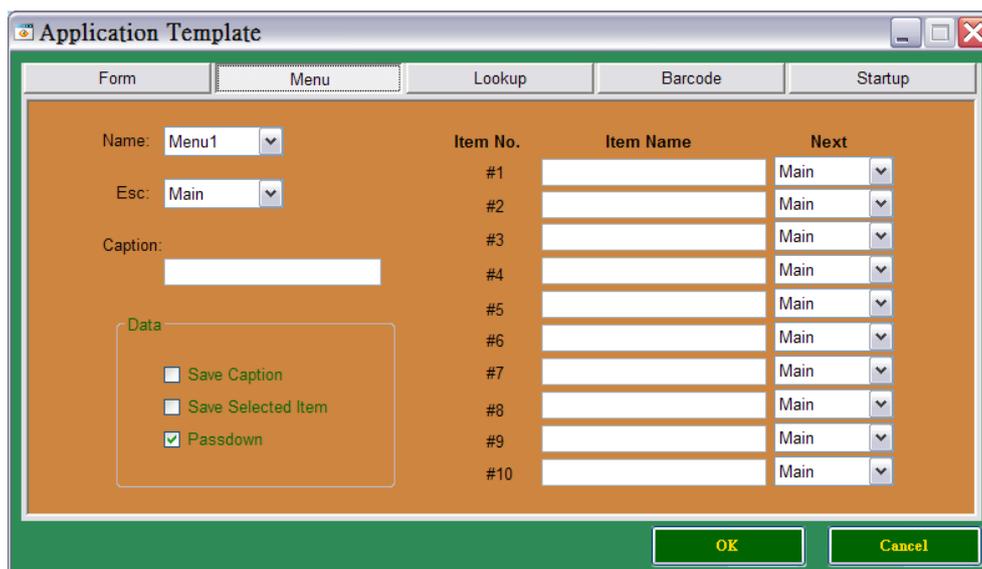
Start position	Maximum length	Barcode data	Data Displayed
2	10	9876543210	876543210
2	3	9876543210	876

4.14.6. Auto ENTER

After reading barcode by scanner, an “ENTER” will be automatically executed and to move the cursor to next field.

4.2. Menu

Move the mouse cursor to “MENU” and click left button to access the Menu Window (as figure 10 below).



MENU, Figure 10

The “Menu” is to help user on mapping out the running route as well as the descriptions of an application. User is requested to key in all the needed parameters or required factors in the blanks of the template which may portray the functions or may design the running sequence of the application. There are up to 10 menus can be defined.

4.2.1. Name:

Assign a Menu # (Menu ID) of the current menu.

4.2.2. Esc:

Map out the running route to one of the next steps, “Main Menu” or “form#” or “menu#”.

4.2.3. Caption:

Assign a heading of the menu.

4.2.4. Data

Save Caption: This item provides selection to save or not to save the caption of the menu to the record.

Save Selected Item: This item provides options to save or not to save the item name of the field to the record.

Passdown: This item provides options to save or not to save the caption of the menu and to save selected item of the field to the record.

Note

To save captions, selected Item or both of them, the passdown item box must be left blank.

4.2.5. Item No.

There are up to 10 item no. can be assigned.

4.2.6. Item Name

Assign the name of the field.

4.2.7. Next

Mapping out the running route of the “MENU” to steps are:

“Main Menu” , “form#” or “menu#”.

4.3. Lookup

A lookup file is a database file which is the object to be referred, updated when the lookup file is called. It is designed to a maximum of three lookup files in the system. The figure 11 indicates the lookup setting parameters below:

The screenshot shows the 'Application Template' dialog box with the 'Lookup' tab selected. The 'Name' is 'Lookup1'. 'Member length' is 27 and 'Number of fields' is 4. Under 'Field property', 'fixed length' is selected. A table lists 8 fields with their offsets and lengths. The 'Action when the input has no match' is set to 'Continue'.

Field	Offset	Length	Key field
#1	1	4	<input checked="" type="radio"/>
#2	6	10	<input type="radio"/>
#3	17	5	<input type="radio"/>
#4	23	5	<input type="radio"/>
#5	1	0	<input type="radio"/>
#6	1	0	<input type="radio"/>
#7	1	0	<input type="radio"/>
#8	1	0	<input type="radio"/>

MENU, Figure 11

4.3.1 Name:

Assign which lookup file to be referred or edited.

4.3.2. Member length:

Assign the maximum record length for the lookup file.

4.3.3. Number of fields:

Assign the number of fields for the lookup file.

4.3.4. Field property:

Fixed length: Assign the data field is a fixed length.

Delimiter: Assign a delimiter, an ASCII code, to separate the data filed.

4.3.5. Lookup data can be uploaded:

Assign the lookup data to be uploaded to PC only.

4.3.6. Action when the input has no match:

Choose one of the actions below in case of the input data is not match in the lookup file.

Continue: The operation will be progressed to next input field without any halt or any message warning.

Show Warning Messing: The operation will be halted and a warning message is shown.

Append to lookup file: The current recode will be appended to the lookup file.

Show Warning Message & Append: A warning message will be shown and the current recode will be appended to the lookup file.

4.3.7. Field:

There are maximum 8 fields can be set.

4.3.8. Offset:

Assign the start position for each field for the lookup file.

4.3.9. Length:

Assign the length for each field, maximum 50 digits, of the lookup file.

4.3.10. Key field:

The key field is aimed to find the matched data in the lookup file. Only one key field can be set among the Fields (4.3.7.).

4.4. Barcode

Move the mouse cursor and click left button to access the “Barcode” menu.

The Barcode Windows offer parameters for user to set the required settings to applications.



4.4.1. Code39

The screenshot shows two configuration panels. The left panel is titled "Code 39" and contains four checkboxes: "Enable" (checked), "Full ASCII" (unchecked), "Transmit Check Character" (checked), and "Verify Checksum" (unchecked). The right panel is titled "Code 32" and contains two checkboxes: "Enable" (unchecked) and "Verify Stick" (unchecked).

4.4.2. Interleaved 2 of 5

The screenshot shows configuration settings for Interleaved 2 of 5. It includes three checkboxes: "Enable" (checked), "Transmit Check Character" (checked), and "Verify Checksum" (unchecked). Below these is a "Barcode Length" section with two radio button options: "Barcode Length Setting:" (selected) and "User Define Length Setting:". The "Barcode Length Setting:" option has a text input field containing "0430" and a dropdown menu showing a green arrow pointing down, with "(HEX)" to its right. The "User Define Length Setting:" option has a text input field containing "043000" and a dropdown menu showing a grey arrow pointing left, with "(HEX)" to its right.

4.4.3. Code 128

The screenshot shows configuration settings for Code 128. It includes three checkboxes: "Enable" (checked), "Checkdigit (not send checkdigit)" (checked), and "UCC / EAN / 128" (checked).

4.4.4. Code 11

Enable

Number of Check Character

One Two

Transmit Check Character

Checkdigit

4.4.5. Code 93

Enable

Checkdigit

4.4.6. MSI-Plessey

Enable Verify Checkdigit

Enable MOD

MOD 10-10 MOD 10 MOD 11-10

Transmit/Truncate Checkdigit

Truncate 1st checkdigit Transmit checkdigit

Truncate 1st_2nd checkdigit

4.4.7. CODA BAR / NW7

Enable

Transmit Start/End Character.

Start/End Transmit Type

ABCD/ABCD abcd/abcd

ABCD/TN*E abcd/tn*e

4.4.8. EAN-13 / JAN-13

Enable Truncate 2nd digit.

ADD-ON 2/5 Checkdigit

Transmit Check Character.

Truncate 1st digit.

4.4.9. UPC-A

Enable UPC-A Convert to EAN-13.

ADD-ON 2/5

Transmit Check Character.

Truncate Leading Digit.

4.4.10. EAN-8 / JAN-8

Enable

ADD-ON 2/5

Transmit Check Character.

Truncate Leading Digit.

EAN-8 Convert to EAN-13

Enable 1 [add zeros in the front of barcode]

Enable 2 [add zeros in the middle of barcode]

Disable

4.4.11. UPC-A

Enable

UPC-A Convert to EAN-13.

ADD-ON 2/5

Transmit Check Character.

Truncate Leading Digit.

4.4.12. ISBN / ISSN

Enable

4.4.13. CODE ID

<input checked="" type="checkbox"/> Code 39 / Code 32 4 (HEX)	<input checked="" type="checkbox"/> EAN-13 1 (HEX)	<input checked="" type="checkbox"/> Code 128 9 (HEX)
<input checked="" type="checkbox"/> Industrial 2 of 5 7 (HEX)	<input checked="" type="checkbox"/> UPC-E 3 (HEX)	<input checked="" type="checkbox"/> Code 11 B (HEX)
<input checked="" type="checkbox"/> China Postage D (HEX)	<input type="checkbox"/> Code 4 (HEX)	<input checked="" type="checkbox"/> CODABAR / NW7 5 (HEX)
<input checked="" type="checkbox"/> Code 93 A (HEX)	<input checked="" type="checkbox"/> Interleaved 2 of 5 8 (HEX)	<input checked="" type="checkbox"/> EAN-8 9 (HEX)
<input checked="" type="checkbox"/> MSI/PLESSEY C (HEX)	<input checked="" type="checkbox"/> Matrix 2 of 5 6 (HEX)	<input checked="" type="checkbox"/> UPC-A 18 (HEX)

4.4.14. GS1

Enable

Send Check Digit

Prefix Code Enable

4.4.15. Industrial 2 of 5 / ITIA

Enable

Transmit Check Character IATA

Verify Checksum

Barcode Length

Barcode Length Setting: 0218 (HEX)

User Define Length Setting: 021800 (HEX)

4.4.16. Matrix 2 of 5

Enable

Transmit Check Character

Verify Checksum

Barcode Length

Barcode Length Setting:  (HEX)

User Define Length Setting:  (HEX)

4.4.17. CHINA POSTAGE

Enable

Transmit Check Character

Verify Checksum

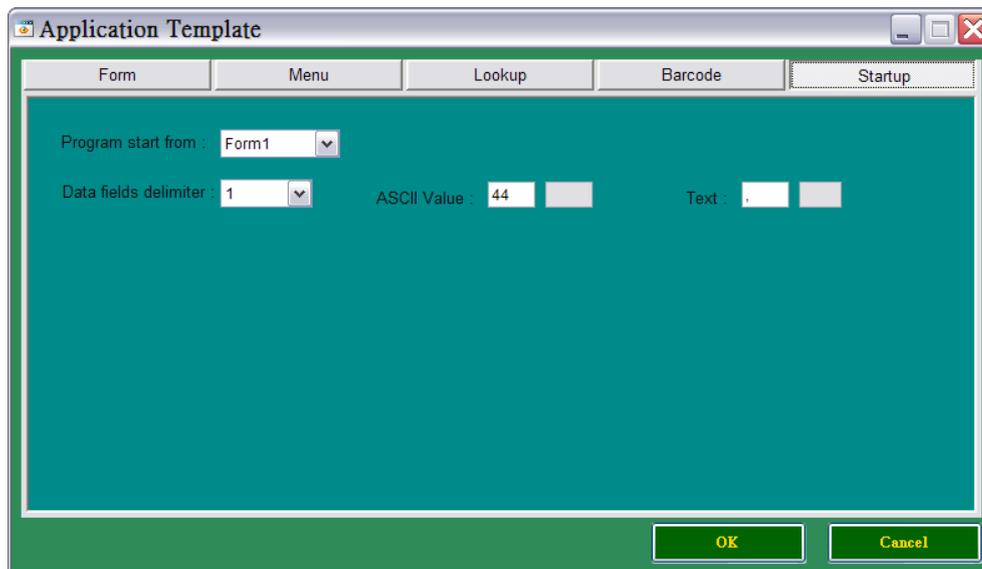
Barcode Length

Barcode Length Setting:  (HEX)

User Define Length Setting:  (HEX)

4.5. Startup

Move the mouse cursor to the “Startup” tab button and click left button (Figure 12).



Startup, Figure 12

The Startup can specify the location where the application to be started from and the format of record. The user is requested to key in parameters or the required factors in the dialogue boxes of the template.

4.5.1. Program start from

Assign the application where to start from, either from form# or menu#.

4.5.2. Data field delimiter

Assign the number of delimiter(s) of the data field either by one digit or two digits.

4.5.3. ASCII Value

Assign delimiter ASCII value.

4.5.4. Text

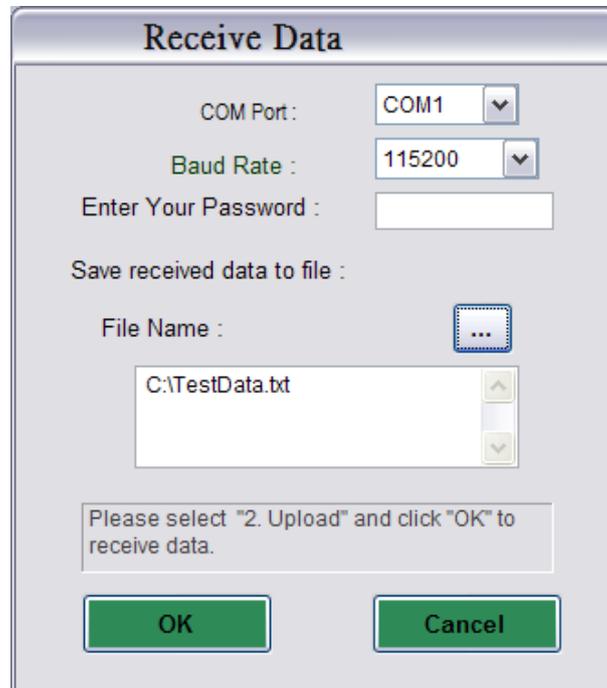
Assign delimiter text.

Note:

The editing Application Template, when “OK Button” is pressed, the setting is saved to memory only (it is not saved to the file). While “Cancel Button” is pressed, the setting won’t be saved to memory or saved to file. The editing Application Template which saved at memory can be recalled by pressing “PWR” key, then select “Edit” to recall the editing Application Template.

5. Receiving Data

At Main Setting Window (figure 2) move the mouse cursor to the “Receive Data” item and click the left button. The Receive Data Window, figure 13 will be shown.



Receive Data, Figure 13

There are two interface cables available for connecting the terminal to PC: USB (serial) and RS-232. Set the COM Port and Baud Rate then click “OK” to confirm.

Suggestion

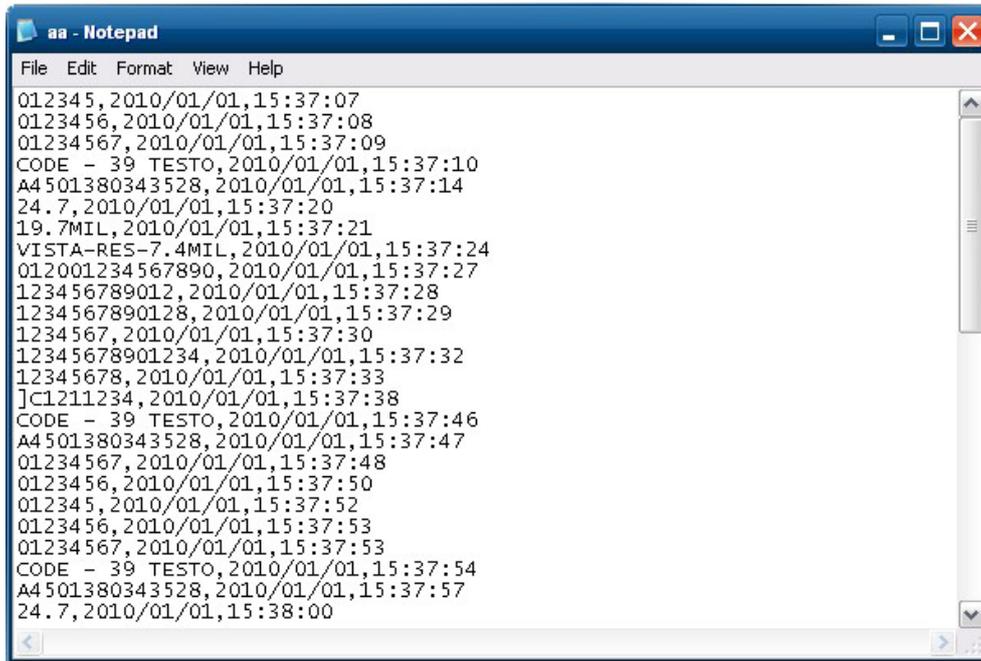
Before click “OK” button, user has to double check if the terminal is uploading files and the cable is properly connected to PC and the terminal.

A dialog box, View Data (figure 14) will be shown as below:.



View Data Selection, Figure 14

User can view the collected data by simply click “Yes” button and review the data.(figure 15).



The image shows a Notepad window titled "aa - Notepad" with a menu bar containing "File", "Edit", "Format", "View", and "Help". The text area contains the following data entries:

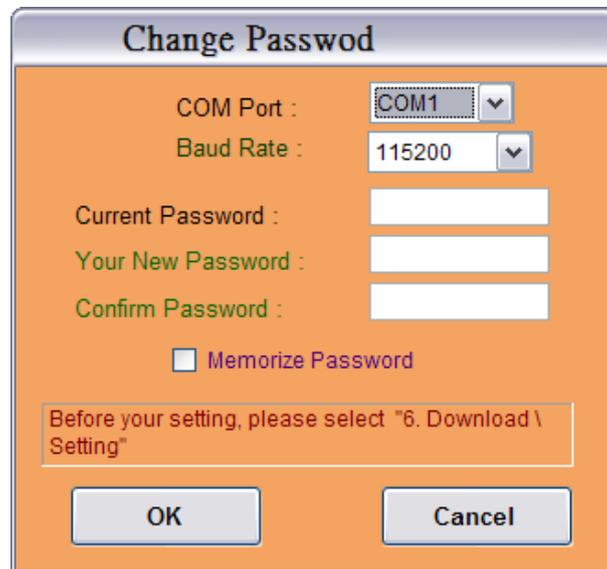
```
012345,2010/01/01,15:37:07
0123456,2010/01/01,15:37:08
01234567,2010/01/01,15:37:09
CODE - 39 TESTO,2010/01/01,15:37:10
A4501380343528,2010/01/01,15:37:14
24.7,2010/01/01,15:37:20
19.7MIL,2010/01/01,15:37:21
VISTA-RES-7.4MIL,2010/01/01,15:37:24
012001234567890,2010/01/01,15:37:27
123456789012,2010/01/01,15:37:28
1234567890128,2010/01/01,15:37:29
1234567,2010/01/01,15:37:30
12345678901234,2010/01/01,15:37:32
12345678,2010/01/01,15:37:33
]C1211234,2010/01/01,15:37:38
CODE - 39 TESTO,2010/01/01,15:37:46
A4501380343528,2010/01/01,15:37:47
01234567,2010/01/01,15:37:48
0123456,2010/01/01,15:37:50
012345,2010/01/01,15:37:52
0123456,2010/01/01,15:37:53
01234567,2010/01/01,15:37:53
CODE - 39 TESTO,2010/01/01,15:37:54
A4501380343528,2010/01/01,15:37:57
24.7,2010/01/01,15:38:00
```

Reviewing Data, figure 15

If user doesn't want to view the collected data, then, click "N" button, the collected data would be saved to the designated file.

6. Change Password

At Main Setting Window (figure 2), move the mouse cursor onto the “Download” item and click the left button, and then move the mouse cursor onto “Change Password” item and click the left button. The Change Password Window will be shown (figure 18).

The image shows a dialog box titled "Change Passwod" (note the typo). It has an orange background and a grey title bar. The dialog contains the following elements:

- COM Port : A dropdown menu with "COM1" selected.
- Baud Rate : A dropdown menu with "115200" selected.
- Current Password : A text input field.
- Your New Password : A text input field.
- Confirm Password : A text input field.
- Memorize Password : A checkbox that is currently unchecked.
- A red-bordered box containing the text: "Before your setting, please select '6. Download \ Setting'".
- OK and Cancel buttons at the bottom.

Change Password, Figure 18

The password length is up to 10 characters, and lower case a~z, upper case A~Z, and 0-9 are allowed. The password would be changed only after the current password verified. When setting up a password for the first time, leave the “Current Password” item blank, and fill in the “Your New Password” item and the “Confirm New Password” item accordingly.

After the password is configured, any communication between the terminal and PC would request password verification.

When the “Memorize Password” function is enabled; user need not to enter the password every time when terminal works to communicate with PC.

7. Setting

At Main Setting Window (figure 2), move the mouse cursor onto the “Download” item and click the left button, and then move the mouse cursor onto the “Setting” item and click the left button. One of the Download Setting window, figure 14~17, will be shown.

7.1. Buzzer Pitch

The buzzer’s pitch can be adjusted to meet user’s optimal needs. At the figure 14, the bar represents the pitch value, between 0~255 Hz. User just need to drag the arrow to travel it to any position in the bar, while the bar is traveling, the small window shows a rotated number which represents the pitch value. User can use “Test” item to try out the best value of the pitch before save it as a file or download it to the terminal.

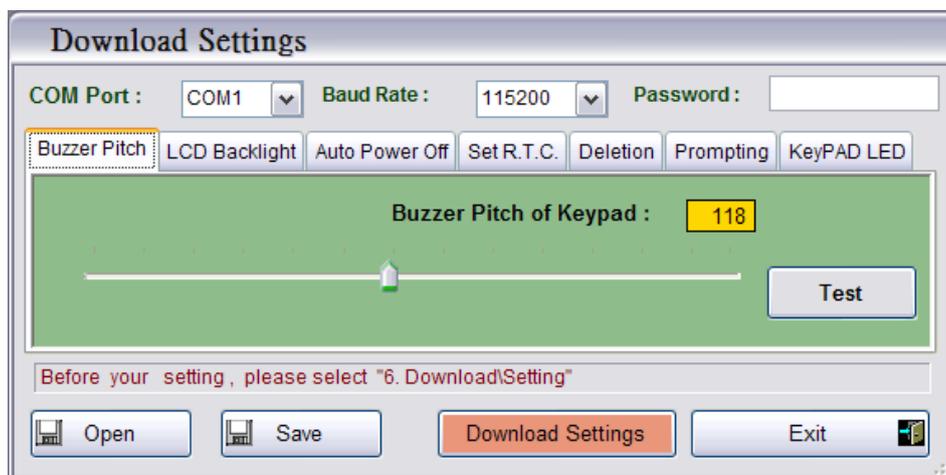


Figure 19

7.2. LCD Backlight

The LCD backlight can be switched off in the pre-defined period of time without press any keypad or do a scan on the terminal. At the figure 20, the bar represents pre-defined LCD backlight off time value (0-60 second). Drag the arrow to travel it to any position in the bar, while the bar is traveling, the small window shows a rotated number which represents the pre-defined off time value. To set the backlight always on, click the “Always On” item. User can save it as a file or just download it to the terminal. Factory default is off.

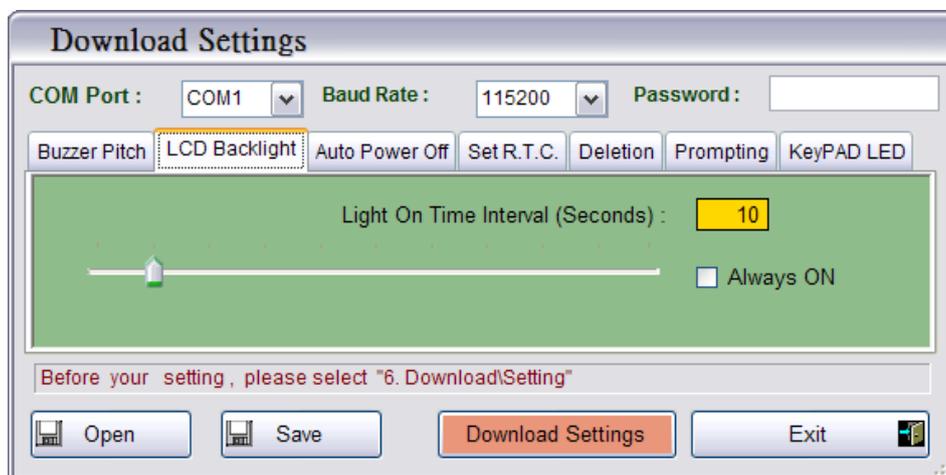


Figure 20

7.3. Auto Power Off

The terminal can be set to auto power off in the pre-defined period of time without press any keypad or do a scan on the terminal. At figure 21, the bar represents pre-defined off time value, 0-60 minute. User just need to drag the arrow to travel it to any position in the bar, while the bar is traveling, the small window shows a rotated number which represents the pre-defined off time value. User is also able to set the terminal always on by click the "Disable" item. User can save it as a file or just download it to terminal.

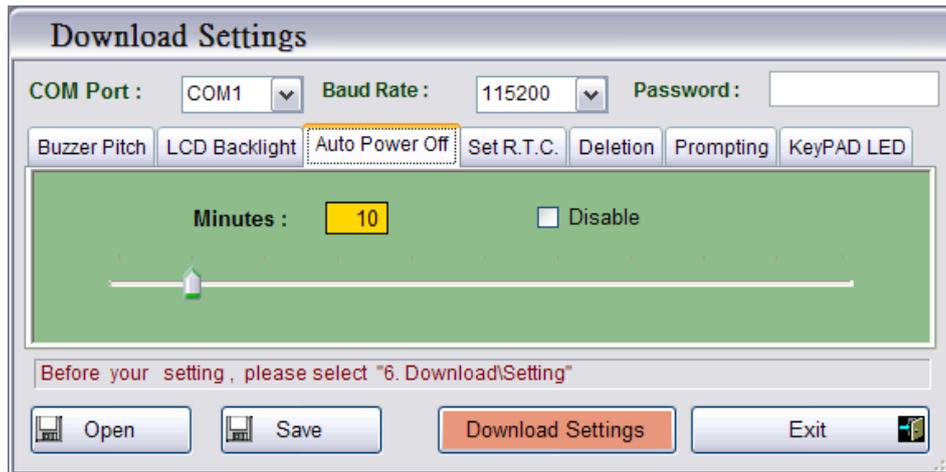


Figure 21

7.4. Set R.T.C.

The terminal's real time clock has to synchronize with host PC. At the figure 22, user can save it as a file or just download it to the terminal.

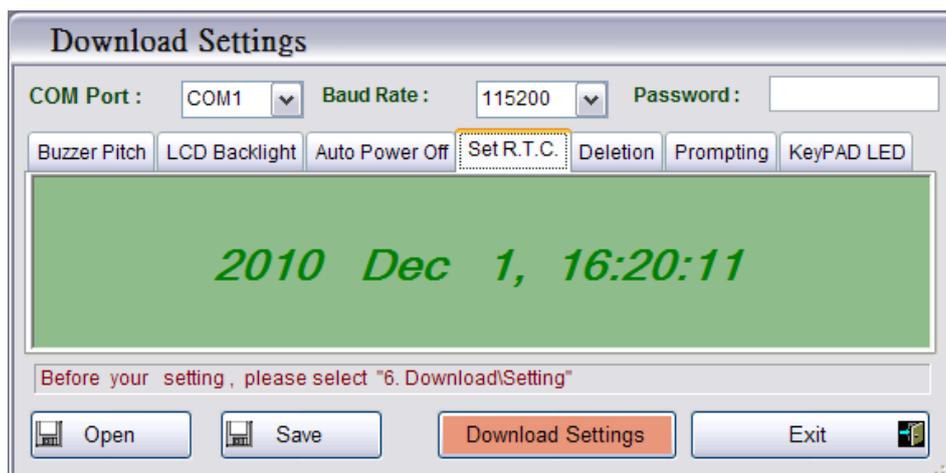


Figure 22

7.5. Deletion

The collected data would be deleted from terminal after the data transmission completes automatically. Referring to the figure 23, user can activate the delete function by ticking the box.

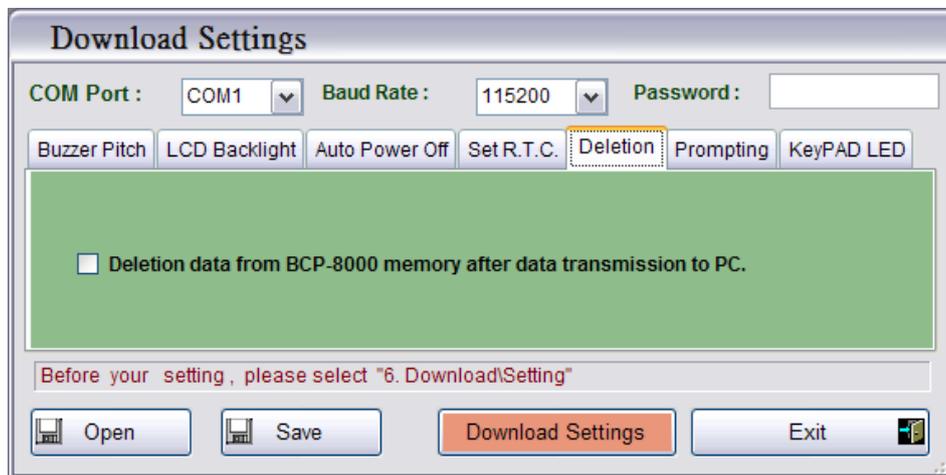


Figure 23

7.6. Prompting

The number of records will show on the screen as in figure 24 by setting the lasting time. Simply drag the arrow on the bar as shown in figure 24 from 0 to 9999 seconds.

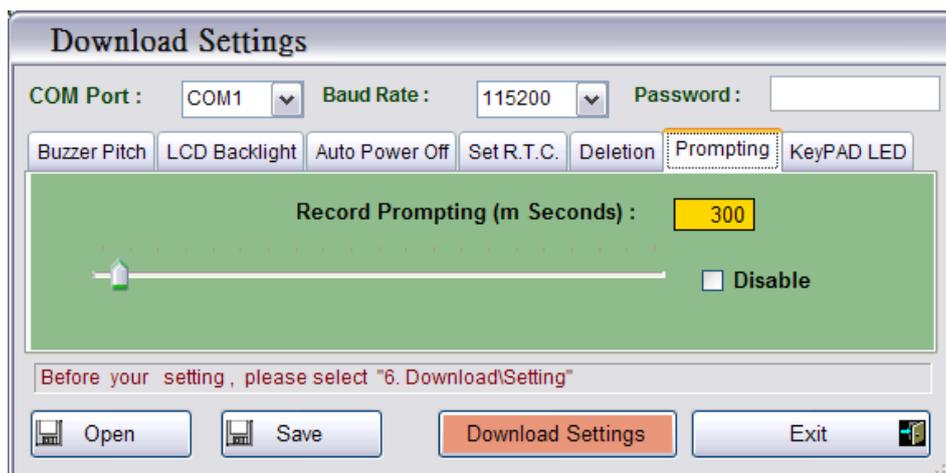
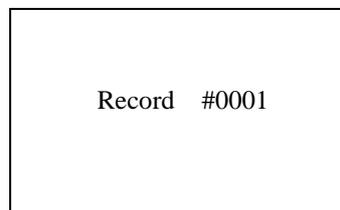


Figure 24

7.7. Key PAD LED (Reserved)

The function is reserved and not functioning.

8. Update Kernel Firmware

User can update kernel firmware of the terminal.

Before update the firmware, please make sure the cradle and PC are properly connected.

Make sure the terminal is properly placed onto the cradle.

Be careful to prevent the communication breakdown or other events that interfere in the communication while firmware is being up-dated.

Note:

- Please quit other programs on your PC before update.
- Please refer to the qualified personnel to update the firmware.
- Any failures happen during the update process or bad connections may cause terminal halt-on.

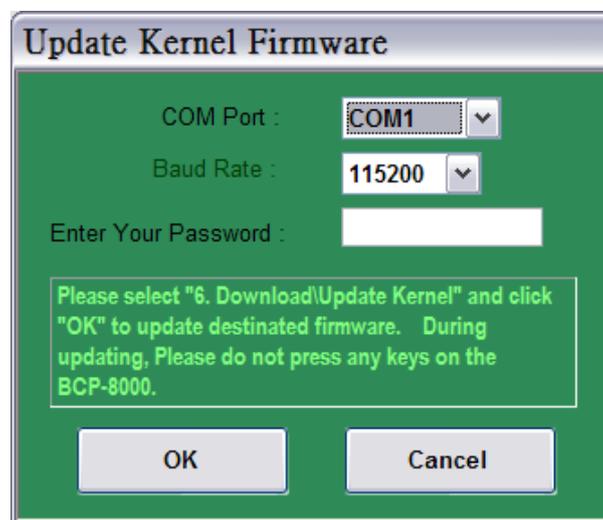


Figure 25

9. Get Kernel Version

User can get the kernel version from the terminal.

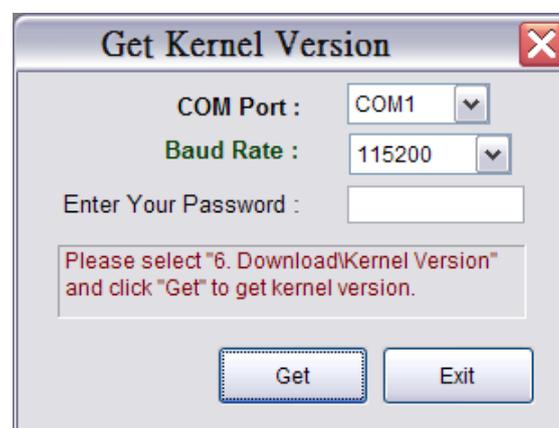


Figure 26

10. Example Job Application

The chapter aims to tutor how to design an application. There is a Program Template File at CD disk, its file name is tyso.apg which is the example file to guide user how an application be designed.

Assuming that the application consists of user identified number, location, item no. item, and quantity variables and the working flow of the application is framed as below:

10.1. Run the Job Generator Utility

The Main Menu figure will be shown on the PC.

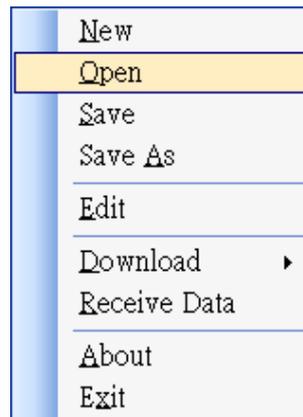


Main Menu, Figure 1

Move the mouse cursor to any location on the picture of the terminal (figure 1), and click right button, or

Move the mouse cursor to the location of "PWR" key of the terminal (figure 1), and click left button.

When one of those two above mentioned operational ways is performed, the Main Setting Window, figure 2 will be shown.



Main Setting Window, Figure 2

At figure 2, select “OPEN” item first and to read the example file, [tysso.apg](#). After reading the [tysso.apg](#) file, the following figure will be shown on the PC.

Line	Data Type	Prompt	Input Source	Min Length	Max Length	Lookup	Properties
#1	Text	Empl. ID:	Both	1	50	None	More..
#2	None		Both	0	50	None	More..
#3	None		Both	0	50	None	More..
#4	None		Both	0	50	None	More..
#5	None		Both	0	50	None	More..
#6	None		Both	0	50	None	More..
#7	None		Both	0	50	None	More..
#8	None		Both	0	50	None	More..

Figure 26

The figure 26 shows the detailed settings of form1 at the Application Template.

Those settings are described as below:

Name: Form1 – this form’s ID

Esc: Menu1 – when an “Esc” command is called, the application would head into Menu1.

Next: Form2 – when a “next” command is called, the application would head into Form2.

Date Stamp: +yyyy/mm/dd – the date stamp would be appended to the rear of record.

Time Stamp: +hh:mm:ss – the time stamp would be appended to the rear of record.

Lookup: None is the default value. The form won’t refer to any lookup files.

Record: Save is the default value.

The form of each line (Line #1 ~Line #10) will be saved to record immediately after collection.

Data Type: Text – allow any characters (e.g. &*abe123...) to be inputted into the field.

Prompt: Empl. ID: the prompt represents an employee identified number.

Input Source: the data key-in is allowed by scanner or keypad. If the data is inputted by scanner, then the “ENTER” is automatically executed while the data key-in is by keypad, then the “ENTER” has to be pressed by operator to complete the key-in process.

Min Length: 1 – the number of the data is not less than 1 digit.

Max Length: 50 – the number of the data is not more than 50 digits.

Lookup: None - The field of this form will not refer to any lookup file's field.

Properties: please refer to the figure below (figure 27).

The screenshot shows a 'Properties' dialog box with two main sections: 'Form #1' and 'Line #1'.
 Under 'Form #1', the 'Field Data' section contains:
 - 'Fix data length': unchecked checkbox, text box with '0'.
 - 'Initial value or text': unchecked checkbox, empty text box.
 - 'Add prefix code': checked checkbox, text box with 'Empl. ID:'.
 - 'Add suffix code': unchecked checkbox, empty text box.
 Under 'Line #1', the 'Barcode Input' section contains:
 - 'Read partial barcode': unchecked checkbox, text box with '1'.
 - 'Start position': text box with '1'.
 - 'Maximum length': text box with '0'.
 - 'Check leading code': unchecked checkbox, empty text box.
 - 'Auto ENTER': checked checkbox.
 At the bottom are 'OK' and 'Cancel' buttons.

Figure 27

Figure 27 shows that the prompt of “Empl. ID:” would be saved as prefix to the record.

And the “ENTER” will be executed when a data key-in is by scanner.

When finishes form1 setting. Move the mouse cursor to Name Com Box and click the left button to drop down more form# selections. The following figure 28 will be shown on the PC.

Line	Prompt	Input Source	Min Length	Max Length	Lookup	Properties
#1	Empl. ID:	Both	1	50	None	More..
#2		Both	0	50	None	More..
#3		Both	0	50	None	More..
#4		Both	0	50	None	More..
#5		Both	0	50	None	More..
#6		Both	0	50	None	More..
#7		Both	0	50	None	More..
#8		Both	0	50	None	More..

Figure 28

Select the form2 and click left button. The following figure will be shown below (figure 29).

Line	Data Type	Prompt	Input Source	Min Length	Max Length	Lookup	Properties
#1	Text	Location:	Both	1	50	None	More..
#2	Text	Item No:	Both	1	50	field1	More..
#3	Text	Item:	Both	1	50	field2	More..
#4	Integer	Qty:	Keyboard	1	10	None	More..
#5	None		Both	0	50	None	More..
#6	None		Both	0	50	None	More..
#7	None		Both	0	50	None	More..
#8	None		Both	0	50	None	More..

Figure 29

The figure 29 shows detailed settings of form 2 at the Application Template.

Those Settings are described as below:

Name: Form2 – this form's ID

Esc: Menu1 – when an "Esc" command is called, the application will head into Menu1.

Next: Form2 – when a next command is called, the application will head into Form2.

Date Stamp: +yyyy/mm/dd – the date stamp would be appended to the rear of record.

Time Stamp: +hh:mm:ss – the time stamp would be appended to the rear of record.

- Lookup: Lookup1: The form will refer to lookup file1.
- Record: Save: The form will be saved to record after collection immediately.
- Data Type: Text – allow any characters (e.g. &*abe123...) to be inputted in the field.
- Prompt: Location: the prompt represents the locations.
- Input Source: data key-in is allowed by scanner or by keypad. If the data is key-in by scanner, then the “ENTER” is automatically executed while the data key-in is by keypad, then the “ENTER” key has to be pressed by operator to complete the key-in process.
- Min Length: 1 – the number of the data is not less than 1 digit.
- Max Length: 50 – the number of the data is not more than 50 digits.
- Properties: please refer to figure 30.

The image shows a 'Properties' dialog box with a blue title bar and a green background. It is divided into two main sections: 'Form #2' and 'Line #1'.
 Under 'Form #2', there is a 'Field Data' section with four options, each with a text input field:
 - 'Fix data length' with a value of '0'.
 - 'Initial value or text' with an empty field.
 - 'Add prefix code' with an empty field.
 - 'Add suffix code' with an empty field.
 Under 'Line #1', there is a 'Barcode Input' section with five options:
 - 'Read partial barcode' (unchecked).
 - 'Start position' with a value of '1'.
 - 'Maximum length' with a value of '0'.
 - 'Check leading code' (unchecked).
 - 'Auto ENTER' (checked).
 At the bottom of the dialog are 'OK' and 'Cancel' buttons.

Figure 30

*At this setting, an “ENTER” will be automatically executed when a data key-in is by scanner.

- Prompt: Item No: -- the prompt represents the item no.
- Input Source: data key-in is allowed by scanner or keypad. If the data is inputted by scanner, then the “ENTER” is automatically executed while the data key-in is by keypad, then the “ENTER” key has to be pressed by operator to complete the key-in process
- Min Length: 1 – the number of the data is not less than 1 digits.
- Max Length: 50 – the number of the data is not more than 50 digits.
- Properties: please refer to figure 31

Figure 31

*At this setting, an “ENTER” will be automatically executed when a data key-in is by scanner.

- Prompt: Item name: -- the prompt represents the item’s name.
- Input Source: data key-in is allowed by scanner or keypad. If the data is inputted by scanner, then the “ENTER” is automatically executed while the data key-in is by keypad, then the “ENTER” key has to be pressed by operator to complete the key-in process.
- Min Length: 1 – the number of the data is not less than 1 digits.
- Max Length: 50 – the number of the data is not more than 50 digits
- Properties: please refer to the figure 32

Figure 32

When setting proprieties, an “ENTER” will be automatically executed when a data key-in is by scanner.

- Prompt: Qty: -- the prompt represents the quantity.
- Input Source: keyboard – The information can be entered by **Keypad Only**, the “ENTER” key has to be pressed by operator to complete the process.
- Min Length: 1 – the number of the data is not less than 1 digits.
- Max Length: 10 – the number of the data is not more than 10 digits.
- Properties: please refer to the figure 33

Figure 33

When setting properties, an “ENTER” won’t be automatically executed when a data key-in is by keypad. User has to press “enter” to complete the data input.

When form2 setting is finished, move the mouse cursor to Menu.

Tab Button and click the left button. The following figure will be shown on the PC.

The screenshot shows the 'Application Template' dialog box with the 'Menu' tab selected. The settings are as follows:

- Name: Menu1
- Esc: Main
- Caption: <TYSSO Inventory>
- Data:
 - Save Caption
 - Save Selected Item
 - Passdown

Item No.	Item Name	Next
#1	>Check Stock	Form1
#2	>Exit	Main
#3		Main
#4		Main
#5		Main
#6		Main
#7		Main
#8		Main
#9		Main
#10		Main

Figure 34

Figure 34 shows detailed settings of NENU. Menu1 is the first of the Application Template.

Those settings are described as below:

Name: Menu1 – this menu’s ID.

Esc: Main – when an “Esc” command is called, the application would head to Main Menu.

Caption: <TYSSO Inventory> -- the heading of the application.

Date Checkbox: Select “Passdown: ” and the menu’s information won’t be saved to record.

Item Name: “>Check Stock” and “>Exit” -- are prompts.

Next: “item1” is set the application heads to form1 and “item2” is set application heads to Main Menu.

When menu setting is finished, move the mouse cursor to Lookup Tab Button and click the left button. The following figure will be shown on the PC.

Application Template

Form Menu Lookup Barcode Startup

Name: Lookup1

Member length: 23

Number of fields: 3

Field property

fixed length

Delimiter 0 (ASCII)

Lookup data can be uploaded

Action when the input has no match: Continue

Field	Offset	Length	Key field
#1	1	5	<input checked="" type="radio"/>
#2	7	10	<input type="radio"/>
#3	18	6	<input type="radio"/>
#4	1	0	<input type="radio"/>
#5	1	0	<input type="radio"/>
#6	1	0	<input type="radio"/>
#7	1	0	<input type="radio"/>
#8	1	0	<input type="radio"/>

OK Cancel

Figure 35

Figure 35 shows detailed settings of Lookup. Lookup1 is the first of the Application Template.

Those settings are described as below:

Name: Lookup1 – define lookup's ID.

Member length: lookup file's length.

Number of fields: field's length.

Field property: Fixed length-- field's length is set to "fixed" to separate every field's data.

Delimiter-- field's length is separated by delimiter.

Lookup data can be uploaded: Lookup data can be uploaded to PC.

Action when the input has no match: Continue – The operation will be progressed to next input field without any halt or any message warning.

Offset: the start position for field data.

Length: the length of the field data.

Key field: find the matched data in the lookup file.

10.2. Download the Program Template file to the terminal

At the Main Setting Window (figure 36), select the “download” item then program item, the Download AP Template figure will be shown.

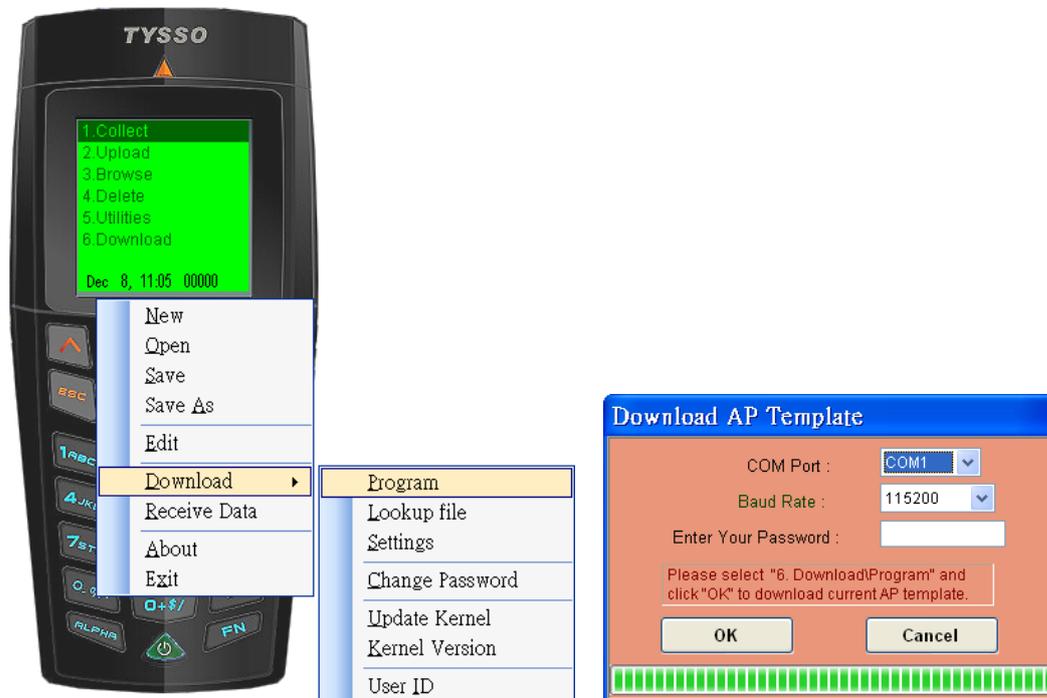


Figure 36

User has to select correct COM Port and proper Baud Rate, and enter information into blanks. **However, before click “OK” button, user has to double check if the terminal is at receiving file state and if the cable is connected firmly between the PC and the terminal.**

The route to get to the state of the terminal to receive the program template file is via main menu\download\ program\enter.

10.3. Download the Lookup file to the terminal

At the Main Setting Window, select the “download” item then Lookup file item, the Download Lookup file figure will be shown.

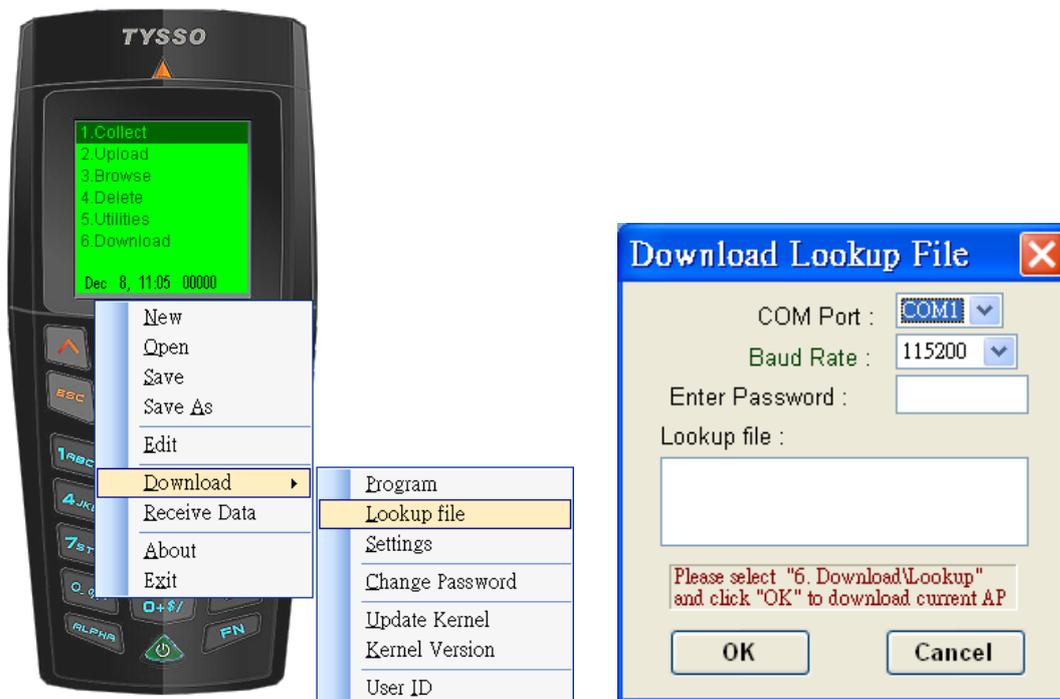


Figure 36

User has to select correct COM Port and proper Baud Rate and enter information into blanks. However, before click “OK” button, user has to double check if the terminal is at receiving file state and if the cable is connected firmly between the PC and the terminal.

The route to get to the state of the terminal to receive the lookup file is via main menu\download\ Lookup\enter.

10.4. Collecting Data

When finishes the program template files downloading, the terminal is already equipped with the user’s defined application, Tysso Inventory. The way to enable the Tysso Inventory application terminal is via the route of main menu\collect data\enter.

10.5. Uploading Data

Users will need to upload the collected data to PC when the data collection tasks are finished. At PC side, user has to run the Main Setting Window, figure 2, select the “Receive data” item and Receive Data figure will be shown.

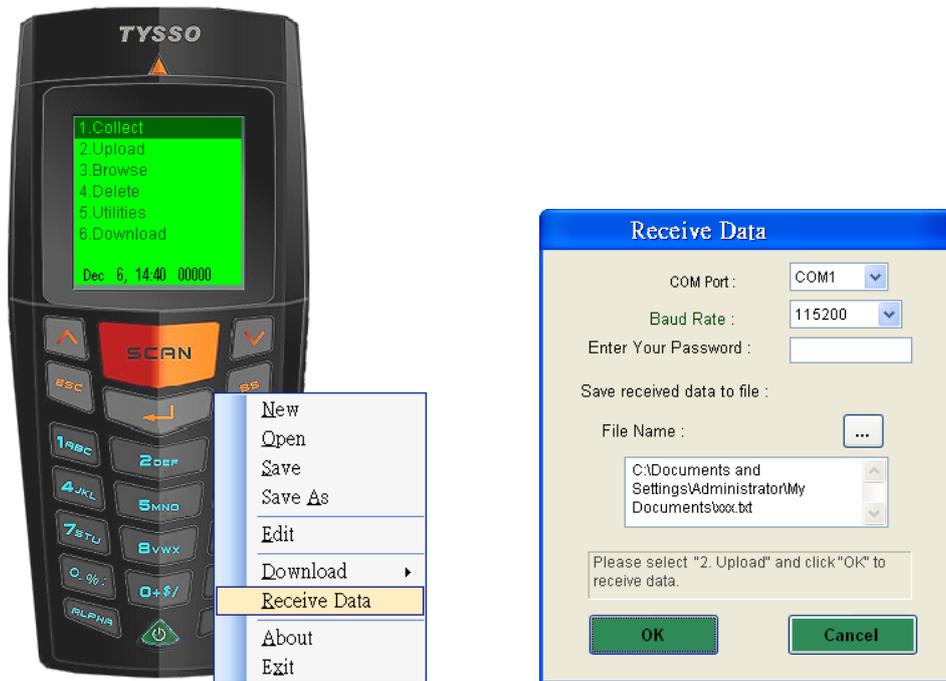


Figure 37

User has to select correct COM Port and proper Baud Rate and enter information into blanks. However, before click “OK” button, user has to double check if the terminal is at the status of uploading file state and if the cable is connected firmly between the PC and the terminal. The route to get to the state of the terminal to upload the data is via main menu\upload data\enter.

When finishes the uploading task, the following figure will be shown on the PC.

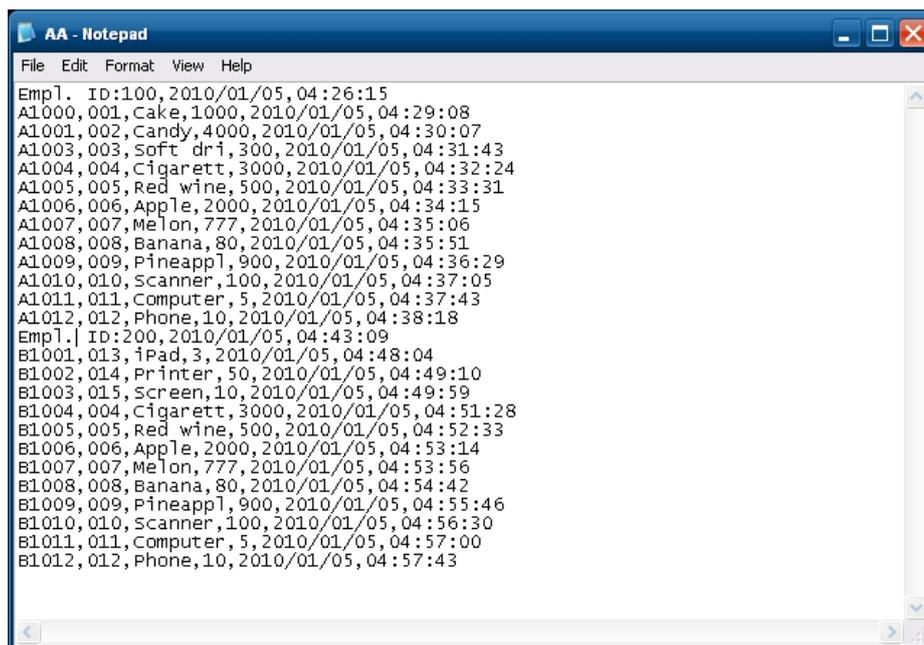


Figure 38