

# **IBM Modular POS Keyboard Windows Utility Guide**

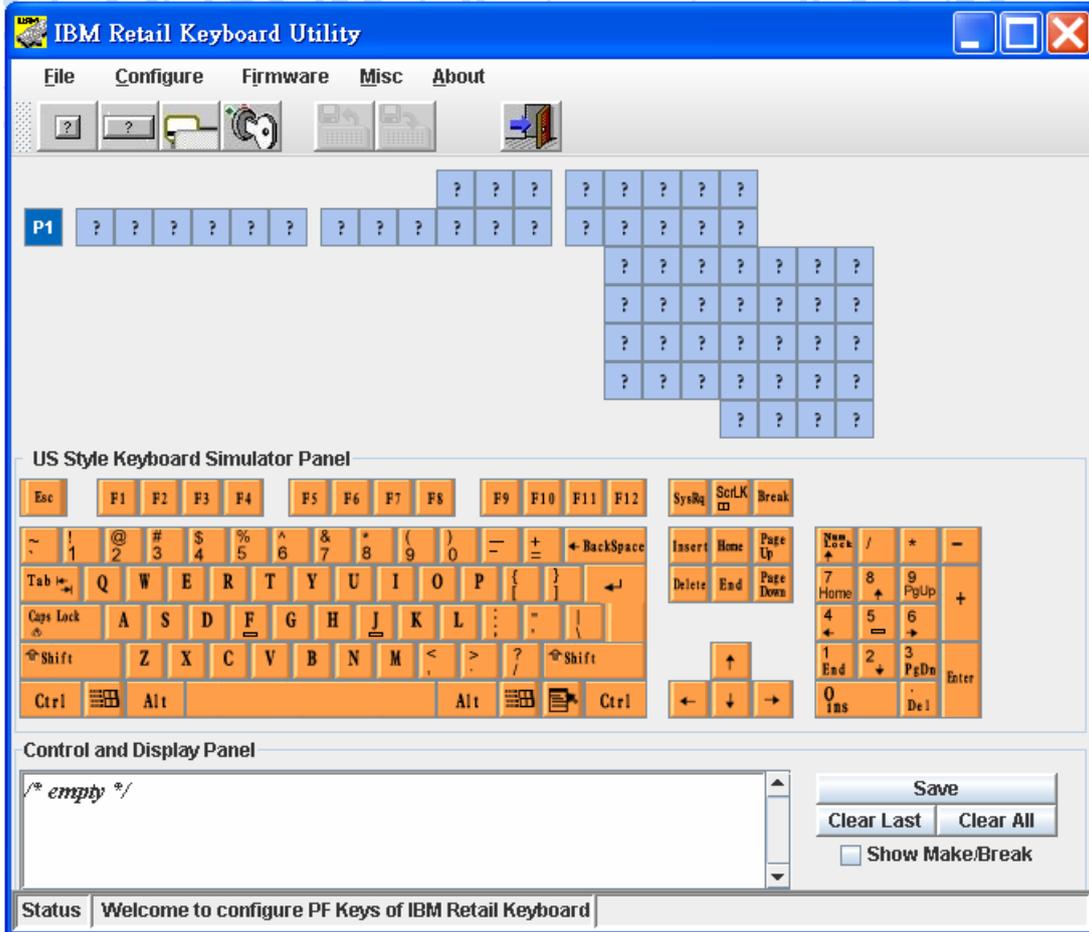
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**Version A04**

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# 1. Overview

This document provides the user guide for the IBM Retail Keyboard Windows Utility. This utility is mainly used to configure IBM Retail Keyboard, write configuration results to the keyboard, read configuration results from the keyboard, and update the keyboard firmware.



PIC\_01 IBM Retail Keyboard Windows Utility

## 2. Requirement

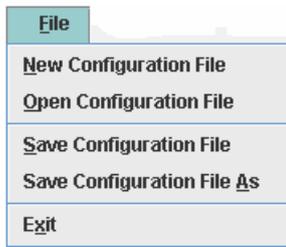
- One of the following IBM Retail Keyboards (67-Key, ANPOS II, Compact ANPOS II).
- IBM Retail Keyboard Windows Utility for Win 98, 2000, XP, VISTA 32bit and LINUX.
- USB or PS/2 Connector to connect PC and keyboard.

## 3. Function Operation Procedure

There are five main menus which are 'File', 'Configure', 'Firmware', 'Misc' and 'About' in this utility. Each function can be run in the menu item of the main menus. Below we will introduce all function operation procedure in the menu structure order.



## 3.1 File Menu:



This menu is used to process the Configuration File. Keyboard all configuration setting like Program PF Keys, Edit MSR Header and Trailer, Edit Keylock Header and Trailer can save as a Configuration File. You may open a Configuration File to the utility, and write configuration setting of the utility to the keyboard. You may read configuration setting from the keyboard to the utility, and save the configuration setting of the utility to a Configuration File. The read/write configuration setting will introduce in 3.3.2 and 3.3.3.

### 3.1.1 New Configuration File:

Create a new configuration setting for the utility, all PF keys and double keys setting will be cleared (each PF key is a non-grouped PF key and its content is empty), Keylock Header and Trailer setting and MSR Header and Trailer setting will set to default value.

If any configuration setting was changed and saved to utility, but not saved in a configuration file (xxx.pcf), it means current configuration setting will be lost if we run the New Configuration File. Utility will popup a message box 'Open configuration file will be overwritten' to remind user.

### 3.1.2 Open Configuration File:

Open a saved configuration file (xxx.pcf) to utility.

### 3.1.3 Save Configuration File:

Save utility configuration setting to a specified file name xxx.pcf file.

### 3.1.4 Save Configuration File As:

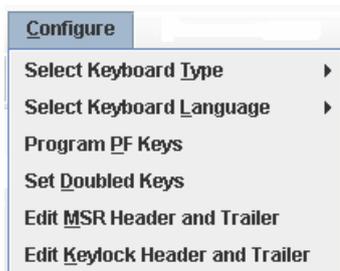
Save utility configuration setting to a new specified file name xxx.pcf file.

### 3.1.5 Exit:

Close the windows utility. You may also run it from the toolbar button.

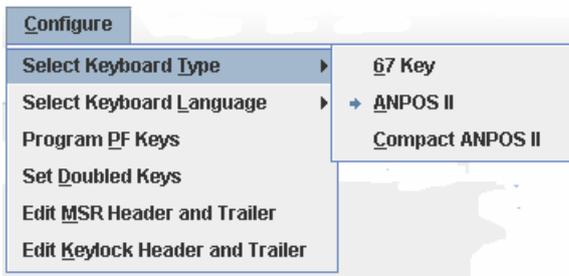


## 3.2 Configure Menu:



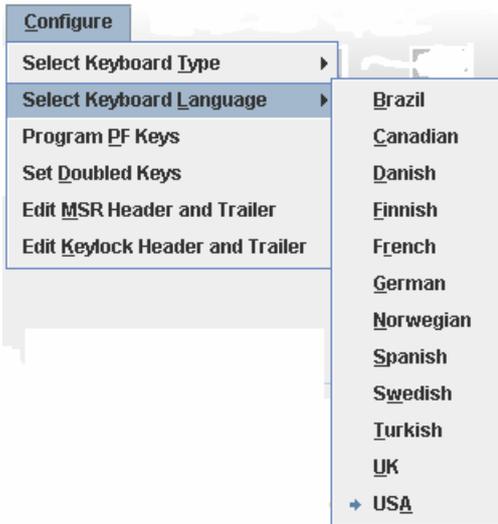
This menu is used to configure keyboard all configuration setting.

### 3.2.1 Select Keyboard Type:



Select one of the keyboard type (67 Key/ANPOS II/Compact ANPOS II), this will change the keyboard type of the PF-key panel (please refer to 3.2.3). The current selected keyboard type will add an arrow icon to it.

### 3.2.2 Select Keyboard Language:



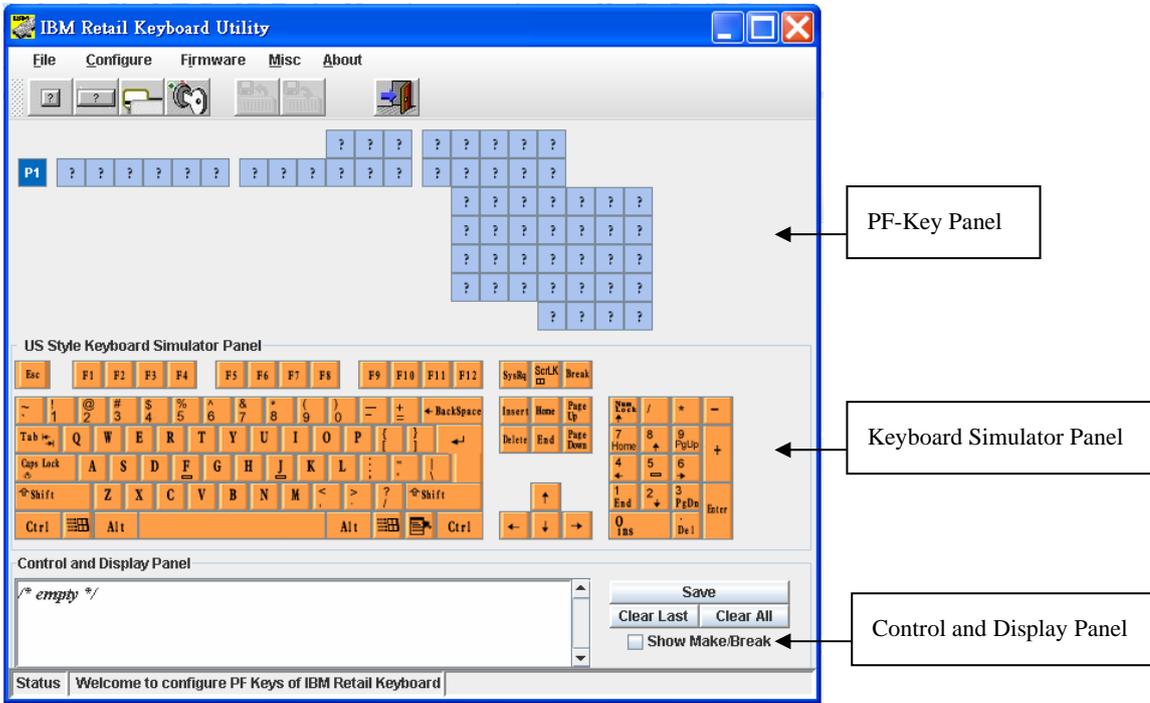
Select one of the keyboard language (Brazil/Canadian/Danish/Finnish/French/ German/ Norwegian/Spanish/Swedish/Turkish/UK/USA), this will change the keyboard language of the Keyboard simulator panel (please refer to 3.2.3). The current selected keyboard language will add an arrow icon to it.

### 3.2.3 Program PF Keys:

'Program PF keys' is used to program the Programmable Function Key content, each PF key can store maximum 16 keys. You may also run it from the toolbar button.



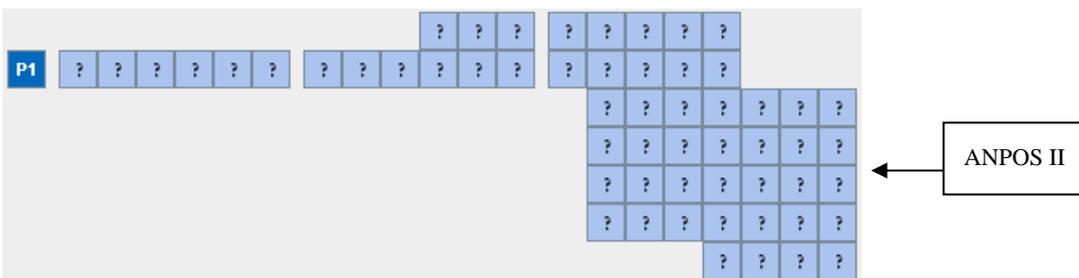
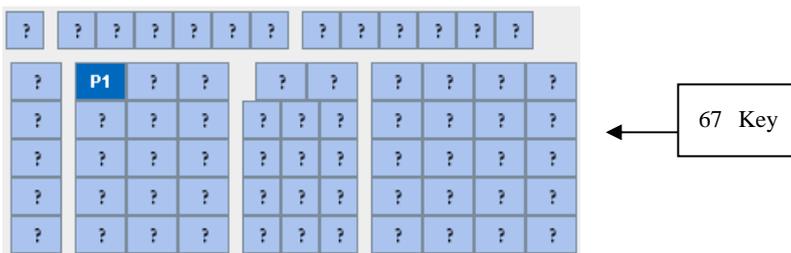
'Program PF keys' is set in Program PF Keys Panel, Program PF Keys Panel contains 3 sub-panels (PF-Key Panel, Keyboard Simulator Panel, and Control and Display Panel). Below is an example of the Program PF Keys Panel.



PIC\_02 Program PF Keys Panel

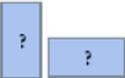
**PF-Key Panel:**

There are 3 keyboard types can be displayed in the PF-Key Panel, select the keyboard type (67 Key/ ANPOS II/CANPOS II) from menu 'Configure→Select Keyboard Type'. Please see below picture:



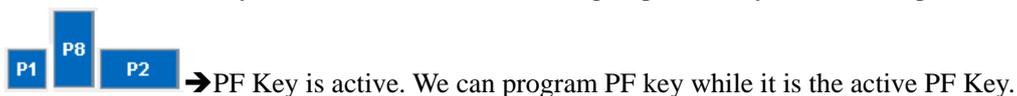
We use different icons to indicate PF key status. Each PF key uses a PF key number to indicate it (from P1 to Pn). You can see the PF key number only when PF key is active or PF key content is defined. If two single PF keys are grouped to a grouped PF key, we use the left or top PF key number to indicate this grouped PF key. Please see below examples:

 → PF Key content is undefined, and it is a single PF key.

 → PF Key content is undefined, and it is a grouped PF key.

 → PF-Key content is defined, and it is a single PF key.

 PF Key content is defined, and it is a grouped PF key. (P8 is the top of P8/P14, P2 is the left of P2/P3)

 PF Key is active. We can program PF key while it is the active PF Key.

Press mouse left button to a PF key in the PF-Key Panel, this PF key will become active PF Key.

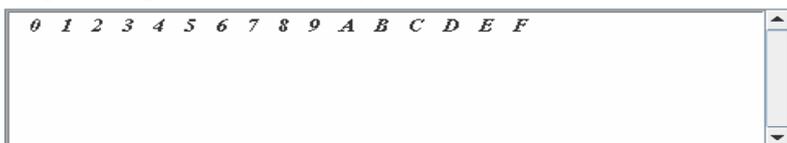
The doubled keys (grouped key) setup is to let two adjacent PF keys (vertical or horizontal) to be a grouped PF key, please refer to 3.2.4.

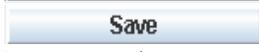
### Keyboard Simulator Panel:

There are 12 language simulator keyboard can be displayed in Keyboard Simulator Panel. Select a simulator keyboard from menu 'Configure→Select Keyboard Language'. You can use this simulator keyboard or external keyboard to program PF key.

### Control and Display Panel:

This panel will display the programming result for a PF key. Each PF key can store maximum 16 keys. You may input PF key content by simulated keyboard or external keyboard. If you use the external keyboard to input PF key content but it doesn't work, please press mouse left button to the programmed PF key or Control and Display Panel to get the input focus, then you can input by external keyboard. When you finished a PF key programming, you must press 'Save' button to save programming result to the utility.



-  → Save programming result to utility.
-  → Remove last input key in Control and Display Panel.
-  → Remove all input keys in Control and Display Panel.
-  → To decide if we want to display Make/ Break code information in Control and Display Panel. Press a key will generate key Make Code. Release a key will generate key Break code. We can display Make/Break code information by check the check box 'Show Make/Break'. EX: If we program a PF key as 'Left Shift Make + A Make + A Break + Left Shift Break', it will display as '*Left\_Shift A ^A ^Left\_Shift*' in the Control and Display Panel if the check box is checked.

Now we have enough information to program a PF key, we list an operation procedure example as below:

1. Select a keyboard type by menu 'Configure→Select Keyboard Type'.
2. Select a simulator keyboard by menu 'Configure→Select Keyboard Language'.
3. Setting doubled keys in the Double-Key Definition Panel (please refer to 3.2.4).
4. Toggle to Program PF Keys Panel.
5. Press mouse left button on a PF key, this PF key will become active PF Key. Only the active PF Key can be programmed.
6. Input PF key content by simulator keyboard or from external keyboard. The input content will display in Control and Display Panel.
7. Press 'Save' button to save this PF key programming result.

### 3.2.4 Set Doubled Keys:

'Set Doubled Keys' is used to program 2 adjacent PF keys to a grouped PF key or de-group a grouped PF key to 2 PF keys. Once 2 PF keys program to a grouped PF key, press this 2 PF keys simultaneously will treat as press a single PF key. You may also run it from the toolbar button.



'Set Doubled Keys' is set in the Double-Key Definition Panel. The Double-Key Definition Panel contains PF-Key Panel and Group Key Setting Button.

**PF-Key Panel:**

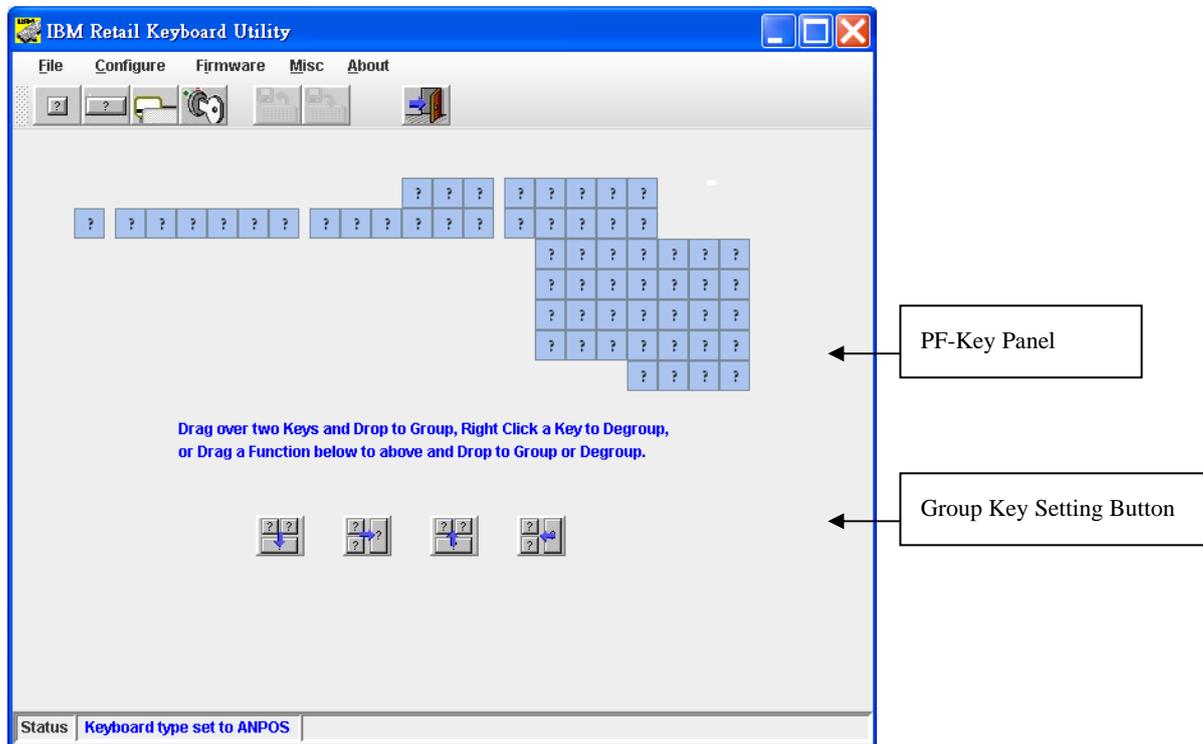
Display one of the keyboard types (67 Key/ANPOS II/CANPOS II). You will program the grouped key in this panel.

**Group Key Setting Button:**

 : Create horizontal grouped key button.  : Create vertical grouped key button.

 : Remove horizontal grouped key button.  : Remove vertical grouped key button.

Below is an example of the Double-Key Definition Panel.

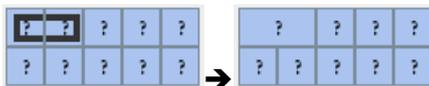


PIC\_03 Double-Key Definition Panel

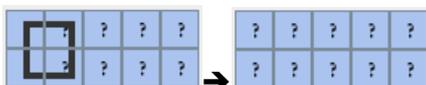
We have two methods to program 2 adjacent PF keys to a grouped PF key or de-group a grouped PF key to two PF keys. Not all adjacent PF keys can be grouped. Only in same size, same block and un-grouped PF keys can be grouped.

**Method1:** Press a PF key in the PF-Key Panel. Drag over two keys and drop to group two keys. Right click of the mouse to a grouped key to de-group. Please see below examples.

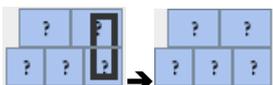
Ex1: (Group 2 PF keys)



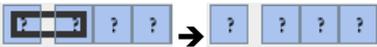
Ex2: (Cannot group 4 PF keys)



Ex3: (Cannot group 2 PF keys in different size)



Ex4: (Cannot group 2 PF keys in different block)

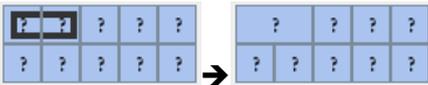


Ex5: (Right click to a grouped PF key to de-group)

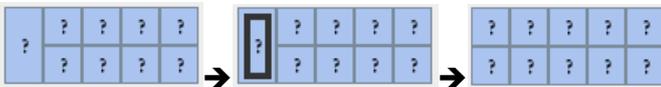


**Method2:** Press a Group Key Setting Button, Drag it to the PF-Key Panel, and drop it in proper PF keys to make a grouped PF key or remove a grouped PF key. Please see below examples.

Ex1: make horizontal grouped PF key (  ).



Ex2: remove vertical grouped PF key (  ).

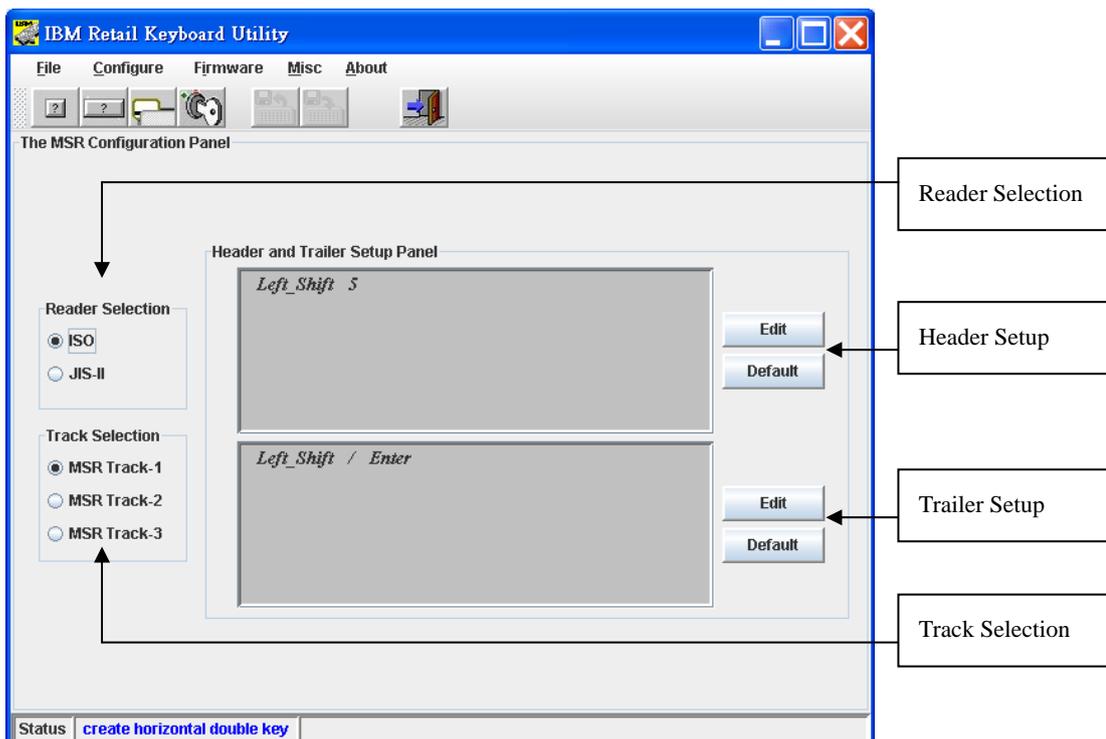


### 3.2.5 Edit MSR Header and Trailer:

'Edit MSR Header and Trailer' is used to edit MSR each Track Header and Trailer. Each Track Header and Trailer can store maximum 16 keys. You may also run it from the toolbar button.



'Edit MSR Header and Trailer' is set in the MSR Configuration Panel. When we enter the MSR Configuration Panel for the first time, the default reader type is ISO, default Track is Track1, and the Header and Trailer Setup Panel will display default Header: (%), and Trailer (? Enter) for Track1.

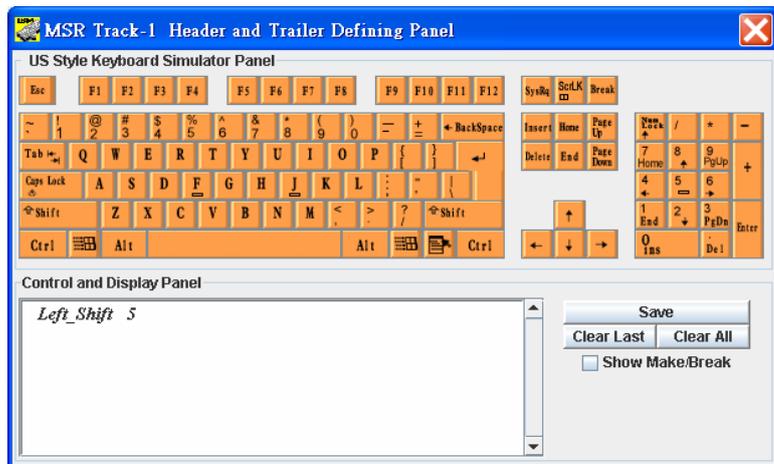


PIC\_04 MSR Configuration Panel

Select a reader type from Reader Selection. If you select reader type to JIS-II, the MSR Track-3 of the Track Selection

will gray out (disabled) since JIS-II only have two Tracks (Track1, Track2). Once you select a new reader type, each Tracks Header/Trailer setting will change to its default Header/Trailer for this reader type.

Select a Track from Track Selection. Press Edit button to enter ‘MSR Track Header and Trailer Defining Panel’ to edit Header/Trailer for the selected Track. Press Default button to load default Header/Trailer value for the selected Track. Below is the ‘Track Header and Trailer Defining Panel’:



Below we list all Track default Header/ Trailer for ISO and JIS-II Reader.

**ISO Reader**

- Track-1 Header default: %
- Track-2 Header default: ;
- Track-3 Header default: :
- Track 1/2/3 Trailer default: ? Enter

**JIS-II Reader**

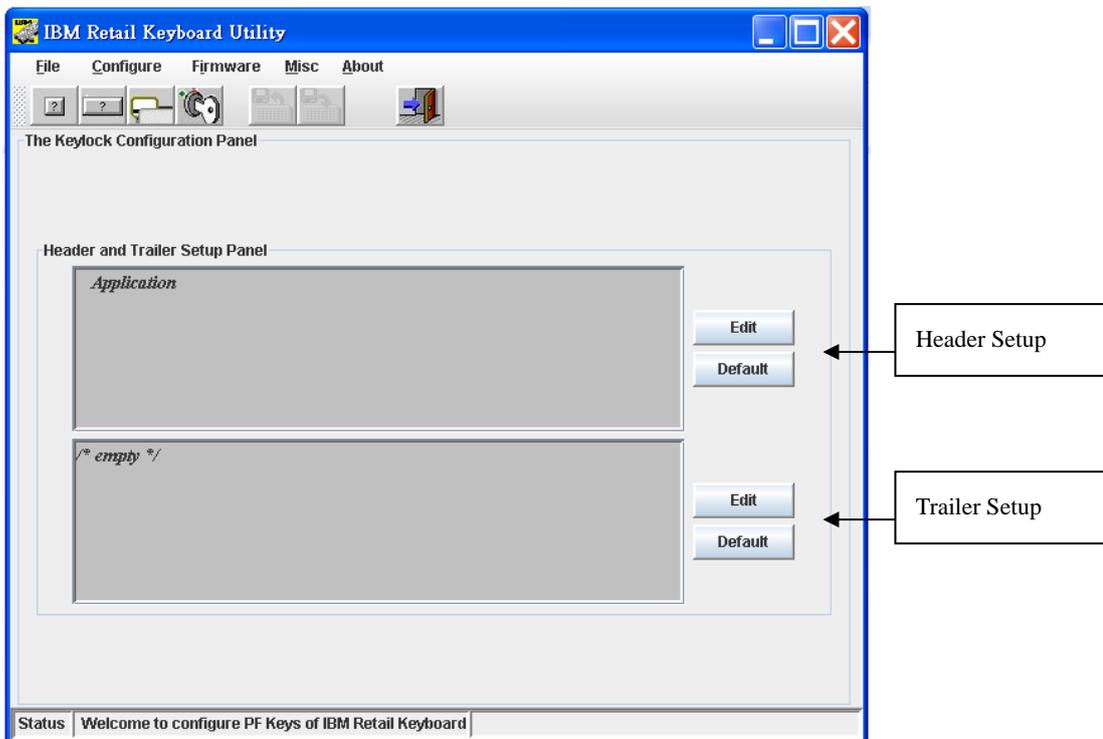
- Track-1 Header default: %
- Track-2 Header default: ;
- Track 1/2 Trailer default: ? Enter

**3.2.6 Edit Keylock Header and Trailer:**

‘Edit Keylock Header and Trailer’ is used to edit the Keylock Header and Trailer. The Keylock Header and Trailer can store maximum 16 keys. You may also run it from the toolbar button.

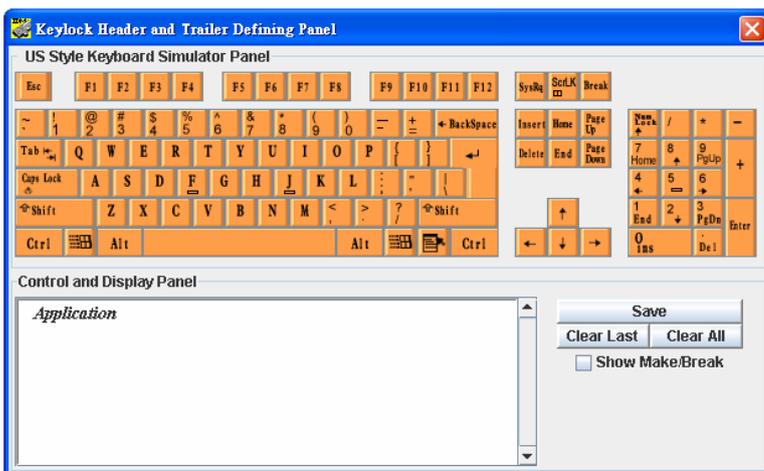


‘Edit Keylock Header and Trailer’ is set in the Keylock Configuration Panel. When we enter the Keylock Configuration Panel for the first time, the Header and Trailer Setup Panel will display default Header (Application), and Trailer (/ \* empty \*/) for Keylock. Please see below picture:



PIC\_05 Keylock Configuration Panel

Press Edit button to enter 'Keylock Header and Trailer Defining Panel' to edit Header/Trailer for Keylock. Press Default button to load default Header/Trailer value for the Keylock. Below is the 'Keylock Header and Trailer Defining Panel':



Below we list the Keylock default Header/ Trailer.

Header default: Application

Trailer default: /\* empty \*/

### 3.3 Firmware Menu:



This menu is used to communicate between Windows Utility and IBM Retail Keyboard.

#### 3.3.1 Refresh Connection Status:

'Refresh Connection Status' is used to check the IBM Retail Keyboard connection status. When we need to run 'Read Configuration from the Keyboard', 'Write Configuration to the Keyboard', and 'Update Keyboard Firmware' functions, we

need to make sure the IBM Retail Keyboard is connected. We use the 'Refresh Connection Status' to check keyboard connection status.

When the utility opens, it will auto run the 'Refresh Connection Status' once, or you can run it from menu 'Firmware→ Refresh Connection Status'.

If the 'Refresh Connection Status' detects keyboard is connected, it will show a message box to indicate the keyboard type (CANPOS/ANPOS/67-Key), firmware version information, and enable the gray out 'Read Configuration from the Keyboard', 'Write Configuration to the Keyboard', and 'Update Keyboard Firmware' menu items; Otherwise, it will show a message box to indicate keyboard was not found. Please see below picture:



PIC\_06 Keyboard detected or not detected message

### 3.3.2 Read Configuration from the Keyboard:

'Read Configuration from the Keyboard' is used to read IBM Retail Keyboard configuration setting to the utility. If this item is disabled, please run 'Refresh Connection Status' first. You may also run it from the toolbar button.



If we want to make slight modification for the IBM Retail Keyboard, we can run 'Read Configuration from the Keyboard', make slight modification for the configuration setting, and write configuration results to the IBM Retail Keyboard.

### 3.3.3 Write Configuration to the Keyboard:

'Write Configuration to the Keyboard' is used to write utility configuration setting to the IBM Retail Keyboard. If this item is disabled, please run 'Refresh Connection Status' first. You may also run it from the toolbar button.



### 3.3.4 Update Keyboard Firmware:

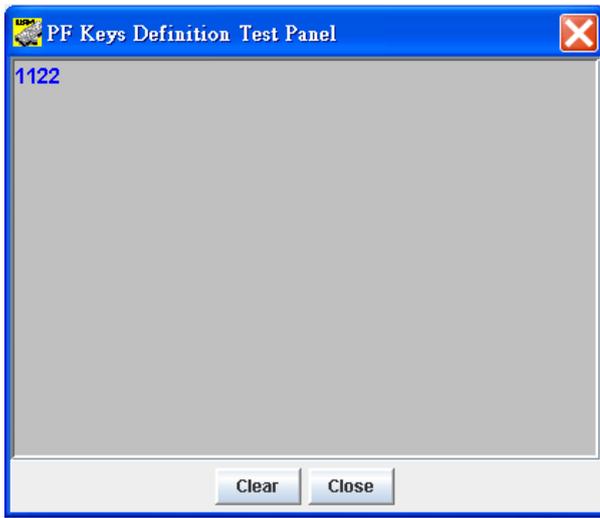
'Update Keyboard Firmware' is used to renew the IBM Retail Keyboard firmware (\*.dat). If this item is disabled, please run 'Refresh Connection Status' first.

## 3.4 Misc Menu:



### 3.4.1 Test PF Keys:

'Test PF Keys' is used to test programmed PF key content is correct or not. You can program the PF key as we described before, write PF key programmed result to the IBM Retail Keyboard, then run the 'Test PF Keys', it will open a PF Keys Definition Test Panel. Press the programmed PF key of the IBM Retail Keyboard in this test panel, you can check the programmed PF key content is correct or not. Please see below picture:



PIC\_07 PF Keys Definition Test Panel

### 3.5 About Menu:



#### 3.5.1 About the Configuration Utility:

'About the Configuration Utility' is used to show the utility version information. Please see below picture:



PIC\_07 About the Configuration Utility

## 4. Miscellaneous

### 4.1 Preference Setting:

We will provide an internal .ini file to save the preference setting information. Current preference setting will keep keyboard language and keyboard type information. We will save the keyboard language and keyboard type to the .ini file when utility is exited normally. And next time we start the utility, utility will use the preference setting to display the keyboard language and keyboard type.

The first time we run the utility, the internal .ini is not exist, utility will use matched OS language as keyboard language and use ANPOS II keyboard as keyboard type.