



Fujitsu Transaction Solutions Inc.



Fujitsu 32-key Keypad Mapping Utility

Operating Instructions

December 12, 2001

Table of Contents

1	Package Name	3
2	Contents of the Package	3
2.1	Windows based executable, 32-key Keypad Mapping Utility.....	3
2.2	A dynamic linked shared library file.....	3
2.3	An Initialization File.....	3
2.4	A Default (qwerty type keyboard) Keycode and Process File.....	3
2.5	Five default keytable layout files	4
2.5.1	Keypad32A.dat.....	4
2.5.2	Keypad32B.dat.....	5
2.5.3	Keypad32C.dat.....	6
2.5.4	Keypad32D.dat.....	7
2.5.5	Keypad32G.dat	8
2.6	One Read-Me Instruction File.....	8
3	What can this Utility do?	9
4	How to update a Keypad .DAT file	9
5	How to Create a KeyTable file	12
6	How to Print Key Map Image	12
7	How to Print Keypad Value.....	12
8	How to display default layout of a Keypad.....	12
9	How to flash a keymap to Keypad Memory	13
10	Advanced Features	14

List of Figures

Figure 1 - Keypad32A.DAT	4
Figure 2 - Keypad32B.DAT	5
Figure 3 - Keypad32C.DAT.....	6
Figure 4 - Keypad32D.DAT.....	7
Figure 5 - Keypad32G.DAT	8

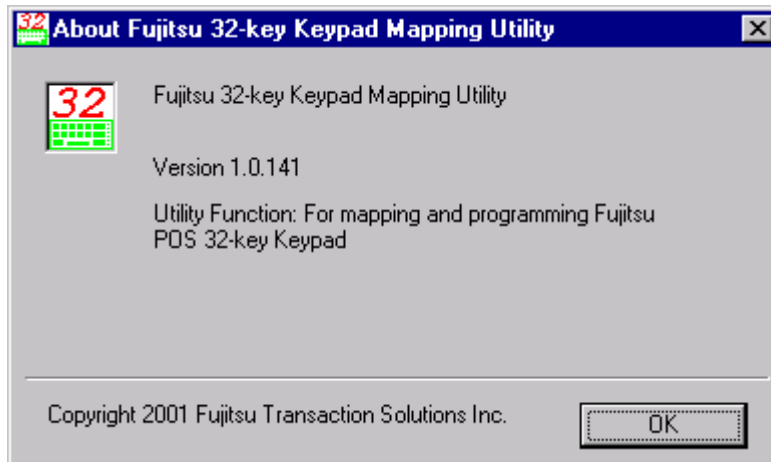
1 Package Name

Fujitsu 32-Key Keypad Mapping Utility

2 Contents of the Package

2.1 *Windows based executable, 32-key Keypad Mapping Utility*

Map32KeyPad.exe



2.2 *A dynamic linked shared library file*

LowLevelCall.dll

2.3 *An Initialization File*

Map32KeyPad.ini

2.4 *A Default (qwerty type keyboard) Keycode and Process File*

qwerty.eng

2.5 Five default keytable layout files

2.5.1 Keypad32A.dat

The layout of this file is as follows:

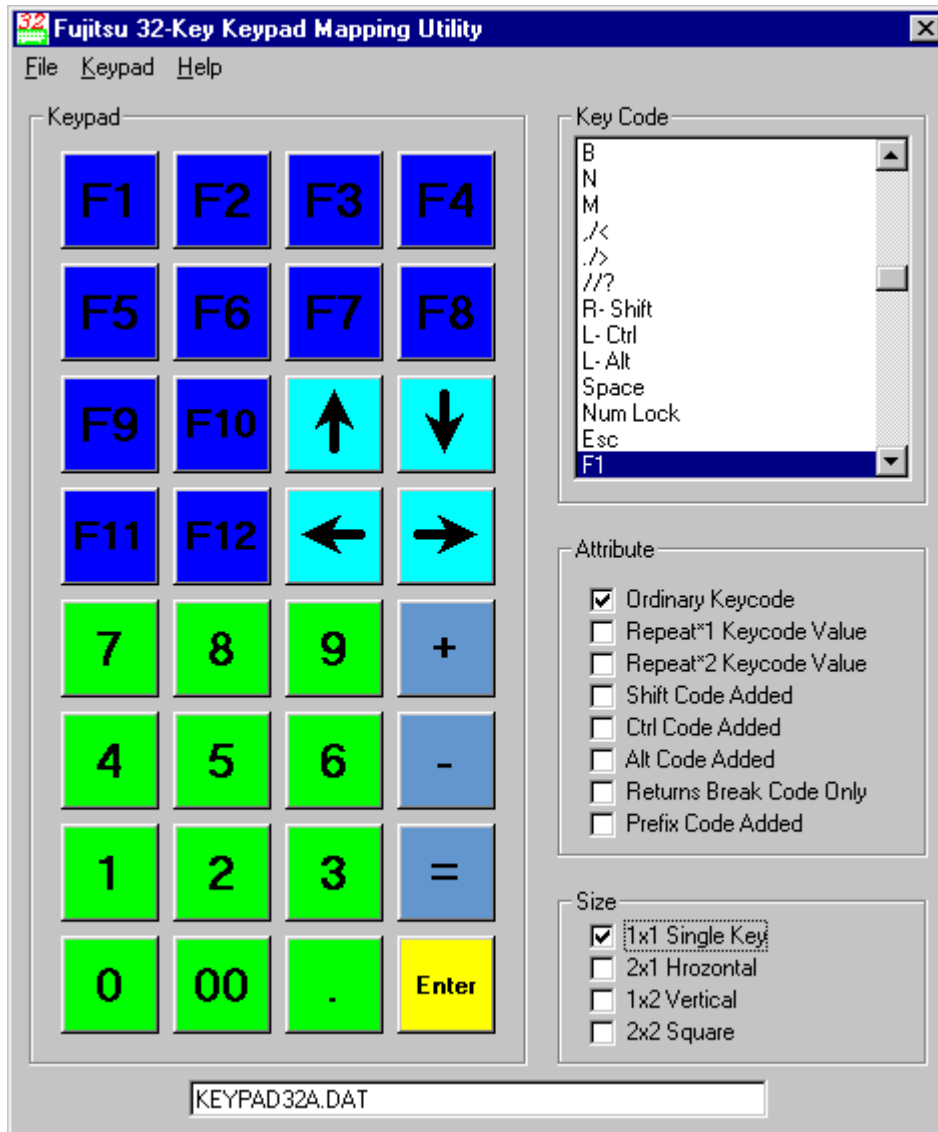


Figure 1 - Keypad32A.DAT

2.5.2 Keypad32B.dat

The layout of this file is as follows:

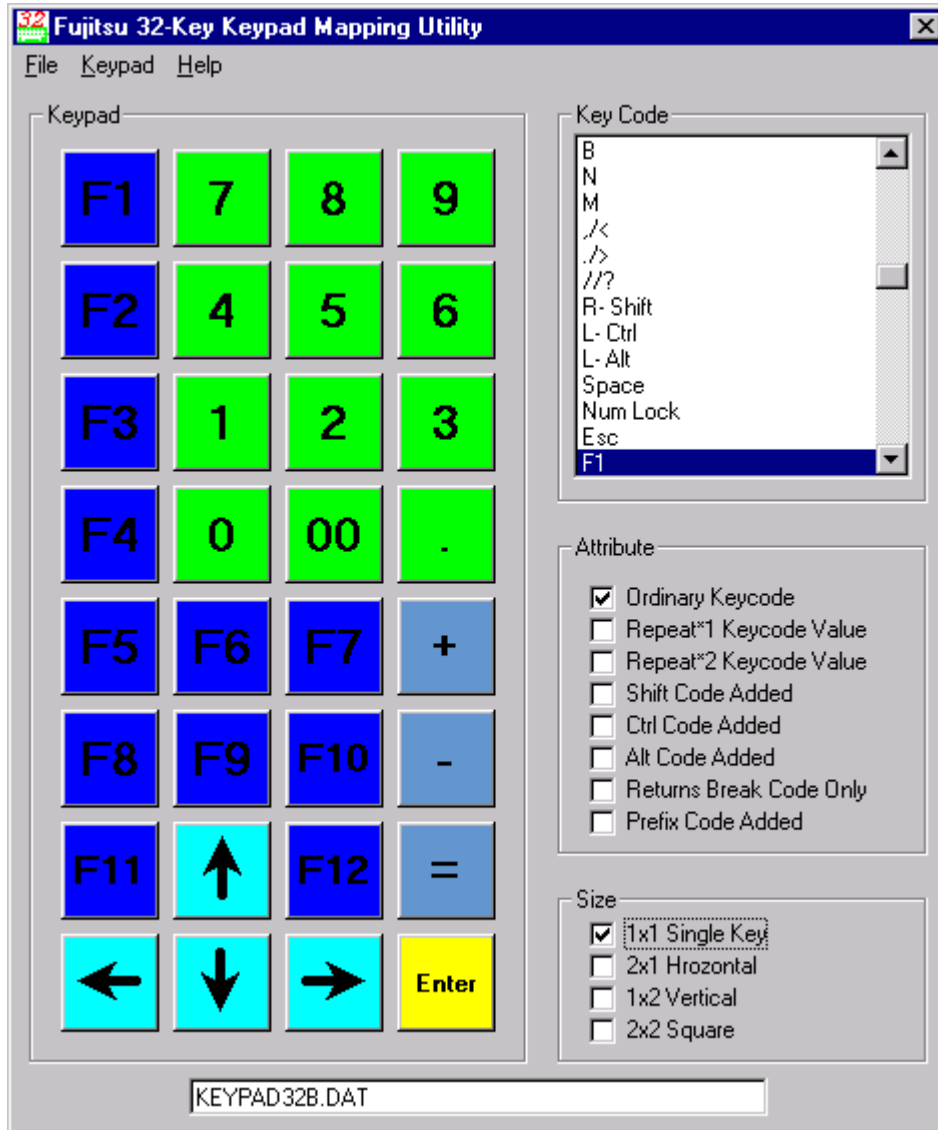


Figure 2 - Keypad32B.DAT

2.5.3 Keypad32C.dat

The layout of this file is as follows:

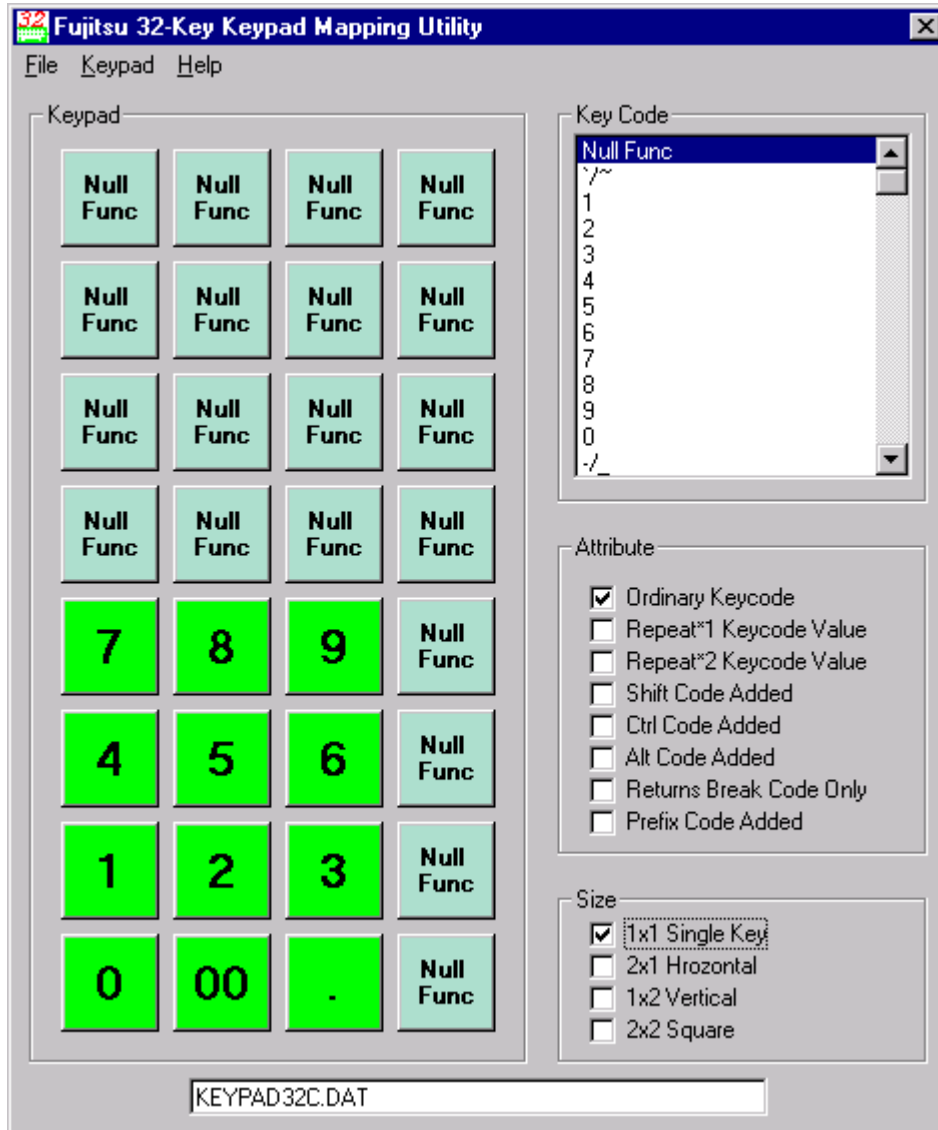


Figure 3 - Keypad32C.DAT

2.5.4 Keypad32D.dat

The layout of this file is as follows:

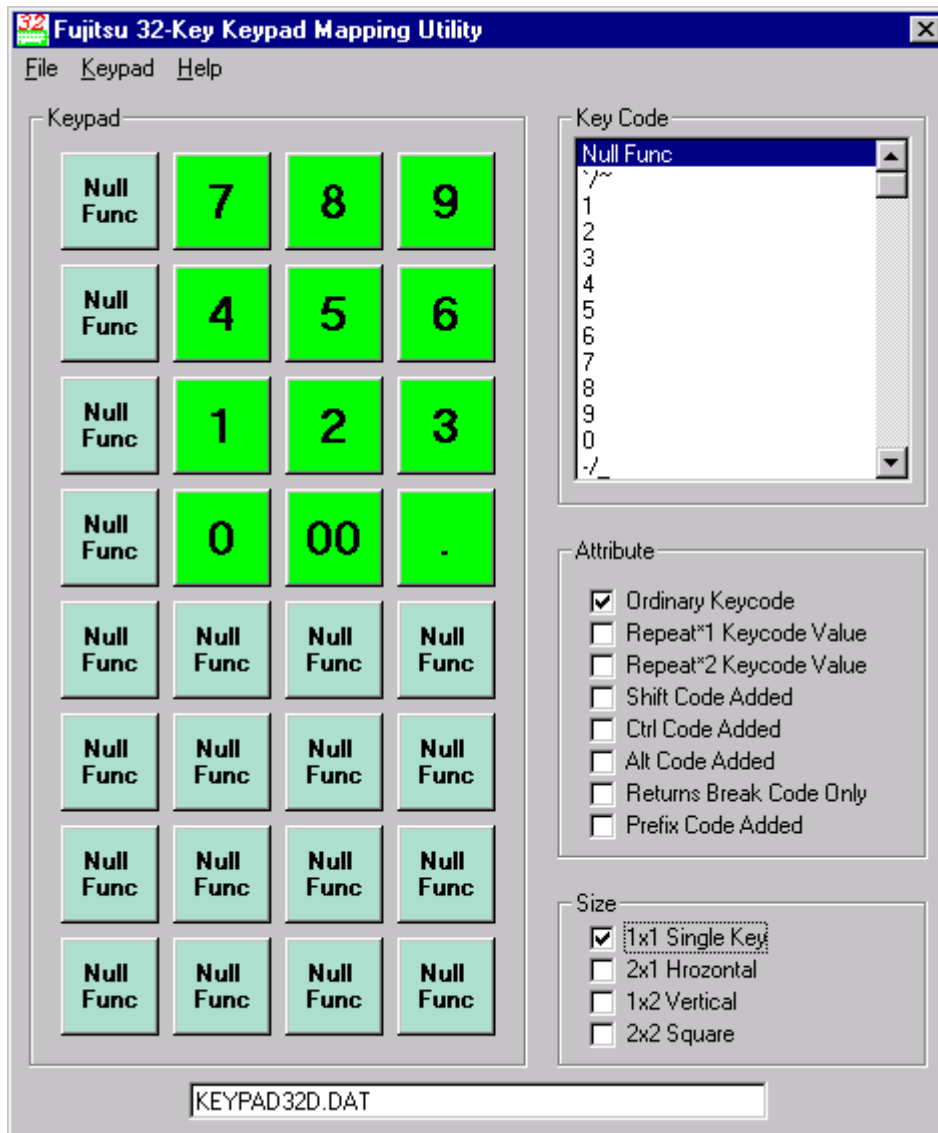


Figure 4 - Keypad32D.DAT

2.5.5 Keypad32G.dat

The layout of this file is as follows:

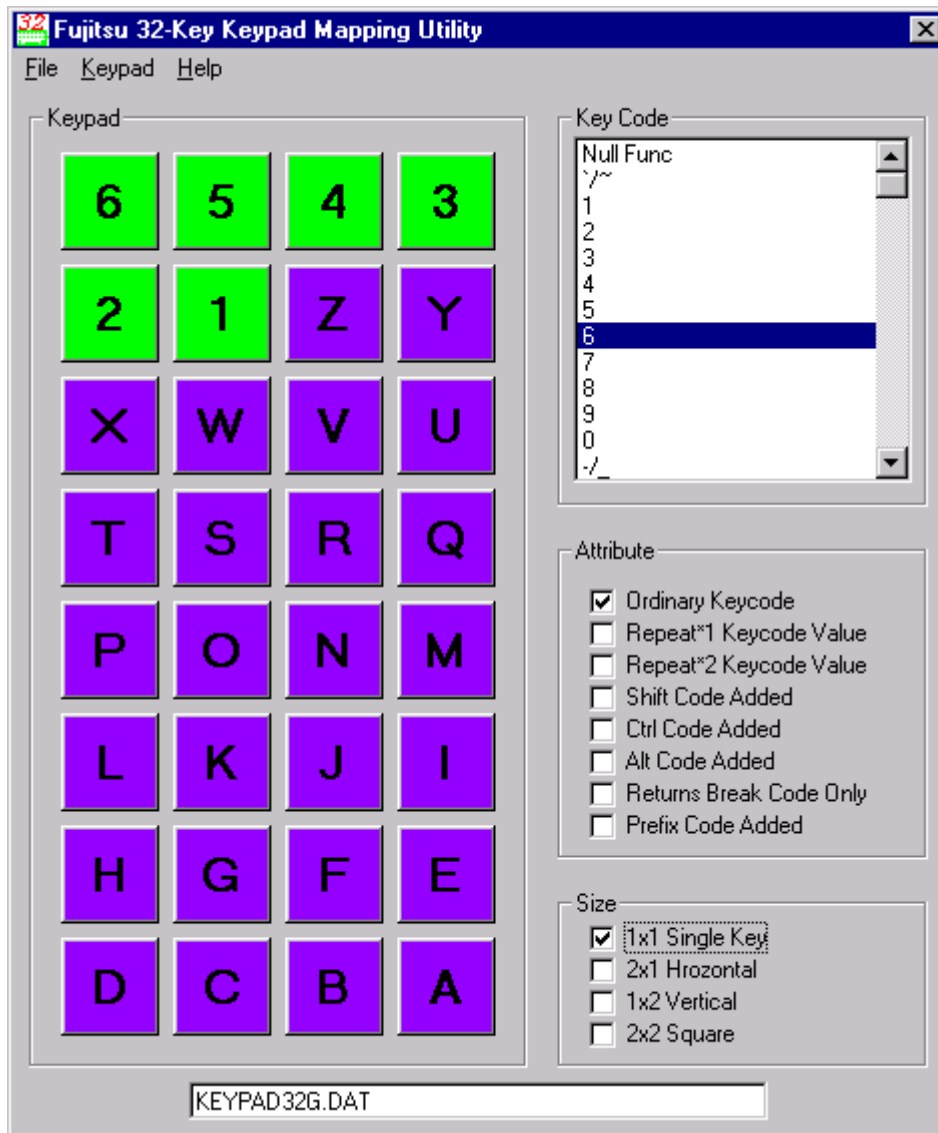


Figure 5 - Keypad32G.DAT

2.6 One Read-Me Instruction File

This file

3 What can this Utility do?

It can **Open** an existing Keypable file, e.g., Keypad32A.dat.

It can **Assign** and define new key caption, key attribute, and key size to all keys.

It can **Save** or **Save As** an updated Keypable file.

It can **Create** a keytable file. This prints out the sequence of key values (key code and attribute) in the currently loaded Keypad layout.

It can **Print** a Key Map Image. Print the image picture of the current Keypad.

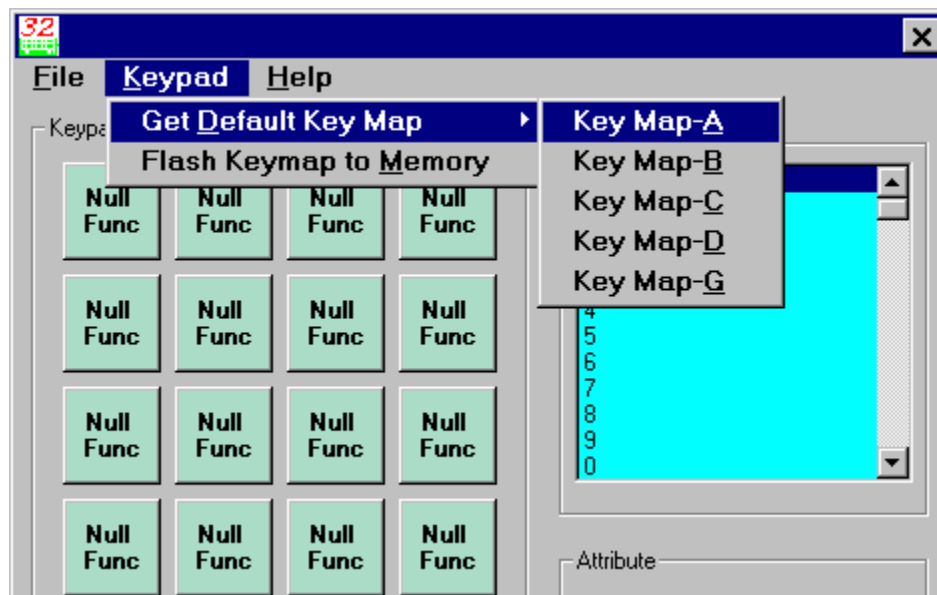
It can **Print Keypad Value**. Print a table of Keypad value in the order, bottom to top, (A1 to H4), values printed include: location ID, Scanning Address, Key Code, Attribute, Size, Key Top (Caption).

It can **Display** five default Keypad layouts.

It can **Flash** currently loaded Keypad layout into the keyboard memory.

4 How to update a Keypad .DAT file

- a) Open a Keypad .DAT file, e.g., Keypad32A.dat
click **File** -> **Open** -> and select a Keypad file from the file list, or
click **File** -> **New** to start from an un-assigned Keypad, or
click **Keypad** -> **Get Default Key Map** and select one of the default layouts



Instructions On How To Use the Fujitsu 32-key Keypad Mapping Utility

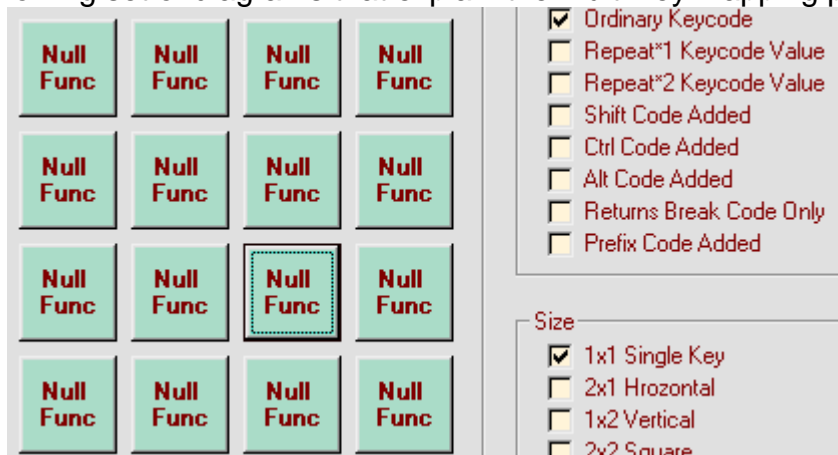
- b) Assign a Key Code Value
click any key on the Keypad
select a Key Code from the text box, use the scroll bar to view the key code list
- c) Assign Key Attribute(s)
select Attribute by clicking check box(es), there are eight check boxes available:

Attribute Value	Meaning
Ordinary Keycode	Generates keystroke values recognized by Windows, Linux, DOS, etc., operating systems.
Repeat*1 Keycode Value	Key value is repeated. e.g., if '0' is selected, then '00' is input when the key is depressed.
Repeat*2 Keycode Value	Key value is repeated twice. e.g., if '0' is selected, then '000' is input when the key is depressed. NOTE: If both "Repeat*1 Keycode Value" and "Repeat*2 Keycode Value" are checked, then if '0' is selected, then '0000' is input when the key is depressed.
Shift Code Added	The "shift" attribute is input along with the key value.
Ctrl Code Added	The "Ctrl" attribute is input along with the key value.
Alt Code Added	The "Alt" attribute is input along with the key value.
Returns Break Code Only	No "Make" code is generated. Values will not be recognized by Windows, Linux, DOS, etc., operating systems. Used in conjunction with the "Prefix Code Added" attribute to generate POS keys processed by FJ OPOS/JavaPOS Services.
Prefix Code Added	See "Returns Break Code Only" above.

Within these options, Ordinary Keycode is mutually exclusive with all others and it will be automatically checked if all others are unchecked.

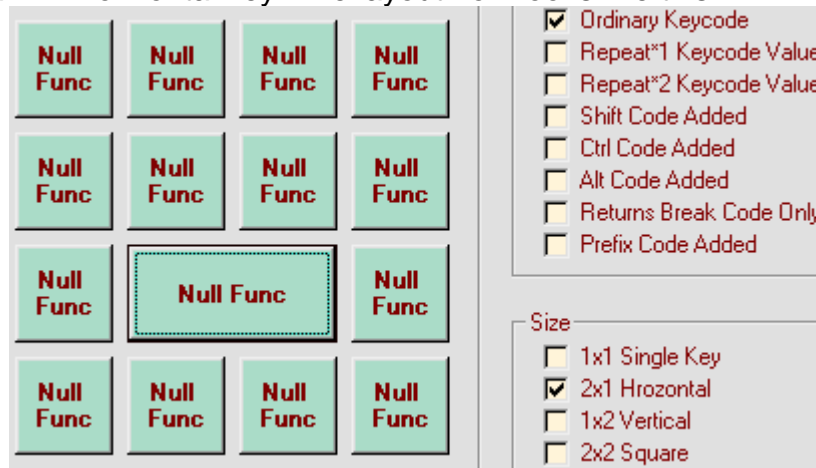
- d) Select desired Key Size, by clicking a check box for 1x1 Single Key, 2x1 Horizontal Key, 1x2 Vertical Key, or 2x2 Square Key.

To enlarge a key, all included single keys' key codes must be set to "Null Func". The selected key should be in the bottom right-hand corner position of the desired multi-key. See the following set of diagrams that explain the multi-key mapping process.

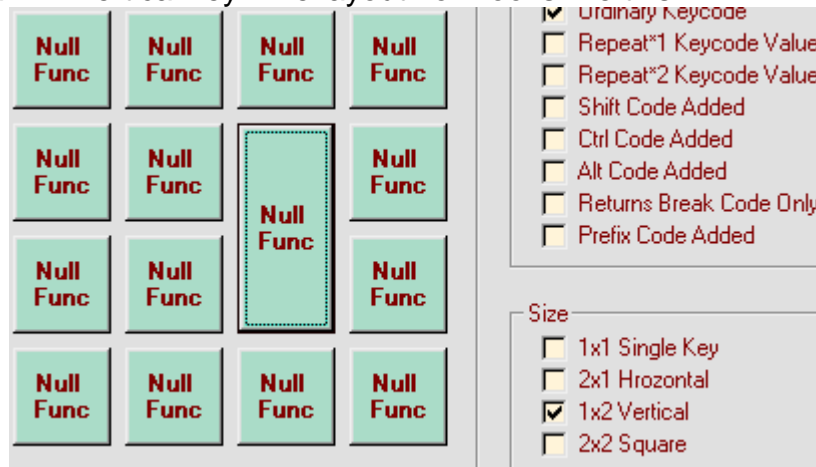


Instructions On How To Use the Fujitsu 32-key Keypad Mapping Utility

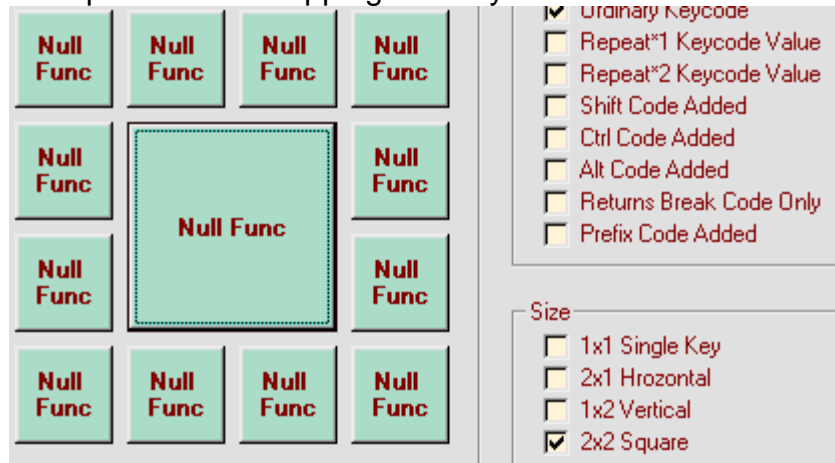
Now map a 2x1 Horizontal key. The layout now looks like this.



Now map a 1x2 Vertical key. The layout now looks like this.



Finally, an example of a 2x2 mapping. The layout now looks like this.



- e) Click **File** -> **Save** or **Save As** to save the current working Keypad to a file. The file name extension is .DAT.

5 How to Create a KeyTable file

- a) Click **File -> Create Key Table File** -> type in a file name. The default extension is .TBL.
- b) A Keytable file stores the Key Code and Attributes of each key in the order of Keypad memory 0x8000 to 0x809f.

6 How to Print Key Map Image

- a) Click **File -> Print Key Map Image -> OK**
- b) Print Key Map Image prints the current working Keypad image.

7 How to Print Keypad Value

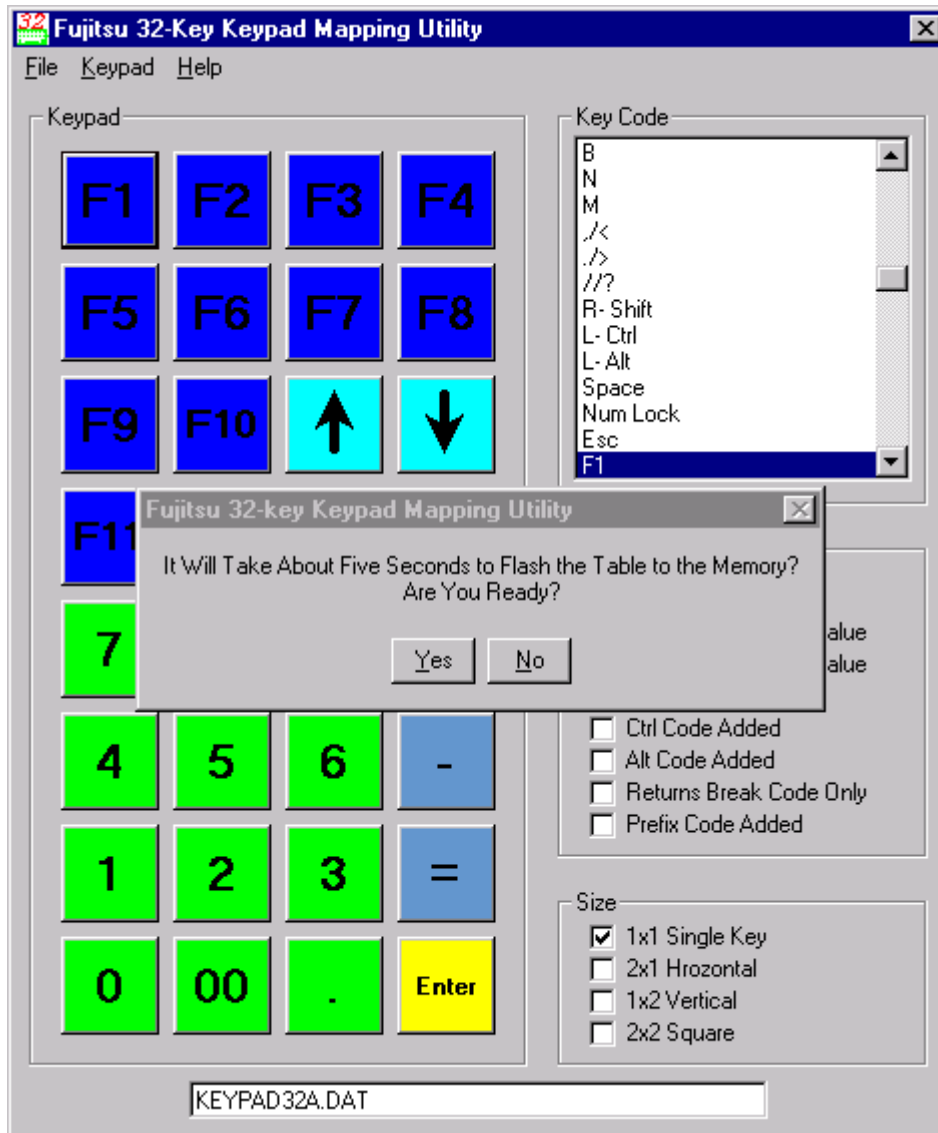
- a) Click **File -> Print Keypad Value -> Yes** on "Are You Ready To Print The Current Keypad Values" dialogue prompt.
- b) The output is printed in the order of the bottom left-hand corner key (A01) to the bottom right-hand corner key (A13), and bottom to top row by row from (A01) to (A13) to (H01) to (H13) in Cartesian position.
- c) The output includes Cartesian position, scan address, key code, attribute(s), key size, and key top (caption) of all keys.

8 How to display default layout of a Keypad

- a) Click **Keypad -> Get Default Key Map** -> select one of the five default Keypad layouts (A, B, C, D, G).

9 How to flash a keymap to Keypad Memory

- a) Click **Keypad -> Flash Keymap to Memory**, a message box prompts "It Will Take About Five Seconds to Flash the Table to the Memory. Are You Ready?", click OK to continue the process, click No to abort the option.



- b) While the utility is flashing the layout to the Keypad memory, the mouse and keyboard will be halted.

Please refrain from doing any other functions on the computer during this process !!!

- c) Once the process is completed, click OK to the prompted message box.

10 Advanced Features

The mapping utility provides two features which allow users to select background color and use a graphic icon for a key. There are four icons used in the default Keypad, Up-Arrow, Down-Arrow, Left-Arrow, and Right-Arrow. The caption of these keys are graphical, all others keys are represented in text mode.

The qwerty.eng defines all key values. Each fixed-length record represents a key which contains the following, using the Left Arrow key as an example:

	<u>Field Name</u>	<u>Length</u>	<u>Example Data</u>
1.	Scanning Address	(2-byte),	08
2.	KeyCode	(2-byte),	5D
3.	Work Field	(5-byte),	00000
4.	Cartesian Location	(3-byte),	A02
5.	Key Caption	(15-byte),	Left Arrow
6.	Icon File Name	(12-byte),	arwlt.ico
7.	Red Color Weight	(3-byte),	000
8.	Green Color Weight	(3-byte),	255
9.	Blue Color Weight	(3-byte),	255
10.	Delimiter character	(1-byte),	
11.	Carriage Return/Line Feed	(2-byte)	0x0d, 0x0a

The Left Arrow Key record contains: 085D00000A02Left Arrow arwlt.ico 000255255|

The three colors weigh from 0 to 255 using the RGB rules. There are only 4 fields that can be modified: 6) Icon File Name, 7) Red weight, 8) Green weight, and 9) Blue weight.

Qwerty.eng is a fixed-length record text file that can be edited using a text editor, e.g., Windows Notepad.