

**AZ481**

**KEY File Generator**

KEY File Generating Tool

Instruction Manual

DTS INSIGHT CORPORATION

# AZ481 KEY File Generator

## Instruction Manual

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## Instruction Manual

No. M2380YS-03

### Publication History

| Edition        | Date of Issue  | Description  |
|----------------|----------------|--|
| First Edition  | July 27, 2004  | · Initial Publication  |
| Second Edition | April 13, 2009 | · Fully revised due to adding features   |
| Third Edition  | June 11, 2009  | · Messages are added at the section on Saving a File.<br>· The order of sections, Saving a File and Modifying a File, is changed.<br>· Error messages are added to the Appendix.<br>· The description of upper limit of the Size is changed. |

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Printed in Japan

## **1 Overview and Features**

This program is software to generate a KEY file on a Windows PC (PC/AT).

With this program, the KEY file can be laid out freely to suit your system and generated efficiently.

## **2 Before Use**

### 2-1 System Requirements for KEY File Generator

PC

IBM PC/AT compatible machine Windows 2000/XP/Vista

#### **<Note>**

1. This product has no feature to connect with the programmer main unit.
2. Installation of this product requires Administrator privileges.

### 3 Generating a File

This product has the feature which enables the user to freely design the layout of the KEY file varying with the target system.

In this instruction manual, the designed layout information file is called "Template file".

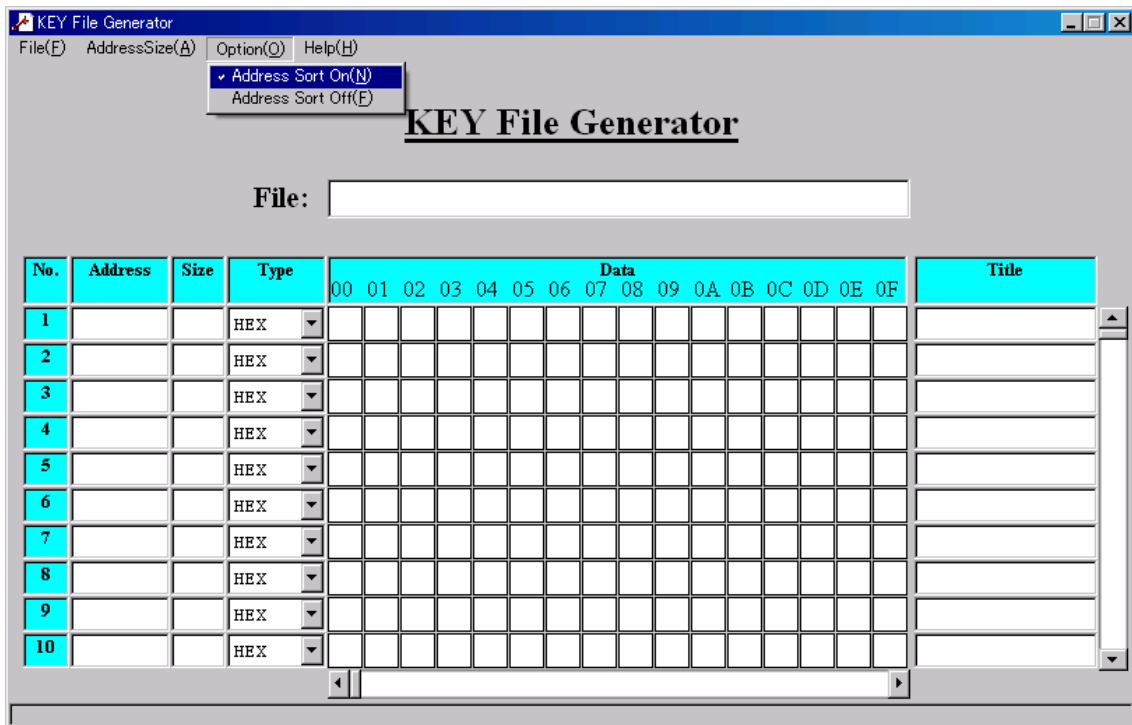
### 3-1 Setting Sort and Address duplication check when Saving a File

Setting sort (addresses in ascending) and address duplication check are to be ON/OFF when saving a KEY file and a template file.

The sort (address in ascending) function is to sort data by the address in ascending order when saving a file.

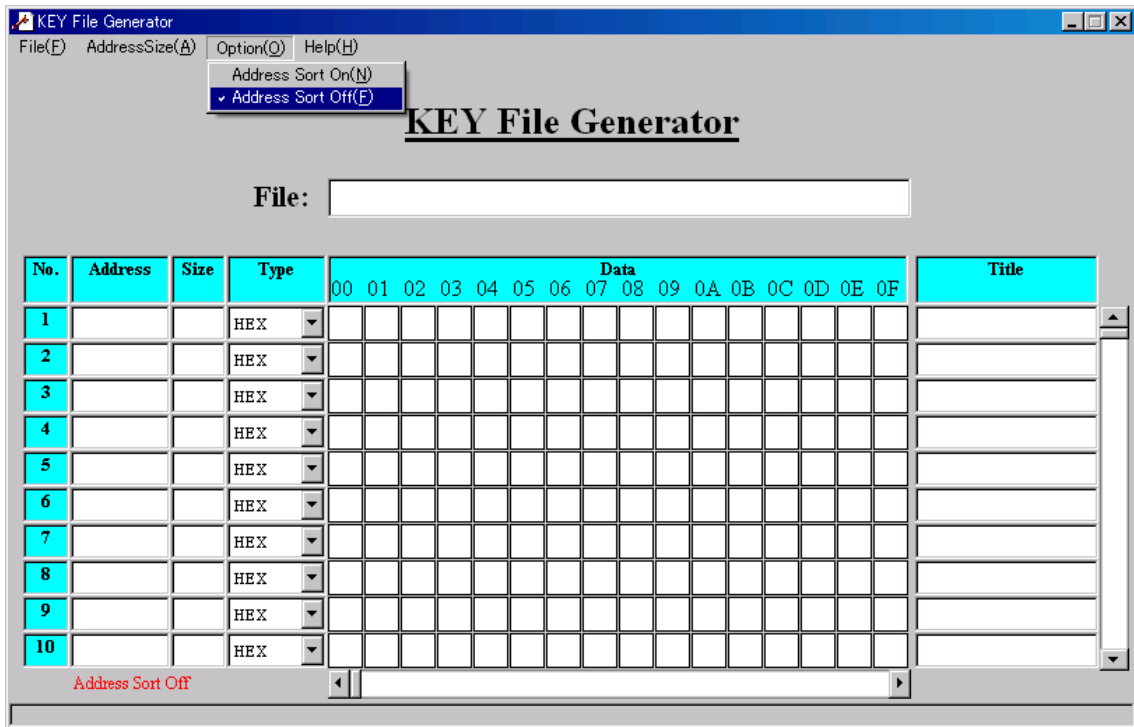
The address duplication check function is to check whether there are two or more data located on the same address or not.

Choose [Address Sort On] or [Address Sort Off] from the Option menu.



|                  |   |
|------------------|---|
| Address Sort On  | Sort (addresses in ascending) and address duplication check are executed.     |
| Address Sort Off | Sort (addresses in ascending) and address duplication check are NOT executed. |

When Address Sort Off is chosen, the message "Address Sort Off" is displayed at the lower left of the window.



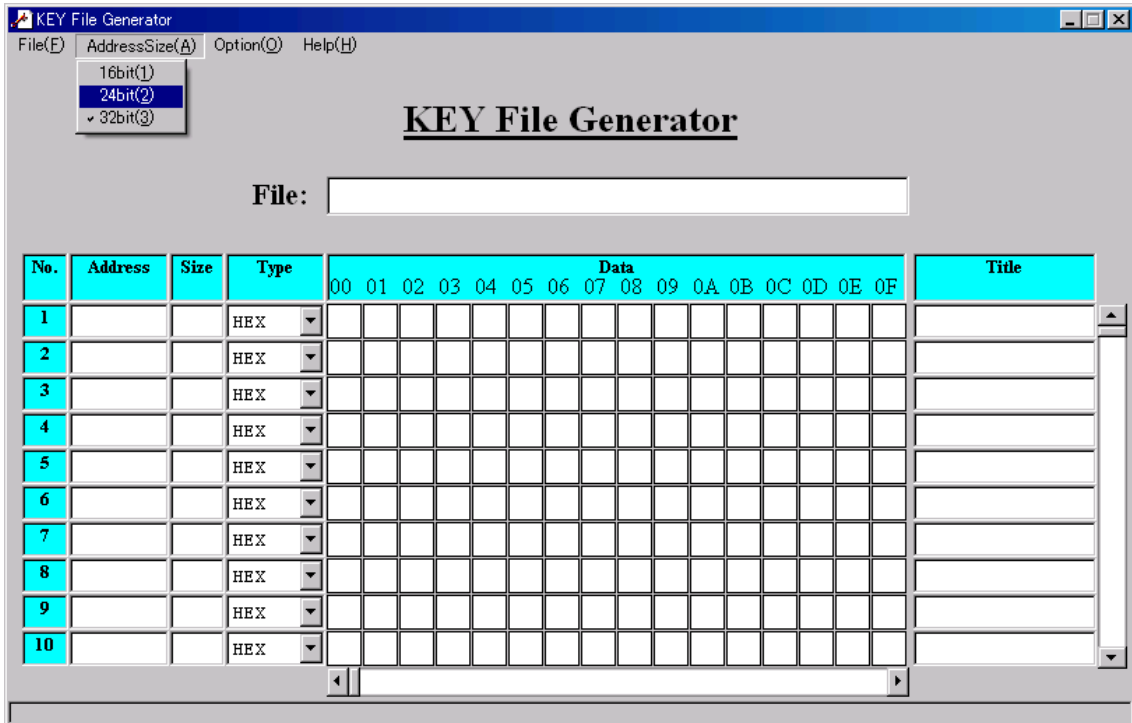


### 3-2 Generating a File

The address size is to be specified.

In default configuration, the address length of output file is 32 bit.

In order to change the address length to output, specify among 16 bit or 24 bit or 32 bit from the Address Size menu.



**<Note>**

If the address length is specified shorter than current, the address length is shortened a few bytes as well.

As a result, a few bytes of the upper address are to be discarded.

Items to be specified

The data length is specified in the Size column. The upper limit of the data length is 252.

The data input type is specified in the Type column in advance of data input.

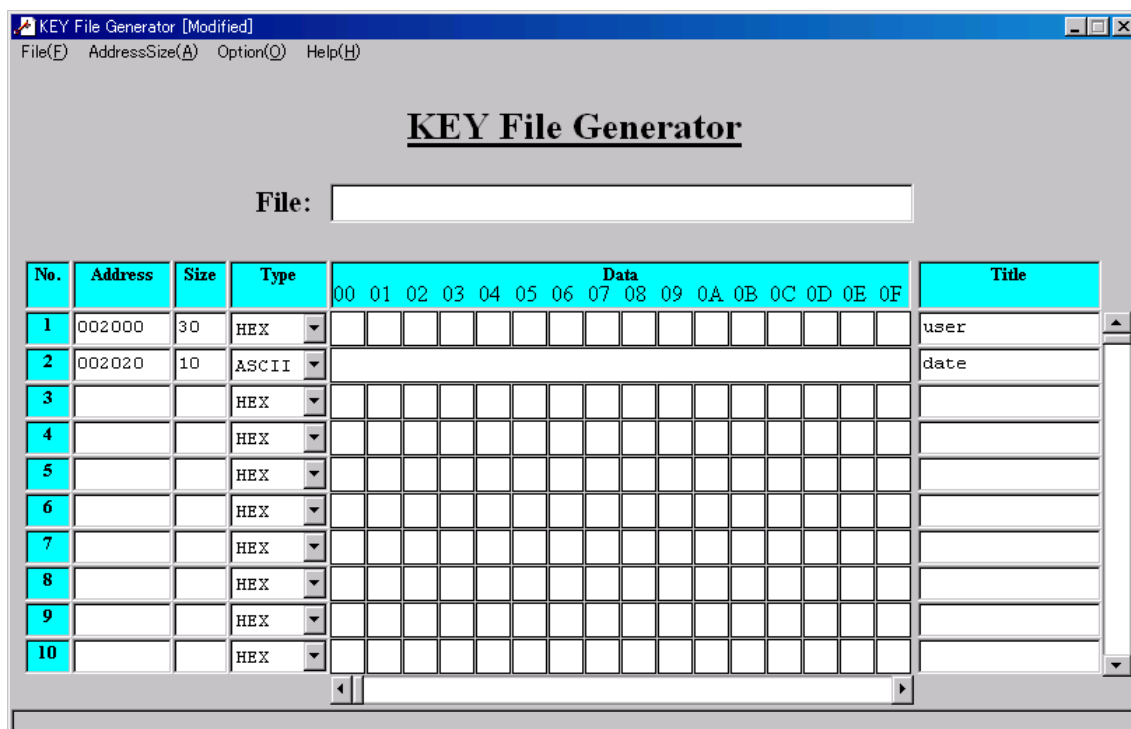
(Cannot be changed after data input)

Data can be input in hexadecimal by specifying HEX, and in ASCII text by specifying ASCII.

The KEY data is input in the Data area.

When the Type is specified HEX, the Data input area will be divided to 16 per line. In each divided area, 1 hexadecimal byte (2 digits) can be input. With horizontal scroll bar, the Data input area can be scroll displayed.

When the Type is specified ASCII, the Data input area can be input with text.



Select [File Save] from the File menu to save the data after modifying.

**<Note>**

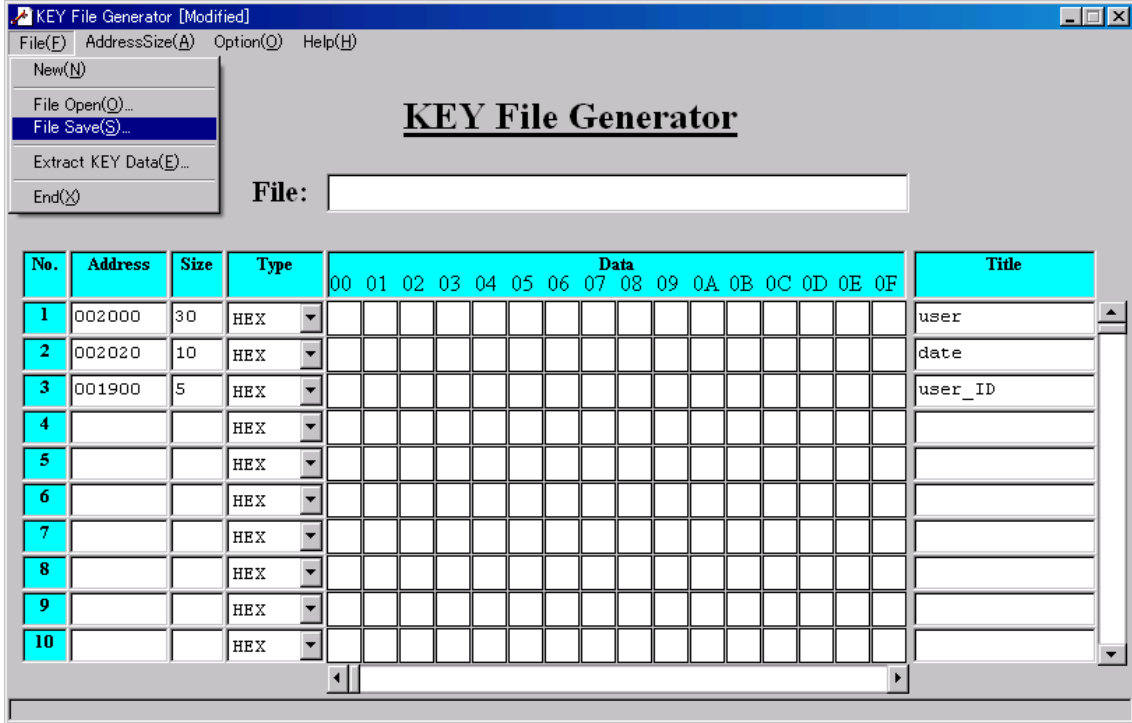
1. The upper limit of the number of the data line is 256.
2. Data more than the specified length in the "Size" column can not be input in the Data area. (Except the data length is specified 0 in the "Size" column.)
3. The maximum number of data which can be input in one line of the Data area varies with the specified address length in the AddressSize menu.

| AddressSize | Max. number of data |
|-------------|---------------------|
| 16bit       | 252                 |
| 24bit       | 251                 |
| 32bit       | 250                 |

### 3-3 Saving a File

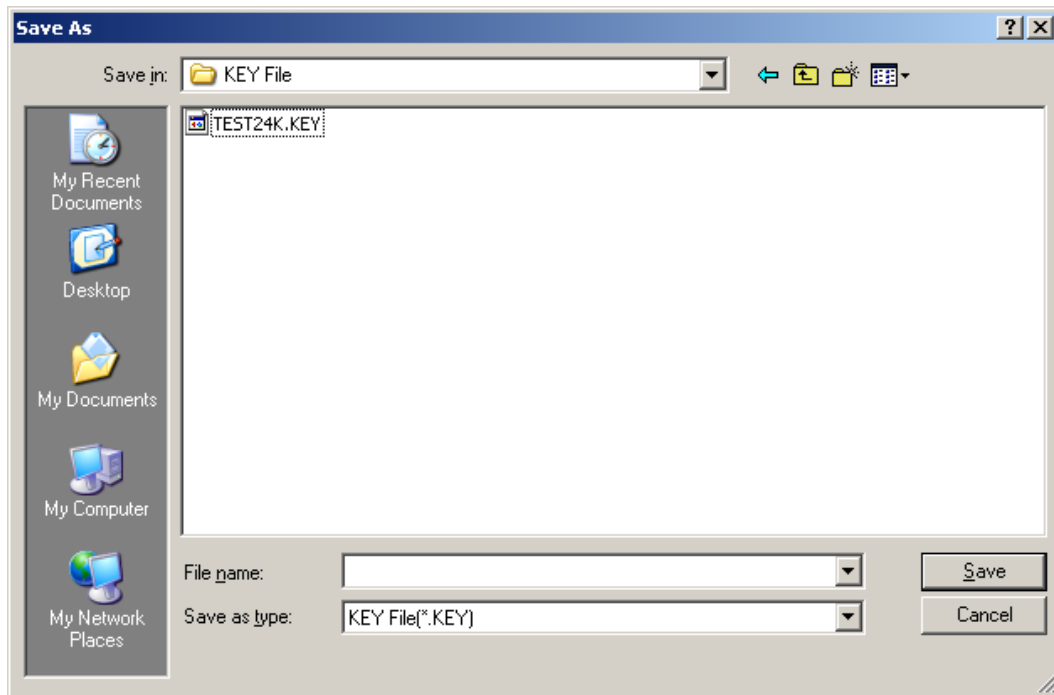
After the items are specified, the file is to be saved.

Select [File Save] from the File menu.



The dialog shown below will appear.

Select the file type, enter the file name and save.

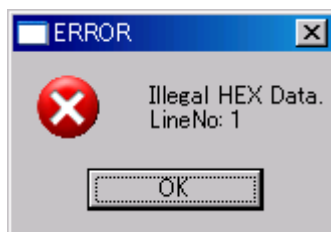


**<Note>**

1. Blank lines will be deleted automatically when saving a file.
2. By setting the data length 0 in the Size column, the actual length of the data input will be displayed in the Size column when saving the file.
3. If there is any line with no address specified, the message as shown below will appear and the file can not be saved successfully. Specify an address to the line and retry to save.



4. If there is any character other than hex in the Data column when the Type of the line is specified HEX, the message shown below will appear and the file can not be saved successfully. Correct the data and retry to save.



5. By setting the Address Sort function ON, the data are sorted by the address in ascending order and checked if there are two or more data located on the same address or not..  
If there is any address duplication found, the message shown below will appear and the file can not be saved successfully. Correct the address and retry to save.

<Example>

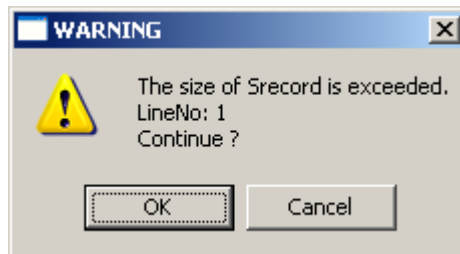


This example message tells that the data on the line No.3 and line No. 4 have the same address.

6. If the sum of the address size, the data length, and the check sum (1 byte) is exceeded the number of the record per line of S-record (255 bytes), the warning message as shown below will appear.

Click OK to adjust the data size automatically (The exceeded data will be discarded.)

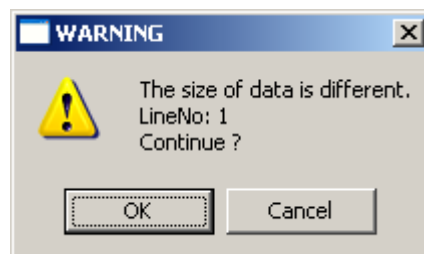
Click Cancel to cancel saving the file.



7. If less data than the specified data length in the Size column are input in the Data area, the warning message as shown below will appear after entering the file name to save.

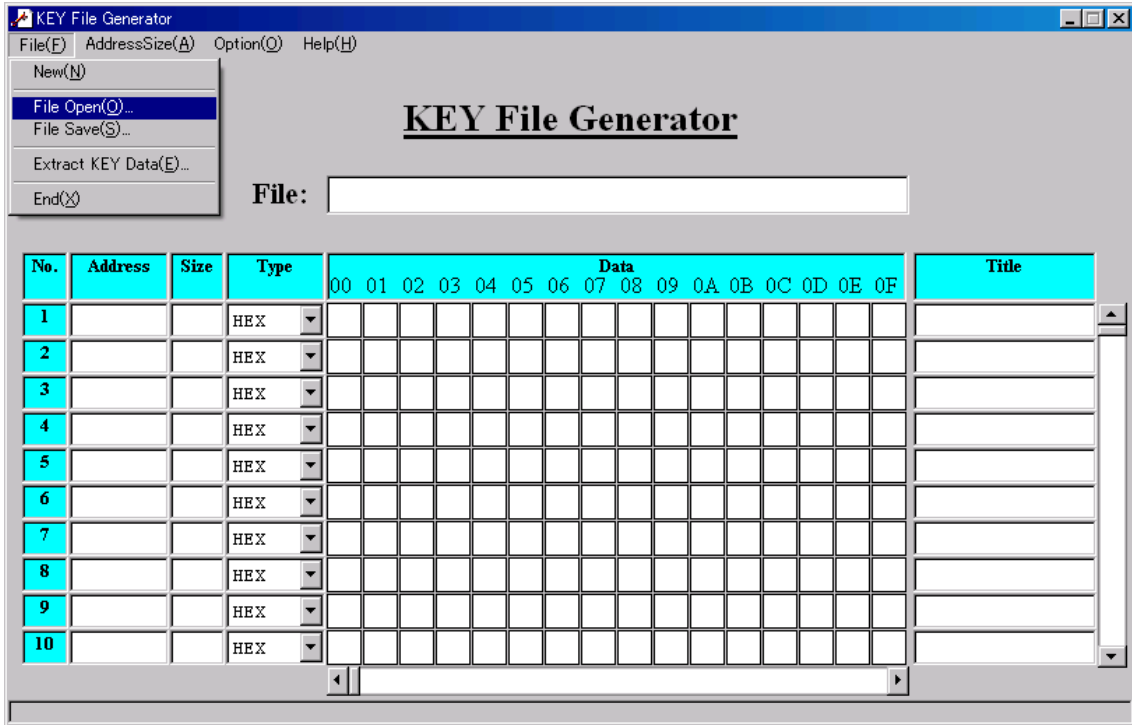
Click OK to enter "FF" automatically to fill the lack of data.

Click Cancel to cancel saving the file.



### 3-4 Modifying a File

Go to [File Open] from the File menu.

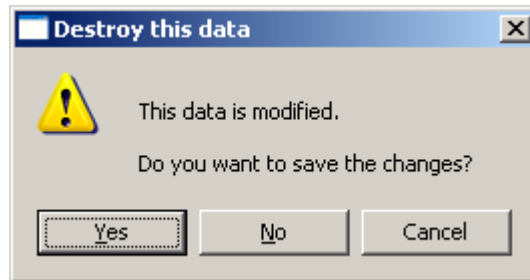


The message as shown below will appear when the data are being modified.

Click Yes to save the modified data.

Click No to discard the modified data.

To cancel the operation, click Cancel.

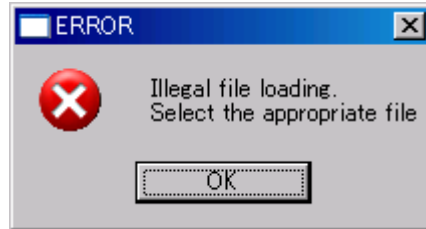




**<Note>**

1. The file which can be loaded is the Template file or S format. When a file other than these file types is selected to load, the error message as shown below will appear and file loading is not to be done.

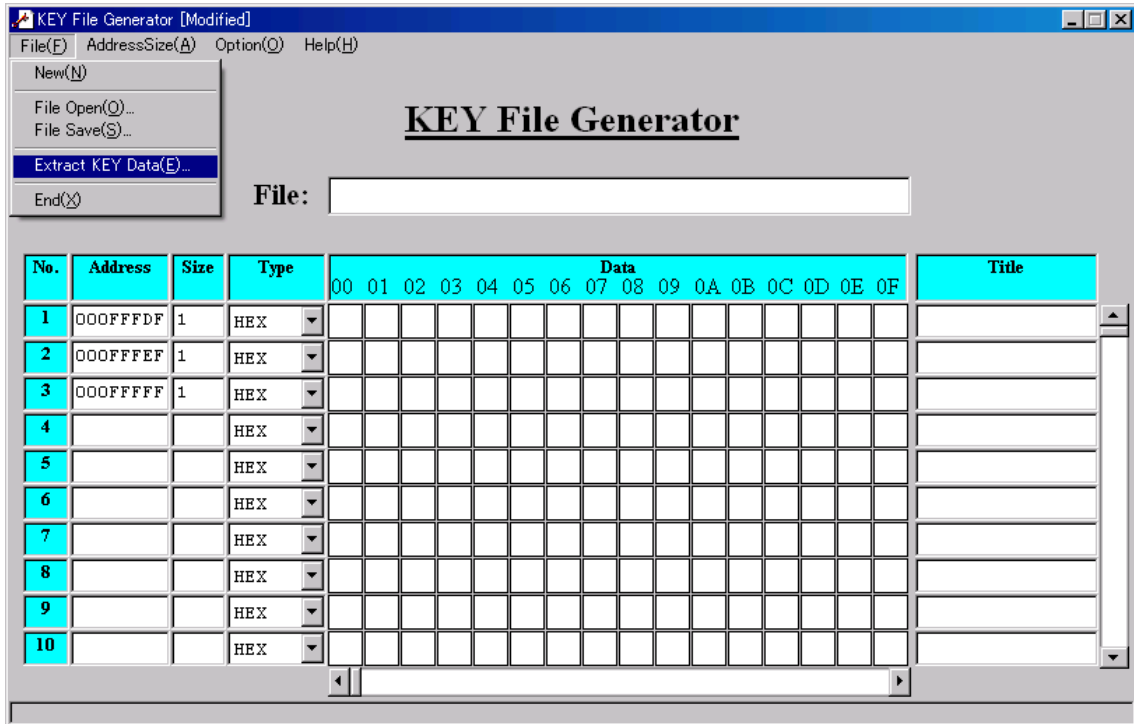
<Example>



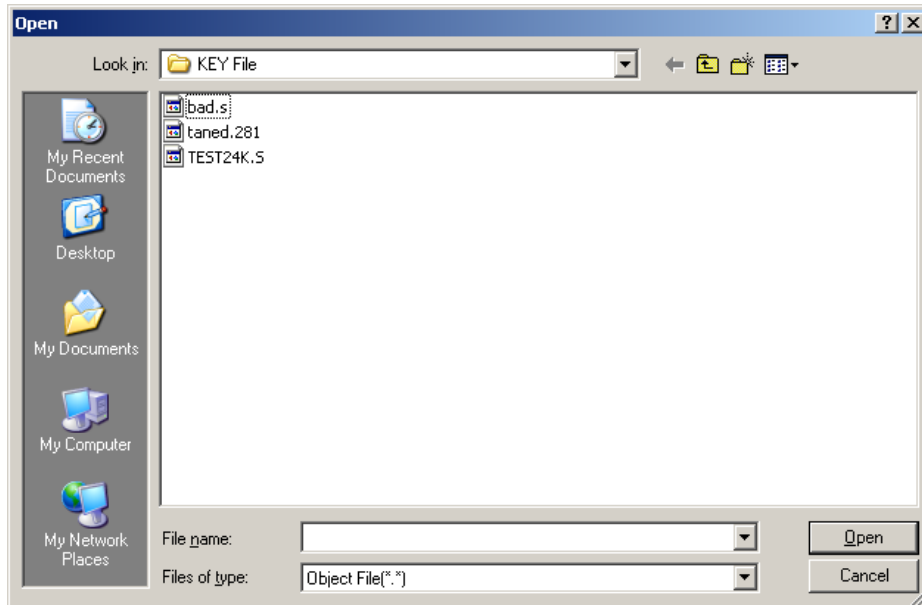


### 3-5 Data Extraction

To extract the data to be the key from the object file, enter the address and data length, and go to [Extract KEY Data] from the File menu.



Select a file to extract the data to be the key. The file which can be extracted is S format or HEX format or binary.



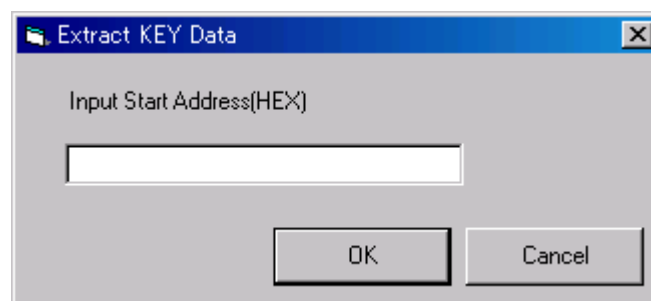
The extraction procedures vary with the file type to be extracted. After the extraction is completed, the extracted data will be displayed in the Data area.

S format, HEX format:

Data are to be extracted by the specified address from the file.

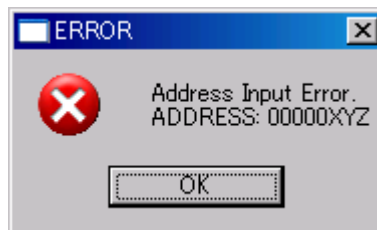
Binary:

In order to extract the data, the first address of the file is required to be entered in the column of the window shown below.



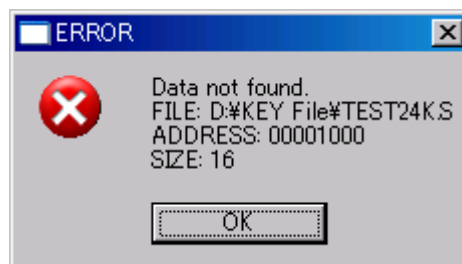
**<Note>**

1. The error message below will appear and data will not be extracted when any text other than hexadecimal is input as the first address in a binary file.



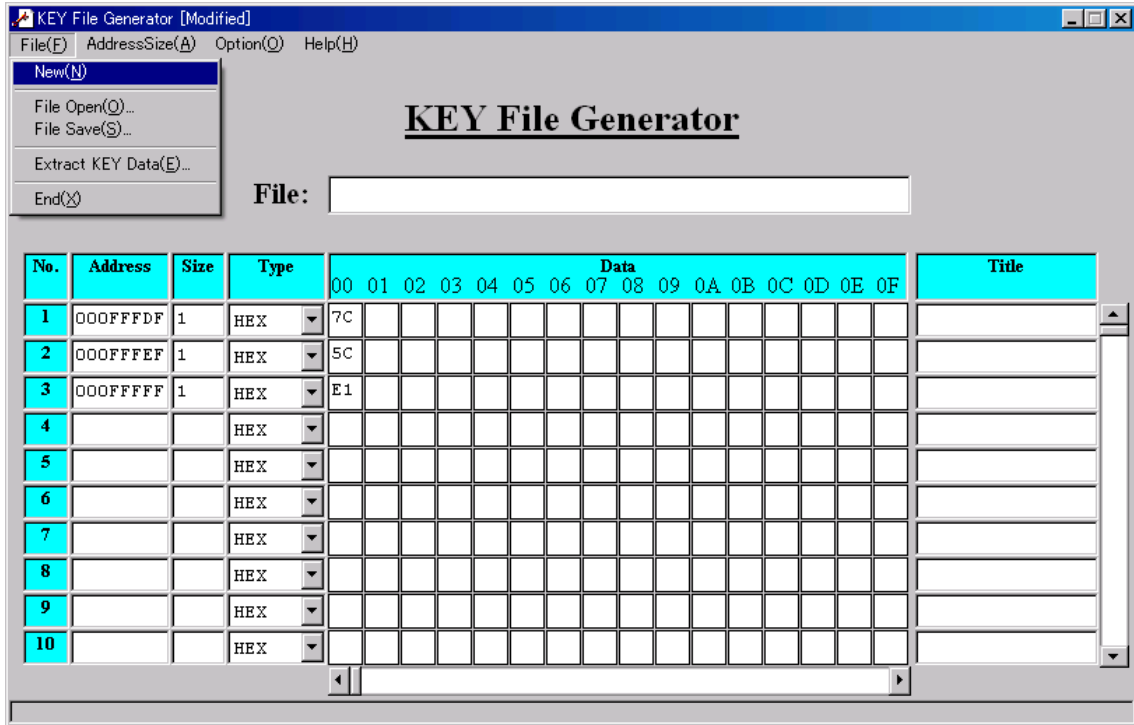
2. The error message below will appear and data will not be extracted when there is no data assigned at the specified address in the object file.

<Example>



### 3-6 Clear the Input Data

In order to clear the input data, select [New] from the File menu.

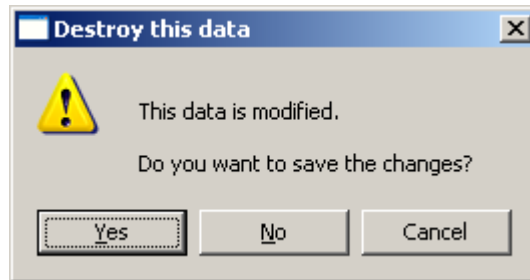


The message as shown below will appear when the data are being modified.

Click Yes to save the modified data.

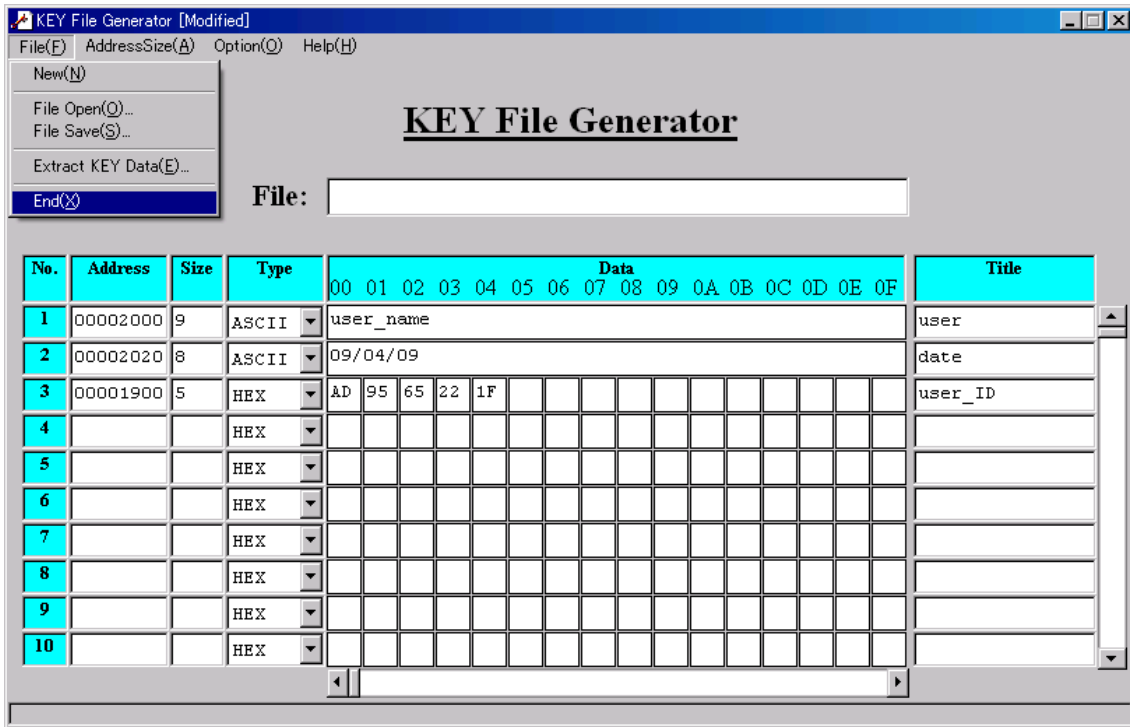
Click No to discard the modified data.

To cancel the operation, click Cancel.



#### 4 End KEY File Generator

Select [End] from the File menu to close the KEY File Generator.

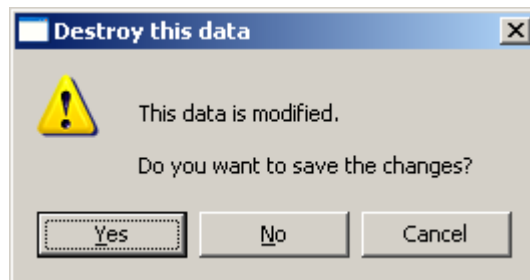


The message as shown below will appear when the data are being modified.

Click Yes to save the modified data.

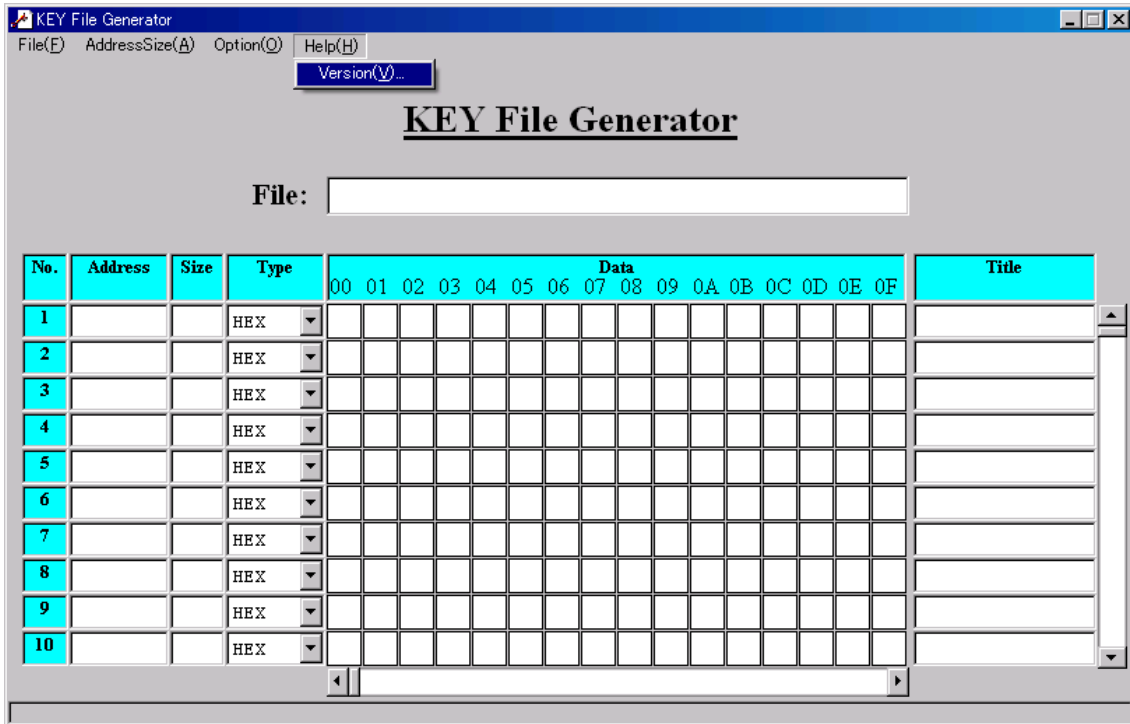
Click No to discard the modified data.

To cancel the operation, click Cancel.



## 5 Displaying the Version Information

The version information can be displayed to deliver suitable technical support.  
Select [Version] from the Help menu.



The message as shown below will be displayed.  
Click OK to close the message.



## 6 APPENDIX

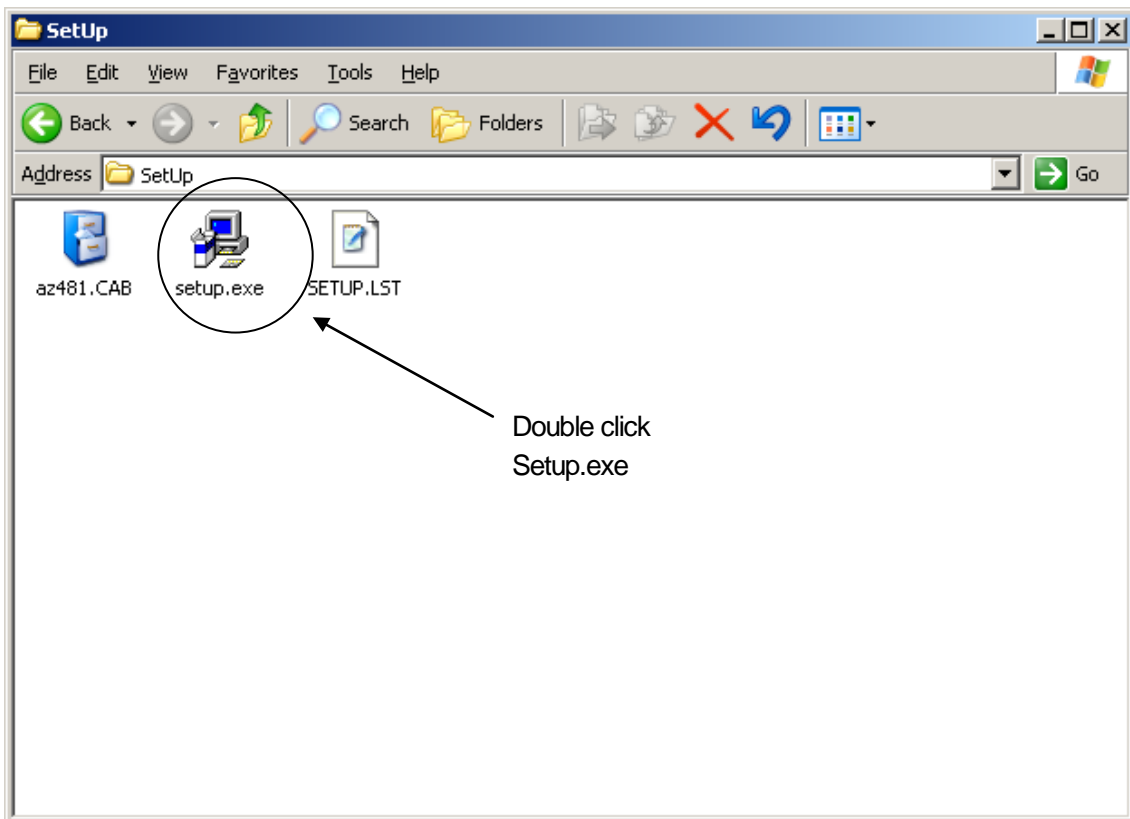
### 6-1 Error Message List

| Operation        | Error Message   | Description   |
|------------------|---|---|
| File Open        | Illegal file loading.<br>Select the appropriate file                                  | The file type of the selected file is invalid.  |
| File Save        | Duplicated Address<br>xxxxxx<br>Save the file after correction the duplicated Address | Two or more data are assigned at the same address.<br>(xxxxxx indicates the line number.)   |
|                  | No Address.<br>LineNo: xxxxxx   | There are data with no address specified.<br>(xxxxxx indicates the line number.)  |
|                  | Illegal HEX Data.<br>LineNo: xxxxxx   | There is a line with invalid HEX data.<br>(xxxxxx indicates the line number.)   |
|                  | File Save Error.  | The file has not been saved successfully.   |
| Extract KEY Data | Data not found.<br>FILE: xxxxxx<br>ADDRESS: yyyyyy<br>SIZE: zzzzzz                    | There are no data at the specified address in the loaded file.<br>xxxxxx: File location<br>yyyyyy: Address<br>zzzzzz: Data length |
|                  | Address Input Error.<br>ADDRESS: xxxxxx   | The address input is not in hexadecimal.<br>(xxxxxx indicates the address input.)   |

## 6-2 Installation of AZ481 KEY File Generator

### <Installation Procedure>

1. AZ481 KEY File Generator is provided in a CD.  
Set the installation CD in the CD-ROM driver of your PC.  
Start the program (setup.exe) in the SetUp folder.  
Installation requires Administrator privileges.



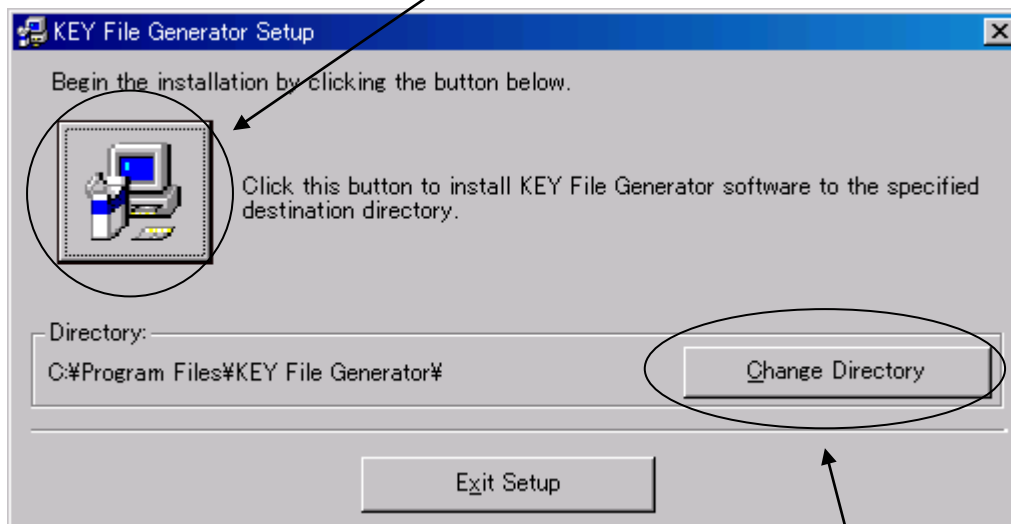


2. Change the directory to install the KEY File Generator.



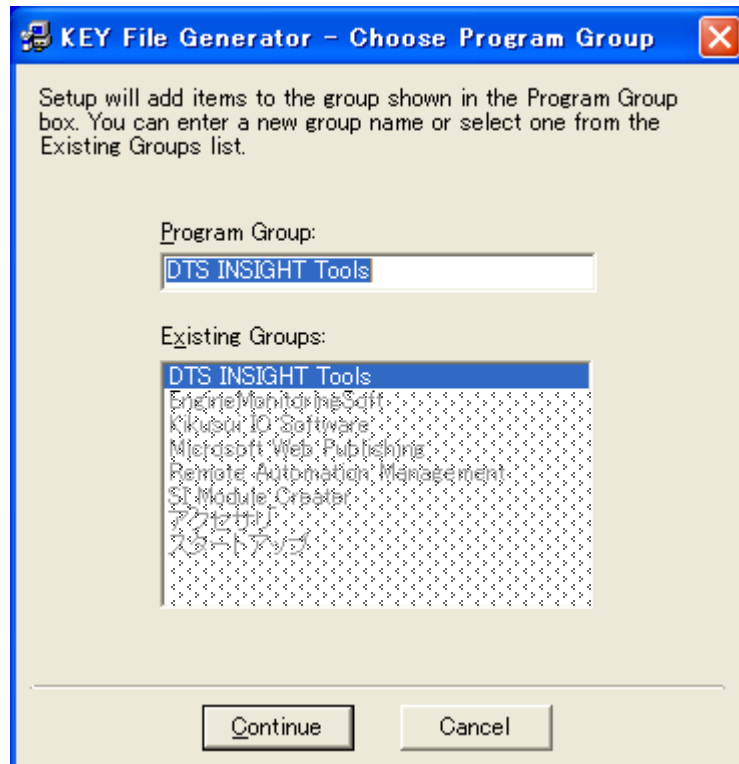
Click the Install button after selecting a directory.

Click here to start installation.



Click here to change the directory if needed.

The window will be displayed to add the KEY File Generator to the Program menu. Select a group to add the KEY File Generator, and click the Continue button.



After the file is copied successfully, the message as shown below will appear. The installation procedure has been completed. Confirm the KEY File Generator added in the Program menu of the Start menu.

