

**Fingerprint Identification System**

*Ramses*

**for Windows 98**

**Version 2.0**

**User's Manual**

Immanuel Electronics Co., Ltd.

# FCC

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution : Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

Note : This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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## I . Introduction

Ramses developed by Hunno Technologies Inc. is a epochal PC security product for user authentication and information security. The convenience and security will be realized by Ramses.

### **Nothing can be easier and more secure than fingerprint !**

Do not worry about forgetting password or being forged by someone. Do not need to know complicated algorithm. Ramses securely protects your system.

### **Logon, Screensaver, Perfect protect for file and folder !**

Ramses protects the system with logon, screensaver, file/folder encryption operated by fingerprint authentication. It also provides many functions such as multi authentication types and user manager.

### **<< Application >>**

- Perception of individual in case of e-mail and e-document exchange
- Personal system security
- Data protection and system access control
- Fingerprint verification for criminal investigation in Police

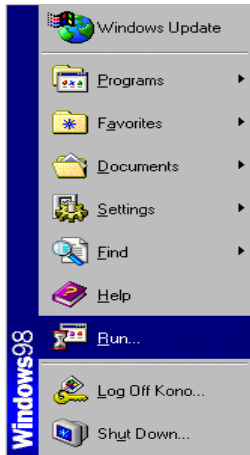
### **<< System requirements >>**

- OS: Microsoft Windows 98(98SE), Windows Me
- CPU: Pentium 133MHz or above
- HDD: More than 20 MB needed
- Memory: More than 32 MB
- Interface: USB
- Installation Program : Microsoft Internet Explorer 4.01 or above

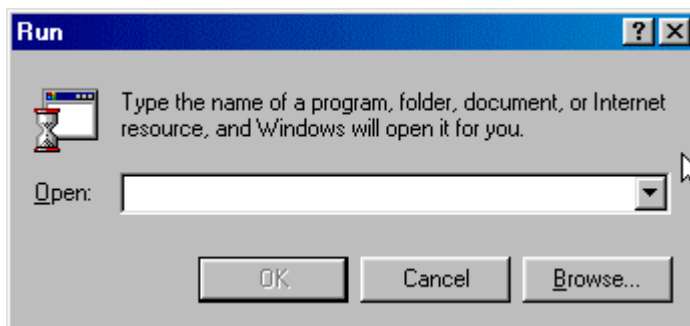
- Ramses\* is registered trademark of Hunno Technologies Inc.
- Windows\* is registered trademark of Microsoft Corporation.
- Pentium\* is registered trademark of Intel Corporation.

## II. Program Installation

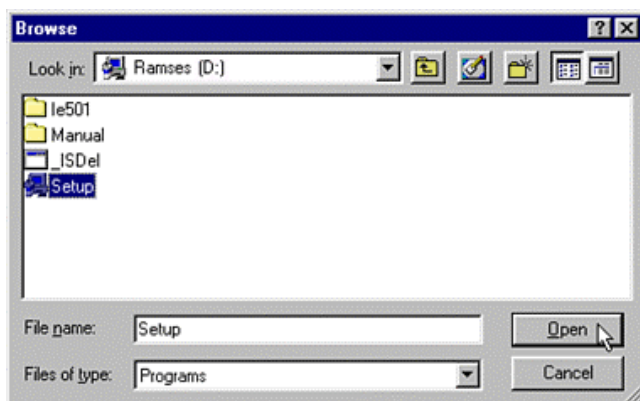
Start to install Ramses.



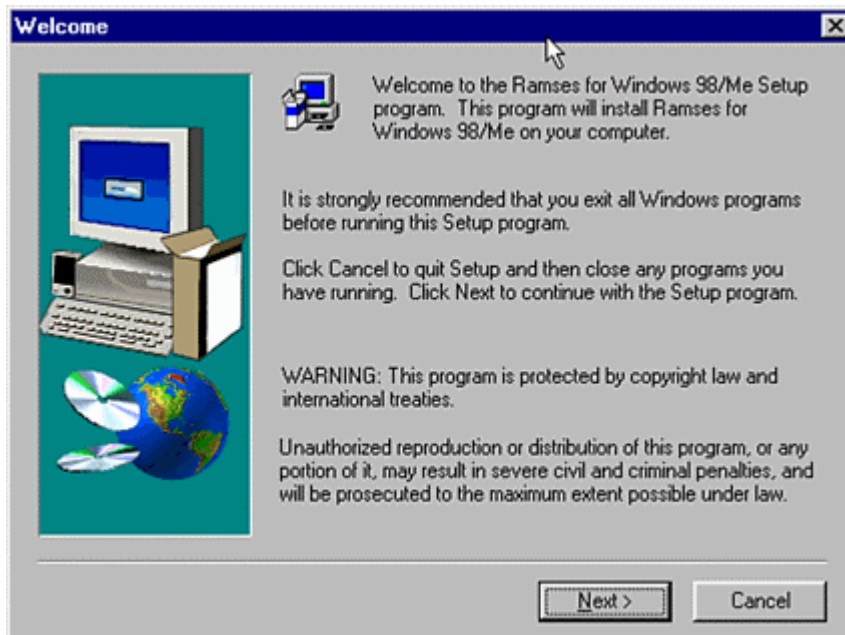
Click 'Run' on the start-up menu.



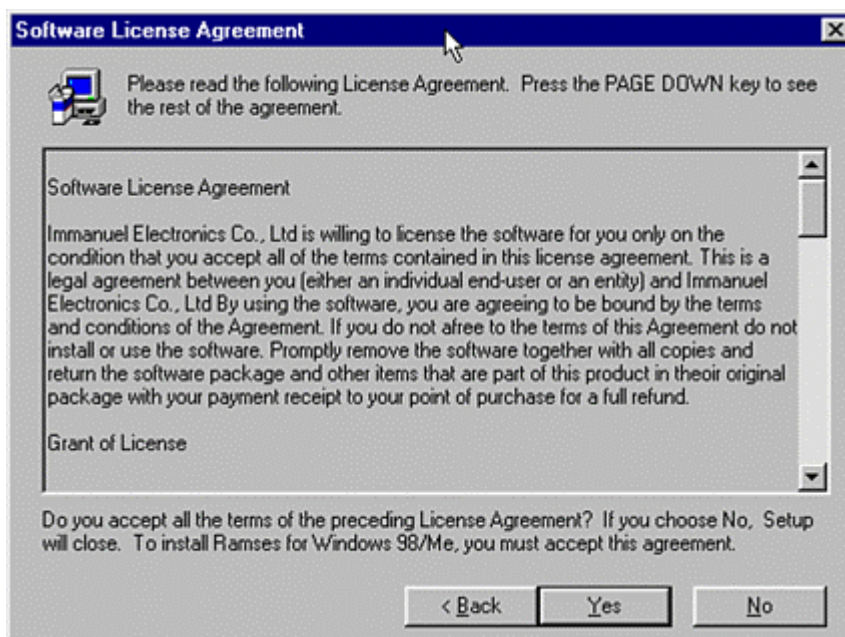
In the above window, type the name of the program and drive or specify the path by clicking 'Browse'.



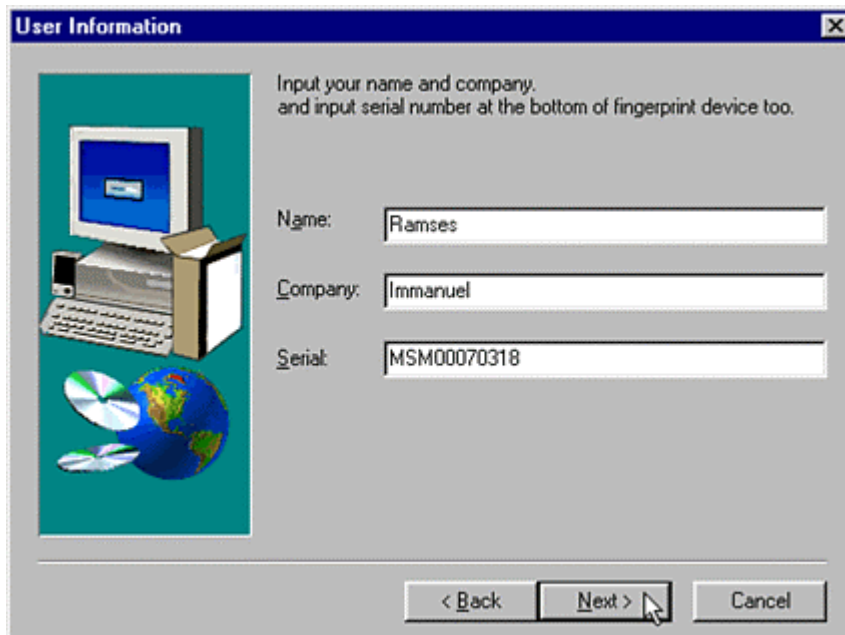
Select 'Setup.exe' in the window above, and click 'Open'.



In the initial window of program installation, click 'Next'.



In the window for 'Software License Agreement', click 'Yes'.



The 'User Information' dialog box has a blue title bar with a close button. On the left is a graphic of a computer monitor, keyboard, and CD/DVD discs. The main area contains the text: 'Input your name and company. and input serial number at the bottom of fingerprint device too.' Below this are three text input fields: 'Name:' with 'Ramses', 'Company:' with 'Immanuel', and 'Serial:' with 'MSM00070318'. At the bottom are three buttons: '< Back', 'Next >', and 'Cancel'. A mouse cursor is pointing at the 'Next >' button.

User Information

Input your name and company.  
and input serial number at the bottom of fingerprint device too.


Name: Ramses

Company: Immanuel

Serial: MSM00070318

< Back Next > Cancel

Click 'Next' after typing 'Name', 'Company' and 'Serial no', which is on the surface of CD.



The 'Select Program Folder' dialog box has a blue title bar with a close button. On the left is the same graphic as the previous dialog. The main area contains the text: 'Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing Folders list. Click Next to continue.' Below this are two sections: 'Program Folders:' with a text input field containing 'Ramses', and 'Existing Folders:' with a list box containing 'Accessories', 'HyperSnap-DX 4', 'Online Services', 'StartUp', and 'WinZip'. At the bottom are three buttons: '< Back', 'Next >', and 'Cancel'. A mouse cursor is pointing at the 'Next >' button.

Select Program Folder

Setup will add program icons to the Program Folder listed below.  
You may type a new folder name, or select one from the existing  
Folders list. Click Next to continue.

Program Folders:

Ramses

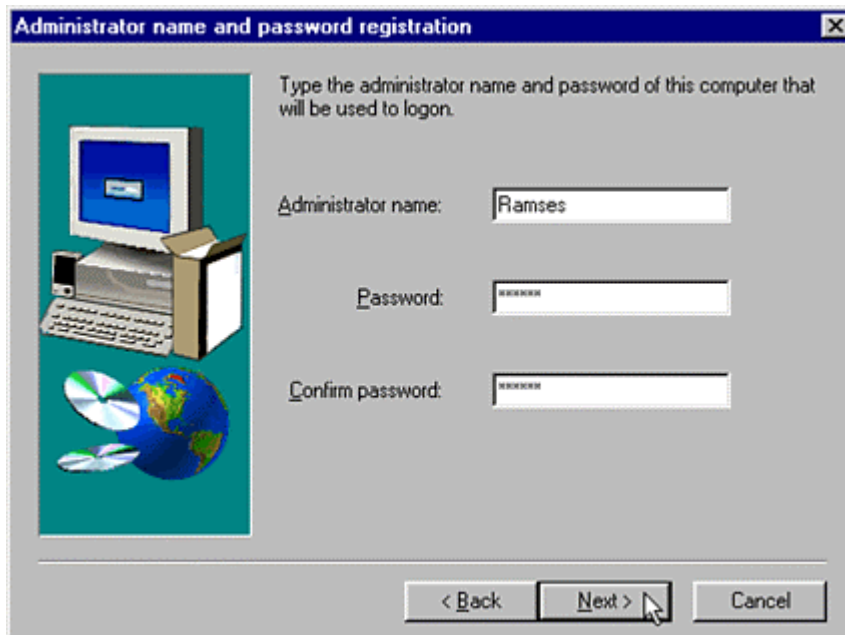
Existing Folders:

- Accessories
- HyperSnap-DX 4
- Online Services
- StartUp
- WinZip

< Back Next > Cancel

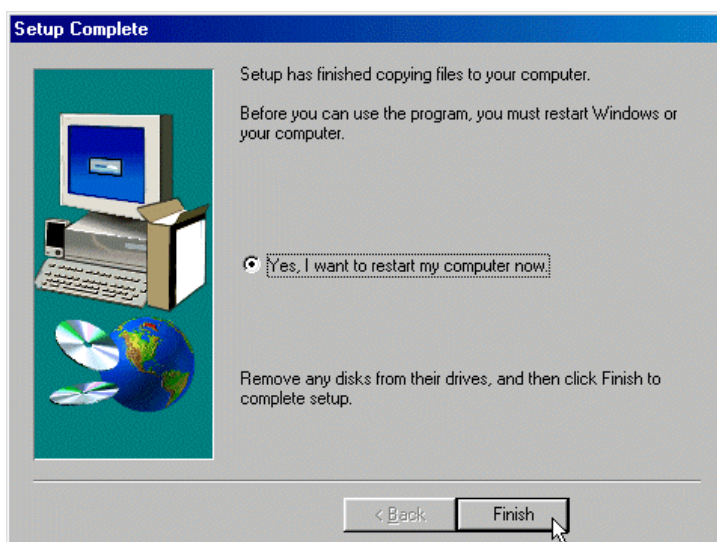
Click 'Next' to continue.

You may type a new folder name or select one from the existing folders list.



Enter administrator name, password and Click 'Next' after confirming entered information.

**\*\* The password entered in above window will be used for the first logon after installation of the program. The authentication method can be changed to fingerprint, password, and both through 'Ramses User Manager'.**



Ramses program is successfully installed. Installation is completed by clicking 'Finish' and the system is restarted.

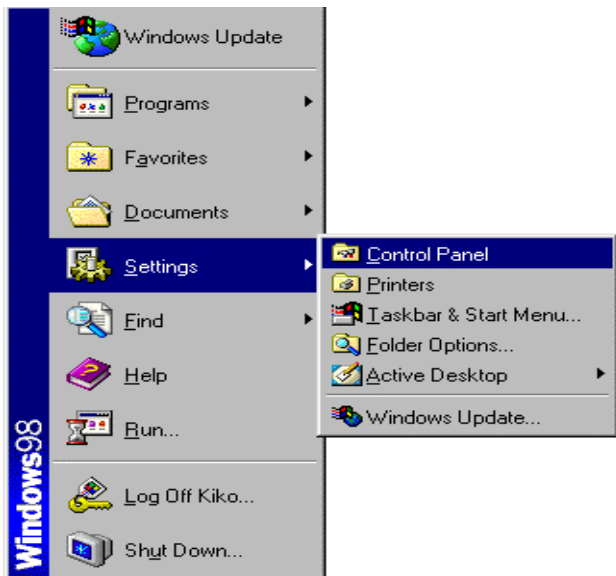
Installation of all necessary programs for using Ramses has been completed.



### III. Program Uninstallation

**\*\* Administrator can only delete the program.**

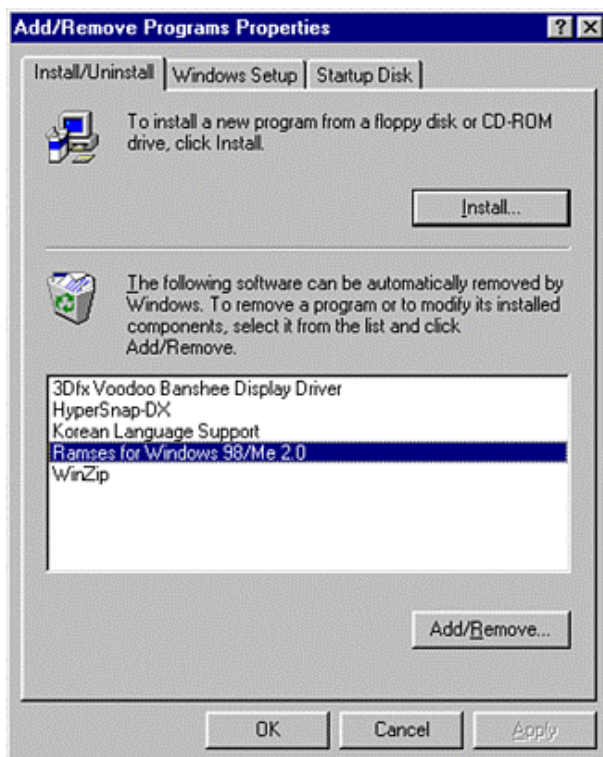
The authorization of administrator can be set when new user is registered in <User Manger>.



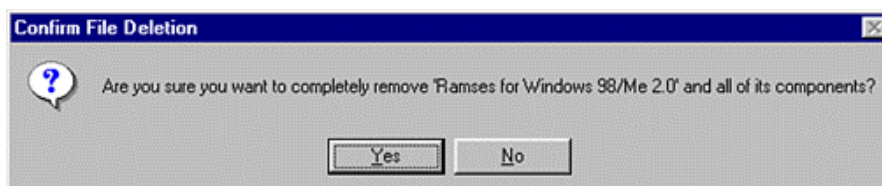
Start-up -> Settings -> Control Panel



Double-click 'Add/Remove Programs' in the Control Panel.



Click 'Add/Remove' after selecting 'Ramses for Windows 98 2.0' in the 'Install/Uninstall' window.



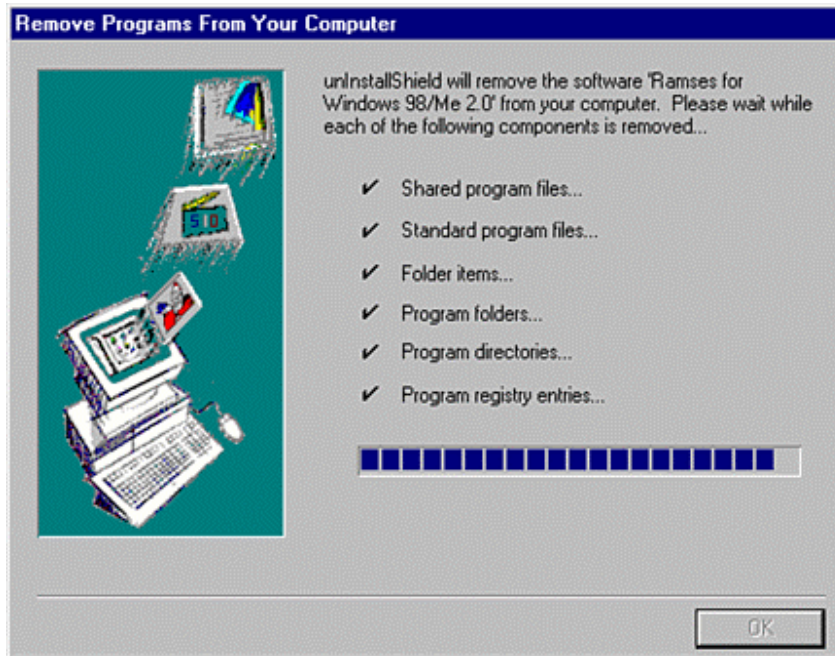
Above window is to confirm deleting files. Click 'Yes' to delete.



Fingerprint verification window appears, and then verify fingerprint.

**\*\* This manual has been prepared for fingerprint authentication user.**

**A different window will appear in compliance with different authentication method such as password/fingerprint/both.**



The above window is deletion process.

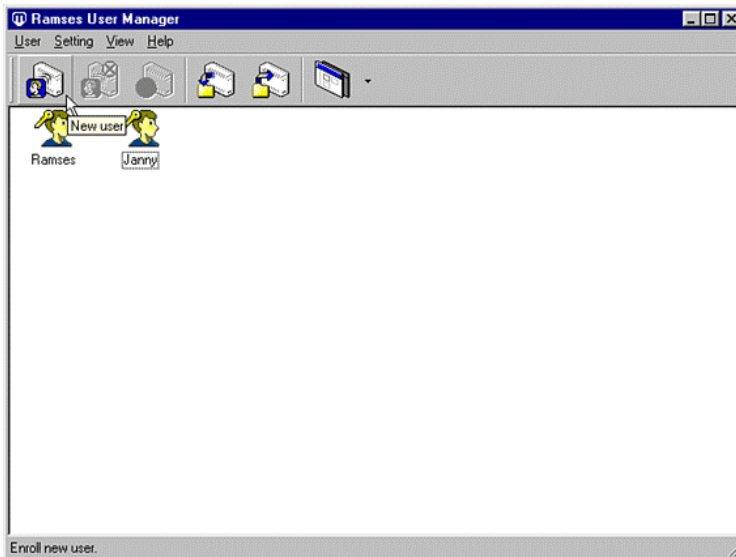
When the deletion is completed, click 'OK'.



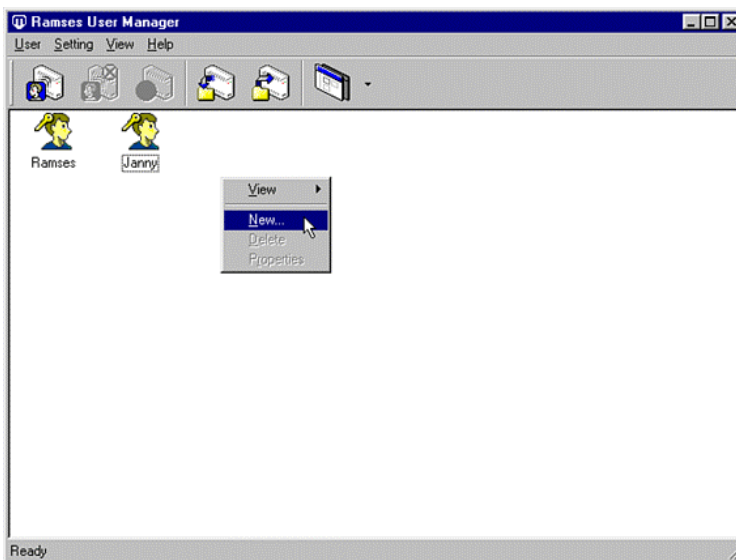
Click 'OK' when above window appears.

## IV. User Manager

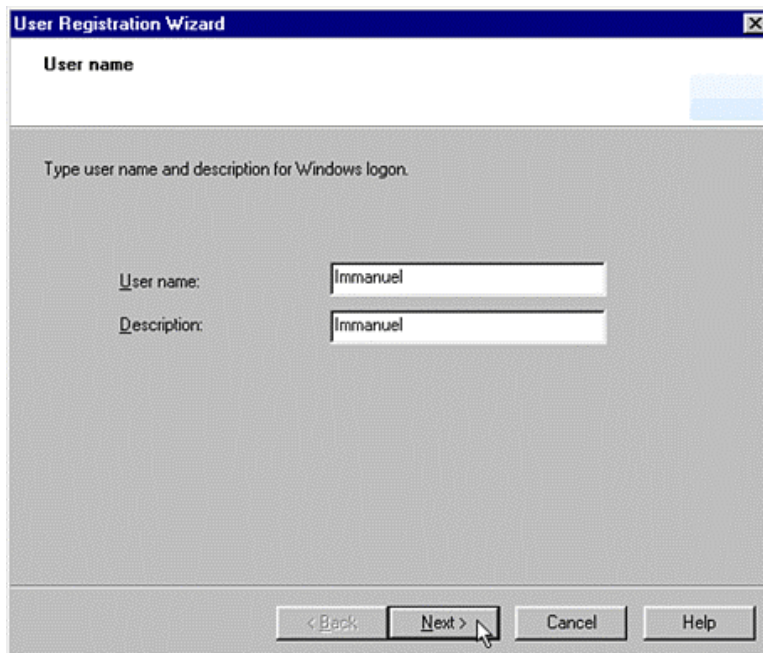
### 1. New User



Go into the user registration wizard window by clicking <New user> icon in the toolbar.

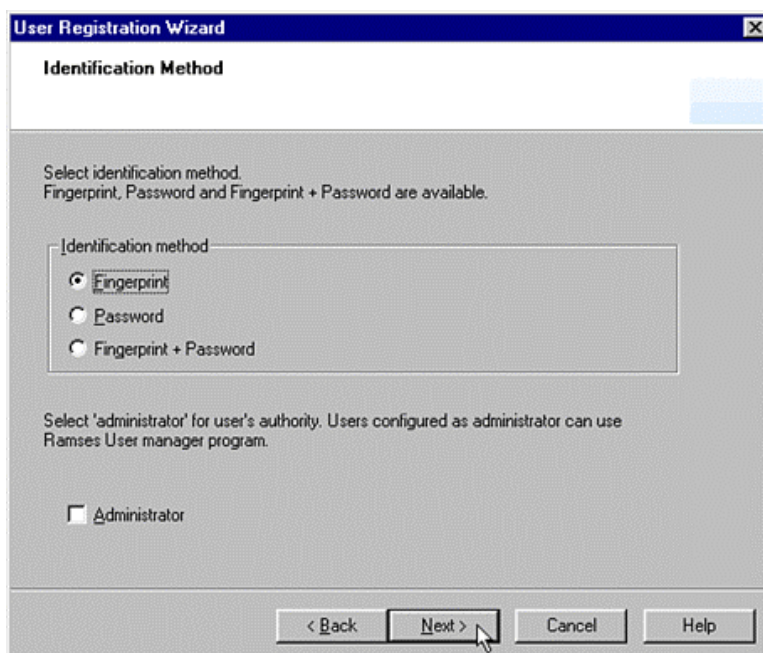


Go into New user registration wizard window by selecting New user in the menu appeared by clicking right mouse button.



The screenshot shows the 'User name' step of the 'User Registration Wizard'. The window title is 'User Registration Wizard'. Below the title bar, the text 'User name' is displayed. The main area contains the instruction 'Type user name and description for Windows login.' followed by two input fields. The first field is labeled 'User name:' and contains the text 'Immanuel'. The second field is labeled 'Description:' and also contains the text 'Immanuel'. At the bottom of the window, there are four buttons: '< Back', 'Next >', 'Cancel', and 'Help'. A mouse cursor is pointing at the 'Next >' button.

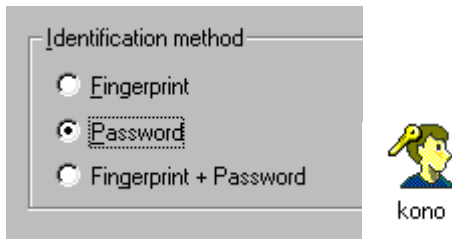
Click 'Next' after entering User name and Description.



The screenshot shows the 'Identification Method' step of the 'User Registration Wizard'. The window title is 'User Registration Wizard'. Below the title bar, the text 'Identification Method' is displayed. The main area contains the instruction 'Select identification method. Fingerprint, Password and Fingerprint + Password are available.' followed by a group box labeled 'Identification method'. Inside this group box, there are three radio button options: 'Fingerprint' (which is selected), 'Password', and 'Fingerprint + Password'. Below the group box, there is another instruction: 'Select 'administrator' for user's authority. Users configured as administrator can use Ramses User manager program.' followed by a checkbox labeled 'Administrator' which is currently unchecked. At the bottom of the window, there are four buttons: '< Back', 'Next >', 'Cancel', and 'Help'. A mouse cursor is pointing at the 'Next >' button.

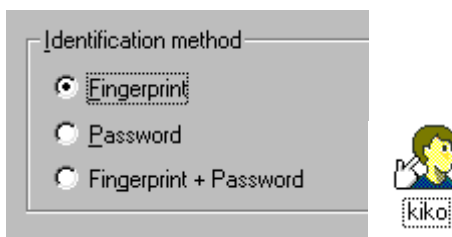
(1) Authentication

① When Password is selected



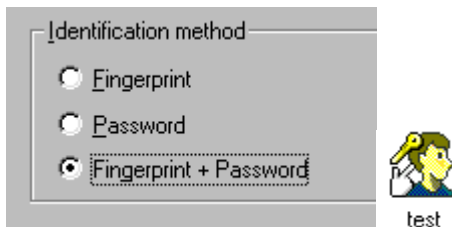
The key icon appears when password is used for authentication, and the password will be used for Ramses related program encryption.

② When Fingerprint is selected



The finger icon appears when fingerprint is used for authentication and the fingerprint will be used for Ramses related program encryption.

③ When both are selected



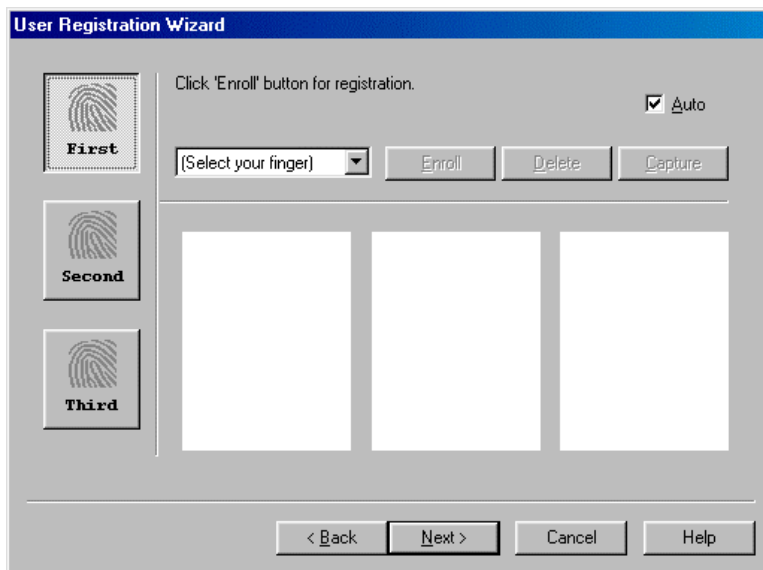
The finger and key icon appears when both are used for authentication and both will be used for Ramses related program encryption.

(2) Authorization



Administrator authorizes a user to access ‘ Ramses User Manger’ .

### (3) Fingerprint enrollment



The step for enrolling New User's fingerprint. Select 'First' and then click 'Enroll'.

#### ① 'First', 'Second', 'Third'

Two more fingerprints can be registered in 'Second' and 'Third' in case of fingerprint damage.

#### ② (Select your finger) is a description of information for enrolled fingerprint.

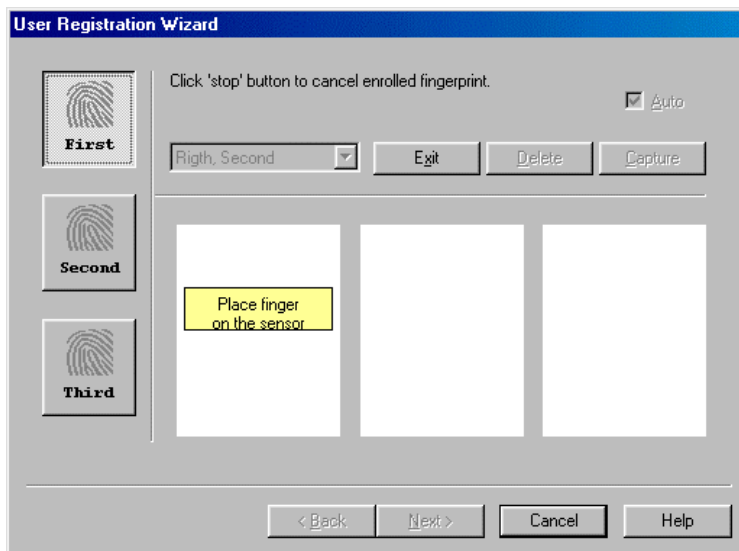
(Example) Enrolled fingerprint is lefthand's thumb : Left hand, First

#### ③ Enrollment

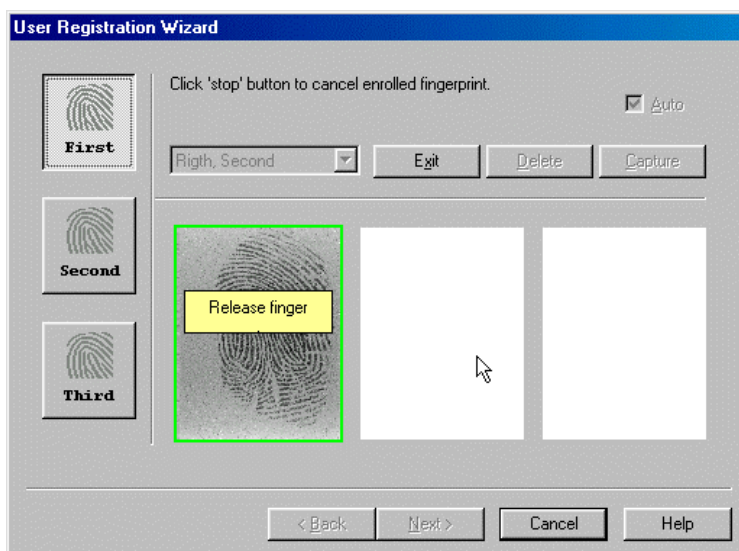
Ⓐ **Automatic(A)** : The enrollment will be automatically processed by placing one's finger on the sensor when Automatic is selected.

Ⓑ **Non-Automatic** : Click 'Enroll' with having fingerprint on the sensor and then push either <Capture> or spacebar for three fingerprint registration





Please place a finger on the sensor as indicated.



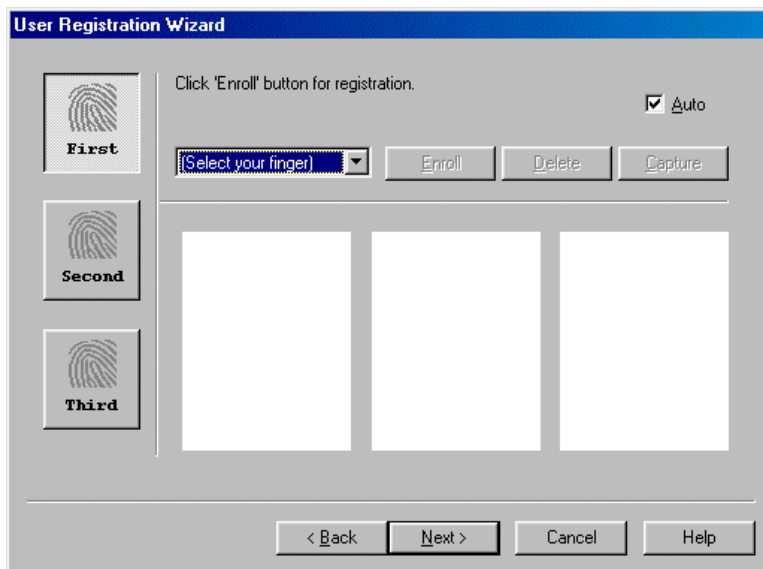
Release finger when 'Release finger' appears. Enrollment will complete after three times confirmation per finger. Please follow the indication shown in the window.

**\*\* Registration will be stopped during the process by clicking <Exit>, and restarted by clicking <Enroll>**

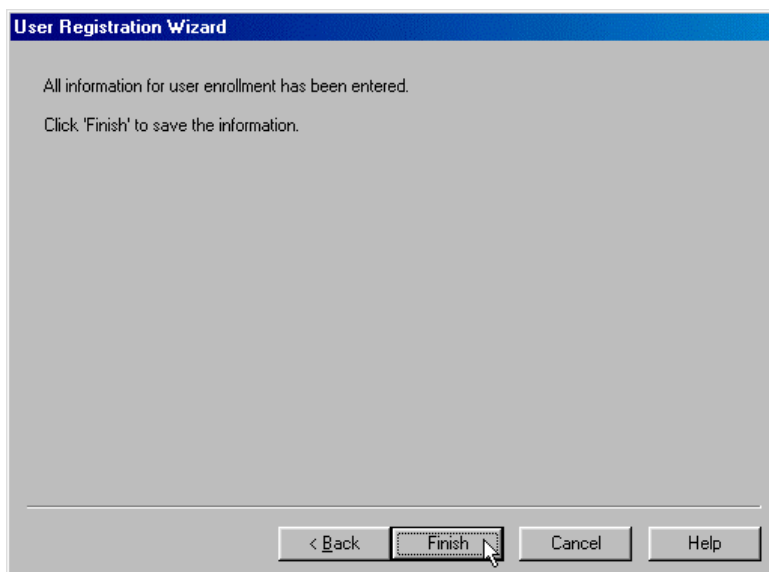


Above window will be shown after completion of three times confirmation. Click <OK>



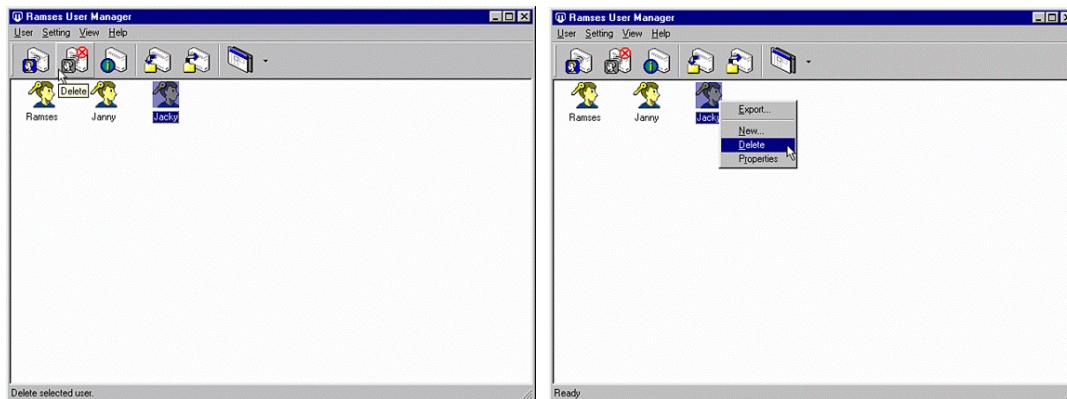


'Second' and 'Third' are registered in the same way of 'First'  
Click <Next> when fingerprint registration is finished.



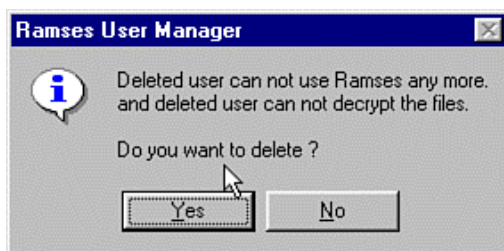
Click <Finish> and then registration is completed.

## 2. Delete

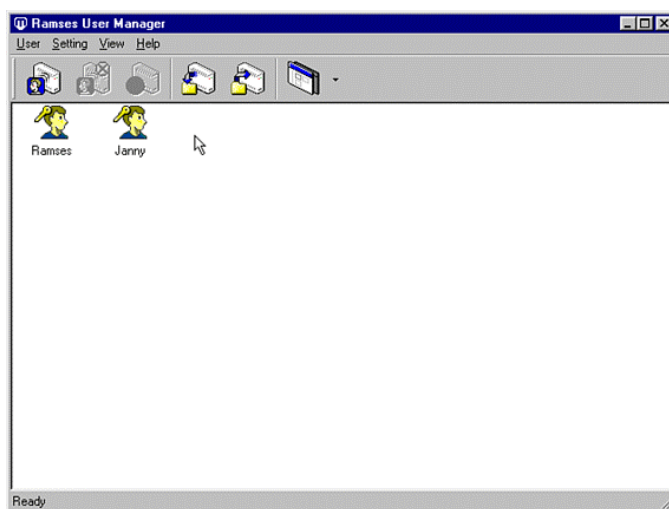


When enrolled user's fingerprint and information need to be deleted, select the user and click 'Delete' in the toolbar.

It is also possible to select 'Delete' by clicking right mouse button after selecting user needed to be deleted.



Above window is to confirm deletion. Select 'Yes' to delete and 'No' to cancel.

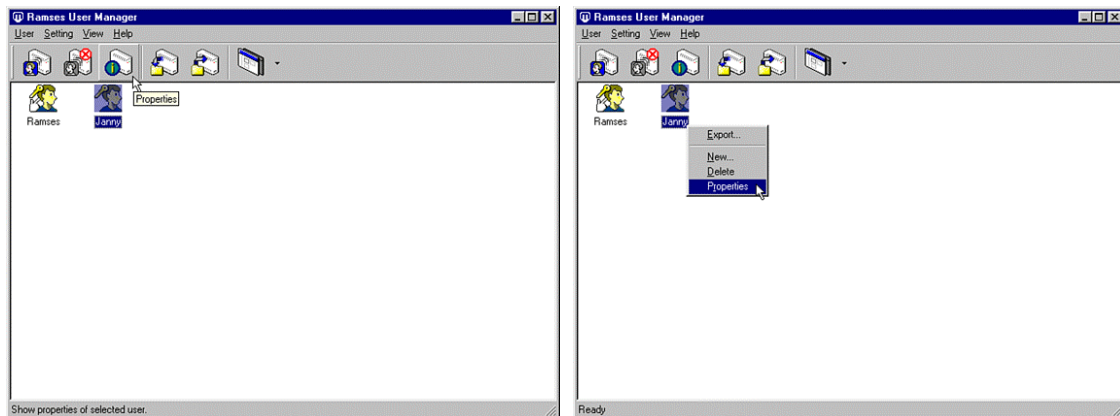


Selected user has been deleted.

**\*\* Multiple users can be deleted in one time.**

### 3. Properties

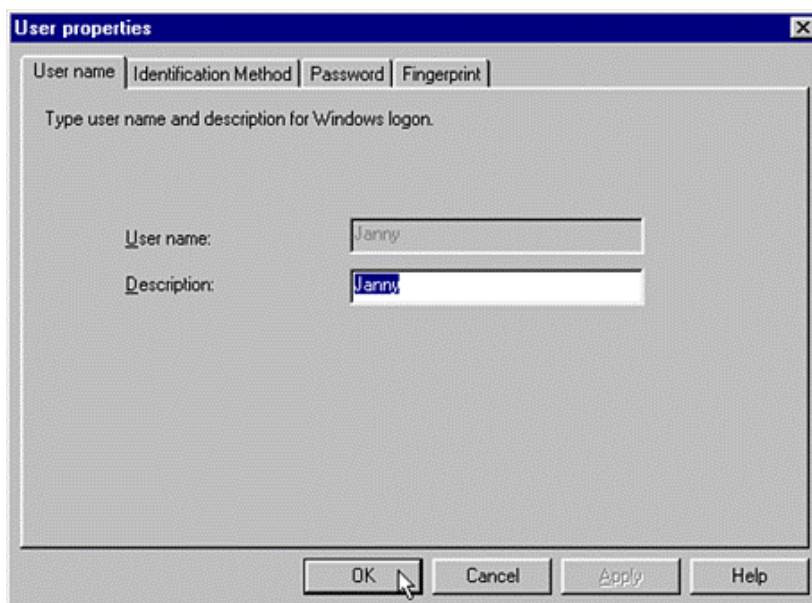
Properties is used for changing or adding registered user's information.



Select user and click 'Properties'.

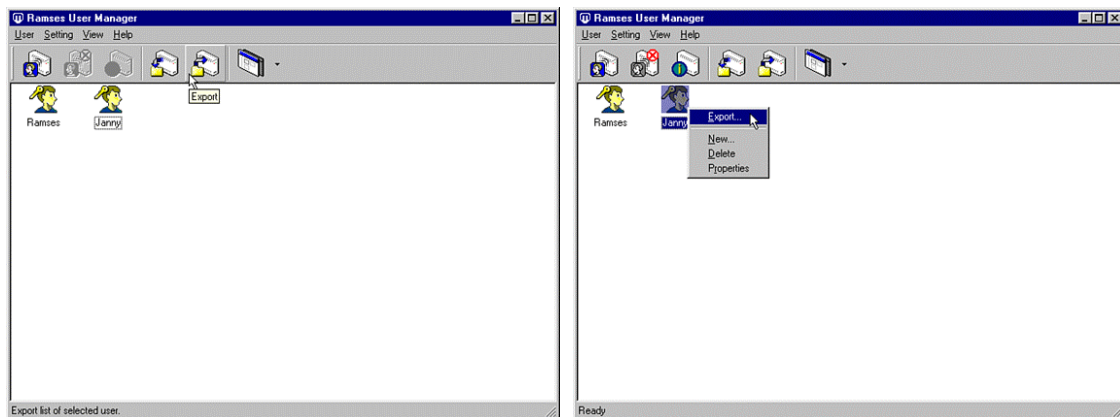
It is also possible to select user and click right mouse button to click 'Properties'.

Properties can be opened by double clicking user icon.



Change or retype name, authentication method, password, fingerprint in each page. Click <OK> when change is completed.

## 4. User Export



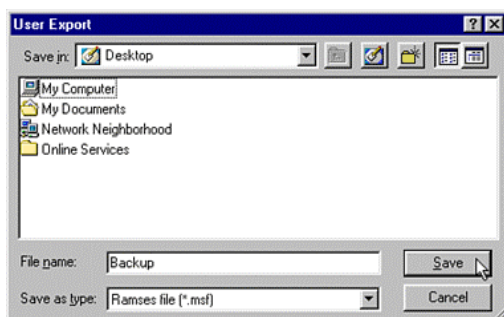
The export is to send out user list in file format. Click 'Export' in toolbar. It is also possible to export by selecting user and click right mouse button and click 'Export'.



Select user to be exported and click <OK>.

\*\*It is possible to confirm user's information by clicking <Properties>.

Click <Select All> to export all users.



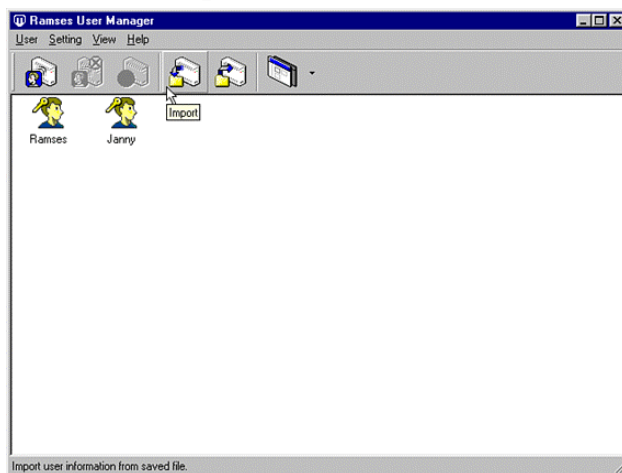
When above window appears, select the path to save, type file name and click 'Save' to execute

export.

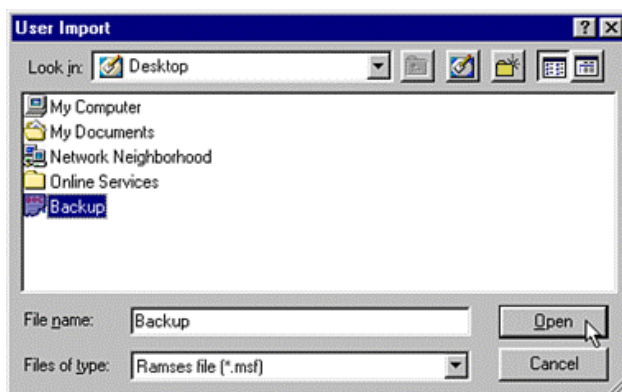


Click <OK> when above window appears.

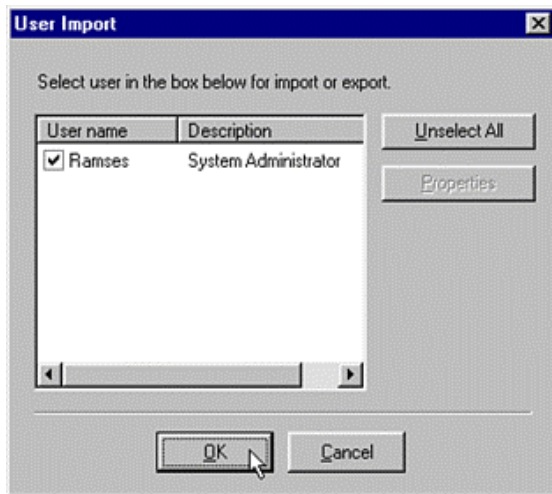
## 5. User Import



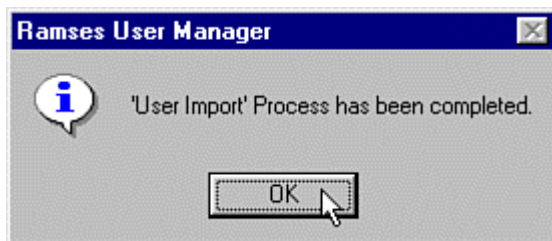
Click 'Import' on the toolbar.



The window above will appear. Select file through the path which was used for Export. Click 'Open'



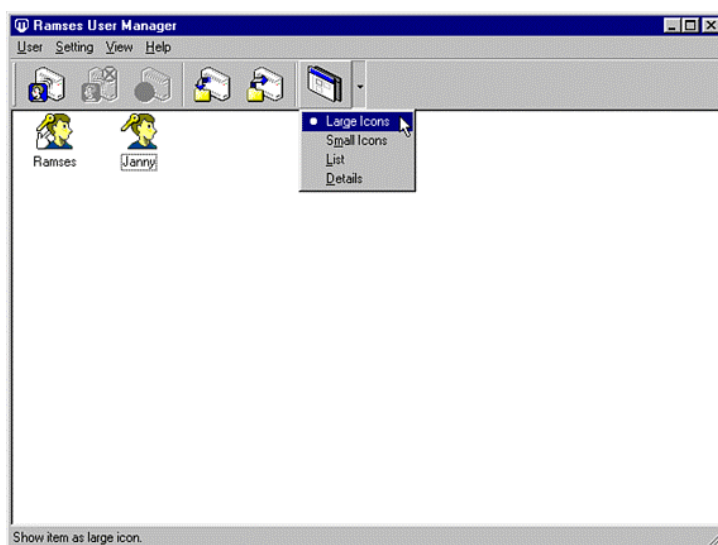
Select User and then click <OK>



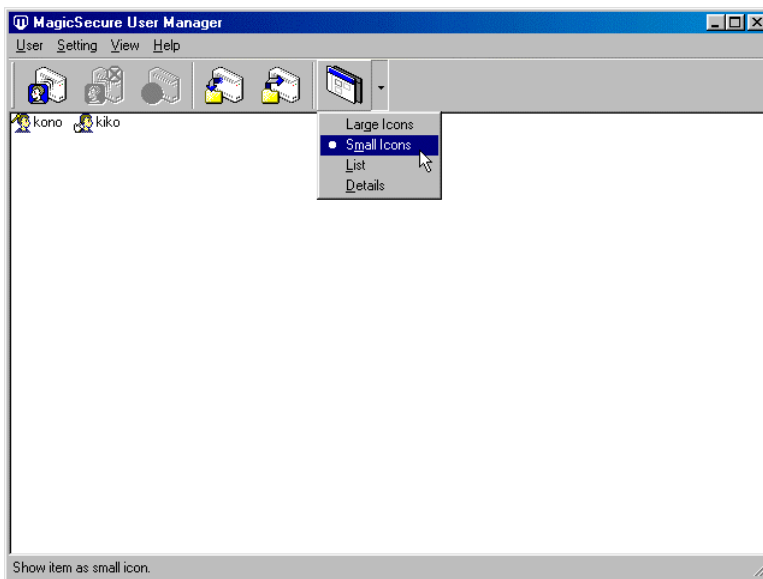
Click <OK> and then 'Import' process is completed.

## 6. View

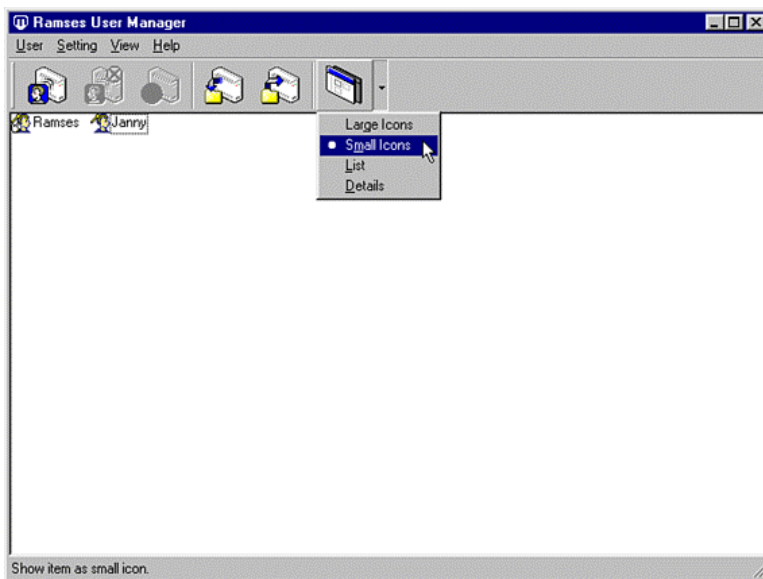
Click 'view' on the toolbar. There are large icon, small icon, list and details.



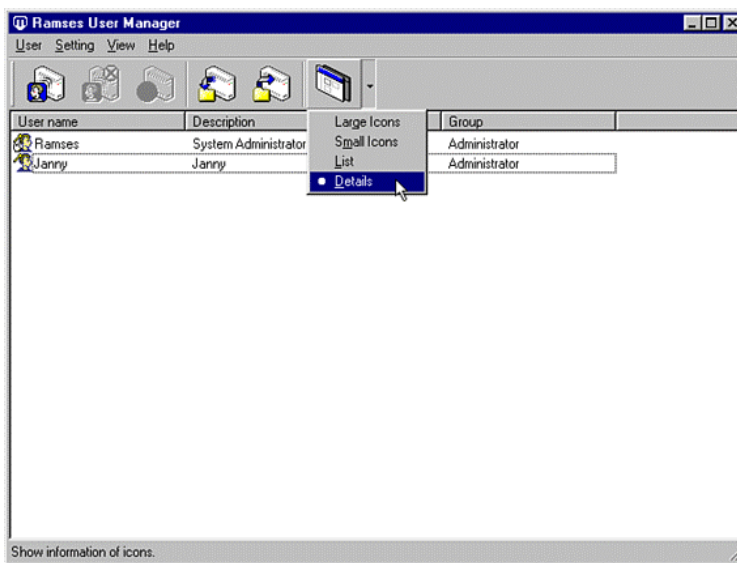
For 'Large icon'



For 'Small icon'

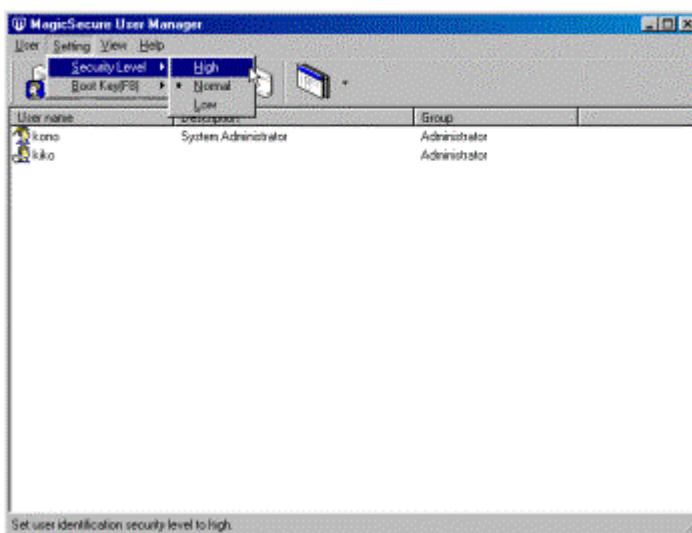


For 'List'



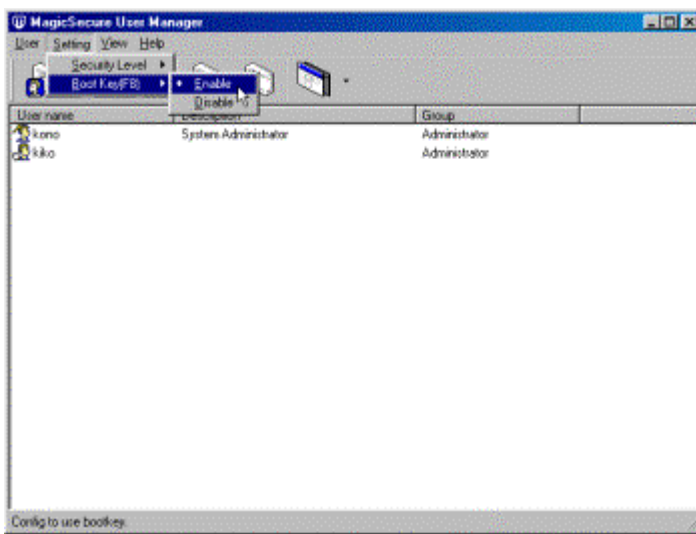
For 'Details'

## 7. Setting



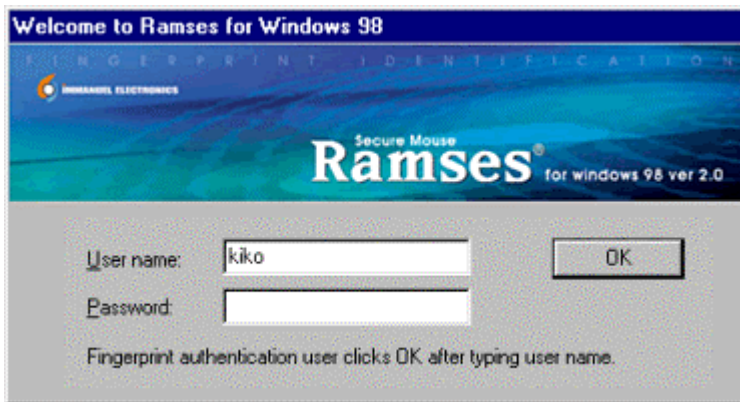
Click 'Setting' -> 'Security level'. Security level can be adjusted as 'High', 'Normal' or 'Low'. If security level is high, it demands precise match. If the fingerprint is not clear, security level had better be low.





This window shows 'Boot key'. If 'Boot key' is not selected, you cannot use the F5/F8 key for controlling booting when system is being booted.

## V. Logon



If you selected fingerprint only during registration, type 'User name' and click 'OK' in the window above.

**\*\* Password used during set up the program is used in first logon. The authentication method can be changed through <User Manager>.**

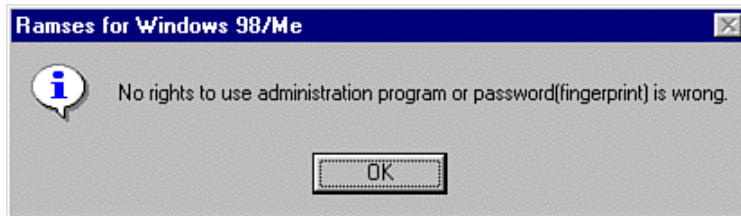


If you use fingerprint verification, this window shows after typing user name and clicking 'OK'. Input fingerprint on the sensor for logon.

### (1) When matched

The window above will appear. Now you can use your PC.

## (2) When unmatched



If it does not match, the screen above will appear.

## VI. Folder encryption & decryption

Folders and files can be encrypted and decrypted for security purposes.

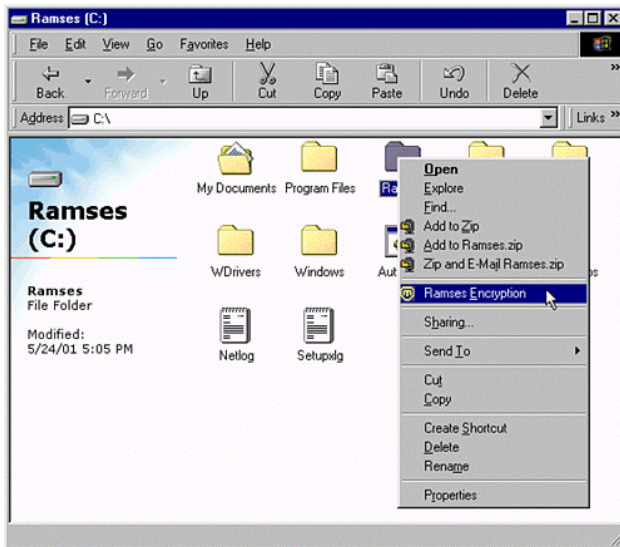
**\* Attention! Special folders and sub folders which are controlled by the window system can not be encrypted. The special folders are as follows.**

- Window directory ( c:\Windows )
- Program directory ( c:\Program Files )
- My document directory ( c:\My Documents )
- Recycled ( c:\Recycled )

**\* Attention! If you encrypt the special folders, it may cause an error on the operating system.**

### 1. Folder encryption

Only an authorized user can encrypt folders.

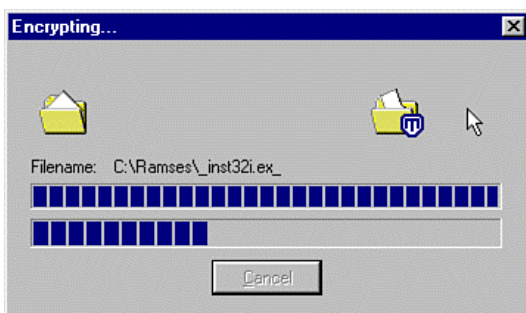


Select the folders to be encrypted and click the right button of mouse. Then execute 'Ramses Encryption'



This screen is for fingerprint verification. Encryption is executed when the live scanned fingerprint matches the registered one.

① When matched



Folders are being encrypted.

② When unmatched



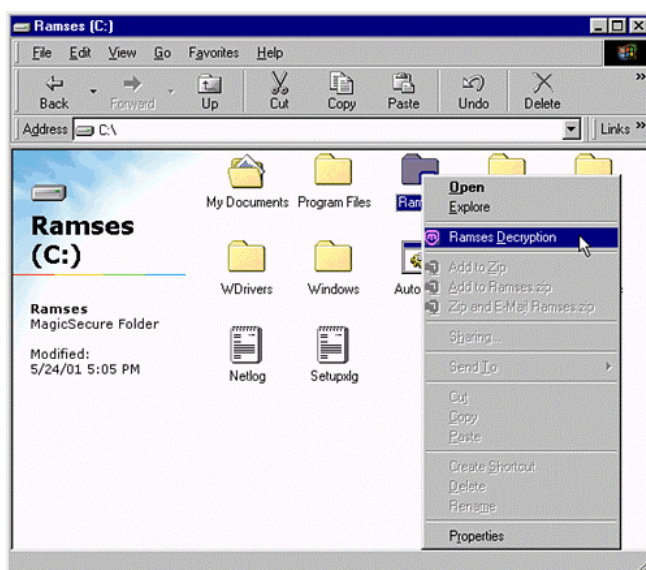
When unmatched, above message appears.



Above icons are encrypted folders.

## 2. Folder Decryption

Encrypted folders can be decrypted only by entering the fingerprint, password, or both which was used for encryption.



Select the encrypted folder to be decrypted and click the right button of the mouse. Then

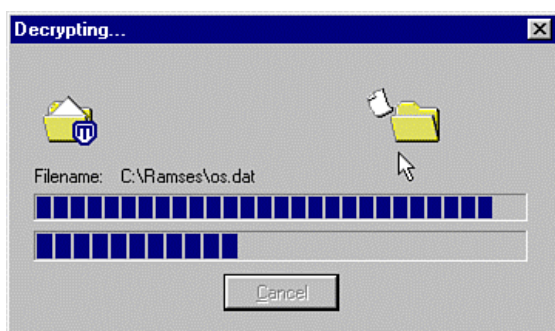
execute 'Ramses Decryption'.



This screen is for fingerprint verification.

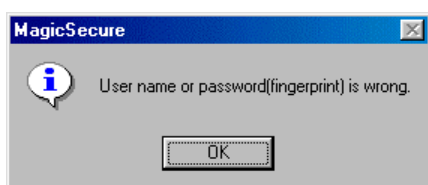
Decryption is executed when the live scanned fingerprint matches the registered one.

① When matched

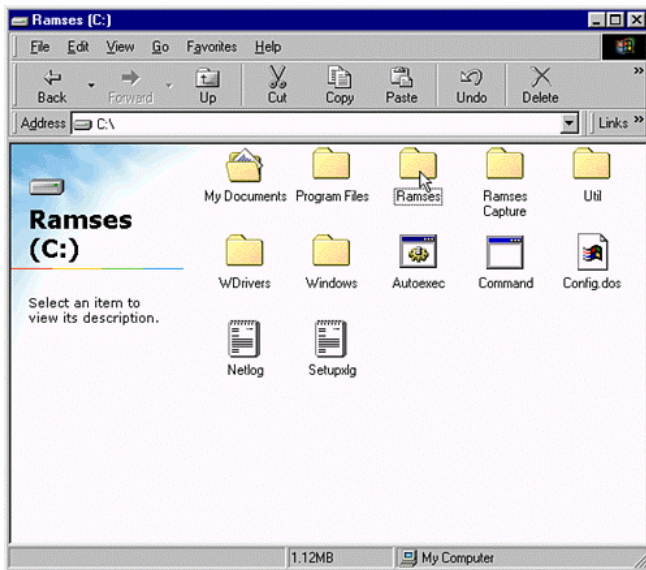


The folder is being decrypted.

② When unmatched



When unmatched, above message appears.

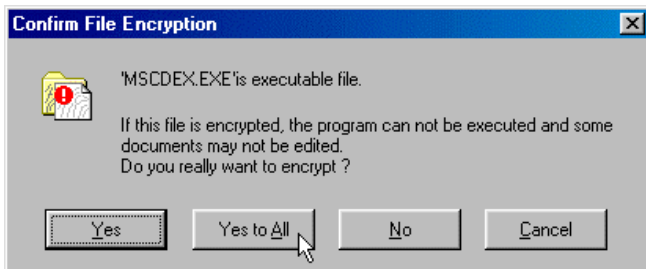


Above are decrypted folders.

### 3. Others

#### (1) Encryption of 'Executable files'

Executable file(\*.exe, \*.com, etc) can not be executed if encrypted. If you try to encrypt the executable file, the following window will appear.



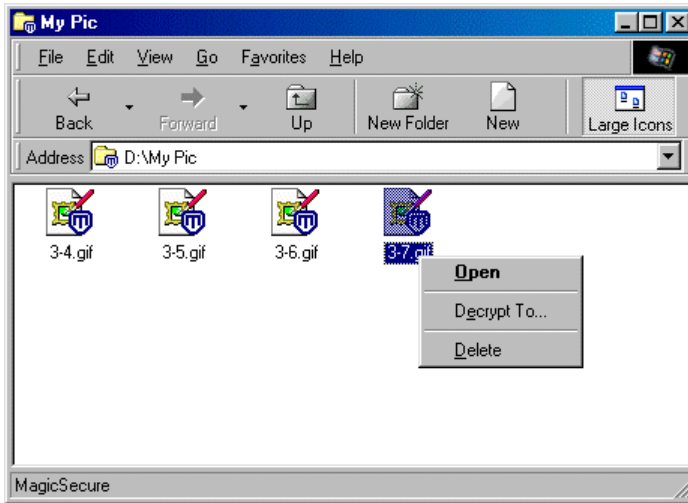
Click 'Yes to All' to encrypt all files.

#### (2) File moving

When an unencrypted file is moved to an encrypted folder, the file is encrypted automatically.

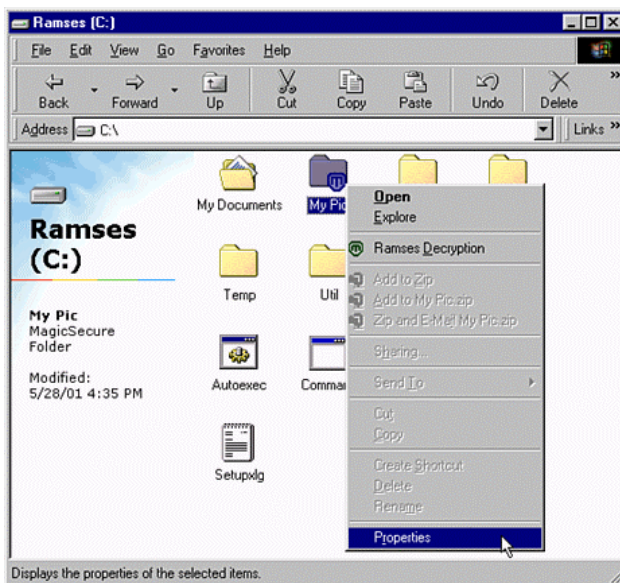
(3) The window below will appear when clicking right mouse button on an encrypted folder and file.





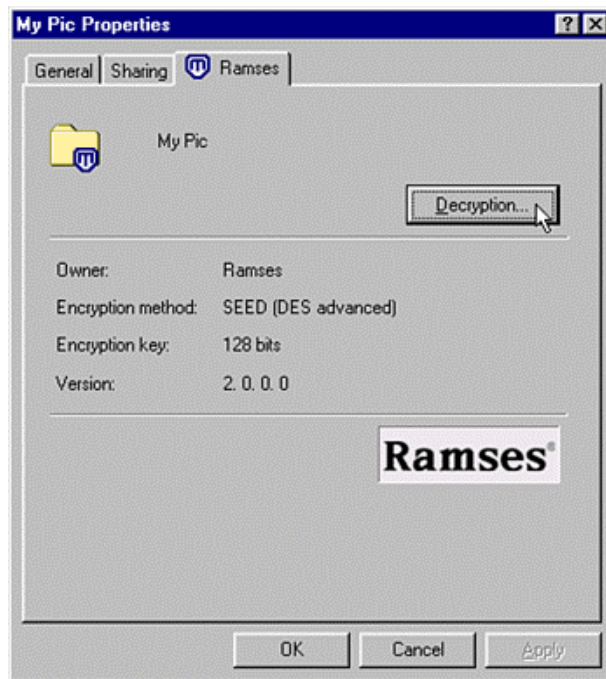
- ① Open : To open file through authentication process.
- ② Decrypt To : Decrypt files to other folder by selecting the path.
- ③ Delete : Delete files through authentication process

#### (4) Confirm user who encrypted folder or file



The window above will appear when clicking right mouse button on the encrypted folder. Click on <Properties> for registration information.

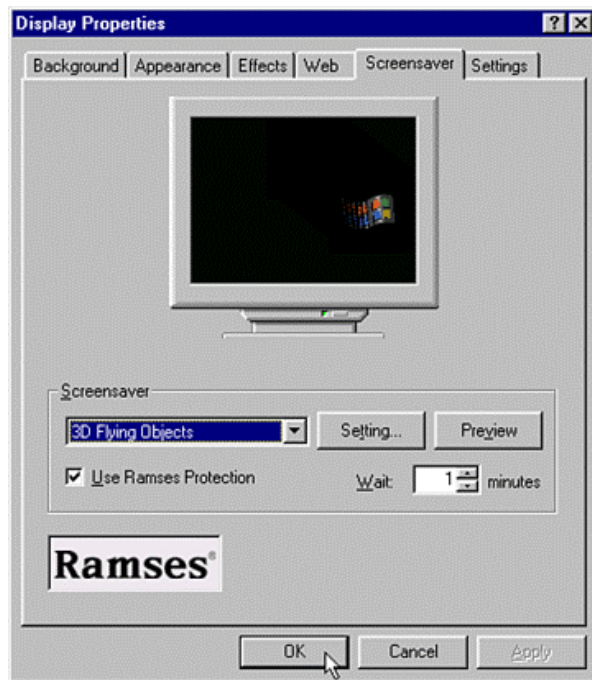




Select 'Ramses' tap and the user info who encrypted files will appear.

## VII. Screen saver

The screensaver is operated for security purpose. In order to protect someone accessing the PC, the fingerprint verification is needed to release screensaver.



Click 'OK' after selecting 'Use Ramses Protection' in the 'Screensaver'



The screen saver can be set to turn on automatically when the PC is left idle for a certain period of time.




The fingerprint verification window will appear if you press any key while the screensaver is on. If the live scanned fingerprint matches the registered one, the screen saver will be released.

If unmatched, screensaver is still on.

## VIII. System tray



Above window appears when clicking Ramses logo  in Status bar.

### (1) Run screensaver

When system is temporarily left idle, run screensaver for security.

### (2) User Manager

Go directly to Ramses 'User Manager'.

### (3) Help

Help window will appear.

### (4) Properties

Show Ramses system properties.



## **Q&A**

**[Q] How to upgrade Ramses 1.0 to 2.0 ?**

[A] Ramses 2.0 is revised for more powerful security. Thus user of Ramses 1.0 should install Ramses 2.0 after uninstalling Ramses1.0 program. Folder which is encrypted by Ramses 1.0 can not be decrypted, so all encrypted folder should be decrypted before uninstalling Ramses 1.0 program.

**[Q] Why is the Windows password asked for continuously after fingerprint verification on Ramses logon ?**

[A] Password of user transfers to the system after fingerprint verification on Ramses logon. In this process, system demands the password of window, because the user logon through fingerprint. If the user deletes the password of windows in the control panel, the window logon will not appear. Password and fingerprint verification does not cause this problem.

**[Q] Why does Windows logon appear when Ramses is used for fingerprint authentication ?**

[A] If the password of Ramses logon is different from the Windows password, the Window logon screen will appear. If the user changes the password of window in control panel to save password of Ramses logon, window logon screen will not appear.

**[Q] My PC logon is through fingerprint verification, but the network server should logon through password. If I use the Ramses for logon, I have to enter the password for Network logon after Ramses logon. What is the better way of access ?**

[A] If you logon through fingerprint and password, the network server will automatically logon.

**[Q] Can specific file be encrypted ?**

[A] Partly possible. Because Ramses encrypt folder for better convenience, specific file can be encrypted automatically when it moves to the encrypted folder. On the contrary, if file in the encrypted folder moves to an unencrypted folder, it will be automatically decrypted.

**[Q] I run setup again while using Ramses, but initial user registration window is not appeared.**

[A] If you try to run setup again, the message asking that you would use existing database will appear. If yes, initial user registration window will not appear and you should logon through existing database.

**[Q] Fingerprint verification is not operated in a sudden.**

**[A]** Clear the sensor and contact A/S dept, if the problem continues.

**[Q] The fingerprint enrolled in 'First' cannot be deleted. How can I use other finger for 'First'?**

**[A]** The fingerprint enrolled in 'First' can not be deleted or changed because it is regarded as user's ID. If the user is deleted and try to enroll with same user name, the system recognize it as different user. If you want to use other fingers, please use enrollment of 'Second' and 'Third'.

**[Q] How many users can enroll ?**

**[A]** No limit

**[Q] What is the function of security level in User Manager ?**

**[A]** It is a level of fingerprint authentication. When high is selected, it requires high fingerprint match for success. If the status of user's fingerprint is not good, please select low level.

**[Q] Which OS can be used for Ramses ?**

**[A]** Windows 98

**[Q] The hardware installation wizard does not automatically appear when fingerprint identification device is connected to the system.**

**[A]** Please confirm that USB Port is set as 'Enabled' in CMOS setting. If the Plug & Play function is not active in spite of Enabled setting, please contact us.

**[Q] I can not delete user in User Manager.**

**[A]** Logon user can not be deleted. Other user who has a authority for Administrator can delete after logoff.

**[Q] When I delete folders, ' folders encrypted by other user can not be deleted' appears. Can I find who encrypted it ?**

**[A]** Select folder and click right mouse button to go to properties, then the user who encrypted folder will be shown.

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