Futronic Logon Enterprise Edition

For Windows 2000/2003/2008/2012 Server Active Directory

> User's Guide Version 7.4

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Introduction

Thank you for buying Futronic Logon Software and fingerprint scanner. We present you an innovative product based on biometric technology, which is developed on the basis of the latest developments and advanced technologies in the field.

The Software enables computer users to identify themselves by using their biometric data (fingerprints) along with the standard Windows Logon procedure with user name and password. Biometric identification enables quick access to the system without entering a password and ensures safety. Just put your finger on the fingerprint scanner, and the system will identify you, associate with your registration data and logon Windows. With this software, you will be able to strengthen your privacy and prevent unauthorized access to your computer.

Now your password cannot be stolen and your fingerprint cannot be falsified: it is guaranteed by our fingerprint recognition algorithm. For usual work you won't have to remember a password. In case you want ensured privacy, you can set a very long password because you won't have to enter it.

Futronic Logon Enterprise Edition software package has been developed specially for networks with domain architecture on the basis of Microsoft Windows 2000 / 2003 / 2008 /2012 servers. The key characteristic of this product is its seamless integration with Active Directory. The software package includes two components: Futronic Logon Enterprise Edition Server and Futronic Logon Enterprise Edition Client.

Futronic Logon Enterprise Edition Server ensures authentication and identification of users on the basis of fingerprint data received from Futronic Logon Enterprise Edition Client. All the necessary information is stored in a specially created storage facility in the Active Directory. The server uses unique biometric algorithms, finds the relevant server and returns to the client the data necessary for registration at the client workstation. Server-based software also includes utilities for creating or deleting storage in the Active Directory.

The Futronic Logon Enterprise Edition Client software provides fingerprint authentication function for Windows workstations. It enhances security and convenience to Windows logon by adding fingerprint authentication to the Windows logon procedure. Variety of security settings is available through Finger Manager administrative tool. Finger Manager is also an administrative tool for managing users and their biometric data in the storage created in the Active Directory.

If you have any question about our product, please call 852-24087705 or email to <u>inquiry@futronic-tech.com</u>.

Requirements

This document will guide you through the installation of Futronic Logon Enterprise Edition for Windows 2000/2003/2008/2012 Server Active Directory.

Note: To install this product as described in this document, you will need:

- Processor: Intel Pentium processor (or compatible) or better
- RAM: 64 MB
- Screen Resolution: 16-bit color, 800x600 pixels
- Client Operating System: Windows XP/Vista/7/8/8.1
- Server Operating System: 2003/2008/2012
- Disk Space: 100MB free
- 1 USB Port

You also need to be sure your account has administrator rights.

Futronic Logon Enterprise Edition software directly or indirectly uses the following services and utilities: **TCP/IP** protocol

DNS

WINS can also be used for resolving the server name

Note: wrong configuration of these services can result in partial failure of the software.

Server Installation

To install FinLogon Server for Active Directory:

- 1. Navigate to your computer's download folder (C:\Users\Your Username\Downloads by default).
- 2. To start installation, launch the program **ServerForAD.N.N.N.exe** and accept the Windows User Account Control (UAC) prompt, if applicable.



3. Read the license agreement, select I accept the terms of this agreement, and then click Next. FinLogon Server for AD 6.9 Setup



License agreement

Please read the following license agreement carefully

FUTRONIC SOFTWARE END USER'S LICENSING AGREEMENT

READ THIS CAREFULLY!

This and the following screens together make up the license permitting you, the user, to use the Futronic Technology Company Ltd. software. Should you proceed to acquire the right to use this software the terms and conditions placed upon such use will be those set forth in these licensing screens.

LICENSE. This package is a Futronic Technology Company Ltd. ("Futronic") Software application that incorporates Futronic's proprietary software developed by and on behalf of Futronic, to be used solely in conjunction with Futronic's Scanner, which an integrated optical reader includes that allows for the scanning of fingerprints, providing for enhanced network and workstation security and I accept the terms in the License Agreement

Next

*

4. Enter your product key, and then click **Continue**.

5.

FinLogon Serve	er for AD 6.9 Setup
0 xx-xx-xx-xx	Product Licensing
	Enter your Product Serial Number to save your license information. Your Product Serial Number is 16 characters and is typically found on the envelop of the CD.
	Continue
Click Install N	Now.
FinLogon Serve	er for AD 6.9 Setup
	Setup type
	Push "Install now" if you want install now. Push "Custom" if you want customize installation
	Install now
	Custom

If you want to adjust the installation parameters, click **Custom** and specify:

- a. The path to the FinLogon Server installation folder.
- b. The name of the FinLogon Server folder on the Start menu.

6. Wait while the software is installed.

7.

FinLogon Serve	er for AD 6.9 Setup	
	Install	
	Integrating with Active Directory	
Once the inst	allation is complete, click Finish .	
FinLogon Serve	er for AD 6.9 Setup	×
	FinLogon Server for AD 6.9 install successfully	
	Finish	

Note: If due to some reasons the Wizard has not been able to create storage in the Active Directory, you can use the installation and diagnostic utility CreateADStorage.exe in order to obtain more detailed diagnostics of the problem and create the storage.

Server Architecture and fine-tune

Active Directory schema extension.

Futronic Logon Enterprise Edition for Active Directory creates the following objects in the Active Directory Schema:

Attribute: "CN=Ftr-User" with Provider-specific Object Identifier (OID) 1.2.840.113556.1.8000.1581.2.1

Class: «CN=Ftr-User-Class» with OID 1.2.840.113556.1.8000.1581.1.1

To store information on users, Futronic Logon Enterprise Edition creates a container «CN=ftr-Fingers» where objects of the class «CN=Ftr-User-Class» will be stored.

Note: The schema extension is global to the Active Directory forest, not just a single domain. Also, schema changes cannot be rolled back in Windows 2000/2003/2008 servers.

Changing the port number

In order to change the port number where the server works it is necessary to create or edit the value of parameter "ServerPort" in the key of the registry:

32 bit machines: HKEY_LOCAL_MACHINE\Software\Futronic\ADServer

64 bit machines: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Futronic\ADServer

By default this value equals to 4799.

If the key does not exist, please create it. Futronic Logon Enterprise Edition for Active Directory version 6.5 or later must be installed.

Managing users.

User management is done with the help of Finger Manager administrative tool by installing the Futronic Logon Enterprise Edition Client. See how to manage users in the section "Finger Manager".

User management can be done from any client workstation (with Futronic Logon Enterprise Edition Client installed) using the Finger Manager. However, it is also necessary to install the Futronic Logon Enterprise Edition Client in the server. Please see the section "Client Installation" for detail procedure.

Remove server programs

Windows 2003/XP: To remove the program, select the option Add/Remove Programs in the Windows control panel. Find FinLogon Server for AD and press the *Change/Remove* button.

Windows Vista/2008/7/8/8.1/2012: To remove the program, select the option Programs and Features in the Windows control panel. Find FinLogon Server for AD and press the **Uninstall** button.



After you have confirmed the operation, the program will be removed from the system.

Programs and Features				
Are you sure you want to uninstall FinLogon Server for AD 6.9?				
□ In the future, do not show me this dialog box Yes				

Only the System Administrator can remove the Futronic Logon Software from Windows.

Note: Deletion of the program will not affect the storage in AD. In order to delete the storage, use RemoveADStorage.exe utility from the distribution package. This utility will delete all users' fingerprints and data, remove the container and disable the class and the attribute.

Client Installation

To install Futronic Logon Enterprise Edition for Active Directory:

- 1. Navigate to your computer's download folder (C:\Users\Your Username\Downloads by default).
- 2. To start installation, launch the program LogonEE.N.N.N.exe and accept the Windows User Account Control (UAC) prompt, if applicable.



3. Read the license agreement, select I accept the terms of this agreement, and then click Next.



4. Click Install Now.

Futronic Logon	Enterprise Edition for Active Directory 6.9 Setup	- • ×
	Setup type	
	Push "Install now" if you want install now. Push "Custom" if you want customize installat	tion
	Install now	
	Custom	

If you want to adjust the installation parameters, click **Custom** and specify:

- a. The path to the Futronic Logon components installation folder.
- b. The name of the Futronic Logon folder on the Start menu.
- 5. Wait while the software is installed.

Futronic Logon	Enterprise Edition for Active Directory 6.9 Setup	- 0 -
	Install	
	Installing new services	

6. Select FinLogon servers

1 19	Select FinLogon Servers	83
Add one or more Click the down or	FinLogon Servers to a list. r up arrows to reorder the entries.	
FinLogon Server	r List	x 4 4
<server doma<="" td=""><td>in name>:4799</td><td></td></server>	in name>:4799	
	ОК	Cancel

7. Once the installation is complete, click **Finish**.



8. You should restart your computer. You can do that immediately or later.



After the restart of the computer, the installation is completed and you can start using the program.

First of all, you should add domain users and enroll fingers using Finger Manager program included into the application. You can find instructions on the use of this program in the corresponding section of "Finger Manager".

Remove client programs

Windows 2003/XP: To remove the program, select the option Add/Remove Programs in the Windows control panel. Find Futronic Logon Enterprise Edition for Active Directory and press the *Change/Remove* button.

Windows Vista/2008/7/8/8.1/2012: To remove the program, select the option Programs and Features in the Windows control panel. Find Futronic Logon Enterprise Edition for Active Directory and press the **Uninstall** button.

						×
Control Panel >	 Programs Programs and Features 		🕶 🍫 Sear	ch Programs an	d Features	Q
Control Panel Home View installed updates	Uninstall or change a program To uninstall a program, select it from the list and then	click Uninstall, Change, or Repair.				
off	Organize 🔻 Uninstall Repair				•	0
Install a program from the network	Name	Publisher	Installed On	Size	Version	
	Futronic Logon Enterprise Edition for Active Directory	Futronic Technology Company	5/19/2014	12.5 MB	6.9.1847	
	Microsoft Visual C++ 2008 Redistributable - x86 9.0.3	Microsoft Corporation	3/1/2012	596 KB	9.0.30729.4148	
	Futronic Technology Company Ltd. Produc	ct version: 6.9.1847 Size: 12.5 MB				

After you have confirmed the operation, the program will be removed from the system.

Programs and Features	
Are you sure you want to uninstall Futronic Logon Enterprise	e Edition for Active Directory 6.9?
In the future, do not show me this dialog box	Yes <u>N</u> o

Now, to remove the application and all its features, you should restart your computer immediately or later.

Only the System Administrator can remove the Futronic Logon Software from Windows.

Driver Installation

As a biometric scanner has USB interface, it is not necessary to switch off the computer to connect the scanner. To connect the scanner, insert the USB-plug of the device into a free USB port of the computer.

When Windows detects a new device, the installation wizard will be launched. If the scanner has been installed earlier, Windows will find drivers automatically.

Driver Software Installation	×
Installing device driver software	
Futronic Fingerprint Scanner 2.0 O Searching Windows	Jpdate
Obtaining device driver software from Windows Update might take a whe Skip obtaining driver software from Windows Update	nile.
	Close

To install Futronic Fingerprint Scanner Device manually:

- 1. Navigate to your computer's download folder (C:\Users\Your Username\Downloads by default).
- 2. To start installation, launch the program **ftrDriverSetup_winxp_vista_win7_NN.exe** and accept the Windows User Account Control (UAC) prompt, if applicable.



3. Click Next.

4.

Futronic Finger	rprint Scanner Setup		×
	Welcome		
	This wizard will install Futronic Fingerprint Scanner Device Drivers 4.0.1.5.		
	Click Next to continue.		
		Next	
Wait while th	ne software is installed.		
Futronic Finger	rprint Scanner Setup		×

Install	
Validating install	

5. Once the installation is complete, click **Finish**.



The USB driver installation can be done before or after the installation of Futronic Logon Software.

IMPORTANT NOTES:

Futronic will provide update drivers for the USB Fingerprint Scanner, for the new driver, it is necessary to restart OS and logon to the Windows to finish the driver updating, during the updating, the fingerprint scanner may not be used by the OS. So please take the following actions:

- 1. In the FingerManager.exe, do <u>NOT</u> set the "Authentication Options" to "Finger Only" or "Both Finger and Password" for the specific user.
- 2. Remember the Windows Logon Password, because you need to logon with password at the first time after restart.

Getting Started

You have now installed the program and the USB fingerprint scanner's driver successfully. If you have not setup the driver yet, you can do it after the system restart. Instructions for driver installation are provided in the chapter "Driver Installation".

After restarting your computer, the program will ask you to press Ctrl-Alt-Del to logon Windows. If your fingerprint has not been added to the Finger Manager yet, you should press Ctrl-Alt-Del and use username and password to logon Domain/Windows.

Windows XP view:

Welcome to Windows				
FUTRONIC Futronic Logon for Microsoft® Windows Enterprise Edition for Active Directory Copyright (c) Futronic Technology Company Ltd.				
Welcome to Windows				
Press Ctrl-Alt-Del to begin.				
Place your finger on the scanner.				
Logon using dial-up connection				
Requiring this key combination at startup helps keep your computer secure.				

If address of Futronic Logon EE Server is incorrect or the server is unavailable at the moment, you will see the following screen. Then you should press Ctrl-Alt-Del to begin. And ask your network administrator for help. See also Trouble-shooting section of this manual and the manual on Futronic Logon EE Server.

Windows XP view:

Welcome to Windows
FUTRONIC Futronic Logon for Microsoft® Windows Enterprise Edition for Active Directory Copyright (c) Futronic Technology Company Ltd.
Welcome to Windows
Press Ctrl-Alt-Del to begin.
Connecting to '2000server:4799'
Logon using dial-up connection
Requiring this key combination at startup helps keep your computer secure.

To add the first user/finger, start up Finger Manager of the Futronic Logon. The shortcut is located in the menu *Start->Programs->Futronic Logon*:



But you must be logon as a server/domain administrator to run the Finger Manager.

Instructions on Finger Manager are provided in this user guide.

After user/finger has been added in the Finger Manager, you can use your finger(s) instead of a password to logon Windows. Just Log off and wait for the welcome dialogue box and place your finger on the fingerprint scanner.

If you have any problems, please go to the Section "Troubleshooting".

Hibernate, Stand by and Screen Saver

Futronic Logon Software also supports Hibernate, Stand by and Screen Saver with all the functions as that of Windows Logon. User will see the same dialogue box as that at Windows Logon when the system comes back from Hibernate, Stand by and Screen Saver. To activate Futronic Logon at Screen Saver, the option "on resume, password protect" option in the Screen Saver must be set.

Finger Manager

Finger Manager is an administrative tool supplied as part of the program. It is used to perform the following functions:

- to add or delete a domain user/finger;
- to check quality of user's fingerprints recognition;
- to change authentication options and program settings.

Only server/domain administrator can run the Finger Manager

🕵 SMITH.vm2008.futronic-tech.com - F	utronic Logon Finger Manager	
Action View Tools Help		
🏭 🗡 🗞 I 🍃 🌆 I 🔞		
User	✓ Domain	
Ready		CAP NUM SCRL

Add user

To add a domain user to Finger Manager, choose in "Action" menu the option "Add User" and follow instructions

	SN	ITH.vm2	00	8.futror	nic-t	ech.	.com - F	utron	nic	Logon Finger Manager		- 0	x
-	Acti	on <u>V</u> ie	N	Tools	H	elp		_					
	24	<u>A</u> dd Us	r/F	inger			Insert						
Ì	×	<u>D</u> elete					Delete	-	•	Domain			
	20	<u>P</u> ropert	es				Enter						
	6	Export											
	1	Import.	5										
		E <u>x</u> it											
								-					
		4411				9			_		100	0 1001	CDU
2	tart A	ad User/	r In	iger wi	ard						1 CA	PNUM	CRL

To add a new user/finger with the help of the Wizard, there are just several simple steps.

In "Welcome to the Add New User Wizard", press "Next".

Enter domain user's name and password. They should be the <u>SAME</u> as the domain user's name and password in Active Directory. Otherwise, the added user/finger(s) can't logon the domain.

Please also select the right domain that this domain user belongs to, otherwise this action will fail.

Add User Wizard	X
Select the user you want to add	to Futronic Logon
Type user name or select user from list.	
<u>U</u> ser name:	User
Select the domain where this user is allow	ed to be registered.
<u>D</u> omain:	₩ VM2008
Type a password for the selected user.	1 VM2008
Password:	
<u>C</u> onfirm Password:	•••••
	Next > Cancel Help

If there is no such domain user in Active Directory, you'll be asked to create it.

Futronic Log	Futronic Logon Finger Manager						
?	User does not exists. Do you wish to create a new user account with user privileges?						
	Yes <u>N</u> o						

After that, press "Next".

Now select authentication options for this domain user:



Select a finger that will be used for logon Domain.

Fingers will be identified as RF1...RF5 and LF1...LF5, where RF/LF stand for the finger on the right/left hand. 1,2,3,4 and 5 indicate the number of the finger starting from the thumb.

Then press "Next".

😋 🏊 Add User Wizard				x
Select the finger you want to add	d to Futro ou want to re	o nic Logon egister. Registered	fingers are highlighted.	
LF5 LF4 LF3 LF2			RF2 RF3 RF4 RF5	
	LF1	RF1		
	0	0		
			levt Cancel	Help

Now the program will learn to recognize user's fingerprint. Follow Wizard instructions and press your finger to the scanner's scanning window several times until the software takes enough samples.

Note: The Futronic Logon allows using one fingerprint for different domain users. In case there are several domain users associated with the finger pressed on the scanner, the software will ask you to select one of them to logon Domain.

🔵 孔 Add User Wizard	×
Futronic Logon will lea	rn to recognise user's fingerprint
procedure should be repeated below.	Place your finger on the scanner.
R TS	
	Learning RF2: 2 of 5
	Finish Cancel Help

Press "Finish", the procedure of adding the new domain user/finger will complete.

After the domain user/finger has been added, you can use your finger to logon Domain.



You can add up to a maximum of 10 fingers for one domain user. To add more fingers for the same domain user, just repeat the Add User/Finger procedure but check a different finger in the "Select Finger" dialogue box below.

User Properties

To view or change user's authentication options, double click on the user/finger in the list or use the option "*Properties*" from "*Action*" menu.

User Properties				×
User Properties	Fingers	Recogniti	on quality	
2. VM2008\Adm	inistrator			
Authentication Option				
O <u>E</u> ither Finger or I	Password			
<u>Finger only</u>				
Password only				
O Both Finger and	Password			
Password				
Password:	•••••	•••		
Confirm Password:	•••••	•••		
ОК	C	ancel	<u>A</u> pply	Help

To change authentication option, select one of the following variants:

- Either Finger or Password logon Windows either by fingerprint or password;
- Finger only logon Windows only by fingerprint;
- Password only logon Windows only by password;
- Both Finger and Password a two-stage authentication. To logon Windows, it is necessary to enter fingerprint first, and then password.

Manage Fingerprints

To manage user fingerprints, double click on the user/finger in the list or use the option "*Properties*" from "*Action*" menu and go to the tab "*Fingers*"

User Properties			×
User Propertie	es Fingers	Recognition quality	v l
Fingers			
N 2			
		⊻erify	<u>R</u> emove
	OK Ca	incel <u>A</u> pply	Help

To verify the added fingerprint, press "Verify..."

To remove the added fingerprint, press "Remove"

A dialogue window will pop up and ask you to put your finger on the scanner. Then, you will be given identification result.

The added finger is showed in red color above the "*Verify...*" button. If inspection shows that the fingerprint does not match the finger, it should be removed and input again. Otherwise it will be impossible to enter Windows with this fingerprint.

Per user Recognition quality setting

By default the recognition quality is set in the "Settings" from "Tools" menu (the "default recognition quality" button is checked). This is the global recognition quality for all users. If the "custom recognition quality" button is checked in the above dialogue box, the per user recognition quality can be selected. Then the fingerprint template of this particular user will be matched with a incoming fingerprint using the per user recognition quality. That is, the global recognition quality will not be used any more for this particular user.

User Properties			x
User Properties	s Fingers Recog	nition quality	
Recognition quality			-
Default recognition Custom recognition	quality quality		
	<u>0</u>		
Low	Medium (Default)	High	
	OK Cancel	Apply Help	

This function is recommended to use for users who have "hard to recognized" fingers. So their recognition quality can be set to be lower than the global recognition quality to make them easier to be recognized but without affect other users.

Settings

To change or view program settings use the option "Settings" from "Tools" menu.

Settings	×
1	Global
	Low High
	Minimum number of minutiae
	Low High
	Minimum number of overlap minutiae
	Low High
	Stop identification after first match
	"Fast mode" recognition
	Local (this computer only)
	General
	Enable Futronic Logon
	Fingerprint
	Enable Visualization for image capture
	Detect <u>f</u> ake finger
	Disable MIOT
	OK Cancel

FAR - False Acceptance Ratio

FRR - False Rejection Ratio

Stop identification after first match - if this option is enabled, Futronic Logon EE Server stops fingerprint identification after first matching of user's fingerprint. The Futronic Logon allows using one fingerprint for different domain users. In case there are several domain users associated with the finger, un-check this option to disable it.

"Fast mode" recognition - if this option is enabled, the identification process is speeding up 2-3 times by slightly decreasing the recognition quality.

Enable Futronic Logon - This is checked by default. Un-Check it will disable the Futronic Logon Software. You can still run Finger Manager but you will not be asked to present your finger at Windows Logon.

Recognition Quality - There are 5 levels. "High" is the most secure (low FAR and high FRR) and "Low" is the least secure (high FAR and low FRR). Default is Medium.

<u>User with a "hard to recognize" finger should select a lower recognition quality for convenience. But</u> <u>user wants a highly secure system should select a higher recognition quality.</u>

Minimum number of minutiae - level of the minimum minutiae number for enrolled template.

Minimum number of overlap minutiae - level of the minimum number of minutiae in overlapping area between comparing samples.

Enable Visualization for image capture - set this option if you want to view a user's fingerprint when adding or verifying it.

Detect fake finger - set this option if you want to enable it. This option must be used together with a latest model of Futronic fingerprint scanner.

Verify Fin	gerprint	×
1	Place your finger on the scanner.	
		Cancel

If this option is enabled and the following message is shown when scanning finger,

that means the finger put on the scanner is probably a fake finger. Or the finger does not put on the scanner properly. For the scanner to detect if a finger is "real" or "fake" properly, the finger must be put horizontally on the prism of scanner and the finger must be pressing on the scanner plastic shell right below the prism firmly.

Disable MIOT (Multifingers In One Template) - activate this option if you want the Finger Manager to check whether the user pressed the same finger to the scanner during finger registration.

Delete User

To delete a selected user/finger choose "*Remove*" function from "*Action*" menu or press the button with the "red cross" in the tool bar. Please note that the domain user will be deleted only from the Finger Manager who will not be able to use finger to logon Domain but can still use password to logon as usual. In order to delete a domain user, use the "Active Directory User and Computer" utility.

Futronic Log	Futronic Logon Finger Manager	
?	Are you sure you want to delete VM2008\User?	
	Yes <u>N</u> o	

Advanced Security Settings

Futronic Logon enables advanced security for Windows and additional protection of access to its own data.

Security settings can be applied to the following actions:

- Start Finger Manager;
- Standard logon to the system with login and password (Ctrl-Alt-Del);
- Safe Mode;
- Un-installation of Futronic Logon.

Security is ensured by request of the special Secure Password or a specially registered fingerprint.

Note: in the Windows' Safe Mode security can be ensured only by the Secure Password because the fingerprint scanner is disabled in this mode.

<u>Attention!</u> If you forget the secure password, you may not be able to logon Windows if you don't use these settings properly. Please be careful!

To control the Advanced Security Setting, go to *Tools -> Advanced Settings* and you will see the following dialogue box.

Advanced	I Security Settings
	Secure Start Einger Manager Manual Jogon (password only) Safe Mode (password only) Uninstallation
	Password Enable Secure Password Reset Secure Password Not specified Fingerprint Enable Secure Fingerprint
	Reset or verify Secure Fingerprint Reset ♪ Not specified ⊻erify
	Sate Mode ✓ Load fingerprint drivers in Safe Mode ✓ Load fingerprint drivers in Safe Mode with Networking
	OK Cancel

In order to enable Advanced Security Settings, you must enter your Secure Password and/or Secure Fingerprint by pressing the *"Reset"* button. The Secure Password and/or Secure Fingerprint can be changed any time by pressing the *"Reset"* button.

Then check the required boxes and save them by pressing OK button.

Start Finger Manager – if the option is set, the user must enter Secure Password or Secure Fingerprint to start Finger Manager;

Ctrl-Alt-Del - if this option is set, the user must enter Secure Password or Secure Fingerprint after pressing Ctrl-Alt-Del at Windows Logon. User can only use password to logon Windows after entering the correct Secure Password or Secure Fingerprint;

Safe Mode – if the option is set, the user must enter Secure Password in order to start Windows in the Safe Mode;

Un-installation - if the option is set, the user must enter Secure Password or Secure Fingerprint before un-installation of Futronic Logon Software.

The dialogue box of Futronic Advanced Security Settings contains three tabs:

- 1. Under "Password", use "Reset" tab to enter secure password.
- 2. Under "Fingerprint", use "Reset" tab to enter Secure Fingerprint
- 3. Under "Fingerprint", use "Verify " tab to verify Secure Fingerprint.

<u>Please note that the Advanced Security Settings are local features and only applicable in the client</u> workstation where they are set.

Request of Secure Password and Secure Fingerprint.

The request of Secure Password and Secure Fingerprint contains two tabs. Use the tab Finger to enter Secure Fingerprint or the tab Password to enter Secure Password.

Advanced Security	Advanced Security
Use any tabs available below to supply Advanced Security information.	Use any tabs available below to supply Advanced Security information.
Finger Password	Finger Password
Place your finger on the scanner.	Enter Secure Password
OK Cancel	OK Cancel

Import and Export the user/ fingerprint database

Import and export of the user/fingerpirnt database enables quick restoration, reinstallation or transfer to another system without re-registration of user/fingerprint. It is also highly recommended that the domain administrator to use the *Export* function to backup the user/fingerprint database from time to time.

To launch the procedure 'Import and Export', please select the corresponding option in the menu "Action"



Export

When exporting users/fingerprint, you should first select a file for saving users/fingerprint:

	Export Users Wizard
Enter	r or select a filename.
Save	exported file as:
	c:\Users\Public\Documents\Backup.fle
	Next > Cancel Help

Then you'll be asked to select users that should be exported. All users will be exported by default. Not valid users are marked in red.

Export Users Wizard Select users you want to Users List (red-colored users are	export. e not valid):			×
User	▼ [omain		
V ∎≁User		M2008		
		<u>N</u> ext >	Cancel	Help

After the export file has been created, the Wizard will inform you about completion of the process and suggest displaying a report on results of the operation.

Export Users Wizard			X
Completing the Export Users Wizard			
You have successfully completed the Export Users Wizard.			
All user records have been exported successfully.			
View Log			
To close this Wizard, click Finish.			
	Finish	Cancel	Help

The reason why this or that user has not been exported will be indicated in the log.

Import

When you start importing, the Wizard will ask you to select a file with users/fingerprint.

Import Users Wizard	
Enter or select a filename.	
Import users from:	
c:\Users\Public\Documents\Backup.fle	
	ancel Help

Then the Wizard will show you the list of users stored in the archive and ask to select those users who should be imported into the system. All users/fingerprint will be imported by default. The users marked in red are not valid for the system. The most probable reason is that users are not in the list of Windows users.

Select users you want to import. Users List (red-colored users are not valid):	×
User 🗸	Domain
▲ Protect	VM2008
	<u>N</u> ext > Cancel Help

When import is completed, the Wizard will suggest displaying a report on results of the operation.

Import Users Wizard	
Completing the Import Users Wizard	
You have successfully completed the Import Users Wizard.	
All user records have been imported successfully.	
View Log	
To close this Wizard, click Finish.	
	Finish Cancel Help

The reason why this or that user has not been imported will be indicated in the error log.

Please note that if the user you imported is already existed in the system, the import operation of this user will be skipped.

Dial-Up Networking

Futronic Logon EE can interact with Dial-up networking.

"Log On to Windows" dialogue contains a check box indicating whether it is necessary to make Dial-up connection before entering the domain or not.

Windows XP view:

Log On to W	indows
	FUTRONIC Futronic Logon for Microsoft® Windows Enterprise Edition for Active Directory Copyright (c) Futronic Technology Company Ltd.
User name:	Administrator
Password:	1
Log on to:	💑 DOMAIN 🔽
	Logon using dial-up connection
EN	OK Cancel Shutdown

This check box is available only if the computer is included into the domain and has Dial-up or VPN connections. Otherwise, there will be no such check box in the dialogue window.

Besides, a similar check box can be provided in the first dialogue in order to enable entering the system by a fingerprint through switched and VPN connections.

Windows XP view:

Welcome to Windows	
FUTRONIC Futronic Logon for Microsoft® Windows Enterprise Edition for Active Directory Copyright (c) Futronic Technology Company Ltd.	
Welcome to Windows	
Press Ctrl-Alt-Del to begin.	
Place your finger on the scanner.	
Logon using dial-up connection	
Requiring this key combination at startup helps keep your computer secure.	

In order to do that, you should make the following changes in the Windows registry:

- 1 In the registry, add a value EnableRAS (REG_DWORD) to the following location. HKEY_LOCAL_MACHINE\Software\Futronic\Logon
- Set value EnableRAS as 1.
 EnableRAS = 1

Note: If there are no connections created, the check box will not appear irrespective of the EnableRAS variable value.

Terminal Services and Remote Desktop

Futronic Logon EE allows to use a fingerprint for authentication when working through the Terminal Server Client.



Windows XP view:

In this case Futronic Logon EE should be installed in the system that is connected through the Terminal Server Client. On the client side it is enough that ftrScanAPI.dll v 4.1.0.1 or a major version be installed in the system folder \system32 and registered in the section Terminal Server Client in the Windows registry.

In order to register ftrScanAPI.dll, please do the following:

1) In the registry, add a subkey to one of the following locations.

HKEY_CURRENT_USER\Software\Microsoft\Terminal Server Client\Default\Addins

HKEY_CURRENT_USER\Software\Microsoft\Terminal Server Client\connection\Addins

Entries under the **\Default\Addins** key apply to all connections. Entries under the *****connection***\Addins** key apply only to the connection identified by connection. Connections can be created and managed using Connection Manager.

The subkey can be given any name. It must contain a REG_SZ or REG_EXPAND_SZ value. The syntax of the REG_SZ or REG_EXPAND_SZ value is the following:

Name = ftrScanAPI.dll

If Name is a REG_EXPAND_SZ value, it can contain unexpanded environment variables that are expanded at runtime.

The value of DLL name can be a fully-qualified path. If DLL name does not contain a path, the standard DLL search strategy is used.

Note: Please remember that such a path should be in the registry for every user interested in this option.

Caching Users

The caching users function enables logon a domain user profiles by fingerprint at any client PC even when the client PC is not connected with FinLogon Server.

By default, this function is deactivated.

To activate this function, you should make the following changes in the Windows registry at the client PC:

- In the registry, add value *CachedUsersCount* (REG_DWORD) to the following location: HKEY_LOCAL_MACHINE\Software\Futronic\Logon
- 2. Set value *CachedUsersCount* as N, where N is the maximum number of users in the cache of the client PC.

If this function is activated, the fingerprint data of last N users who logon the domain successfully by using their fingerprints will be saved in the cache. These users will be able to logon their domain user profile by using fingers even if this client PC is not connected to Finlogon server.

To deactivate the option, delete value *CachedUsersCount*, or set it as 0.

WatchDog

WatchDog is an additional service from the Futronic Logon Server Enterprise Edition package, which is designed to restart the Futronic Logon Server according to the schedule.

Periodic restart of the Futronic Logon Server allows to decrease memory fragmentation, which accelerates work of the service and saves system resources.

Upon default the Fultronic Logon Server is restarted at 1 a.m. local time once a week on Sunday. If you want to change the time, you should edit the file ftrWatchDog.ini, which is located in the Windows 2000/2003/2008 server's Windows folder. It will appear after the installation of Finlogon Enterprise Edition server component.

Before editing ftrWatchDog.ini, please see description of the file attributes and its structure below:

[COMMON] Section

ServiceName - Please don't change it. It is not for user to edit.

EventName - Please don't change it. It is not for user to edit.

ServiceStoppingInterval - period of time when WatchDog tries to stop the service during the restart operation. For example, 3000 means a interval of 3000ms

BeepOnEvent - if it equals 1, then the service restart will be accompanied by a beep sound.

Mode - schedule mode. It should the following entries:
NONE - No restart operation
DAILY - Restart operation will be done daily. See [Daily] section below.
WEEKLY - Restart operation will be done weekly. See [Weekly] section below.
MONTHLY - Restart operation will be done monthly. See [Monthly] section below.

Depending on the selected mode, it's necessary to edit one of the following sections: [DAILY], [WEEKLY], [MONTHLY]

[DAILY] Section

StartTime - time in the format hh:mm:ss, when WatchDog restarts the service for the first time. Default is "00:00:00".

Period - interval in the format hh:mm:ss between restarts of the service by WatchDog. Default is "00:00:00".

StopTime - time in the format hh:mm:ss, when WatchDog ends restart operations for the rest of the day. Default is "00:00:00".

In the DAILY mode, WatchDog restarts the server for the first time at StartTime or at "00:00:00", if the StartTime is not specified. If the period is indicated, then the service will be restarted with this interval until StopTime, or till the end of the day if StopTime is not specified.

[WEEKLY] Section

StartTime - time in the format hh:mm:ss, when WatchDog restarts the service for the first time. Default is "00:00:00".

Days - days of the week - Sun Mon Tue Wed Thu Fri Sat = "xxxxxx", where x equals 0 or 1 to indicate if the day will be activated in the schedule. For example, «1000001» means that the service will be restarted only on weekends.

In the WEEKLY mode, WatchDog always restarts the service at StartTime or at "00:00:00" if StartTime is not specified.

[MONTHLY] Section

StartTime - time in the format hh:mm:ss, when WatchDog restarts the service for the first time. Default is "00:00:00".

Days - days of the month - 1,2,3 ... 31 when restart operation will be activated in the schedule. For example, "1,2,3,28,30".

In the MONTHLY mode WatchDog always restarts the service at StartTime or at "00:00:00" if StartTime is not specified.

After you edit the ftrWatchdog.ini and save the changes, please restart the Finlogon service manually in the Control Panel to activate the changes you made.

Troubleshooting

1. Problem: Welcome dialogue window detects that the scanner device is not installed.



Make sure that the device is connected to the computer and is recognized by Windows. Then install the device driver.

2. Problem: I cannot logon domain with my fingerprint after changing the my domain user password.

Please make sure that the Futronic Logon Enterprise Edition Client is installed in the server or domain controller.

3. When entering Windows, there is no dialogue window inviting to place a finger or press Ctrl+Alt+Del.

Make sure that you have not set the option "Disable Ctrl+Alt+Del". You can check it in the Windows "Control Panel".

Or check the variable "disableCAD" in the register key *HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Winlogon* and set it at zero if necessary.

Attention: operations with the registry should be performed only by users with sufficient qualification.

4. I have difficulty identifying my finger.

Possible solutions:

- 1. The scanner surface is dirty and should be cleaned. Taking care a fingerprint scanner is easy. It is good enough to wipe the scanning window with special tissue for cleaning scanners from time to time or when it gets dirty.
- 2. You might press your finger differently from the way you did during finger registration. Try to register your finger(s) again.
- 3. Adjust the "recognition quality" in Finger Manager.

5. After the logon name of a domain user is changed in Active Directory, the logon name is not updated in Finger.

Please make sure that the Futronic Logon Enterprise Edition Client is installed in the server or domain controller.