

# ThinkVantage Fingerprint Software





**First Edition (November 2005)**

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## Chapter 1 Installing ThinkVantage Fingerprint Software

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### Installing ThinkVantage Fingerprint Software

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ThinkVantage Fingerprint Software can be installed on any computer with Windows 2000, Windows XP Home or Professional edition, Windows Vista and a free USB port. Administrator rights are required to install or uninstall ThinkVantage Fingerprint Software. If you have ThinkVantage Fingerprint Software already preinstalled on your computer, you can skip this chapter.

To install ThinkVantage Fingerprint Software:

1. If you have a CD insert it into your CD-ROM drive, otherwise run Setup.exe and skip the step 2.
2. The ThinkVantage Fingerprint Software screen is displayed. Click the Installation icon. If this screen does not display, run Setup.exe manually.
3. The Welcome screen is displayed.
4. Click **Next** to continue.
5. The User Information screen is displayed.
6. Enter your user information and then click **Next** to continue.
7. Confirm or select an installation directory.
8. Click **Next** to start the installation.
9. When the installation is finished, restart your computer when prompted.

The installation is now completed. After you restart the computer, the logon screen is displayed.

**Note:** During installation, all necessary device drivers are installed. If you intend to use an external fingerprint sensor, we recommend to connect your fingerprint hardware after completing the installation process and restarting your computer.

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### Uninstalling ThinkVantage Fingerprint Software

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To uninstall ThinkVantage Fingerprint Software:

1. Click **Start > Control Panel**
2. Double-click the **Add or Remove Programs** icon (**Programs and Features** in Windows Vista).
3. Select ThinkVantage Fingerprint Software and click the **Change** button.
4. Click the **Remove** button.
5. You will be asked what to do with ThinkVantage Fingerprint Software's data stored on your computer. There are two possibilities:
  - **Leave ThinkVantage Fingerprint Software's data for later use** on your computer. This means that if you later re-install ThinkVantage Fingerprint

Software, you can continue using enrolled fingerprints for logging to your computer.

- You can **remove all ThinkVantage Fingerprint Software data** from your computer. Enrolled fingerprints will be permanently deleted.

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## Chapter 2 Getting started

ThinkVantage Fingerprint Software is biometric software that protect the security of your data through the use of fingerprint verification. The fingerprint verification is performed by swiping your finger over a fingerprint sensor.

After installing the software and restarting your computer you will need to enroll your fingerprints to create an association between your user name, password and your fingerprints together with automatically generated security keys. All the data is stored in the user *passport*. This procedure is called **Fingerprint Enrollment**.

This chapter will give you an overview of the main features of the software to help you to get started quickly. For a detailed description of all functions, refer to Chapter 3 "Using ThinkVantage Fingerprint Software" on page 7 and for a description of how to control and manage ThinkVantage Fingerprint Software, refer to Chapter 4 "Managing ThinkVantage Fingerprint Software" on page 13).

**Note:** Each Windows user must have a ThinkVantage Fingerprint Software unique passport.

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### Fingerprint Enrollment

Each user identity in ThinkVantage Fingerprint Software is represented by a "passport", which contains biometric fingerprint data used to verify the identity of the user.

Before using the software for the first time, fingerprint samples for your passport must be created.

To launch the Enrollment Wizard:

- Select **Start** menu > **Programs** > **ThinkVantage** > **ThinkVantage Fingerprint Software** > **User Enrollment**

Follow the on-screen instructions. For more information, please refer to Chapter 3 "Fingerprint Enrollment" on page 7.

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### Accessing Main Features

#### The Control Center

You can access the general **Settings** of ThinkVantage Fingerprint Software and the **Fingerprints** management features (e.g. editing and deleting passports) in the **Control Center** dialog.

To display Control Center:

- Select **Start** > **All Programs** > **ThinkVantage** > **ThinkVantage Fingerprint Software** > **Control Center**

The Control Center main screen is displayed. On this screen, the main functions of the software are displayed. Click the function name to display a screen listing the valid actions available. The functions include **Fingerprints**, **Settings**, and **Tutorial**.

To learn more about the Control Center and its functions, please refer to Chapter 4, “Control Center” on page 13.

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## Using Help

ThinkVantage Fingerprint Software contains an HTML-based help system.

To display HTML help:

- Select **Start >All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Help**
- or click on the Help icon in the Control Center dialog

Displaying context-sensitive help is also available in most dialogs.

To display context-sensitive help:

- Press F1 to display the HTML help in the dialog box for which you need help.

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## Chapter 3 Using ThinkVantage Fingerprint Software

This chapter describes features of ThinkVantage Fingerprint Software in detail:

“Fingerprint Enrollment” on page 7

“Fingerprint Logon” on page 9

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### Fingerprint Enrollment

Before you can start using ThinkVantage Fingerprint Software, you must *enroll* your finger or fingers. Fingerprint enrollment is a process of creating correspondence between your user name, password and your fingerprints (computerized so that reconstructing the original image is not possible) together with automatically generated security keys. All the data is stored in your fingerprint *passport*.

#### First Use

To create a new passport (enroll fingerprints):

1. If you want to use an external fingerprint sensor, connect your device. All the necessary drivers are installed with ThinkVantage Fingerprint Software. An informational message that the sensor was connected and is ready to use is displayed in the lower right corner of your screen.
2. The License Agreement is displayed. Read the License Agreement carefully.
3. Accept the License Agreement by selecting the appropriate radio button. You must agree to the License Agreement to install this product. Click **Cancel** to close the application if you do not agree to the License Agreement.
4. To launch the Enrollment wizard, go to  
Start > All Programs > **ThinkVantage** > **ThinkVantage Fingerprint Software** > User Enrollment  
or select Fingerprints > Enroll or Edit Fingerprints in the Control Center
5. Enter your user name, password, and domain (if applicable) and click **Next**.
6. Click **Next** to proceed with the fingerprint tutorial. Or uncheck the **Run interactive tutorial** check box and click **Next** to skip the tutorial (see “Fingerprint Tutorial” on page 8 for tutorial instructions).
7. Click on a box above the finger you wish to enroll. Create three samples of the selected finger according to the instructions in the tutorial (see “Fingerprint Tutorial” on page 8). These samples will be combined into a single fingerprint *passport*. A warning is displayed if the three created samples cannot be matched.
8. (Optional) If enrollment to the device was selected and your system configuration supports power-on security, all enrolled fingerprints will be also used for power-on security.

9. (Optional) If enrollment to hard drive is selected and your system configuration supports power-on security, enrolled fingerprints will be also used for power-on security.  
**Power-on** button is displayed above each finger. The Power-on button is displayed in a "depressed" state by default. The corresponding finger will be used for power-on security. If you do not want to use a finger for power-on security, but only for logon, click the Power-on button to delete it from the device memory.
10. Select another finger to enroll. You can enroll up to 10 fingerprints. **It is strongly recommended that you enroll more than one finger in the event of injury.** Click **Next** when done.
11. Some hardware configurations provide additional data security through encryption. In these configurations, an additional dialog with an Advanced Security type is displayed.
  - Check the **Enable Advanced Security for the current user** to allow additional encryption, e.g. TPM.
  - Set the **Advanced Security** type. See "Advanced Security" on page 9 for more information).
  - Create a backup password. This password can be used in the event of hardware failure of the sensor to bypass the fingerprint authentication.
12. For fingers added for power-on security, you must perform operations described on the final page:
  - Power-off your computer.
  - Turn on your computer.
  - Swipe your finger when prompted. Enter your power-on password(s) when prompted. (This creates a connection between your fingers and password(s).)
13. When you are done, click **Finish**.  
**Note:** Each Windows user can have only one passport. To create a user account, select **Start > Control Panel**, and click **User Accounts**. Follow the on-screen instructions.

## Fingerprint Tutorial

It is highly recommended that you go through the fingerprint tutorial. The tutorial will show you a short video demonstrating correct and incorrect fingerprint scanning. Then you will try to create your first fingerprint samples.

To run the tutorial:

1. To launch the tutorial go to **Start > All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Fingerprint Tutorial**.  
or run it from the fingerprint enrollment wizard  
or select **Tutorial** in the **Control Center** dialog.
2. The opening page explains the purpose of the tutorial.
3. The next page explains the correct scanning procedure and shows a short video demonstration:
  - Position the last knuckle joint above the sensor.
  - Maintain finger contact with the sensor while sliding the finger towards you in a straight line.
  - Make sure that the finger remains flat.

4. On the next page, try creating four samples of your fingerprint. If the samples do not match, we recommend that you click the **Try again** button to repeat the scanning. Use the **Replay video** button to replay the video demonstration. After you successfully create your samples, click **Finish** to close the tutorial or to go back to the enrollment wizard.

**Note:** Biometric operations (enrollment, verification, tutorial) time out after approximately 2 minutes of inactivity to prevent excessive power consumption. In the event of a timeout, simply restart the process

## Advanced Security

Security in ThinkVantage Fingerprint Software can be increased with additional encryption. The types of encryption available depend upon your hardware. Advanced security can be enabled (or later disabled) per user at the end of the Edit/Enroll fingerprints wizard. The type of encryption can be changed using this dialog to adjust the necessary level of security and user convenience.

To enable advanced security (optional):

1. Go to **Start > All Programs > ThinkVantage > ThinkVantage Fingerprint Software > User Enrollment** to launch the Enrollment Wizard.
2. In the **Advanced Security** dialog after enrollment, check the **Enable Advanced Security** to enable Advanced Security for the current user.
3. Set the **Advanced Security type**.
  - **Fingerprint Reader Key with TPM** - provides improved hardware-based security. An encrypted channel between the TPM Security Chip and the fingerprint reader further enhances security of user secret data. Recommended for highest security.
  - **Fingerprint Reader Key** - provides hardware-based security. User secret data will be protected by a secure key stored inside the fingerprint reader and released only on successful finger match. Data is encrypted using the key stored in fingerprint device.
4. Set the backup password. This backup password can be used in case of hardware failure to bypass the fingerprint authentication step. We recommend using a strong, complex password. If you do not define the backup password, you can lose your data in the event of authentication hardware failure.

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## Fingerprint Logon

To enable fingerprint logon, you must enroll your fingerprints (see “Fingerprint Enrollment” on page 7). During user enrollment, fingerprint samples are scanned and the connection between fingerprint samples and the Windows user account is created. When you restart your computer and wish to log on again, the logon dialog will prompt you to swipe your finger over the sensor or to press **Ctrl + Alt + Del** to log on using the Windows password. Once you swipe, the enrolled fingerprint is recognized and you are logged on.

Biometric logon also protects your screensaver and wake-up from power-saving features (password protected resume from screensaver and standby must be set on your system. Go to **Start > Control Panel**, click on **Display** and select the **Screen Saver** tab to set the screensaver.)

To disable Fingerprint Logon:

- Select **Start >All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Control Center**
- Select **System Settings > Logon**
- Select the Standard Windows radio button. The fingerprint logon will be disabled and you will log on into your system using the standard Windows logon.

To enable Fingerprint Logon:

- Select **Start >All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Control Center**
- Select **Settings > System Settings > Logon**
- Select the Fingerprint Logon radio button and the system logon using your fingerprint instead of the Windows password is now enabled.

For more information about the Logon settings, please refer to Chapter 4, Control Center, "Logon" on page 16.

**Note:** You must establish a Windows password to protect your computer. If a Windows password is not established, ThinkVantage Fingerprint Software cannot secure access to your computer.

ThinkVantage Fingerprint Software also interoperates with the Novell network logon. In order for ThinkVantage Fingerprint Software to log you on automatically to a Novell network, your Windows user name and password must match your Novell user name and password. The following Novell clients do not work with ThinkVantage Fingerprint Software: 4.83, 4.90.

## Fast User Switching

The Fast User Switching feature of Windows is also supported. If you want to switch users, select **Start > Switch User**. When another user swipes an enrolled finger over the sensor, the fingerprint is recognized and the user will be logged on.

To enable Fast User Switching:

1. Select **Start >All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Control Center**
2. Select **Settings > System Settings**.
3. Select the **Logon** tab.
4. Select the **Enable Fast User Switching (FUS) support** option. If this option is not visible, your system does not support FUS (e.g. your computer is a member of a domain. To enable FUS support, you must remove your computer from the domain.).

To remove a computer from a domain:

1. Right-click **My Computer (Computer** in Windows Vista) on your Desktop or in the **Start** menu and select **Properties**.
2. In Windows Vista click the **Change settings** link and authorize yourself as an administrator.
3. Select the **Computer Name** tab.
4. Click the **Change** button (or **Rename**) and select the **Workgroup** radio button in the **Member of** pane.

**Note:** Only an administrator can remove a computer from a domain.

## Windows Password Change (Reset)

The Windows logon password can be changed both by a user (through the control panel or ctrl+alt+del dialog) or by an administrator (through password reset). There is no difference between both types of password change with respect to ThinkVantage Fingerprint Software. The scenarios differ according to what type of user account is used and the way users log on to their computers.

This applies to Windows 2000 and XP (on Windows Vista the functionality is similar, but a different GUI is displayed).

When a local user account is used on a computer in a workgroup or in a domain, there are two possible scenarios:

1. A user logs on using the Windows username and password and the password is then changed.
  - The user locks the computer or logs off.
  - The user swipes an enrolled fingerprint.
  - A warning is displayed that a wrong username or password is used is displayed.
  - The user must enter the new password. This password is then stored into the fingerprint passport, the passport is updated and the user is logged on to the computer. The fingerprint logon will proceed as usual the next time.
2. A user logs on using an enrolled fingerprint and the password is then changed.
  - The password is stored into the fingerprint passport. There is no need to enter the new password again later.
  - The user locks or logs off
  - User swipes enrolled fingerprint
  - The computer is unlocked or the user is logged on

When a domain user account is used in a domain:

*User logs on using the Windows username and password or an enrolled fingerprint. The password is then changed.*

- The user locks the computer or logs off.
- The user swipes an enrolled fingerprint.
- A warning is displayed that a wrong username or password is used is displayed.
- The user must enter the new password. This password is then stored into the fingerprint passport, the passport is updated and the user is logged on to the computer. The fingerprint logon will proceed as usual the next time.

Special cases:

*“User must change password at next logon” is set or password expiration is defined on domain.*

- On a client computer a user logs on using an enrolled fingerprint.
- A dialog prompting the user to change their password will appear. This password is then stored into the fingerprint passport, the passport is updated and the user is logged on to the computer. The fingerprint logon will proceed as usual the next time.



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## Chapter 4 Managing ThinkVantage Fingerprint Software

The settings of ThinkVantage Fingerprint Software can be accessed through the Control Center dialog. This chapter will guide you through its functions.

ThinkVantage Fingerprint Software functions can be also accessed through the Windows **Start** menu. Select **Start > All Programs > ThinkVantage Fingerprint Software** to see a list of available features.

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### Control Center

The Control Center contains various functions for fingerprint management and setting up your fingerprint software. These include **Fingerprints**, **Settings**, and **Tutorial**. The available options depend on the software status, hardware used and installed applications.

To display Control Center:

- Select **Start > All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Control Center**

#### Elevate administrative privileges for user (for Windows Vista only).

If you want to access and make changes in System Settings or manage and modify other users accounts (e.g. to be able to enroll or delete fingerprints of other users), you need to elevate your administrative rights, i.e. verify yourself as an authorized user.

1. Click **Elevate administrative privileges for user**
2. When Vista Control User Account dialog appears, enter your credentials to authenticate to the system (or just allow the program to continue if you are already logged as an administrator).
3. The Control Center dialog will re-appear without the shield icon. Your administrative rights are now elevated. Now you can access **Settings > System Settings** and make changes.

You must repeat this procedure each time you run the Control Center dialog.

### Fingerprints

You can enroll, edit and delete users' fingerprints and, if power-on security is implemented, also manage fingerprints present in the device memory. The list of available features depends on the installed version of ThinkVantage Fingerprint Software, the fingerprint sensor, existing passports and administrative privileges of the current user.

**Note:** The features differ according to the administrative privileges of the current user. In the Secure mode, users defined as fingerprint administrators (see "Security Mode" on page 17) can enroll or edit passports for all enrolled users. In the Convenient mode, users can enroll or edit only their own passports.

## Enroll or Edit Fingerprints

Fingerprint enrollment is a process of creating correspondence between your user name, password and your fingerprints (computerized so that reconstructing the original image is not possible) together with automatically generated security keys. All the data is stored in a user fingerprint passport.

After you enroll, you can use your fingerprints instead of typing your user name and password. To enroll or edit a passport (enroll or edit fingerprints):

1. Select **Start >All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Control Center**
2. Click **Fingerprints**.
3. Click **Enroll or Edit Fingerprints**.

In the Secure mode (see "Security Mode" on page 17), a list of existing passports is displayed. Select the user and click the **Edit** button to edit fingerprint of an existing user or click **Enroll** to enroll a new user.

4. The **Enrollment Wizard** screen is displayed.
5. Swipe your finger over the fingerprint sensor or enter your Windows/Advanced security backup password, and click **Next**.
6. Do one of the following:
  - To enroll a new fingerprint:
    - Select a finger to enroll by clicking the box above the finger.
    - Swipe the selected finger over the fingerprint sensor. Three successful images are required to enroll one fingerprint (see Chapter 3, "Fingerprint Enrollment" , on page 7 for more instructions) .
  - To delete a fingerprint:
    - Select a finger to delete by clicking the box above the finger.
    - Click **OK**.
7. (Optional) If enrollment to the device was selected and your system configuration supports power-on security, all enrolled fingerprints will be also used for power-on security.
8. (Optional) If enrollment to hard drive is selected and your system configuration supports power-on security, enrolled fingerprints will be also used for power-on security.
9. **Power-on** button is displayed above each finger. The Power-on button is displayed in a "depressed" state by default. The corresponding finger will be used for power-on security. If you do not want to use a finger for power-on security, but only for logon, click the Power-on button to delete it from the device memory.
10. Click **Next** to finish the enrollment or to set additional options settings (such as Advanced security) as described in "Fingerprint Enrollment" on page 7.

## Delete

The features differ according to administrative privileges of the current user. In the Secure mode (see "Security Mode" on page 17), only users defined as fingerprint administrators can delete user passports.

To delete an existing passport (all user's data):

1. Select **Start >All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Control Center**
2. Click **Fingerprints**.

3. Click **Delete**.  
In the Convenient mode, swipe your finger to perform verification and confirm deleting the current passport.  
In the Secure mode, a list of existing passports is displayed. Select the passport that you want to delete and confirm deletion.

## Import or Export User Passport

Existing user data (including fingerprints, encryption keys, logon credentials) can be exported to a \*.vtp file (a passport file) and imported back into your fingerprint software. The \*.vtp file is encrypted and protected by a password defined during export. You cannot import a passport of an existing user. In this case it is necessary to first delete the user's passport.

**Tip:** We recommend exporting your passport for backup purposes.

To export an existing passport:

1. Select **Start >All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Control Center**
2. Click **Fingerprints**.
3. Click **Import or Export User Data**.  
In the Secure mode, a list of existing passports is displayed. Select the passport that you want to export and click on **Export**.
4. Select the destination file (\*.vtp ).
5. Define a password which will protect the exported data.
6. Verify the finger (contained in the passport you are exporting).

To import a passport:

1. Select **Start >All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Control Center**
2. Click **Fingerprints**.
3. Click **Import or Export User Data**. In the Secure mode, a list of existing passports is displayed. Click on **Import**.
4. Browse for the passport file (.vtp).
5. Enter the password (defined during export).

## Settings

The ThinkVantage Fingerprint Software Settings dialog contains various options for setting up ThinkVantage Fingerprint Software. Not all the functions of the Settings described here may be visible, the available functions vary according to installed version of ThinkVantage Fingerprint Software and administrative privileges of the current user.

## System Settings

System Settings contain settings common for all users. Access to these settings is limited to administrators. The following features can be set up in System settings:

General, Logon, Security Mode, Sound, Biometry.

If you are using Windows Vista, click **Elevate administrative privileges for user** in the Control Center to get administrative rights to make changes in System Settings and other users accounts.

## General

Check the **Start Control Center on Windows Startup** check box to always display the Control Center when you log on into Windows.

## Logon

Only an administrator can change logon settings. Some changes require you to restart the computer. The Logon Settings screen enables you to:

- Replace Windows logon with fingerprint protected logon
- Automatically log on a user verified by power-on security (optional)
- Enable fast user switching support (optional)

To change your logon settings:

1. Select **Start > All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Control Center**
2. Go to **Settings > System Settings > Logon.**
3. Select:
  - **Fingerprint Logon**  
When this option is selected the fingerprint logon to your computer is enabled..
    - **Do not show CTRL+ALT+DEL message**  
The standard Windows CTRL+ALT+DEL message will not be displayed. Only a prompt to swipe a finger will be shown. (The logon dialog for entering user name/domain/password can be invoked by pressing CTRL+ALT+DEL so that users are able to log on using user name and password.)
    - **Allow to bypass logon using Windows password-** If this option is checked, the standard Windows logon can be used. If unchecked, only fingerprint administrators can logon using username and password.
    - **Allow user self-enroll on logon** - users are allowed to enroll their fingers themselves when logging in the computer.
  - If you are using Windows Vista, click on **Details** to see the settings of credential providers, i.e. how user authentication is managed by the system. See “Credential Providers in Windows Vista” below for more information
  - **Fast User Switching**  
When this option is selected, biometric fast user switching controlled by your fingerprint is enabled (if supported on your system). When fast user switching is supported but not enabled, you will be asked to enable it on your system. Fast user switching cannot be enabled when the computer is a member of a domain.
  - **Standard Windows logon** - When this option is selected the fingerprint logon is disabled and the standard Windows logon is used.
  - **Allow power-on security single sign-on**  
Select this option to perform power-on and logon fingerprint authentication in one step. Users verified at the BIOS level are automatically logged on to Windows.
4. Click **OK** and restart your computer.

## Credential Providers in Windows Vista

Credential providers allow various ways how you can authenticate to the system. The Microsoft Password Provider requires username and password, the Fingerprint Provider swiping users' finger over the sensor. The list of credential providers will vary according to configuration of a particular system.

To display a provider's settings:

1. Select **Start >All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Control Center**
2. Choose **Settings > System Settings>Logon.**
3. Click on **Details.**
4. The following features are defined by the Credential providers:
  - **Logon** defines how users will authenticate when logging into the system (e.g. by fingerprint only, by name and password, etc.)
  - **Unlock** defines how users will authenticate when unlocking the computer.
  - **Run as administrator** is a feature of Windows Vista. A user logged as a limited user can authenticate as an administrator and run an application restricted to administrators.
  - **Change Password** defines type of authentication required to change user password (e.g. fingerprint verification, user name and password).
5. Select:
  - **Mark enrolled user tile picture** to display a fingerprint icon over the picture in the user account tile to mark that a user is enrolled and logon will be managed by a fingerprint. If not selected, the account tile will appear as usual. This will set the Microsoft Password Provider to the "wrapped" state (see below).
  - **Allow users self-enroll in logon** to allow *users* that have a valid password but no fingerprints enrolled *to enroll their fingers themselves when logging in the computer.*
6. To change a provider's settings, select a provider from the list and click on **Details...**(or double-click on the provider).

**Note:** The Fingerprint Provider and the Microsoft Password Provider cannot be set up by the user. Their settings are predefined.

7. A dialog will appear allowing you to see the settings of the selected provider. The options are the following:
  - **On** will turn the provider on. For example, when On is set for the Fingerprint Provider in the Logon section, users will be prompted to authenticate by swiping their finger over the sensor when logging into the computer.
  - **Off** will turn the Provider off. For example, when in Logon section Microsoft Password Provider is set to Off and the Fingerprint Provider to On, only fingerprint verification will be allowed on logon.
  - **Wrapped** - for a user the wrapped provider seems to be still On, but control of its functions will be taken over by the Fingerprint provider.

**Note:** The Fingerprint Provider cannot be set as wrapped but wraps other providers (such as Microsoft Password Provider).

## Security Mode

ThinkVantage Fingerprint Software can operate in three security modes:

### **Secure mode, Convenient mode and Custom mode.**

The security modes differ in rights granted to users. These rights include e.g. permissions to enroll users, delete or edit fingerprints, etc.

Click on **Details** to see the settings of security policies in each mode. Only the policies in the Custom mode can be edited.

### **Fingerprint Administrators' Groups**

Contains a list of local or domain security groups of users defined as “fingerprint administrators” . These users are granted administrative rights for managing ThinkVantage Fingerprint Software. Their rights are defined in the Security mode policies (see below).

To choose a security mode:

1. Select **Start >All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Control Center**
2. Choose **Settings > System Settings**
3. Select the **Security Mode** tab. Choose:
  - **Secure mode.** In the Secure mode only a fingerprint administrator has an unrestricted access to all fingerprint management functions (e.g. creating, deleting fingerprint passports for all users), including Fingerprint Storage Inspector and Power-on Security administration.
  - **Convenient mode.** In the Convenient mode, all users share the same rights. For example, all users can create, edit or delete their own fingerprint passport.
  - **Custom mode.** Custom mode policies' settings can be set up differently for an administrator and limited users.
4. Click **OK** to close the dialogs.

### **Security Mode Policies**

Policies in the Secure and Convenient mode are preset and cannot be modified. Only policies in the Custom mode can be changed. Select and double-click a policy to see the policy details.

To edit policies in the Custom mode:

1. Select **Start >All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Control Center**
2. Choose **Settings > System Settings**
3. Select the **Security Mode** tab.
4. Click the **Custom** radio button, then click on **Details**. The policies window will appear. See details of policies below.
5. Click the **Change** button (or double-click) to edit the policy settings.
6. Click **OK** to close the dialogs.

Policies can be defined differently for a Fingerprint Administrator and a Limited user accounts. Select **Allow/Deny** to set rights for each user group.

You can copy policies' settings from the Convenient or Secure mode to the Custom mode and then edit them further. This is convenient when you would like to make just a few changes to the policies' settings.

To copy policies from Convenient or Secure mode:

1. Select **Start >All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Control Center**
2. Click **Settings> System Settings**
3. Select the **Security Mode** tab.
4. Click the **Custom** radio button, then click on **Details**. The policies window appears. See details of policies below.
5. Click the **Copy** button to copy the policies settings.
6. Choose the **Secure** or **Convenient mode** and the policies' settings will copy from the selected mode.
7. Now you can edit the policies using the **Change** button.
8. Click **OK** to close the dialogs.

### **Details of Policies:**

Select and double-click a policy to see the policy details.

#### **Enrollment:**

- *Delete other users: Allows a fingerprint passport to be deleted for any user enrolled on this computer. No verification is required before passports are deleted.*
- *Delete self: After verification allows a fingerprint passport to be deleted for the currently logged on user.*
- *Edit other users: Allows a fingerprint passport to be edited for any user enrolled on this computer, e.g. adding or deleting enrolled fingerprints.*
- *Edit self: Allows a fingerprint passport to be edited for the currently logged on user, e.g. adding or deleting enrolled fingerprints.*
- *Enroll other users: Allows other users to enroll fingerprints. Only users with a valid Windows account can be enrolled.*
- *Enroll self: Allows the currently logged on user to enroll fingerprints.*
- *Enroll users without scanning fingerprints: Allows users to be enrolled without scanning their fingerprints. Users will be prompted to scan their fingerprints the next time they logon.*
- *Export other users: Allows a fingerprint passport to be exported for any user enrolled on this computer.*
- *Export self: Allows a fingerprint passport to be exported for the currently logged on user.*
- *Import other users: Allows a fingerprint passport to be imported for any user enrolled on this computer.*
- *Import self: Allows a fingerprint passport to be imported for the currently logged on user.*
- *Reveal password: Allows the user's Windows password to be revealed during the fingerprint enrollment.*

#### **Fingerprint Storage Inspector:**

- *Delete any fingerprints: Allows any fingerprints to be deleted from your device. (The Use Fingerprint Storage Inspector policy must be enabled for this policy to take effect.)*
- *Delete other users' fingerprints: Allows fingerprints of other users to be deleted. However, at least one fingerprint must remain enrolled for each user. (The Use Fingerprint Storage Inspector policy must be enabled for this policy to take effect.)*

- **Delete unused fingerprints:** *Allows fingerprint records that do not belong to any locally enrolled user to be deleted, e.g. from previous installation. (The Use Fingerprint Storage Inspector policy must be enabled for this policy to take effect.)*
- **Use Fingerprint Storage Inspector:** *Allows use of the Fingerprint Storage Inspector, i.e. users can delete only their own fingerprints (except for the last one, i.e. at least one fingerprint must remain enrolled).*

#### Power-on Security:

- **Add fingerprints to Power-on security:** *Allows fingerprints to be added to Power-on security during enrollment. If disabled, enrolled fingerprints cannot be used for Power-on security verification.*
- **Enable/Disable Power-on security:** *Allows Power-on security to be enabled or disabled on this computer.*

## Sound

Selected sound is played when a fingerprint operation succeeds or fails. You can use your default system sounds, disable sounds, or browse for your favorite audio file (.wav format).

## Biometry

These settings allow you to modify the security level settings of the fingerprint sensor. A reboot is required each time you make any changes.

To change Biometric Settings:

1. Select **Start > All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Control Center**
2. Click **Settings > System Settings** and go to **Security Mode > Biometry**
  - **Intruder Lockout**
    - **Lockout count:** sets the number of unsuccessful verification attempts (finger swipes) are allowed before the device is locked.
    - **Lockout time:** sets the time the device will stay locked. After this time the fingerprint sensor can be used again.
  - **Biometric Performance** will set up how accurately a fingerprint scan must match the enrolled samples. Please note that using the lowest level may compromise the security of the device. The highest level, however, requires a perfect match with the enrolled sample and may result in repeated unsuccessful verifications for authorized users. The default (middle) level is recommended.

## Power-on security (optional)

The power-on security feature prevents unauthorized access to the user's computer at the BIOS-level. Computers with power-on security enabled will not load the operating system from the hard drive without successful fingerprint authentication.

Fingerprint samples are stored in the memory of your fingerprint device. During computer boot, you are asked for a fingerprint authentication. You have a limited time to swipe a finger over the sensor. The computer will boot only if the scanned fingerprint matches a sample stored in the memory of the device. After successful verification, the boot process continues normally.

## Enabling power-on security in ThinkVantage Fingerprint Software

Options for working with power-on security are displayed only if your computer supports this feature (supported mainly in laptops). In most configurations, power-on security is enabled automatically after enrolling the first user.

To enable/disable the power-on security:

1. Select **Start > All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Control Center**
2. Click **Settings > Power-on Security**.
3. Select the **Replace the power-on and hard drive passwords with the fingerprint reader** check box.
4. Click on **Finish**.

## Power-on security single sign-on

Power-on security can be configured to interoperate with the fingerprint logon. If a fingerprint used for BIOS power-on security feature matches a fingerprint on an existing passport, the corresponding user is logged on automatically without having to enter the Windows password or swipe a second time.

To enable automatic Windows logon for users verified by power-on security:

1. Select **Start > All Programs > ThinkVantage > ThinkVantage Fingerprint Software > Control Center**
2. Click **Settings > System Settings**
3. Select the **Logon** tab.
4. Select the **Allow power-on security single sign-on** check box.

**Note:** Your hardware must support Power-on security to use this single sign-on feature and you must have administrative privileges to change the settings.

## Fingerprint Storage Inspector (optional)

The fingerprint storage inspector is a tool for viewing and editing the contents of the storage in your fingerprint sensor device. All the records stored in your device are shown.

For each fingerprint, its description is shown together with information about its usage for power-on security (pre-boot authentication), applications (e.g. Logon), and advanced security status.

To remove fingerprints from the device:

1. Select the record you want to delete and click the **Remove** button. The list of records will be updated to reflect the change.
2. After you remove all unnecessary records, click the **OK** button to make the changes permanent or click **Cancel** to discard the changes.

At least one fingerprint must remain for each passport. To manage or delete the whole passport, use the **Enroll or Edit fingerprints** or **Delete** wizard (see “Enroll or Edit Fingerprints” on page 14).

**Note:** The authorization to remove fingerprints is defined in the Security mode policies settings (see “Security Mode” on page 17) . Some rights may be restricted to fingerprint administrators only.

## Tutorial

This will launch the Fingerprint Tutorial.

The tutorial will show you a short video demonstrating correct and incorrect fingerprint scanning. Then you will try to create your first fingerprint samples.

For more information, see Chapter 3, "Fingerprint Tutorial" , on page 8.

**Note:** To display HTML-based help Select **Start >All Programs > ThinkVantage Fingerprint Software > Help** or click on the **Help** icon in the main Control Center dialog. To display context-sensitive HTML help, press F1 in the dialog box for which you need help.

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## Fingerprint Reader Infopanel

The fingerprint reader infopanel contains information about your sensor and a test window for fingerprint scanning. You can use this dialog to get details about your sensor in the event of a hardware problem for communication with the technical support etc.

To display the Fingerprint Reader Infopanel

1. Select **Start > Control Panel**
2. Click on the **Fingerprint Sensor** icon. **Fingerprint Reader Infopanel** dialog will appear.
  - Select the **Version** tab to display information about your sensor (such as device type, name, version etc.)

To export the information to a text file click on **Save** and choose a location where the file will be saved (FingerprintSensorVersion.txt by default).

  - Select the **Finger Test** tab to see test images of the scanned fingerprints when swiping your finger over the sensor.
3. Click **Close** to close the dialog window.



