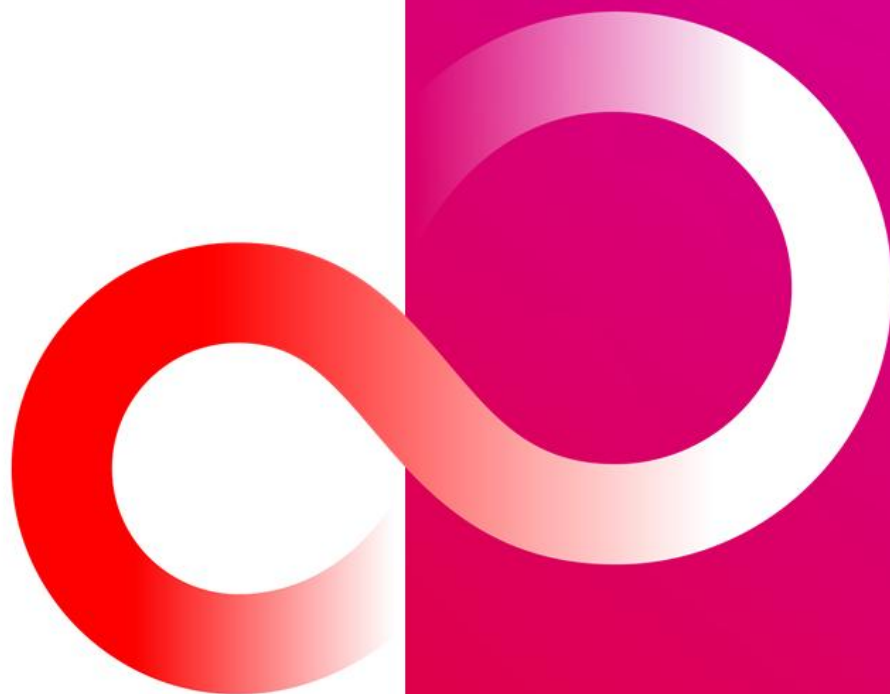


Fujitsu mPollux DigiSign Installation and User Guide for Windows

V4.4.0

FUJITSU



FUJITSU  **mPollux**
DigiSign Client

Contents

1. DigiSign Client smart card reader software	3
1.1 Other requirements.....	3
1.2 Supported operating systems.....	3
1.3 User guidance.....	3
2. Installing the DigiSign Client software	4
2.1 Removing other smart card reader programs and earlier versions of DigiSign Client.....	4
2.2 Installation	4
2.3 Activation of a new card	7
2.4 Verifying the installation	8
2.5 Browser and email program settings.....	9
2.5.1 Loading the security module.....	10
2.5.2 Adding certificates to browsers.....	11
2.5.3 Adding certificates to email programs	13
3. Using DigiSign Client.....	15
3.1 Basic usage.....	15
3.2 Managing card readers and smart cards	15
3.3 Changing a PIN code	17
3.4 Logging in to an organization network	18
3.5 Logging in to an electronic service	18
3.6 Signing a document digitally.....	19
3.7 Signing and encrypting an email message	19
3.8 Adding digital signature to PDF-document.....	20
3.8.1 Sign .pdf document from Windows explorer.....	20
4. Troubleshooting instructions for some common problems.....	21
4.1 The smart card icon is missing	21
4.2 DigiSign Client does not recognize the smart card.....	21
4.3 Removing the card from the reader does not change the icon	21
4.4 The page requires a client certificate	21
4.5 This connection is untrusted.....	21
4.6 The PIN code is blocked	21
4.7 Digital signing does not work in a browser.....	23

1. DigiSign Client smart card reader software

With Fujitsu mPollux DigiSign Client software, you can use your smart card for secure access to electronic services or organization networks. The software reads the certificates stored on your smart card and verifies your identity to the service provider.

You need DigiSign Client when you want to:

- log in to an electronic service that requires user identification
- log in to your organization's network either directly or from another network through VPN (virtual private network)
- digitally sign a document
- sign or encrypt an email message.

1.1 Other requirements

In addition to DigiSign Client, you need:

- a smart card, for example an electronic identity card or an organization card
- the PIN codes that were delivered with the card
- a smart card reader.

1.2 Supported operating systems

Supported operating system versions are listed in the "Technical References" document.

1.3 User guidance

The software is accompanied with the following documentation:

- Fujitsu mPollux DigiSign Client Installation and User Guide – Windows (this guide)
- Fujitsu mPollux DigiSign Client Installation and User Guide – Linux
- Fujitsu mPollux DigiSign Client Installation and User Guide – Mac OS
- Fujitsu mPollux DigiSign Client Technical References

2. Installing the DigiSign Client software

The installation requires that there are no other smart card reader programs or earlier versions of the DigiSign Client software installed on the computer.

2.1 Removing other smart card reader programs and earlier versions of DigiSign Client

Before installation, ensure that there are no other smart card reader programs installed.

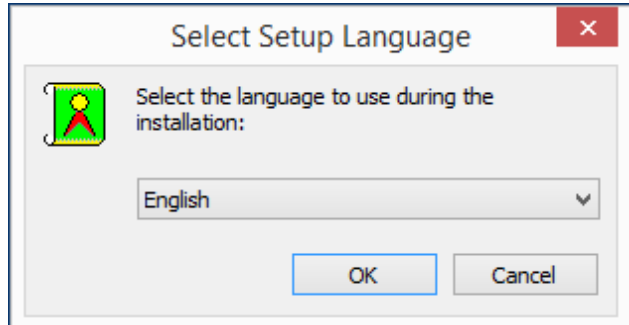
1. Check the programs installed on your computer.
 - a) Open the Control Panel from the Start menu.
 - b) In Control Panel, open **Programs and Features**.
 - c) Ensure that there are no other smart card reader programs. If not, you can continue with installation.
2. If there are other smart card reader programs listed, remove the programs by right-clicking them and selecting **Remove** or **Uninstall**.
3. After uninstallation, restart your computer before installing DigiSign Client. Otherwise, the installation might fail.

2.2 Installation

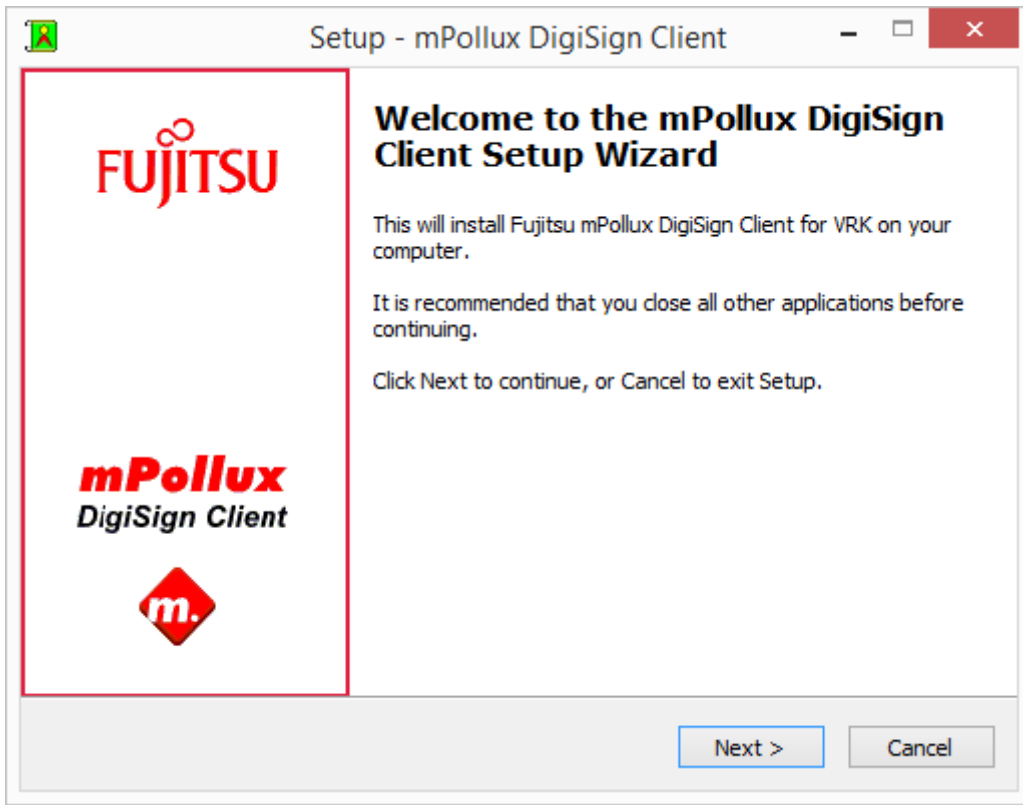
Installation requires local administration rights to the computer.

You will get the DigiSign Client installation file from the smart card provider or your system administrator. Save the file on your computer.

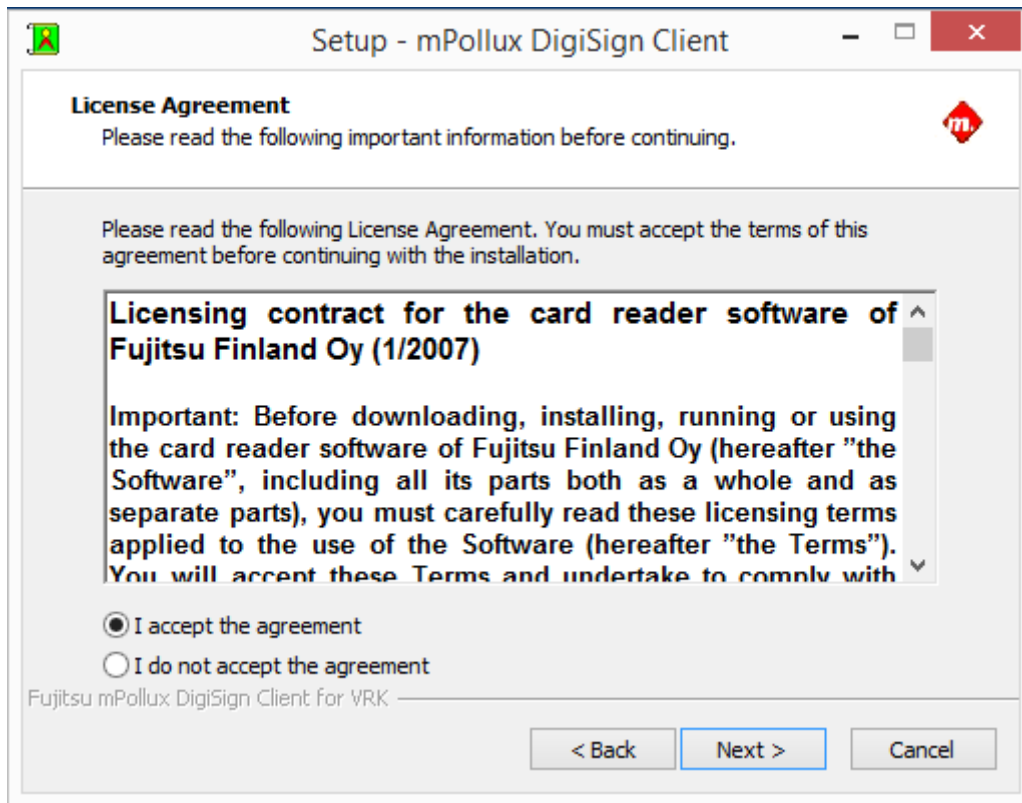
1. Double click the installation file. If UAC (User Access Control) dialog box appears, accept the installation by pressing Yes. The language selection dialog opens.



2. Select the language you want to use and click OK. The welcome dialog opens.

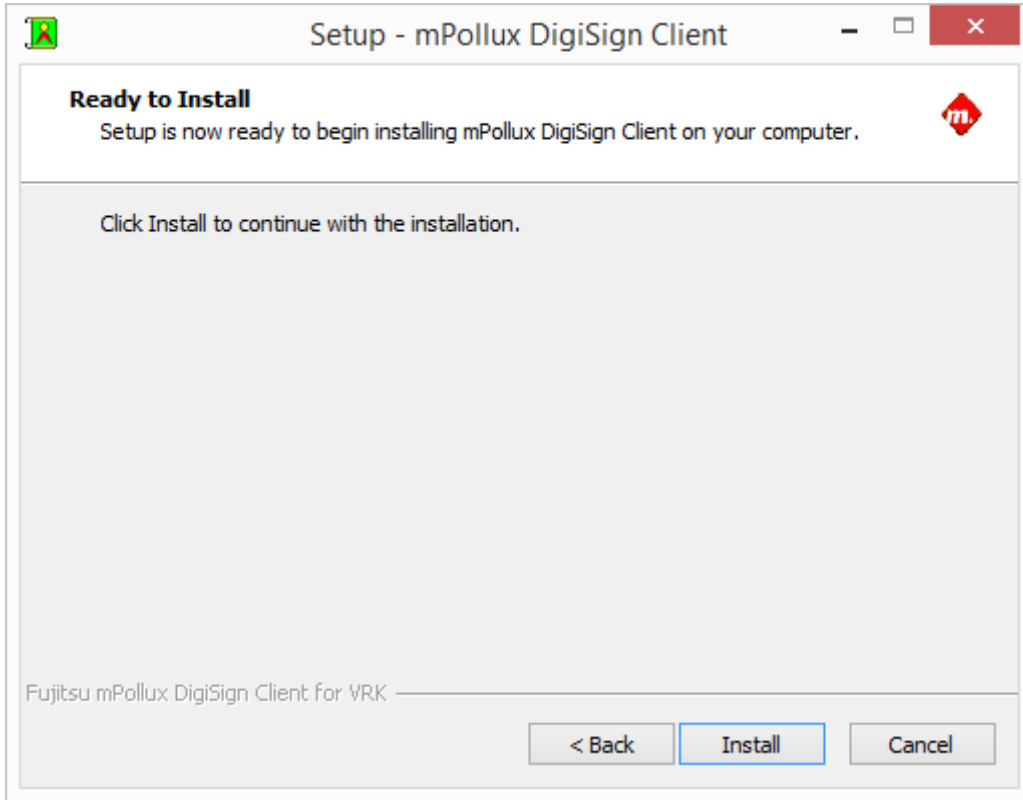


3. To continue, click Next. The license agreement opens.

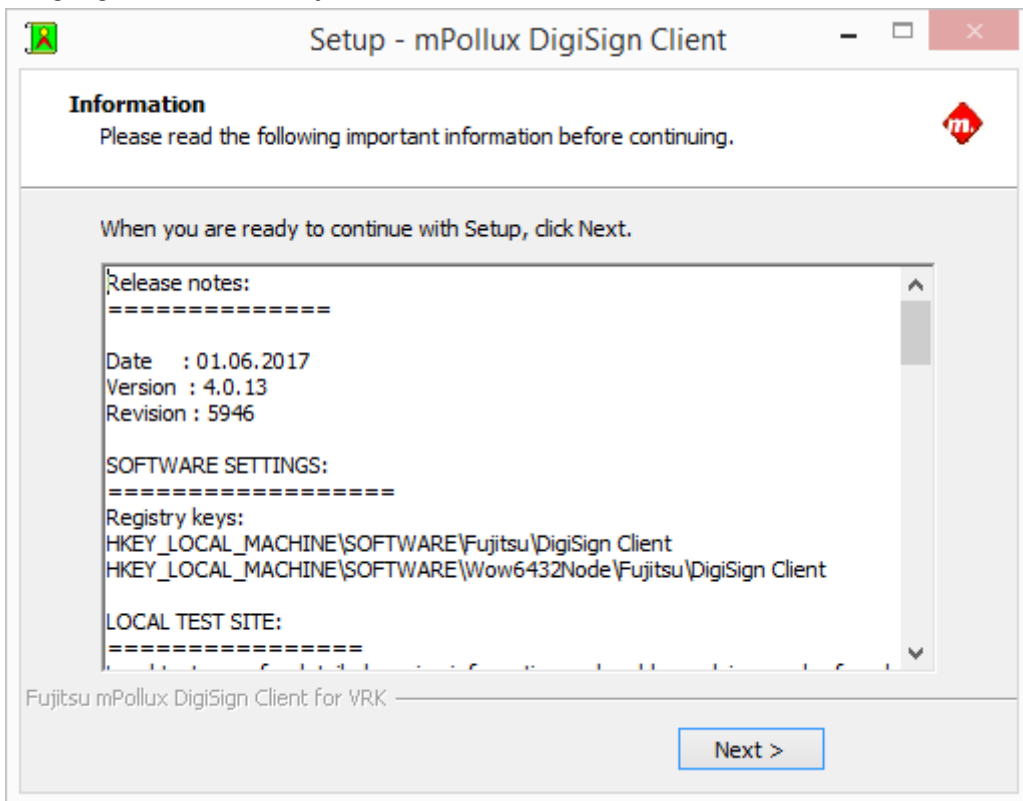


1.

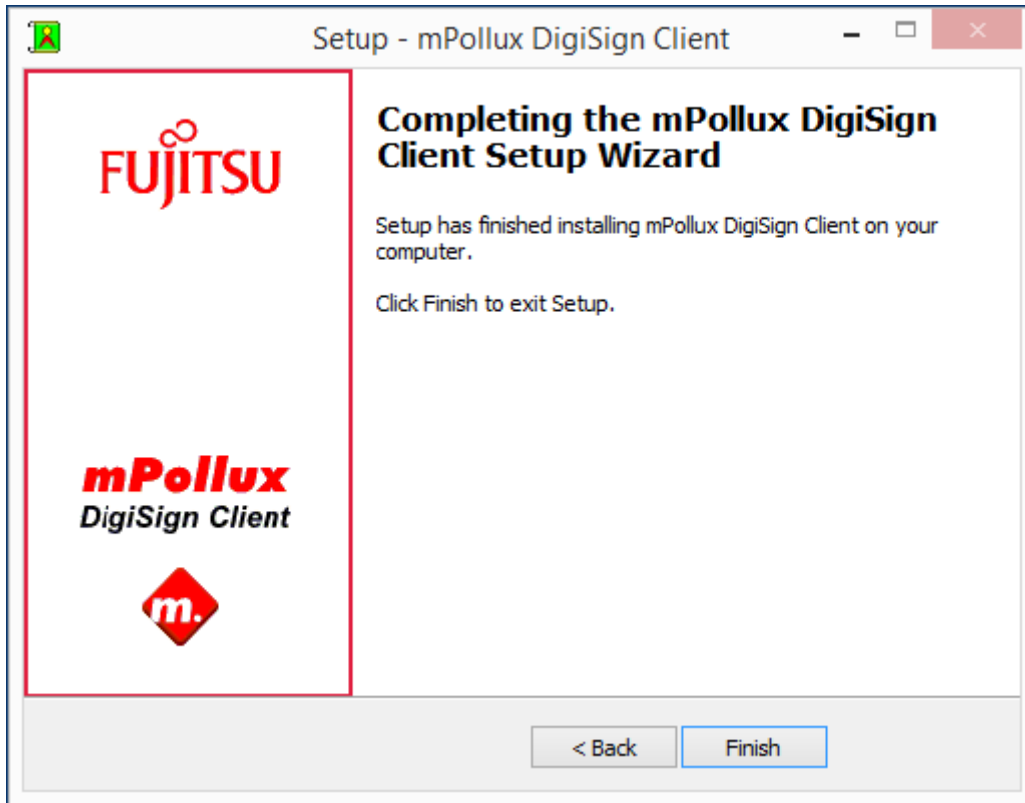
4. Read the terms of the license agreement, select I accept the agreement and click Next. The installation dialog opens.



5. To start the installation, click Install. The installation program starts installing the software and shows the release notes after the installation is completed. After the installation, these notes can be found in the DigiSign Client directory as ReleaseNotes.txt.



6. Check if the release notes have anything regarding the system to which you are installing the software. To continue, click Next. The program informs you when installation is complete.



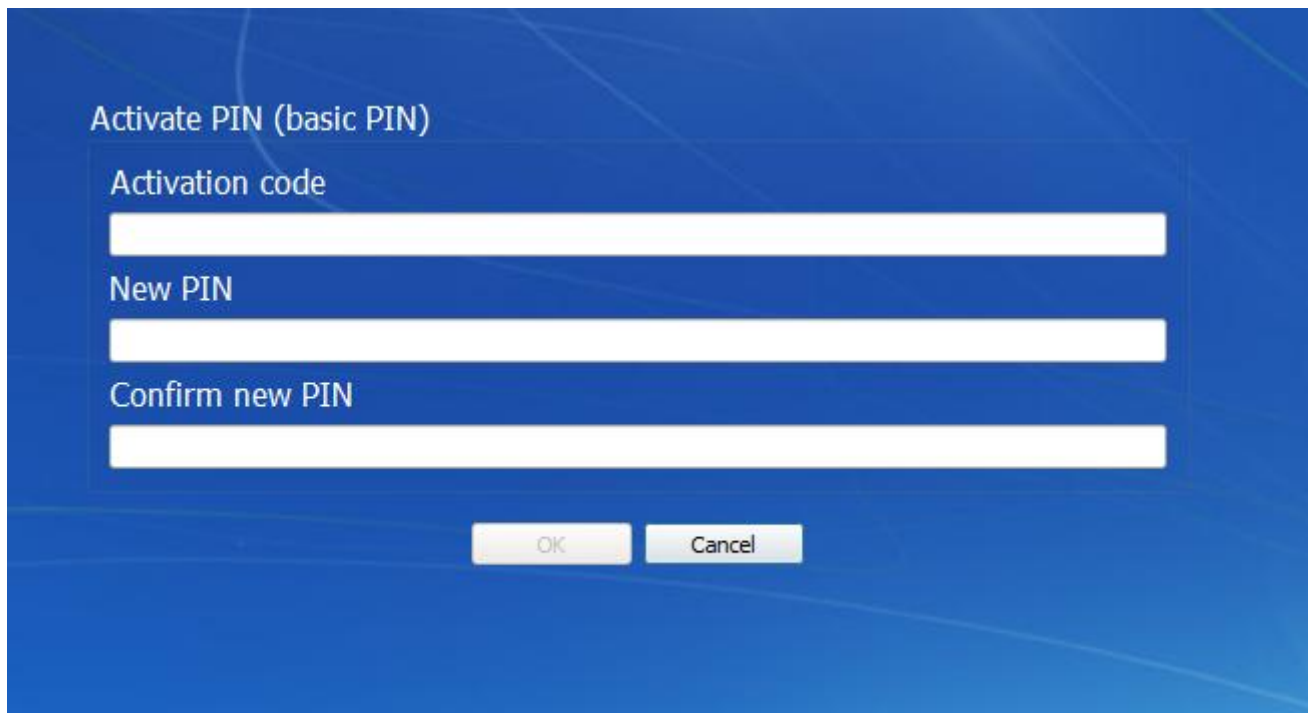
7. To finish the installation, click Finish. The DigiSign Client software has now been installed on your computer. The software icon () is shown at the bottom right corner of your screen in the information bar.



8. If you cannot see the icons, they may be hidden. Click the arrow in the information bar and drag and drop the icons one by one to the information bar.

2.3 Activation of a new card

To use a new ID card, you may need to activate it with an ACTIVATION PIN. When you use the ID card for the first time, the card reader software will automatically launch the identity card activation process. During this process, you will first be prompted to enter your activation PIN, after which you can activate and specify your own personal PIN codes. After the activation process has been completed, you can use your identity card in e-services.



Activate PIN (basic PIN)

Activation code



New PIN

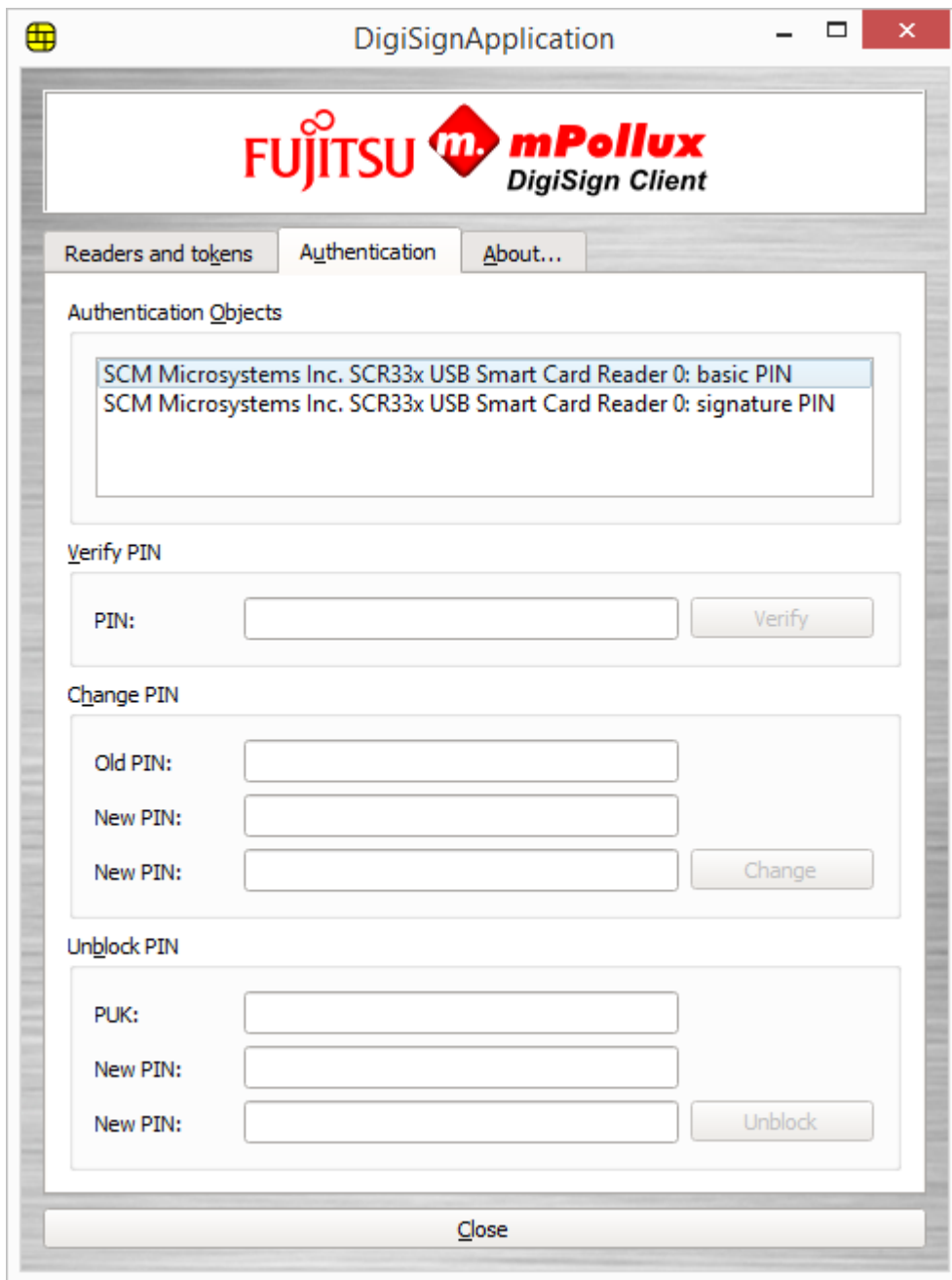
Confirm new PIN

OK Cancel

2.4 Verifying the installation

With mPollux DigiSign Client Manager, you can verify that the installation succeeded and that the smart card and the card reader work correctly.

1. Ensure that the card reader is connected to the computer. The card reader can be located in the computer or attached to it by a cable.
2. Insert the smart card to the card reader. Wait until the icon  turns yellow.
3. Right-click the  icon, and select **Display tokens**.
4. Select the **Authentication** tab.



5. In the **Authentication Objects** field, select the first row (first PIN code).
6. Enter your PIN code (PIN 1) in the **PIN** field under **Verify PIN**, and click **Verify**. The program informs you that the PIN code is correct. If the program informs you that the PIN code is incorrect, ensure that you entered the PIN code correctly.

If you enter the PIN code incorrectly several times in a row, the PIN code is blocked. The exact number of attempts depends on the card. To unlock the PIN code, follow the instructions in Section 4.6 The PIN code is blocked.

2.5 Browser and email program settings

Most web browsers and email programs should work without any special settings after DigiSign Client installation. Please note that smart cards does not work with Microsoft EDGE browser. Newer Chromium based EDGE works better.




Some applications, like older Mozilla Firefox and Thunderbird before version number 90, must be configured manually as follows:

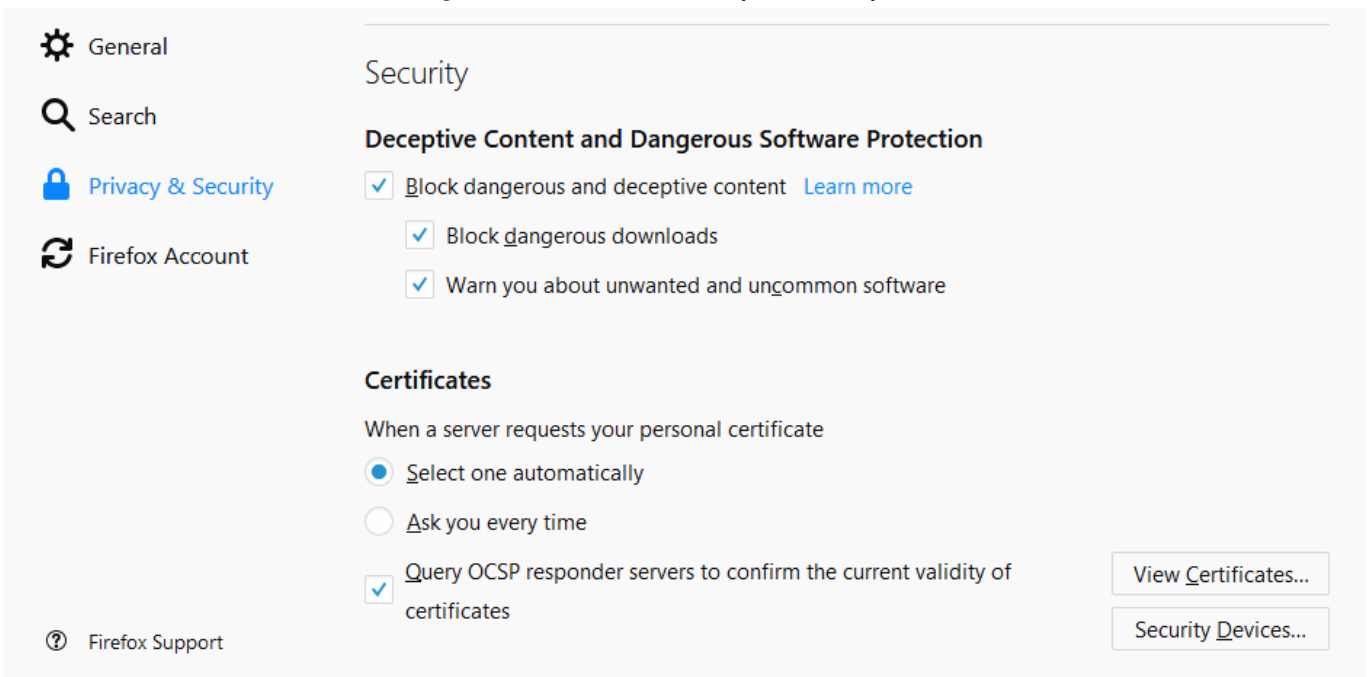
- Load the security module used by DigiSign Client to the program.
- Load the public certificates of the Certificate Authority (CA) to the program. Until you have added this setting, the browser claims that the connection is untrusted.

2.5.1 Loading the security module

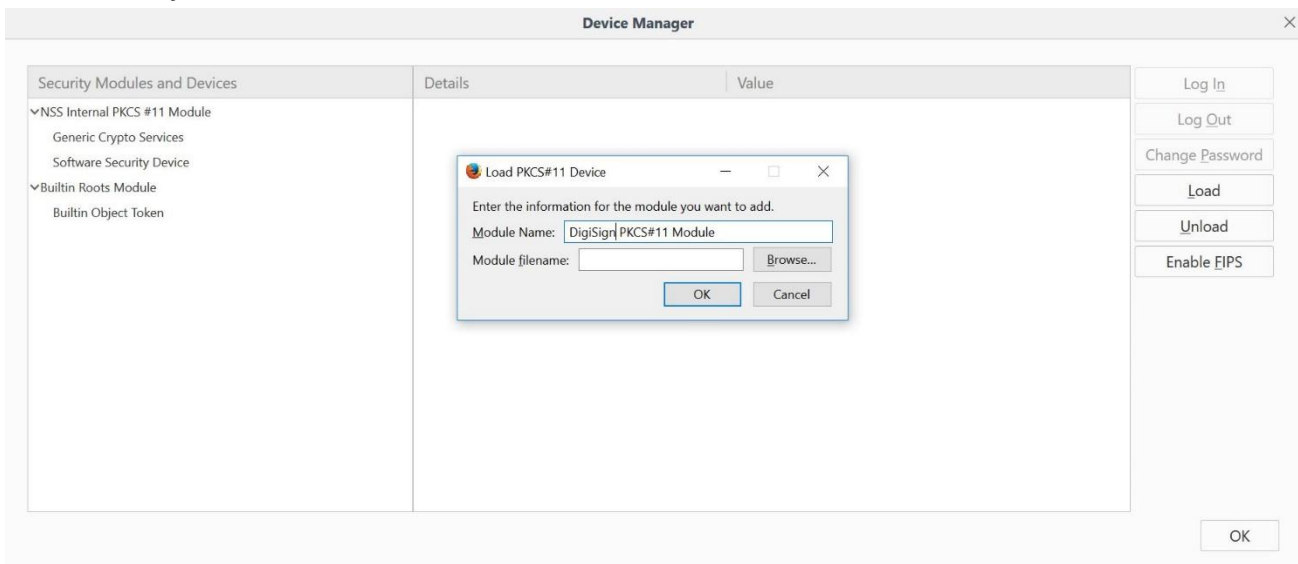
The following example shows how to add a security module to Mozilla Firefox and Mozilla Thunderbird. The names and locations of settings may vary slightly across versions.

Note; These instructions only apply to versions older or equal than 90. Starting from version 90, Firefox supports the same security devices as the operating system.

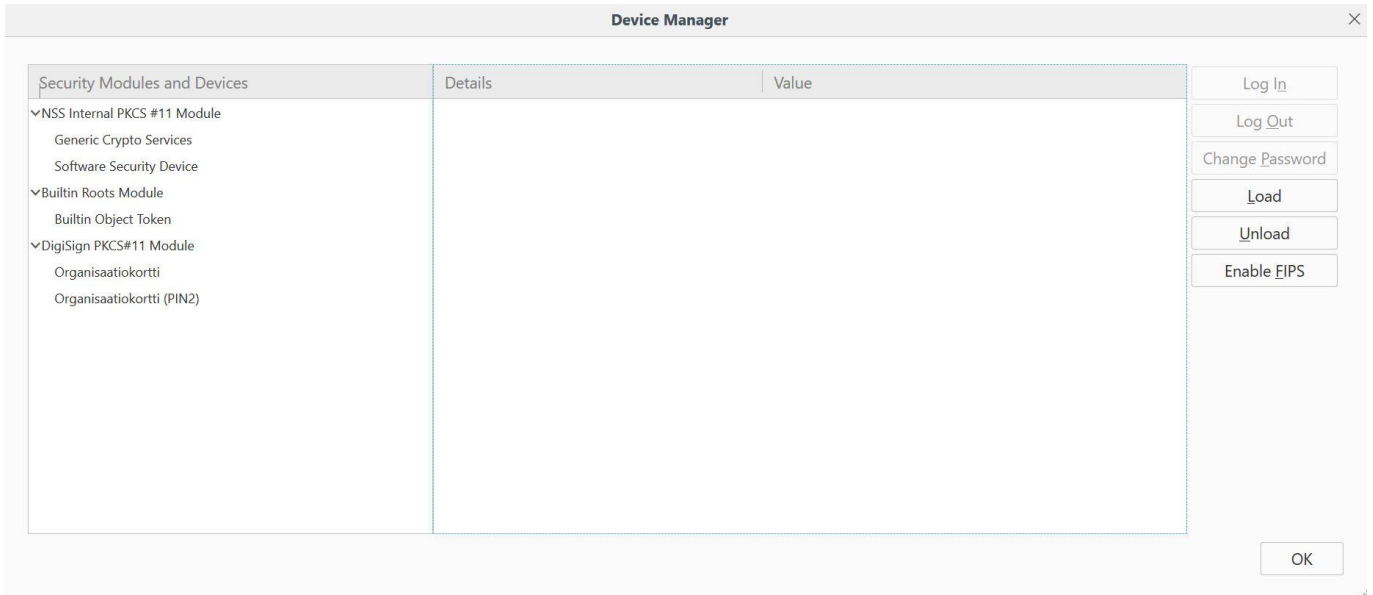
1. Ensure that the  icon is shown in the information bar. This means that the smart card is ready for use.
2. In Mozilla Firefox, select  button > **Options** > **Privacy & Security** > **Certificates in Security** section. In Mozilla Thunderbird the settings are located in  > **Options** > **Options** > **Advanced** > **Certificates**.



3. Under Certificates, select Select one automatically.
4. Click Security Devices and Load.



5. Name the module DigiSign PKCS#11 Module.
6. Click Browse and navigate to the cryptoki.dll file. By default, it is located in the directory
C:\Program Files (x86)\Fujitsu\mPollux DigiSign Client or
C:\Program Files\Fujitsu\mPollux DigiSign Client. Click OK.

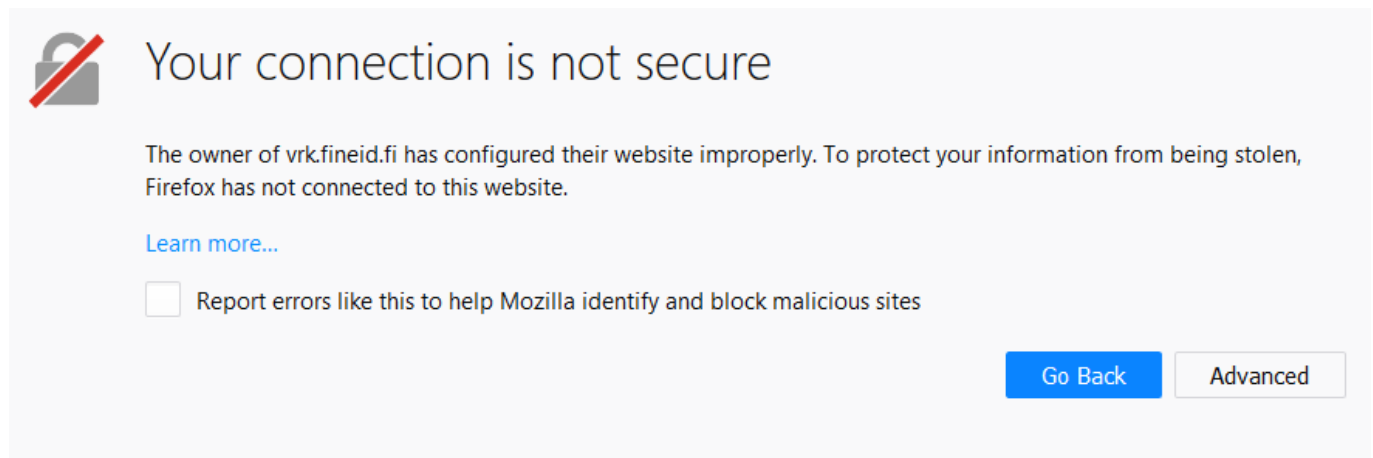



If you receive an error message saying that the security module cannot be loaded, select the file from the other folder.

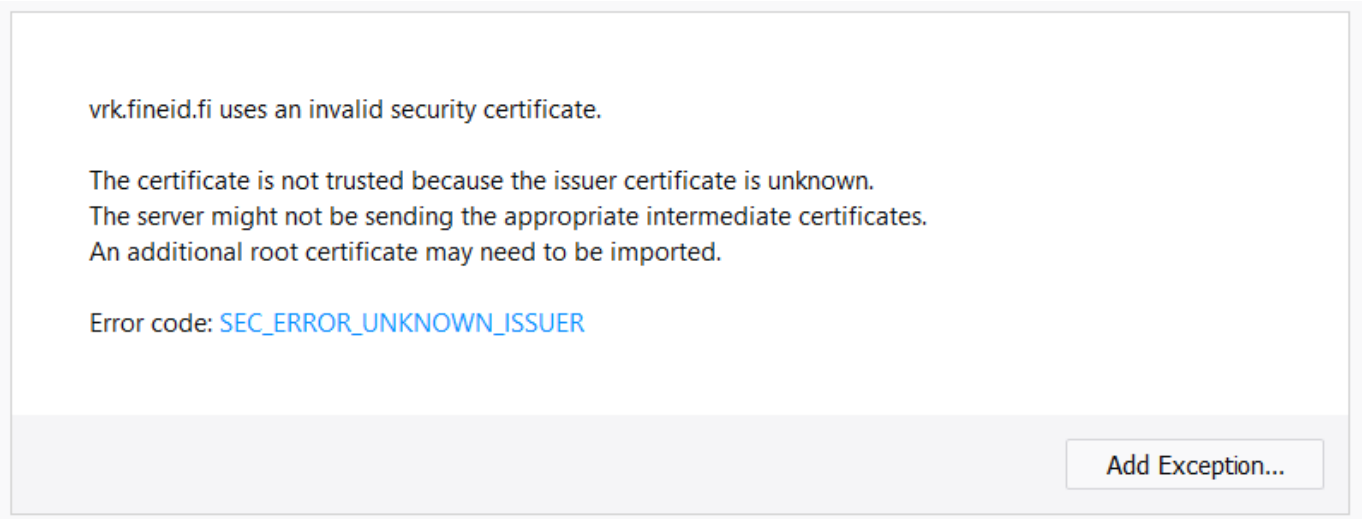
7. The DigiSign PKCS#11 Module is shown in the list. Click **OK** to exit the options.
8. Restart your browser or email program.

2.5.2 Adding certificates to browsers

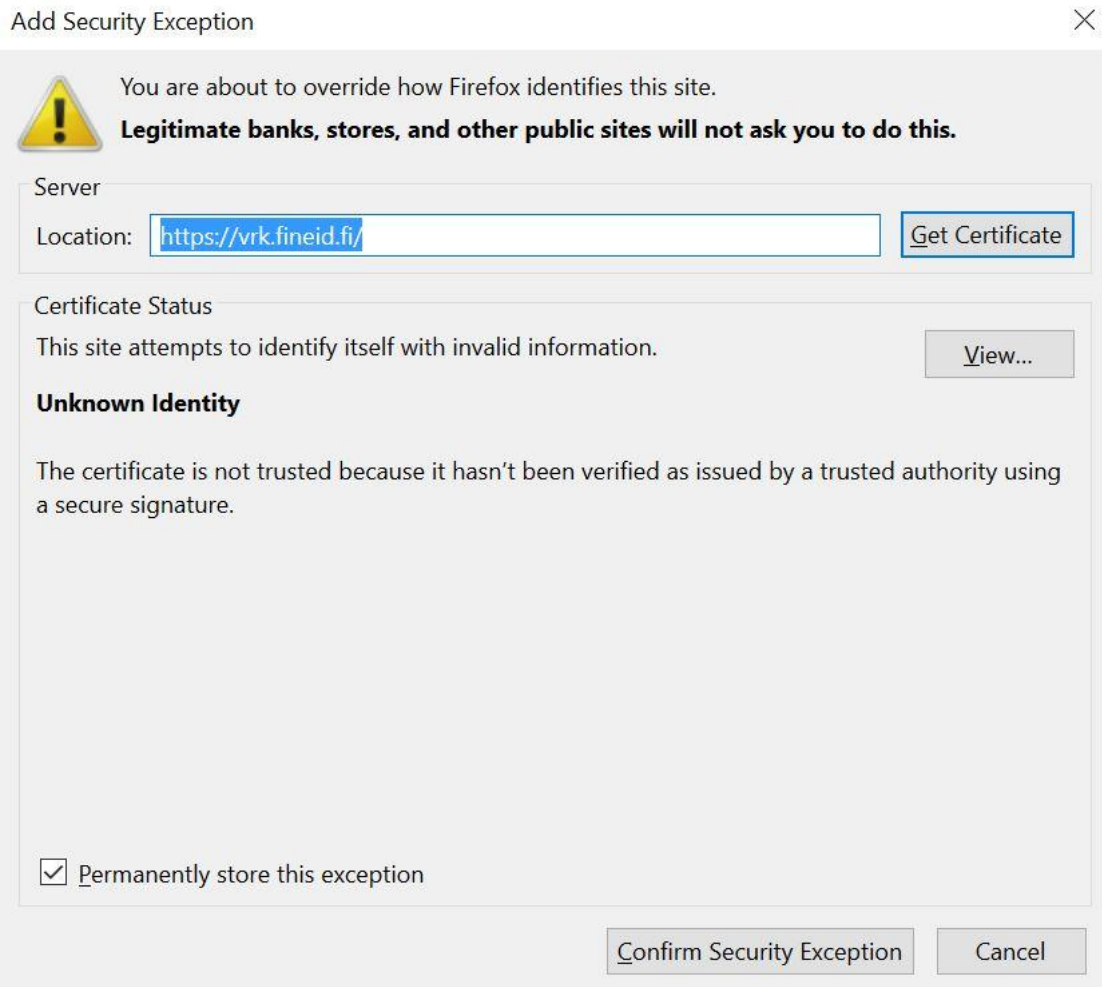
Some browsers, such as Mozilla Firefox, require the certificates published by the Certificate Authority (CA) to be set as trusted before they can be used. If the certificate has not been set as trusted, the page claims that the connection is untrusted.



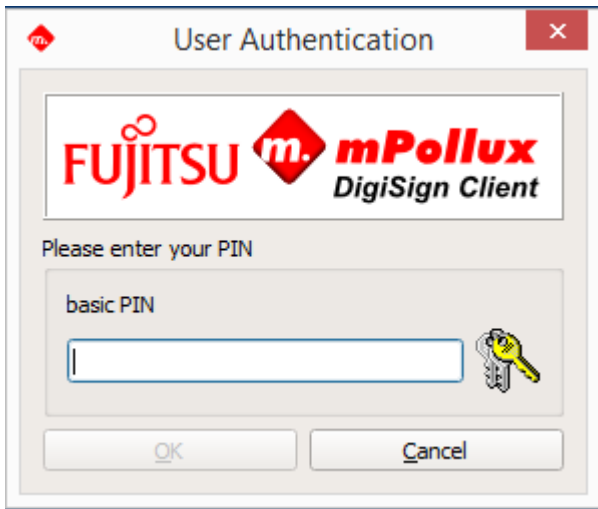
1. Ensure that the  icon is shown in the information bar. This means that the smart card is ready for use.
2. Select **Advanced**.



3. Press Add Exception.
4. Add Security Exception window opens.



5. Click **Get Certificate** and press **Confirm Security Exception**. The site asks you to enter your PIN code.





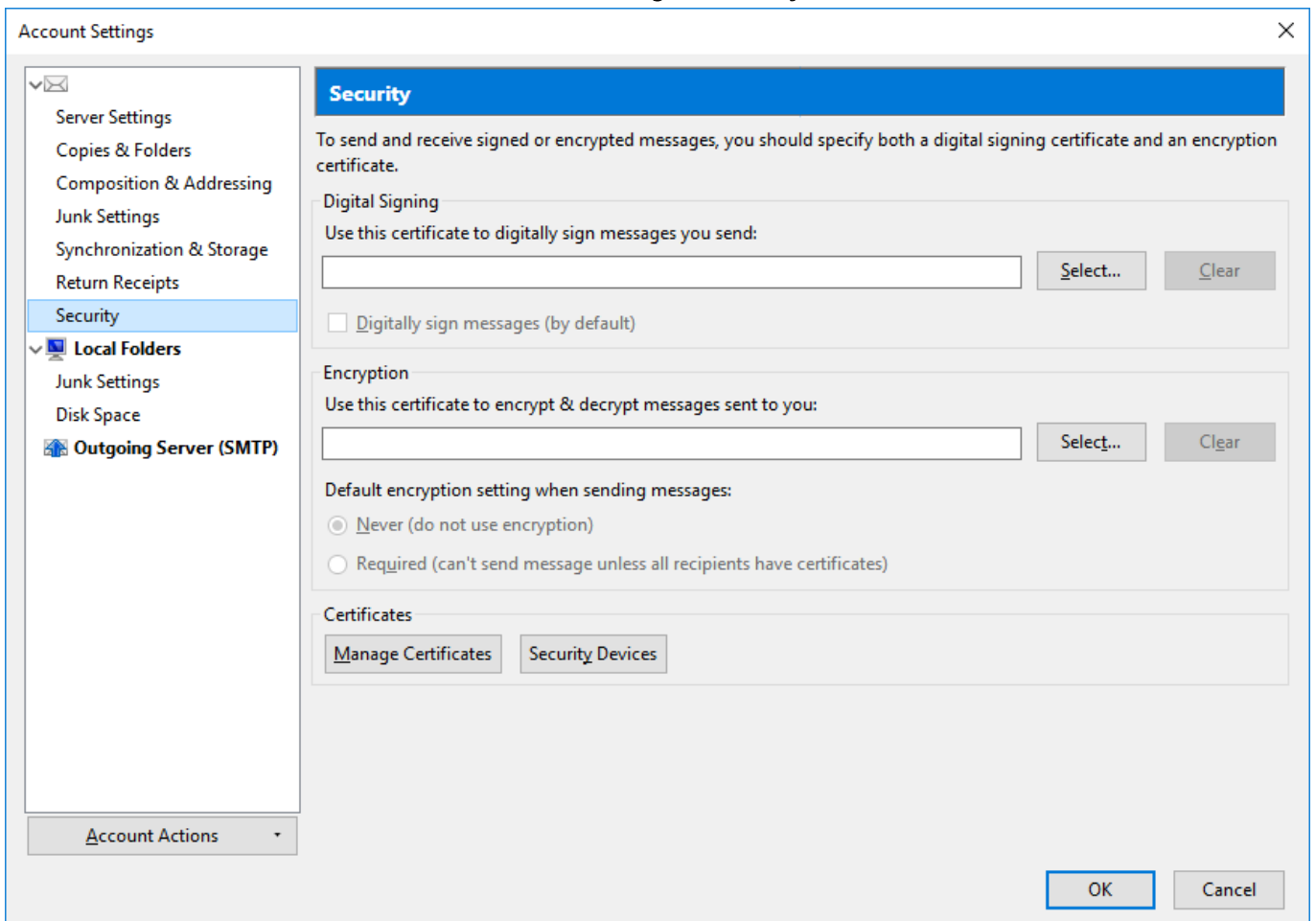
6. Enter your PIN code and click **OK**.

7. Refresh the page. You should now be able to access the site.

2.5.3 Adding certificates to email programs

In some email programs, such as Mozilla Thunderbird, the public certificates of the Certificate Authority (CA) must be added to the program before they can be used. Note that in some programs the email address used must also be included in the smart card.

1. Ensure that the  icon is shown in the information bar. This means that the smart card is ready for use.
2. In Mozilla Thunderbird, select  > **Account Settings > Security**.




3. Select the certificates you want to use for signing and for encryption and decryption.
4. Click **OK**.

3. Using DigiSign Client

You need DigiSign Client when you want to:

- log in to an electronic service that requires user identification
- log in to your organization's network either directly or from another network through VPN (virtual private network)
- digitally sign a document
- sign or encrypt an email message.

3.1 Basic usage

DigiSign Client starts up with Windows start-up. Using DigiSign Client requires that the smart card reader is connected to the computer, the reader driver has been installed, and the smart card has been inserted into the reader. Before starting to use a program that requires a smart card, ensure that the  icon is shown at the bottom right corner of your screen in the information bar. The icon tells that the smart card is ready for use.

Upon inserting the card into the reader for the first time, you may receive a warning that the certificate is untrusted. Select **Yes** if you trust the certificate.

If you encounter any problems when using the smart card, see additional instructions in Section 4 Troubleshooting instructions for some common problems.

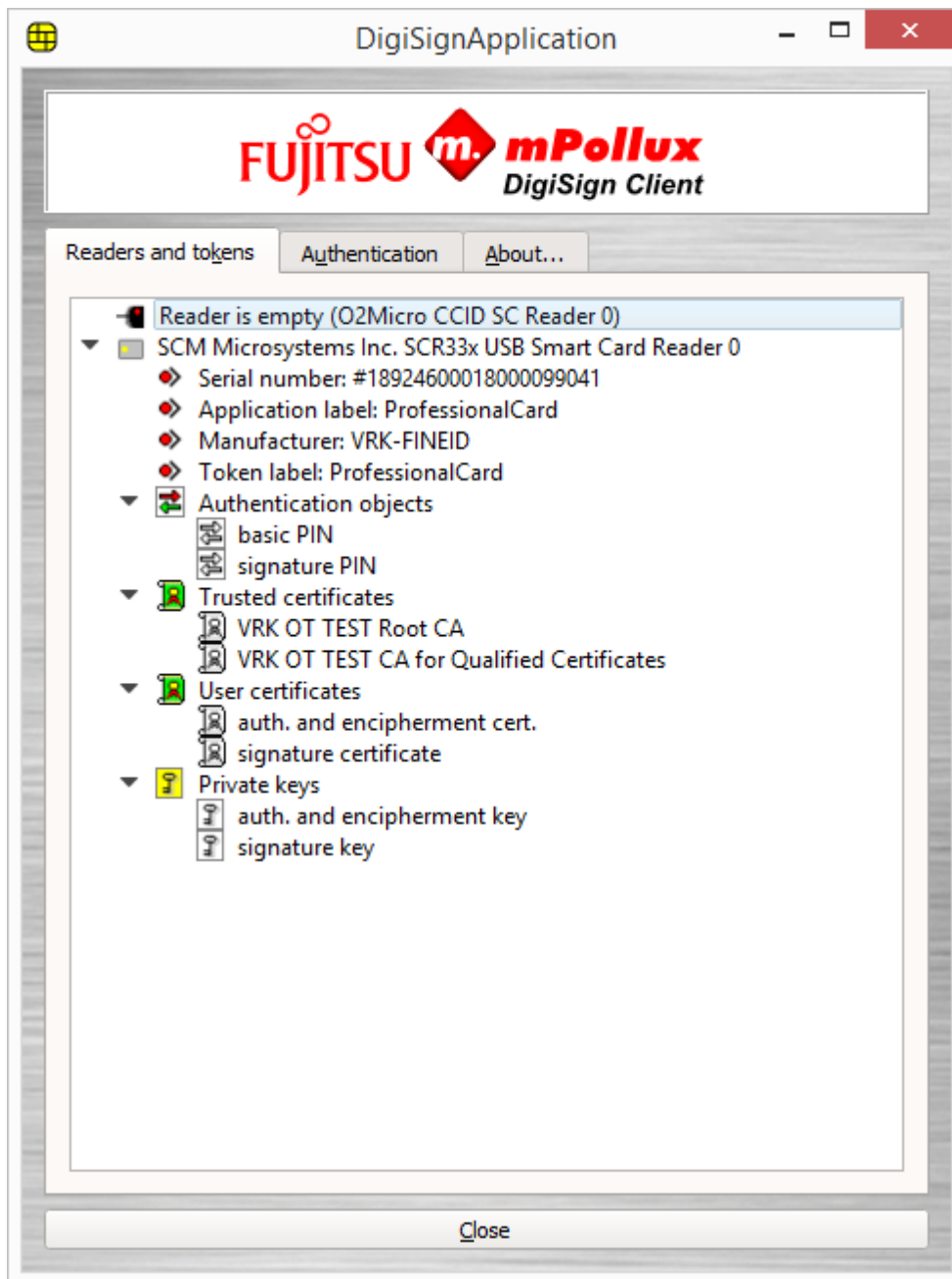
Never enter your PIN code if it is asked unexpectedly. Ensure that you have yourself started the function that asks for the PIN code.

Never remove the smart card from the card reader while using the service that you are logged in to.

3.2 Managing card readers and smart cards

With DigiSign Client you can manage your card readers and smart cards.

1. Right-click the  icon and select **Display tokens**. The DigiSign Client Manager dialog opens.



2. To view the data stored on the smart card, click on the arrows in front of each piece of text.

Security devices lists the card readers connected to the computer. The Certificate Authority (CA), card label and serial number are shown under the card reader label, if available.

Authentication objects lists the PIN codes stored on the smart card. Each card usually holds two or three PIN codes, of which the first one is used for identification (PIN 1), the second one for digital signing (PIN 2) and the third one for organizational purposes (PIN 3).

Authority certificates lists the CA certificates stored on the card.

Certificates lists the user certificates.

Private keys lists the user keys.

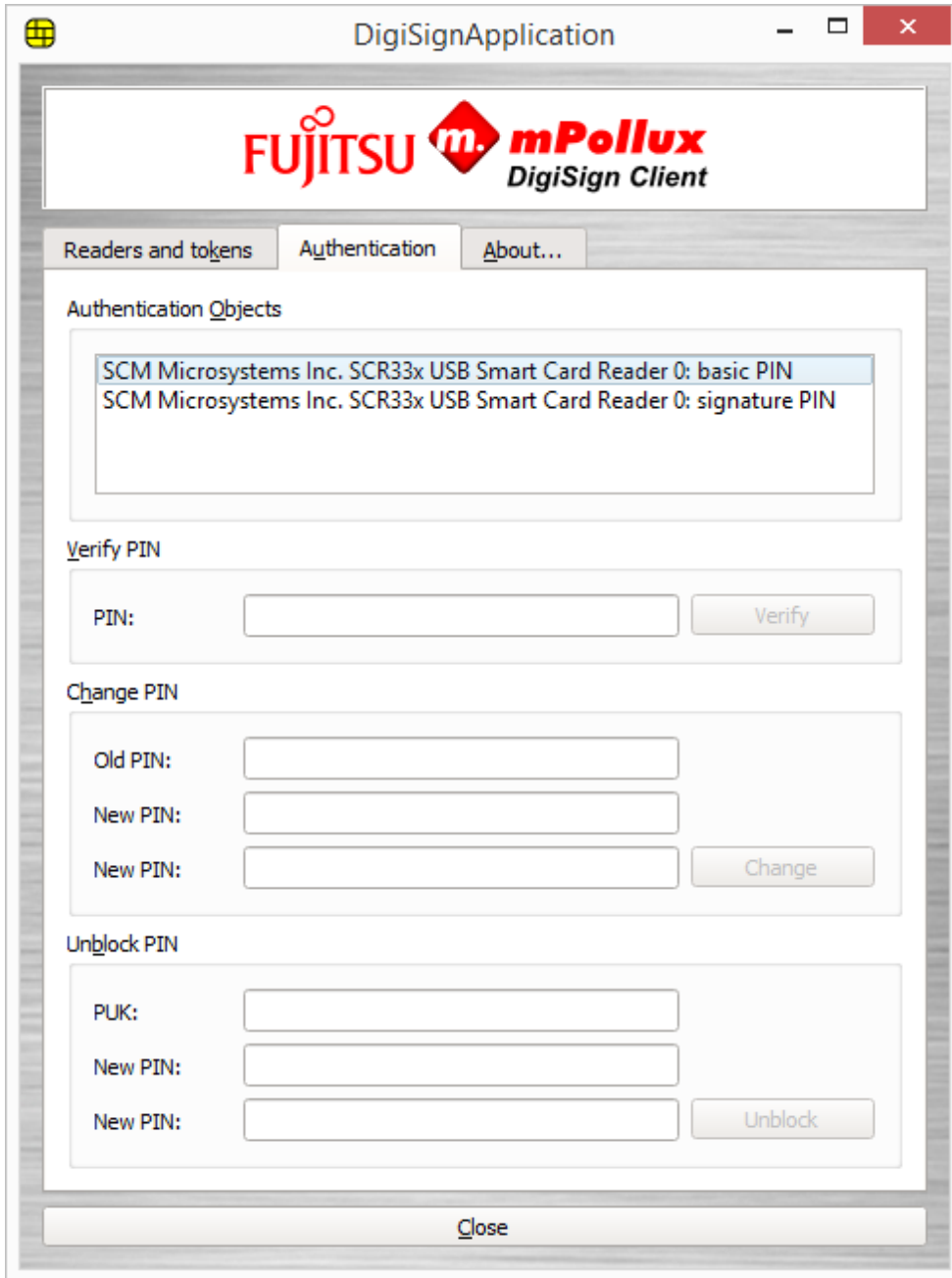
3. Right-click a certificate to open it and verify its data, such as expiry time or the email address to which the certificate is attached. You can also save the certificate.

4. Right-click a PIN code to verify, change or unlock it.
5. Right-click a key to test your PIN codes.

3.3 Changing a PIN code

You can change the PIN codes given to you. In addition to these instructions, you can change the PIN codes through the **Readers and cards** tab by right clicking the code and selecting **Change**.


1. Right-click the  icon and select **Display tokens**. The DigiSign Client Manager dialog opens.
2. Select the **Authentication** tab.

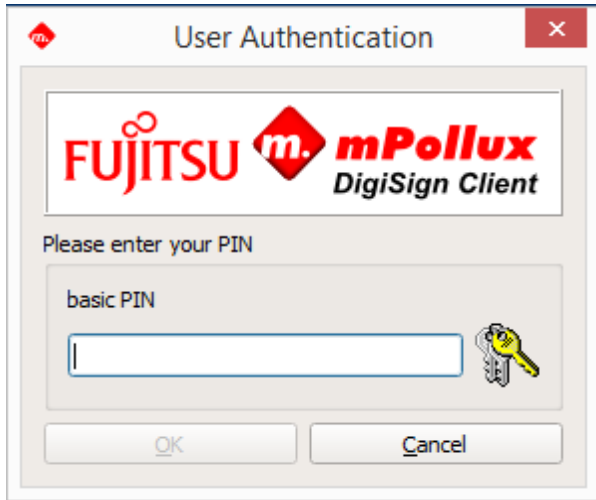


3. In the **Authentication Objects** field, select the PIN code you want to change.
4. Enter the current PIN code in the **Old PIN** field under **Change PIN**.
5. Enter your new PIN code in the **New PIN** fields. In most cases, the PIN must be 4-8 characters long.
6. Click **Change**. Your PIN code has now been changed. Memorize your new PIN code or write it down and keep it in a safe place.
7. To exit the program, click **Close**.

3.4 Logging in to an organization network

You can use DigiSign Client to log in to your organization network. Your computer must be connected to the organization network either directly or through VPN (virtual private network).


1. Ensure that the  icon is shown in the information bar. This means that the smart card is ready for use.
2. Select to log in from the computer.
3. If the program asks you to verify the certificate, click **OK**. The program asks for your PIN code.

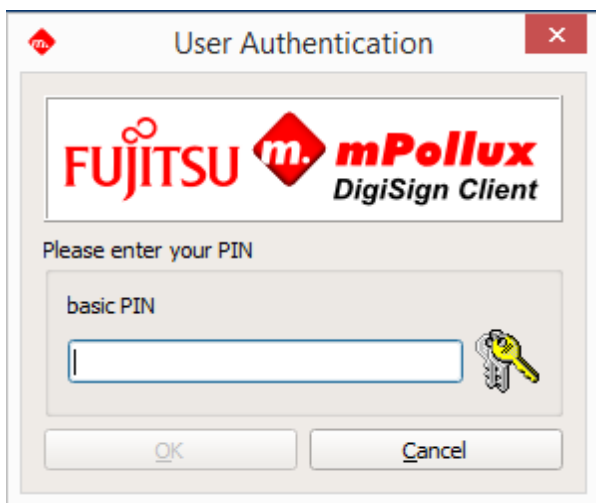


4. Enter your PIN code (PIN 1) in the field and click **OK**. You are now logged in to your organization's network.
5. When you stop using the network, remember to log out and remove the smart card from the reader.

3.5 Logging in to an electronic service

You can use DigiSign Client to log in to different electronic services that require identification.

1. Ensure that the  icon is shown in the information bar. This means that the smart card is ready for use.
2. Go to the service pages and select the button or link that takes you to digital identification. The program asks you which certificate you want to use.
3. Select the certificate you want to use to log in to this service, and click **OK**. The program asks for your PIN code.




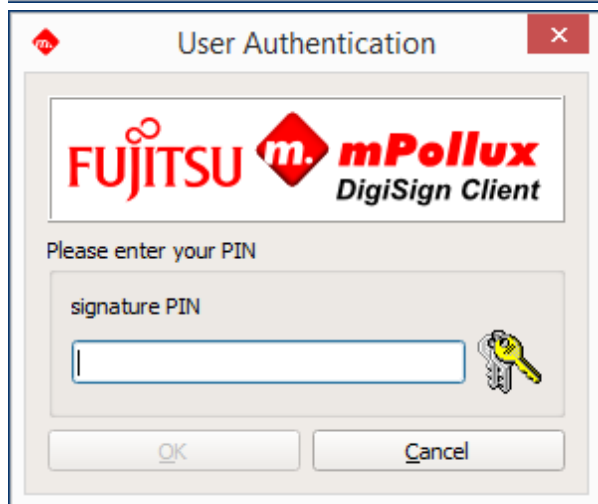
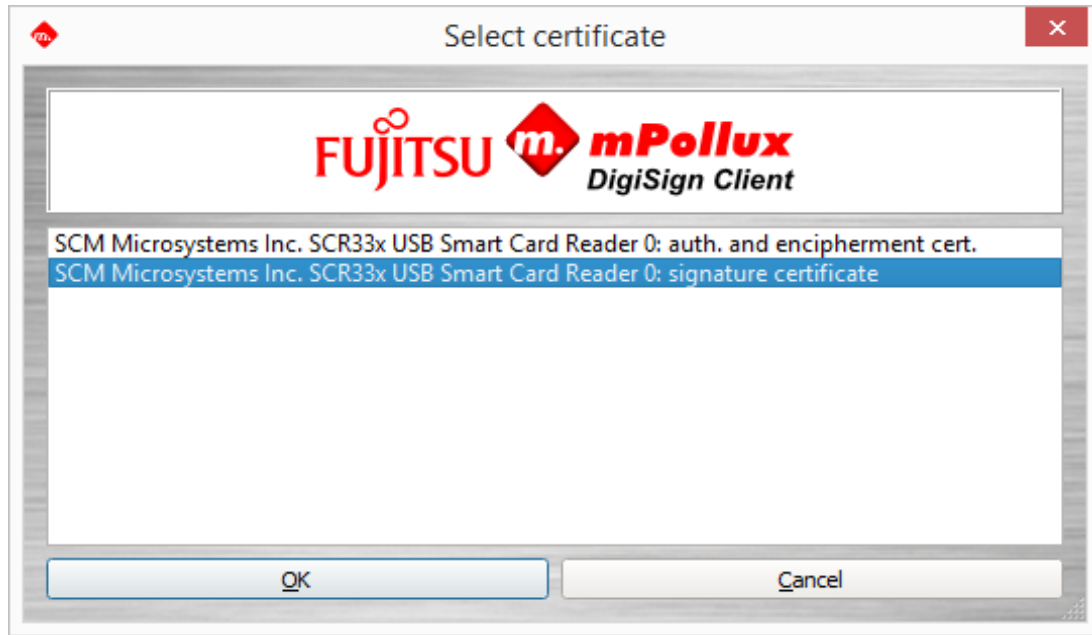
4. Enter your PIN code and click **OK**.
5. When you stop using the service, remember to log out and remove the smart card from the reader.

3.6 Signing a document digitally

You can use DigiSign Client to sign a digital form or document.

The program asks either PIN 1 or PIN 2 for the signature. PIN 1 is used for one-time signatures in, for example, email messages. PIN 2 is used for signatures in legally binding documents, such as contracts.

1. Ensure that the  icon is shown in the information bar. This means that the smart card is ready for use.
2. Select the digital signing function in the service or document. The program asks for your PIN code.




3. Enter your PIN code and click **OK**.

3.7 Signing and encrypting an email message

You can use DigiSign Client to sign and encrypt email messages. Note that some email programs allow a message to be signed or encrypted only when the address is stored on the card with the certificate.



In addition, the recipient must have your certificate. You can deliver the certificate by sending a digitally signed message to the recipient.

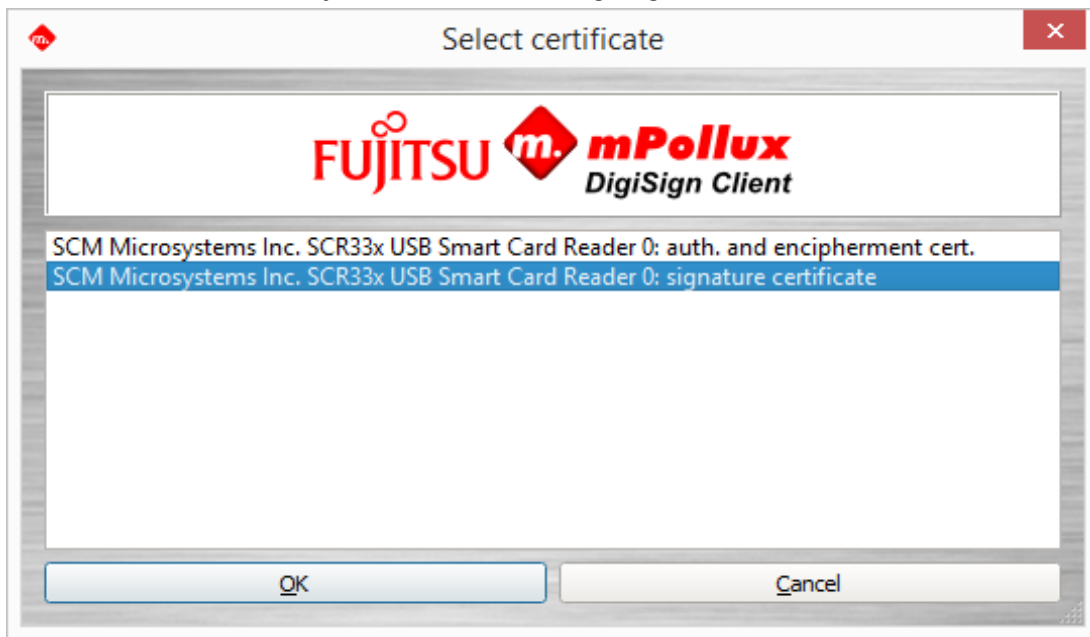
1. Ensure that the  icon is shown in the information bar. This means that the smart card is ready for use.
2. Add a digital signature to a message and send it to the recipient. For more detailed instructions, see the email program's user guide.

3. The recipient can now reply to you by using the certificate attached to the message. The message is encrypted.
4. Use your certificate to decrypt the message.

3.8 Adding digital signature to PDF-document

Starting from version 4.1.0, DigiSign Client includes the ability to add digital signatures to PDF documents. To add a digital signature to a PDF document, follow these steps:


1. Ensure that the  icon is shown in the information bar. This means that the smart card is ready for use.
2. Right-click the  icon and select "Sign .pdf-document..."
3. Select the certificate you want to use for signing.

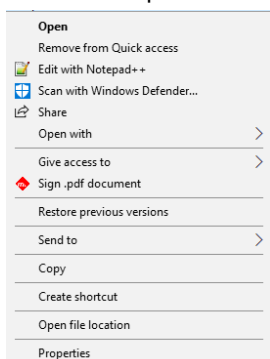


4. Select the document to be signed and enter PIN if requested
 5. After successful signing operation, signed document will be opened with the default .pdf viewer.
- Optional method is using file explorer and right-click .pdf document and then select "Sign .pdf document..."

3.8.1 Sign .pdf document from Windows explorer

Starting from version 4.1.2, DigiSign Client adds support pdf signature for file explorer file's context menu. To add a digital signature to a PDF document from File Explorer, follow these steps:

1. Ensure that the  icon is shown in the information bar. This means that the smart card is ready for use.
2. Open folder that contains the .pdf document to sign.
3. Select .pdf document and click right mouse button. Select the item "Sign .pdf document".



4. Follow the steps described in the previous chapter to sign document.

4. Troubleshooting instructions for some common problems

This section gives instructions for troubleshooting some common problems when using DigiSign Client. For further instructions, contact the Certificate Authority (CA).


4.1 The smart card icon is missing

DigiSign Client starts up with Windows start-up. When DigiSign Client is running, there is one icon shown at the bottom right corner of the screen ().



If you cannot see the icon, it may be hidden. Click the arrow in the information bar and drag and drop the icons one by one to the information bar.

4.2 DigiSign Client does not recognize the smart card


The  icon in the information bar means that DigiSign Client does not recognize the smart card. The card may be faulty or incorrect. Ensure that the card is meant to be used in the service that you are trying to use.

The icon in the information bar means that DigiSign Client does not find the smart card or the certificate stored in the card. Ensure that the card is inserted chip side up and as far into the card reader as possible.

The problem may also be in the card reader driver. Update the driver according to the vendor's instructions.

The card may also be dirty. Clean the chip carefully and try again.

4.3 Removing the card from the reader does not change the icon

If the  icon remains even though you removed the card from the reader, the reader driver is not working correctly. Update the driver according to the vendor's instructions.

4.4 The page requires a client certificate

Some browsers, such as Mozilla Firefox, require the DigiSign security module to be loaded before they can be used. If the security module has not been loaded, the page gives an error message saying that it requires a client certificate. Load the security module according to instructions in Section 2.5.11 Loading the security module.


4.5 This connection is untrusted

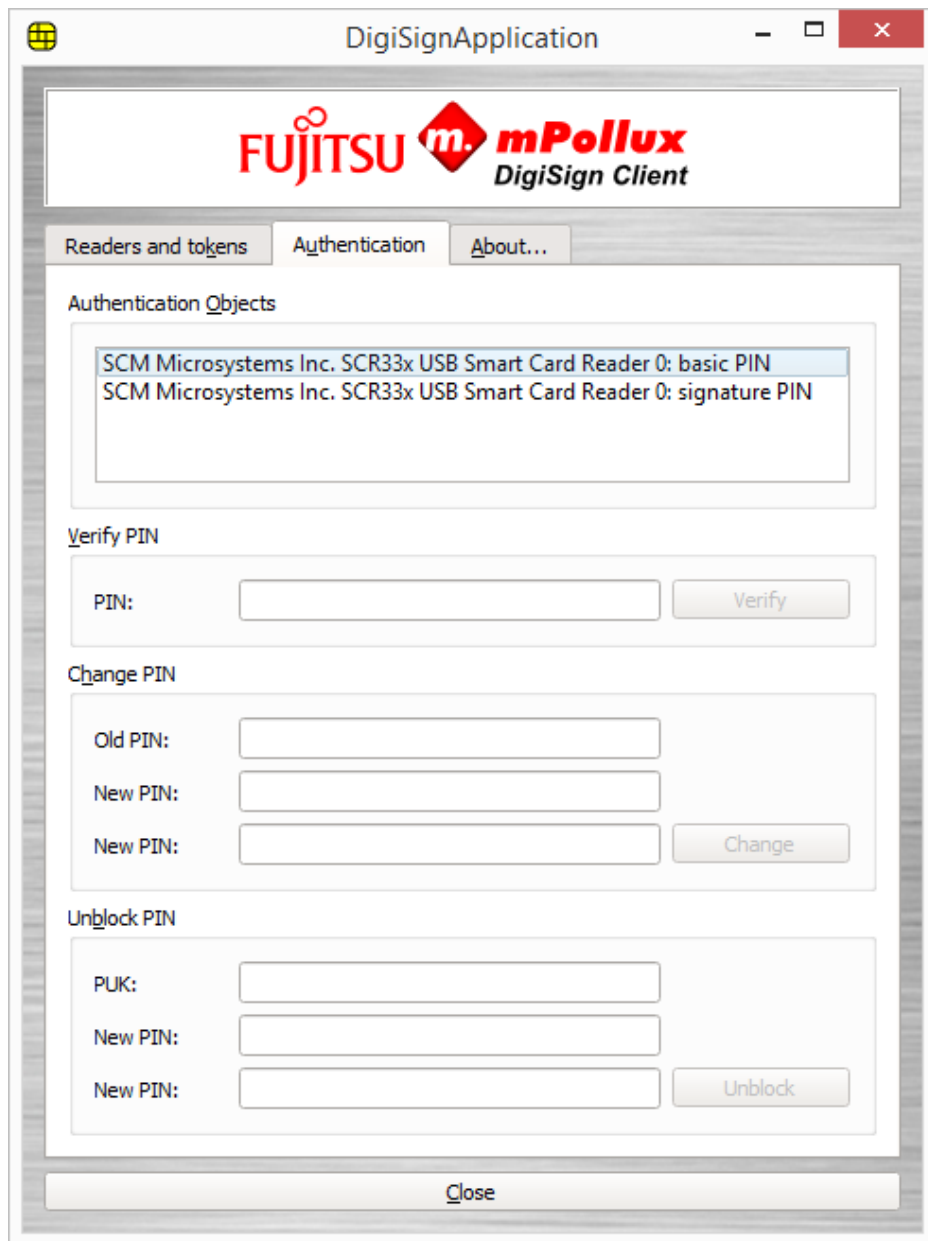
Some browsers, such as Mozilla Firefox, require the certificates published by the Certificate Authority (CA) to be set as trusted before they can be used. If the certificate has not been set as trusted, the page gives an error message saying that the connection is untrusted.

Load the certificate to the browser according to the instructions in Section 2.5.22 Adding certificates to browsers.

4.6 The PIN code is blocked

If you enter the PIN code incorrectly several times in a row, the PIN code is blocked. To unblock the PIN code, you need a PUK code. If you do not have a PUK code, request one from the Certificate Authority (CA).

1. Right-click the  icon and select **Display tokens**.
2. Select the **Authentication** tab.



3. In the **Authentication Objects** field, select the PIN code that is blocked.

If you have several PIN codes and you do not remember which one is blocked, check that as follows:

- a) Select the first PIN code in the **Authentication Objects** field.
- b) Enter the PIN code in the **PIN** field under **Verify PIN** and click **Verify**.
- c) If the PIN code is blocked, the program responds, "PIN code is blocked".
- d) If the PIN code you selected is not blocked, continue by verifying the next PIN code.

4. Ensure that you have selected the blocked PIN code in the **Authentication Objects** field, and enter your PUK code in the **PUK** field under **Unblock PIN**.

If you enter the PUK code incorrectly several times in a row, the smart card is blocked for good.
The number of tries depends on the card.

5. Enter a new PIN code in the **New PIN** fields.


6. Click **Unblock**. The program responds, "PIN unblocking successful". Memorize the new PIN code or write it down and keep it in a safe place.

7. To exit the program, click **Close**.

4.7 Digital signing does not work in a browser

DigiSign Client uses an internal web server for digital signing. Some firewalls prevent this kind of behaviour by default. If you cannot sign a digital document through a browser, check the firewall settings.

In some browsers, such as Mozilla Firefox, you must add a security exception for the DigiSign Client signature component before you can use digital signing.

1. Ensure that the  icon is shown in the information bar. This means that the smart card is ready for use.
2. Go to the following address: <https://127.0.0.1:53952> The page says that the connection is untrusted. Load the certificate to the browser according to the instructions in Section 2.5.2 Adding certificates to browsers.

