User Guide for eToken RTE 3.65

January 2006

Contact Information

Support

If you have any questions regarding this package, its documentation and content or how to obtain a valid software license you may contact your local reseller or Aladdin's technical support team:

Country / Region	Telephone
USA	1-212-329-6658 1-800-223-3494
EUROPE: **Austria, Belgium, France, Germany, Netherlands, Spain, Switzerland, UK**	00800-22523346
Ireland	0011800-22523346
Rest of the World	+972-3-6362266 ext 2

If you want to write to the eToken Technical Support department, please go to the following web page:

http://www.Aladdin.com/forms/eToken_question/form.asp

COPYRIGHTS AND TRADEMARKS

NOTICE

All attempts have been made to make the information in this document complete and accurate. Aladdin is not responsible for any direct or indirect damages or loss of business resulting from inaccuracies or omissions. The specifications in this document are subject to change without notice.

ALADDIN KNOWLEDGE SYSTEMS LTD.

eTOKEN ENTERPRISE END USER LICENSE AGREEMENT

IMPORTANT INFORMATION - PLEASE READ THIS AGREEMENT CAREFULLY BEFORE OPENING THE PACKAGE AND/OR USING THE CONTENTS THEREOF AND/OR BEFORE DOWNLOADING OR INSTALLING THE SOFTWARE PROGRAM. ALL ORDERS FOR AND USE OF THE eTOKEN ENTERPRISE PRODUCTS (including without limitation, libraries, utilities, diskettes, CD-ROM, eToken™ keys and the accompanying technical documentation) (hereinafter "Product") SUPPLIED BY ALADDIN KNOWLEDGE SYSTEMS LTD. (or any of its affiliates - either of them referred to as "ALADDIN") ARE AND SHALL BE, SUBJECT TO THE TERMS AND CONDITIONS SET FORTH IN THIS AGREEMENT. BY OPENING THE PACKAGE CONTAINING THE PRODUCTS AND/OR BY DOWNLOADING THE SOFTWARE (as defined hereunder) AND/OR BY INSTALLING THE SOFTWARE ON YOUR COMPUTER AND/OR BY USING THE PRODUCT, YOU ARE ACCEPTING THIS AGREEMENT AND AGREEING TO BE BOUND BY ITS TERMS AND CONDITIONS.

IF YOU DO NOT AGREE TO THIS AGREEMENT DO NOT OPEN THE PACKAGE AND/OR DOWNLOAD AND/OR INSTALL THE SOFTWARE AND PROMPTLY (within 7 days from the date you received this package) RETURN THE PRODUCTS WITH THE ORIGINAL PACKAGE AND THE PROOF OF PAYMENT TO ALADDIN, ERASE THE SOFTWARE, AND ANY PART THEREOF, FROM YOUR COMPUTER AND DO NOT USE IT IN ANY MANNER WHATSOEVER.

1. **Title & Ownership**. The object code version of the software component of Aladdin's eToken Enterprise Product, including any revisions, corrections, modifications, enhancements, updates and/or upgrades thereto about to be installed by you, (hereinafter in whole or any part thereof defined as: "**Software**"), and the related documentation, ARE NOT FOR SALE and are and shall remain in Aladdin's sole property. All intellectual property rights (including, without limitation, copyrights, trade secrets, trademarks, etc.) evidenced by or embodied in and/or attached/connected/related to the Product, are and shall be owned solely by Aladdin. This Agreement does not convey to you an interest in or to the Software, but only a limited right of use revocable in accordance with the terms of this Agreement. Nothing in this Agreement constitutes a waiver of Aladdin's intellectual property rights under any law.

2. **License**. Subject to payment of applicable fees, Aladdin hereby grants to you, and you accept, a personal, nonexclusive and fully revocable limited License to use the Software, in executable form only, as described in the Software accompanying technical documentation and only according to the terms of this Agreement: (i) you may install the Software and use it on computers located in your place of business, as described in Aladdin's related documentation; and (ii) you may merge and link the Software into your computer programs for the sole purpose described in the accompanying technical guide provided by Aladdin ("**Technical Guide**").

3. **Prohibited Uses**. The Product must be used and maintained in strict compliance with the instruction and safety precautions of Aladdin contained herein, in all supplements thereto and in any other written documents of Aladdin. Except as specifically permitted in Sections 1 and 2 above, you agree not to (i) use, modify, merge or sub-license the Software or any other of Aladdin's Products, except as expressly authorized in this Agreement and in the Technical Guide; and (ii) sell, license (or sub-license), lease, assign, transfer, pledge, or share your rights under this License with/to anyone else; and (iii) modify, disassemble, decompile, reverse engineer, revise or enhance the Software or attempt to discover the Software's source code; and (iv) place the Software onto a server so that it is accessible via a public network; and (v) use any back-up or archival copies of the Software (or allow someone else to use such copies) for any purpose other that to replace an original copy if it is destroyed or becomes defective. If you are a member of the European Union, this agreement does not affect your rights under any legislation implementing the EC Council Directive on the Legal Protection of Computer Programs. If you seek any information within the meaning of that Directive you should initially approach Aladdin.

4. **Maintenance and Support**. Aladdin has no obligation to provide support, maintenance, upgrades, modifications, or new releases under this Agreement.

5. **Limited Warranty**. Aladdin warrants, for your benefit alone, that (i) the Software, when and as delivered to you, and for a period of three (3) months after the date of delivery to you, will perform in substantial compliance with the Technical Guide, provided that it is used on the computer hardware and with the operating system for which it was designed; and (ii) that the eToken™ key, for a period of twelve (12) months after the date of delivery to you, will be substantially free from significant defects in materials and workmanship.

6. **Warranty Disclaimer**. ALADDIN DOES NOT WARRANT THAT ANY OF ITS PRODUCT(S) WILL MEET YOUR REQUIREMENTS OR THAT ITS OPERATION WILL BE UNINTERRUPTED OR ERROR-FREE. TO THE EXTENT ALLOWED BY LAW, ALADDIN EXPRESSLY DISCLAIMS ALL EXPRESS WARRANTIES NOT STATED HEREIN AND ALL IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. NO ALADDIN'S DEALER, DISTRIBUTOR, RESELLER, AGENT OR EMPLOYEE IS AUTHORIZED TO MAKE ANY MODIFICATIONS, EXTENSIONS, OR ADDITIONS TO THIS WARRANTY. If any modifications are made to the Software or to any other part of the Product by you during the warranty period; if the media and the eToken™ key is subjected to accident, abuse, or improper use; the Product has not been properly installed, operated, repaired or maintained in accordance with the instructions supplied by Aladdin; the Product has been subjected to abnormal physical or electrical stress, negligence or accident; or if you violate any of the terms of this Agreement, then the warranty in Section 5 above, shall immediately be terminated. The warranty shall not apply if the Software is used on or in conjunction with hardware or program other than the unmodified version of hardware and program with which the Software was designed to be used as described in the Technical Guide.

7. **Limitation of Remedies**. In the event of a breach of this warranty, Aladdin's sole obligation shall be, at Aladdin's sole discretion: (i) to replace or repair the Product, or component thereof, that does not meet the foregoing limited warranty, free of charge; (ii) to refund the price paid by you for the Product, or component thereof. Any replacement or repaired component will be warranted for the remainder of the original warranty period or 30 days, whichever is longer. Warranty claims must be made in writing during the warranty period and within seven (7) days of the observation of the defect accompanied by evidence satisfactory to Aladdin. All Products should be returned to the distributor from which they were purchased (if not purchased directly from Aladdin) and shall be shipped by the returning party with freight and insurance paid. The Product or component thereof must be returned with a copy of your receipt.

8. **Exclusion Of Consequential Damages.** The parties acknowledge that Product is inherently complex and may not be completely free of errors. ALADDIN SHALL NOT BE LIABLE (WHETHER UNDER CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE) TO YOU, OR ANY THIRD PARTY FOR ANY LOSS OR DAMAGE (INCLUDING INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES), INCLUDING, WITHOUT LIMITATION, ANY LOSS OR DAMAGE TO BUSINESS EARNINGS, LOST PROFITS OR GOODWILL AND LOST OR DAMAGED DATA OR DOCUMENTATION, SUFFERED BY ANY PERSON, ARISING FROM AND/OR RELATED WITH AND/OR CONNECTED TO DELIVERY, INSTALLATION, USE OR PERFORMANCE OF THE PRODUCT AND/OR ANY COMPONENT OF THE PRODUCT, EVEN IF ALADDIN IS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

9. **Limitation Of Liability.** IN THE EVENT THAT, NOTWITHSTANDING THE TERMS OF THIS AGREEMENT, ALADDIN IS FOUND LIABLE FOR DAMAGES BASED ON ANY DEFECT OR NONCONFORMITY OF ITS PRODUCT(S), ITS TOTAL LIABILITY FOR EACH DEFECTIVE PRODUCT SHALL NOT EXCEED THE PRICE PAID TO ALADDIN FOR SUCH PRODUCT.

10. **Termination.** Your failure to comply with the terms of this Agreement shall terminate your license and this Agreement. Upon termination of this Agreement: (i) the License granted to you in this Agreement shall expire and you, upon termination, shall discontinue all further

use of the Software and other licensed Product(s); and (ii) you shall promptly return to Aladdin all tangible property representing Aladdin's intellectual property rights and all copies thereof and/or shall erase/delete any such information held by it in electronic form. Sections 1, 3, 6-11 shall survive any termination of this Agreement.

11. **Governing Law & Jurisdiction.** This Agreement shall be construed and governed in accordance with the laws of Israel (except for conflict of law provisions) and only the courts in Israel shall have jurisdiction in any conflict or dispute arising out of this Agreement. The application of the United Nations Convention of Contracts for the International Sale of Goods is expressly excluded. The failure of either party to enforce any rights granted hereunder or to take action against the other party in the event of any breach hereunder shall not be deemed a waiver by that party as to subsequent enforcement of rights or subsequent actions in the event of future breaches.

12. **Government Regulation and Export Control**. You agree that the Product will not be shipped, transferred, or exported into any country or used in any manner prohibited by applicable law. It is stipulated that the Product is subject to certain export control laws, rules, and/or regulations, including, without limiting the foregoing, to the United States and/or Israeli export control laws, rules, and/or regulations. You undertake to comply in all respects with the export and re-export restriction as set forth herein and any update made thereto from time to time.

13. **Third Party Software**. Product contains third party software, as set forth in Exhibit A. Such third party's software is provided "As Is" and use of such software shall be governed by the terms and conditions as set forth in Exhibit A. If the Product contains any software provided by third parties other than the software noted in Exhibit A, such third party's software are provided "As Is" and shall be subject to the terms of the provisions and condition set forth in the agreements contained/attached to such software. In the event such agreements are not available, such third party software shall be provided "As Is" without any warranty of any kind and Sections 2, 3, 6, 8, 9-12 of this Agreement shall apply to all such third party software providers and third party software as if they were Aladdin and the Product respectively.

14. **Miscellaneous.** This Agreement represents the complete agreement concerning this License and may be amended only by a written agreement executed by both parties. If any provision of this Agreement is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable.

I HAVE READ AND UNDERSTOOD THIS AGREEMENT AND AGREE TO BE BOUND BY ALL OF THE TERMS.

Exhibit A

A. Notices.

I. Product has incorporated source code licensed under the Mozilla Public License ("MPL").

II. MPL is available at http://www.mozilla.org/MPL/

The MPL License, version 1.1, Copyright © 1998-2004 The Mozilla Organization.

III. The source code is freely available from: http://lxr.mozilla.org/mozilla/source/security/nss/cmd/modutil/modutil.c/

IV. "Covered Code" means: source code governed by the MPL.

B. DISCLAIMER OF WARRANTY.

COVERED CODE IS PROVIDED UNDER THIS LICENSE ON AN "AS IS'' BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES THAT THE COVERED CODE IS FREE OF DEFECTS, MERCHANTABLE, FIT FOR A PARTICULAR PURPOSE OR NON-INFRINGING. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE COVERED CODE IS WITH YOU. SHOULD ANY COVERED CODE PROVE DEFECTIVE IN ANY RESPECT, YOU (NOT THE INITIAL DEVELOPER OR ANY OTHER CONTRIBUTOR) ASSUME THE COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF ANY COVERED CODE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

FCC Compliance

eToken USB has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

a. Reorient or relocate the receiving antenna.

b. Increase the separation between the equipment and receiver.

c. Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

d. Consult the dealer or an experienced radio/TV technician.

FCC Warning

Modifications not expressly approved by the manufacturer could void the user authority to operate the equipment under FCC rules.

All of the above applies also to the eToken USB.

FCC authorities have determined that the rest of the eToken product line does not contain a Class B Computing Device Peripheral and therefore does not require FCC regulation.

CE Compliance

The eToken product line complies with the CE EMC Directive and related standards*. eToken products are marked with the CE logo and an eToken CE conformity card is included in every shipment or upon demand.

*EMC directive 89/336/EEC and related standards EN 55022, EN 50082-1.

UL Certification

The eToken product line successfully completed UL 94 Tests for Flammability of Plastic Materials for Parts in Devices and Appliances. eToken products comply with UL 1950 Safety of Information Technology Equipment regulations.

ISO 9002 Certification

The eToken product line is designed and manufactured by Aladdin Knowledge Systems, an ISO 9002-certified company. Aladdin's quality assurance system is approved by the International Organization for Standardization (ISO), ensuring that Aladdin products and customer service standards consistently meet specifications in order to provide outstanding customer satisfaction.

Certificate of Compliance

Upon request, Aladdin Knowledge Systems will supply a Certificate of Compliance to any software developer who wishes to demonstrate that the eToken product line conforms to the specifications stated. Software developers can distribute this certificate to the end user along with their programs.

Table of Contents

Chapter 1 1

Overview 1

RTE Overview 2

What's New in eToken RTE 3.65 3

Minimum Requirements 4

Chapter 2 5

Getting Started 5

Installing the eToken RTE 6

Connecting the eToken Extension Cable 10

Enabling your eToken 12

Starting eToken Properties 12

Chapter 3 15

eToken Properties 15

Local Machine Configuration Options 16

Certificate Store Options 17

CA Certificate Loading 19

Readers Management 20

Power Saving Options 21

General Control Buttons 22

eToken Configuration Options 23

Basic eToken Properties 23

Changing the eToken Password 26

Renaming the eToken 28

Unblocking the eToken 29

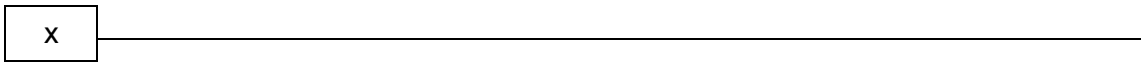
Advanced eToken Properties 33

Details tab 34

Settings tab 35

Certificates & Keys tab 38

Administrator tab 47


x

Chapter 1

Overview

This chapter provides an overview of eToken's new features and details the minimum hardware and software requirements for using eToken.

About This Chapter

This chapter contains the following sections:

- "RTE Overview", on page 2, provides a brief explanation of what the RTE does and solutions provided.
- "What's New in eToken RTE 3.65", on page 2, details the new features in RTE 3.65.
- "Minimum Requirements", on page 4, lists the hardware, software and operating system requirements for using eToken.

RTE Overview

The eToken Run Time Environment (RTE) installs all the necessary files and eToken drivers to support eToken integration with various security applications. It enables Windows operating systems and third party applications to access the eToken. Installing the RTE allows communication with all available eToken devices and forms the basis for Aladdin's various security solutions. These include eToken PKI solutions using either PKCS#11 or CAPI, proprietary eToken applications such as WSO (Web Sign-On), SSO (Simple Sign-On), eToken for Network Logon and management solutions like eToken TMS – a Token Management System that is a complete framework for managing all aspects of token assignment, deployment and personalization within an organization.

Aladdin's eToken PKI Solutions enable the implementation of strong two-factor authentication using standard certificates. Generic integration with both Microsoft CAPI and PKCS#11 security interfaces enables interoperability with a variety of security application such As Web Access, VPN Access, Network Logon, PC Protection and Secure eMail. PKI keys and certificates can be securely created, stored and used from within the eToken.

When used with eToken PRO / Smartcard or eToken NG-OTP, the PKI Private keys are generated and operate on board the secure chip.

eToken RTE supports the various types of eToken devices in both form factors. This means that only a single RTE installation is required to enable operations of either a traditional Smartcard or a USB Token (PRO, NG-OTP or R2), and results in easy deployment and cost effective installation in use of eToken products and solutions.

eToken RTE can be deployed and updated using any standard software distribution system such as SMS. In addition, the eToken Management System (TMS) supports software distribution using the Microsoft GPO system.

What's New in eToken RTE 3.65

The eToken RTE 3.65 is enhanced with new features and additional functionality from previous versions of the eToken RTE.

In addition to increased speed and better usability, the Token RTE 3.65:

- Provides support for new tokens:
  - eToken devices with the CardOS 4.20B and 4.30B operating systems. These will include versions of the eToken PRO (32K and 64K) and eToken NG-OTP (32K and 64K).
    These new tokens provide the user with better performance, more EEPROM and support for RSA 2048-bit cryptography.
- Provides better support in CAPI-enabled applications for keys and certificates that were created by PKCS#11-enabled applications.
- Provides better integration of PKCS#11 keys through CAPI.

Minimum Requirements

The following are the minimum requirements for using eToken:

- PC with at least 10 MB disk space.
- Windows 2000 (with Service Pack 4 or later installed) or Windows XP with full functionality of all new features.
- Windows 98, Windows NT 4.0 (with Service Pack 6 or later installed), Windows Me.
- Microsoft Windows Installer (MSI) 1.1 or later.
  Internet Explorer 5.0 or later. MSI 1.1 is included with all installations of Windows 2000, Windows Me and Windows XP. For details, please see: www.Aladdin.com/etoken
- At least one USB port, with USB support enabled in the BIOS.

NOTE:
Additional software may be required for individual eToken solutions. For more information, please refer to **www.Aladdin.com/etoken**.

Chapter 2

Getting Started

This chapter provides the basic information that you need in order to start using eToken, and gives detailed instructions for installing and using eToken for the first time.

About This Chapter

This chapter contains the following sections:

- "Installing the eToken RTE", on page 6, explains how to install the eToken runtime environment.
- "Connecting the eToken Extension Cable", on page 10, describes how the extension cable enables easy access to the USB port for insertion and removal of the eToken.
- "Enabling your eToken", on page 12, describes how to enable the eToken the first time it is used with the RTE, and details the basic eToken properties.

Installing the eToken RTE

The eToken runtime environment (RTE) includes all the necessary files and drivers to support eToken integration. It also includes the eToken Properties facility, which enables easy user management of the eToken password and name.

The eToken RTE (version 3.65) must be installed on each computer on which eToken is to be used.

➢ **To install the eToken RTE:**

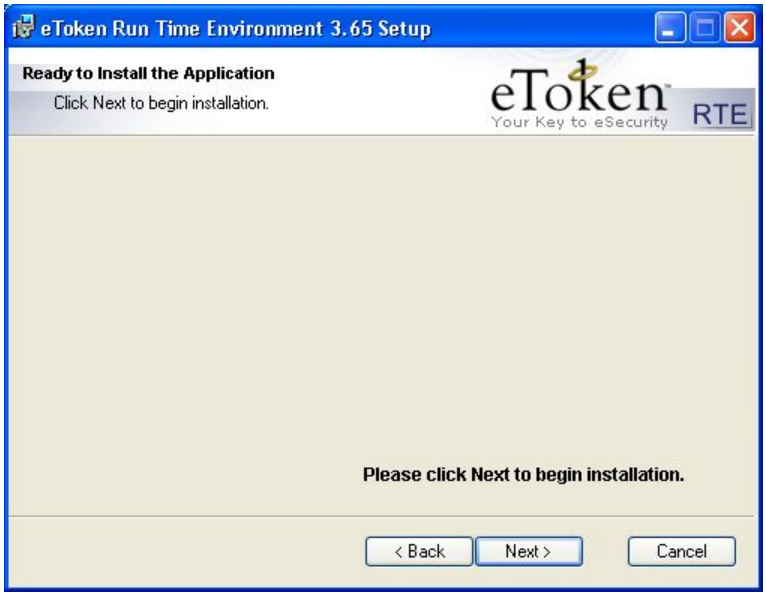
1 Close all currently opened applications.

2 If you have the eToken Enterprise 3.65 CD ROM, insert it in your computer and the CD launches automatically. Click the Install eToken RTE link.
OR
If you have a link to either the eToken web site or Aladdin License Centre, complete the requirements and then click on the eToken **RTE_3_65.msi** file.

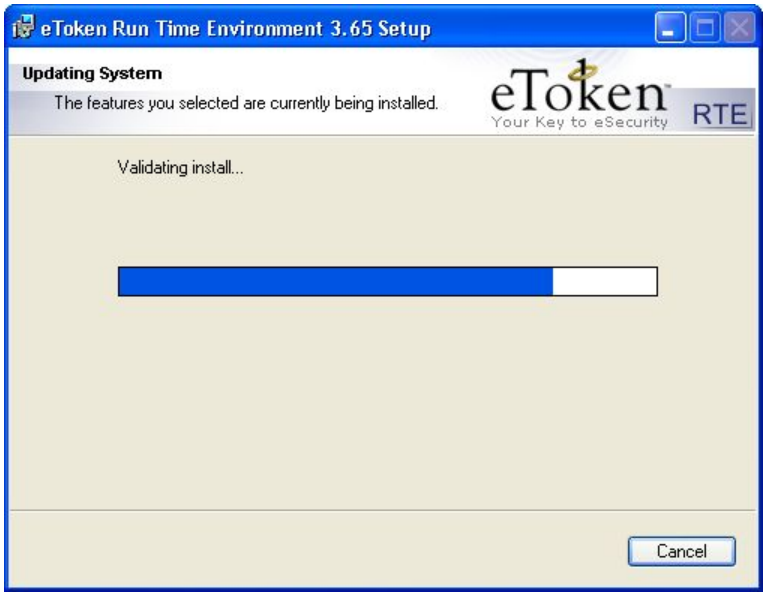
3 The eToken RTE Installation Wizard opens as displayed:

4 Click **Next** on the eToken RTE installation window. The License Agreement is displayed:

5 Select **I accept** and click **Next. The Ready to Install** window is displayed:

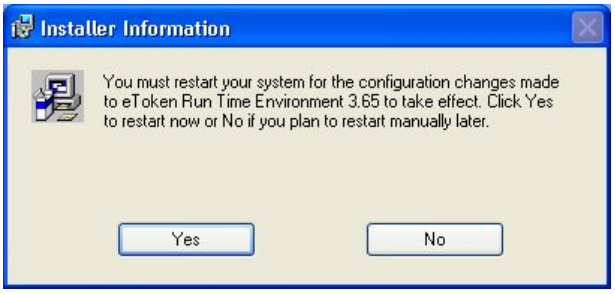


6 Click **Next** to begin the installation. During the installation files are copied and placed in the required folders. The **Updating System** screen is displayed:



7 When the System Update is complete, **eToken RTE 3.65** is installed and the following window is displayed:

8 Click **Finish**. The installation is complete.
If a previous version of the RTE is installed, an **Installer Information** message opens as displayed:



9 Click **Yes** to restart the system and make the configuration changes take effect.

10 Connect an eToken to the USB port or cable. The new hardware is processed and the eToken lights up. This process may take some time, depending on the operating system and computer. The installation is successful.
If the USB port is not easily accessible, an eToken USB extension cable can be used, as described below. This extension cable enables you to insert and remove the eToken easily without having to access the USB port directly.

Connecting the eToken Extension Cable

The eToken connects to the computer's USB port. If the USB port is located at the back of the PC, it is probably difficult to reach. The eToken extension cable enables easy access to the USB port for insertion and removal of the eToken. Extension cables are available from your local Aladdin dealer.

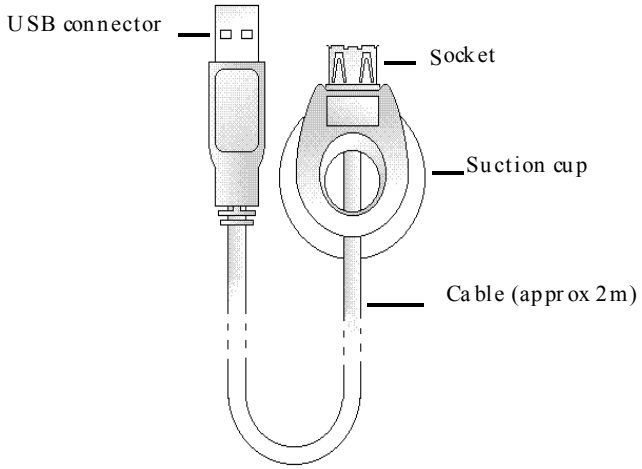
If a USB port or hub is located on the keyboard or monitor, you may not need an eToken extension cable. If the port is on the monitor, make sure that the monitor is connected to the USB port of the PC through a standard USB type A to type B cable.

Your eToken extension cable package includes:

- A round, translucent sticker.
- A cable, two meters (approximately six linear feet) long, with USB type A to type B connectors.

At one end of the cable is a socket and a special suction cup. This end should be mounted in a convenient place, so that you can easily insert and remove the eToken. At the other end of the cable is a small plug that connects to the existing USB connector on the PC.

USBconnector plug



➢ **To install the eToken extension cable:**

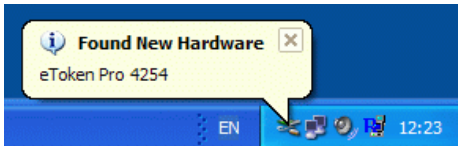
1. Locate the computer's USB port, and insert the small USB connector plug into it.
2. Peel off the sticker and paste it in a convenient place, for example, on the side of the monitor or on the casing of the PC.
3. Affix the suction cup of the eToken extension cable to the smooth surface of the sticker, pressing it firmly in place.
4. Plug the eToken into the cable socket and make sure it lights up.

Enabling your eToken

After installing the RTE, it is necessary to enable the eToken the first time it is inserted into the USB port.

➢ **To enable the eToken:**

1 Insert your eToken into the USB port or alternatively the USB extension cable for the first time. The eToken lights up and during this process, which may take a few moments, the **Found New Hardware** pop-up on the Start Bar (The image displayed is from a Windows XP system. The hardware recognition steps and messages may vary on other Operating Systems) is displayed:



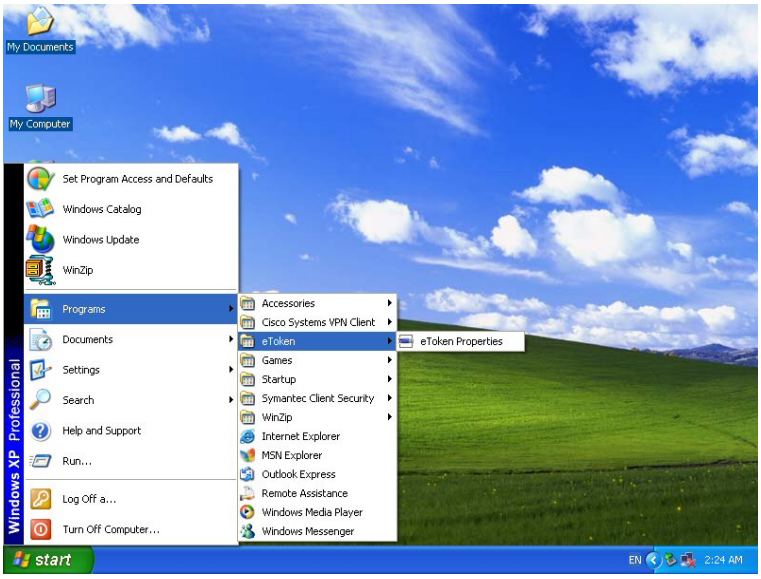
2 The hardware installation continues until complete when the eToken is ready to be used.

Starting eToken Properties

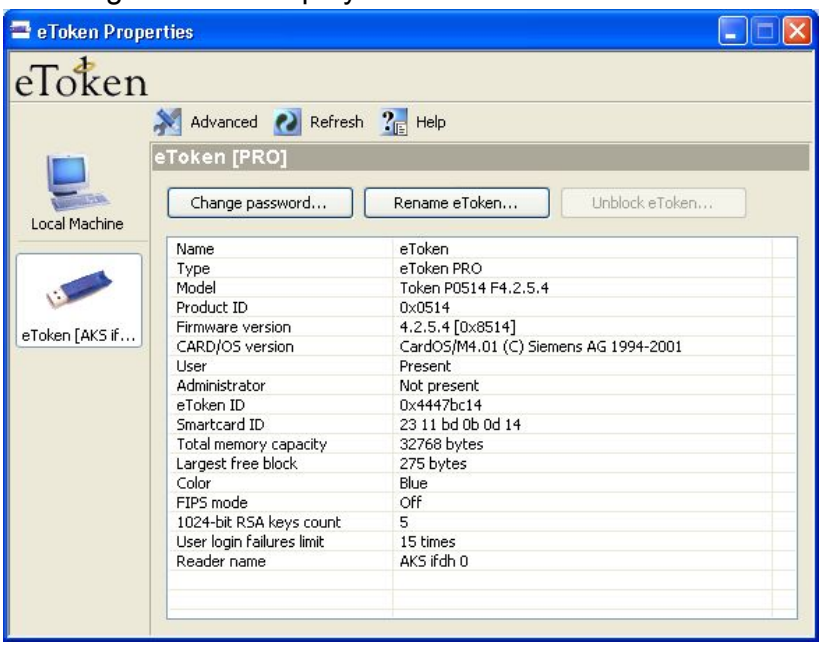
To enable and use your eToken with eToken Properties you must first start eToken Properties.

➢ **To start eToken Properties:**

1 From the **Start** menu, select **Programs >eToken >eToken Properties** and the following is displayed:



2 Click **eToken Properties** and with your eToken inserted, the following screen is displayed:



3 You are now ready to work with eToken Properties.

Chapter 3

eToken Properties

eToken Properties provides users with a configuration tool to perform basic token management such as password changes, viewing of information, and viewing of certificates on the eToken. In addition, eToken Properties provides users with a quick and easy way to transfer digital certificates and keys between a computer and an eToken.

About This Chapter

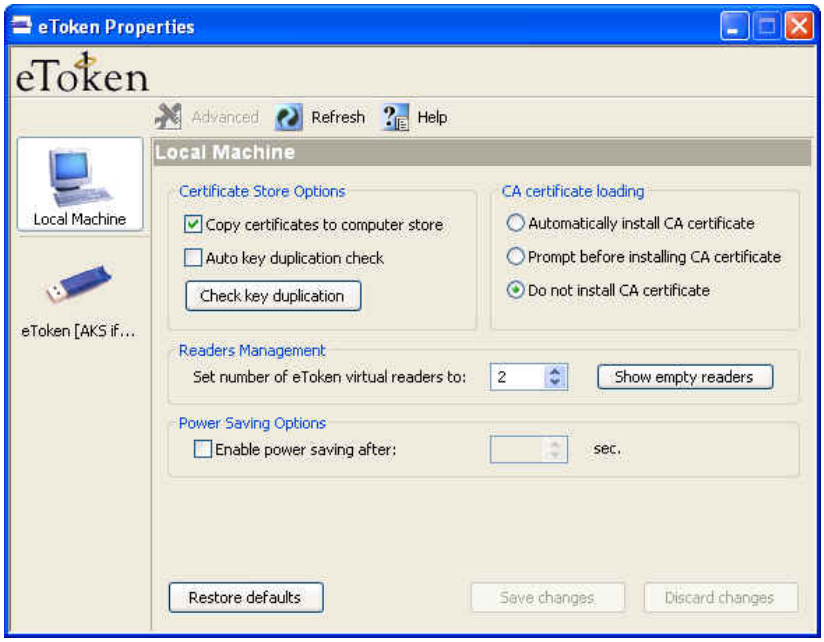
This chapter provides a brief explanation of eToken Properties and the various configuration options available to the user.

The chapter includes the following sections:

- "Local Machine Configuration Options", on page 16, details the specific options available on the Local machine at all times.
- "Basic eToken Properties", on page 23, explains the configuration options available in Basic mode as well as changing the password and renaming the eToken.
- "Advanced eToken Properties", on page 33, explains the configuration options available in Advanced mode and covers the different tabs and their settings.

Local Machine Configuration Options

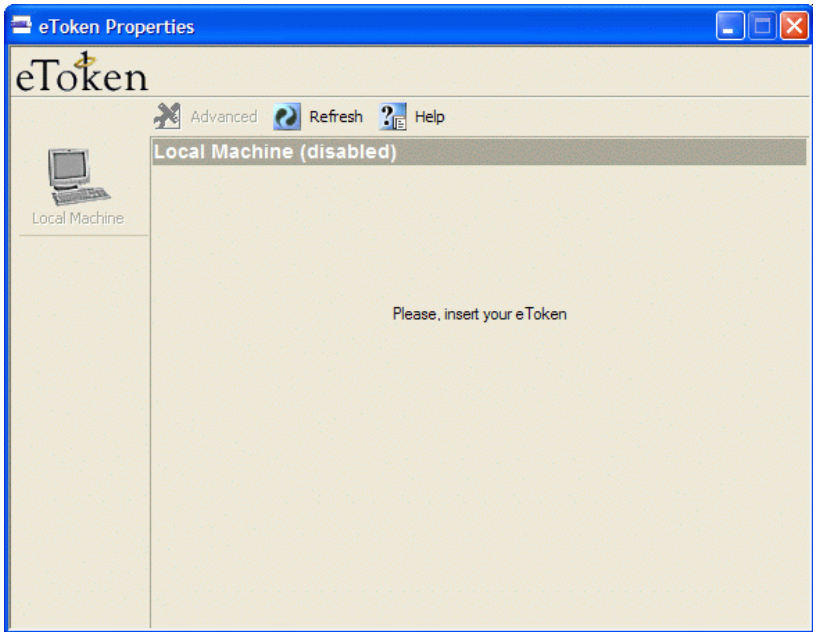
The Local Machine configuration options enable setting global parameters that affect the eToken operation. These options are displayed when **eToken Properties** is launched (and no eToken is inserted) or when the **Local Machine** button in the left panel is clicked, as shown below:



The window consists of a left vertical panel containing buttons and a right pane that contains information on the currently selected button.

The top button in the left panel is the **Local Machine** button, which is automatically selected when launching **eToken Properties**. The configuration options associated with this button are **not** specific to one eToken, but are general configuration options applicable to any eToken.

Some administrators may choose to disable **Local Machine** and **Advanced** features. In such a case the following is displayed:



In order to use the application in this configuration you will need to insert an eToken.

Certificate Store Options

Copy certificates to computer store

Default - enabled

PKI operations usually require certificates, private and public keys. Private keys should always be securely stored on the eToken. Certificates should also be stored on the eToken as this enables mobility (the certificate will be readily available when using the eToken on a different machine).

Since certificates themselves do not contain private information, selecting this box enables pre-loading of certificates from the eToken and caching them on the local machine. This considerably speeds up accessing of these certificates by various applications, and can dramatically shorten response time when several certificates on the eToken need to be enumerated by an application.

Auto key duplication check

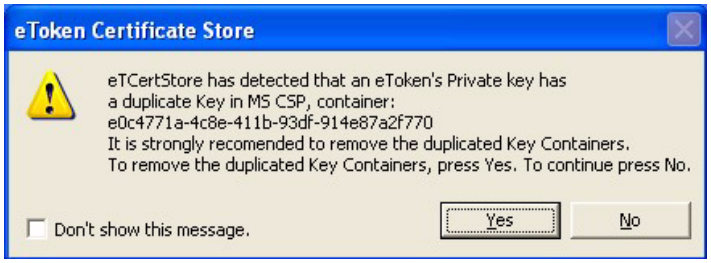
Default - disabled

It is possible that private keys have, in the past, been placed on the computer. This leads to duplication in that there is a key on the computer AND on the eToken. For effective security, only one private key should be allowed. This key should always be kept on the eToken in order to maximize security.

To perform an automatic key duplication check each time an application enumerates the eToken certificates, select the **Auto key duplication check** check box. Note that this might slow down certificate and key operations.

Alternatively, if you want to check whether the Auto Key is duplicated on an ad hoc basis, click **Check key duplication**. If no duplicate keys are found, the following pop-up is displayed:

If duplicate keys are found, the following pop-up is displayed:



Click **Yes** to remove the duplicate keys from the computer.

CA Certificate Loading

CA certificates can be downloaded onto the eToken. When this eToken is inserted into the computer, one or more of these CA certificates may not be on the computer. In such a case, an option exists to load the CA certificate if desired.

When the RTE is first installed, it copies settings for the local machine to a Current User account and then works with the data from the current user account

The available options are:

Automatically install CA certificate

The CA certificate is copied to the computer without asking the user.

Prompt before installing CA certificate (Default)

When a CA certificate is to be installed, a message asking the user whether or not to copy the certificate is first displayed. Click **Yes** to copy or **No** not to copy the CA Certificate

Note:
The message box also has a check box "Don't ask again". Selecting this option will change the selected option above.
If you click **Yes**, the option changes to **Automatically install CA certificate**.
If you click **No**, the option changes to **Do not install CA certificate**.

Do not install CA certificate

The CA certificate is not installed at all.

Despite the settings chosen, it is possible that another dialog box from Microsoft opens asking if you wish to continue this action. This is standard Microsoft operating procedure because the action to be undertaken may affect security matters on the computer. If you want to copy the CA certificate, click **Yes** in this case.

Readers Management

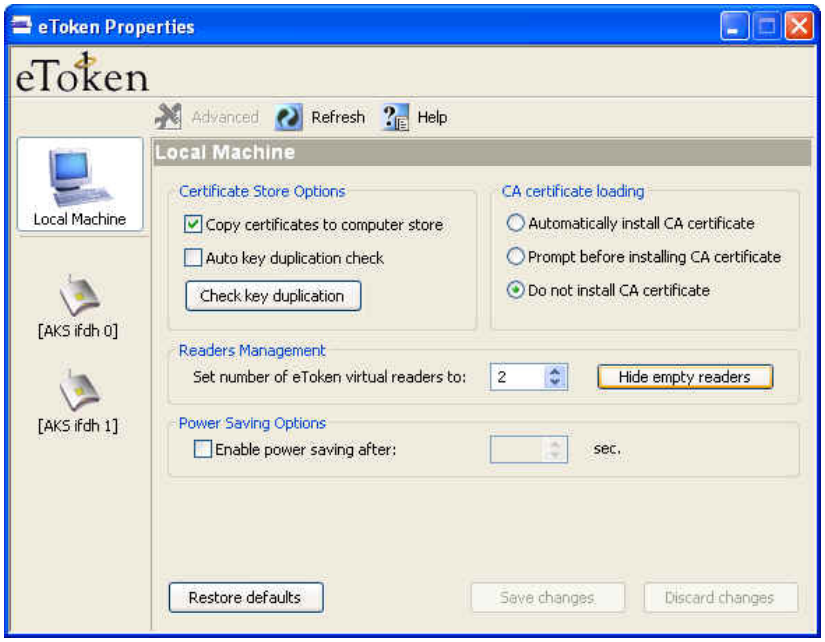
Set number of eToken virtual readers to:

Default - 2 readers

eToken RTE setup installs two virtual readers. This means two eTokens can be recognized at the same time and accessed by applications using them.

You can change the number of installed readers by changing the value of this field and thereby increase or decrease the number of eTokens that can be recognized simultaneously by the system.

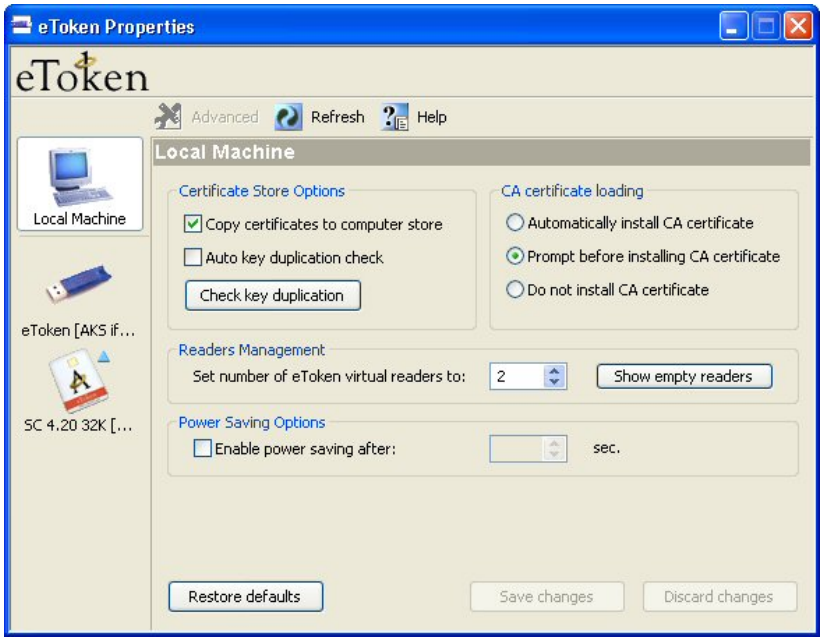
The **Show empty readers** button is a toggle button that allows you to see what readers are installed on the system. When you click this button, the Local Machine left panel changes as displayed:



Below the **Local Machine** button (left panel), are buttons which represent eTokens and/or smartcard readers available on the system. When installing the eToken RTE, two virtual smartcard readers are installed with it. The names of eToken smartcard readers begin with **AKS ifdh**. This is followed by the reader number.

When an eToken is inserted into the USB port, it has the effect of inserting a smartcard into one of the readers. The button's icon changes to an eToken icon to reflect this.

Physical smartcard readers are also displayed if installed. Once a smartcard is inserted into these readers, the reader icon will change to one with a smartcard inserted as displayed:



Power Saving Options

Enable power saving after: ----Sec.

Default - disabled

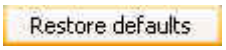
Microsoft's Windows XP using an Intel processor has built in support for both USB 1.1 and USB 2.0 and incorporates support for USB “Selective Suspend”. This feature allows the USB device driver which supports selective suspend to turn off the USB device it controls when the device is idle. In effect, the feature stops the USB host controller (HC) from polling if all ports are suspended and allows the processor to go to C3/C4 state. When the device is no longer idle and is to be used again, the system wakes the device and resumes normal operation. This option is particularly important when using portable devices (laptops, etc.).

C3/C4 states are low power states for the processor in which the processor saves power and under typical use conditions allows for battery life to be extended by~10%.

When the **Enable power saving after...** button is selected, you have the option to change how many seconds before the power saving mode activates.

In order to activate the change made to the power saving configuration, you need to remove the eToken and then reinsert it.

General Control Buttons

Restore defaults 

Clicking this button restores the local machine default configuration values.

Save changes 

Clicking this button saves any changes that have been made to the local machine configuration values.

Discard changes 

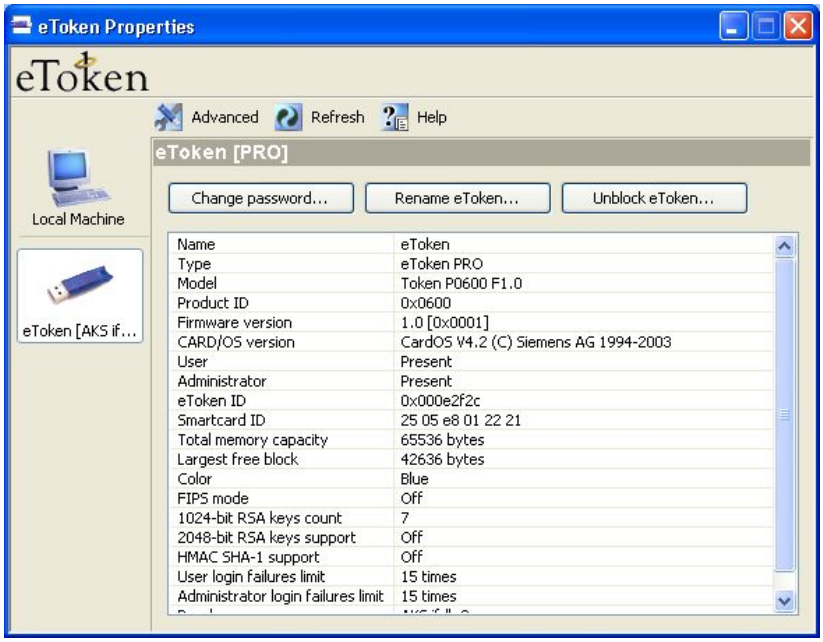
Clicking this button discards any changes that have been made to the local machine configuration values.

eToken Configuration Options

Several operations which relate to eToken configuration options require entering either the eToken user password or the eToken administrator password. In certain cases there may be functions that are disabled. These have been deliberately disabled by the system administrator in line with organizational needs and requirements.

Basic eToken Properties

After an eToken is inserted into the USB slot (or if **eToken Properties** is started with an eToken inserted), an icon indicating the eToken is accessible becomes visible in the left panel below the Local Machine icon.



If required for any reason, the information in this window can be copied to the clipboard. Select one or more lines of text and press **Ctrl+C**. To select all the information at once, press **Ctrl+A.** Paste the information to the required application by pressing **Ctrl+V.**

The basic eToken Properties window displays three buttons that enable the user to change a password, rename the eToken and provides the option for a locked eToken to be unblocked (if initialized with an administrator password).

Below these buttons is a table that defines the fields in the basic properties window.

Items marked with (*) apply to the **eToken PRO** and **eToken NG-OTP** only.

Field Name	Field Description
Name	The name given to the token. This name can be changed by clicking **Rename eToken…**
Type	Product type description.
Model	The eToken model.
Product ID*	USB device product identity.
Firmware version	The version of the eToken firmware.
CARD/OS version*	The eToken smartcard operating system version
User	For the eToken R2 this value is always Present. For the eToken PRO this describes if a User has been defined for this token. Value is either Present or Not Present. A value of Not Present is displayed if the eToken was initialized without defining a user (blank token).
Administrator*	This describes if an Administrator has been defined for this token. Value is either Present or Not Present. A value of Present is displayed if the eToken was initialized with an administrator password
eToken ID	The unique ID for the currently inserted eToken.
Smartcard ID*	The unique smartcard ID for the currently inserted eToken PRO.

Field Name	Field Description
Total memory capacity	The total memory size of the eToken.
Free Memory (R2 ONLY)	The amount of available free memory on the eToken R2.
Largest free block	The size of the largest contiguous block of free memory currently available on the eToken.
Color	This field specifies the color of the eToken. This color is set during the eToken initialization process.
FIPS Mode*	Value can be either On or Off. This field specifies if the eToken was initialized as a FIPS token or not. (Relevant only for eToken PRO models 4.x.5.4)
1024-bit RSA keys count	The number of 1024-bit RSA keys that can be stored on the eToken
2048-bit RSA keys support	If the 2048-bit RSA keys Support Module has been loaded on the eToken, this field will be **On**, otherwise it will be **Off**. This field only appears if the CARD/OS version is 4.20 or higher.
HMAC SHA-1 support	If the HMAC SHA-1 Support Module has been loaded on the eToken, this field will be **On**, otherwise it will be **Off**. This field only appears if the CARD/OS version is 4.20 or higher.
User login failures limit	The maximum number of consecutive failed log on retries made by the user before the eToken is locked.
Administrator login failures limit	If an administrator password has been initialized, this details the maximum number of consecutive failed log on retries by the administrator before the eToken is locked.
Reader Name	Describes the name of the reader. For USB eTokens, this will always begin with 'AKS ifdh'.

Changing the eToken Password

All eTokens are configured at manufacture with the factory default password. This password is **1234567890**. To ensure strong, two-factor security, and to enable full user functionality, it is important that the user changes the factory default password to an eToken password of the user's own choice, as soon as the new eToken is received. For this reason, the user is forced to change the default password the first time the eToken is used.

After an eToken password has been changed, the new password must be used with the eToken for all eToken applications. It is the user's responsibility to remember the eToken password - without it, the eToken cannot be used for any purpose.

Password Quality

Your password is an important security measure in safeguarding your company's private information. Choosing an effective password is therefore critical.

The best passwords are at least 8 characters long and include upper and lower case letters, punctuation marks and numbers created in a random order. It is not recommended that you use names or birth dates of family members which can easily be discovered.

When changing your password, you can use the eToken Password Quality feature to ensure you are using the most secure password. The eToken Password Quality feature assigns a quality rating to your new password and provides you with tips on how to improve the password.

➢ **To change the eToken Password:**

1 Click **Change password...** on the eToken Properties screen and the following eToken Properties dialog is displayed:

2 Enter your current eToken password in the **Current Password** field.

3 Enter the new password in the **New Password** field.

NOTE:
As you type the password, the password quality indicator on the right displays how well the new password matches the password quality policy.

If you wish to view more information on why the password quality receives the score shown, click **Show Tips >>**. This expands the window to show a New password tips window. Following these tips will improve the password quality score.

The Password Quality indicator (on the right) provides a percentage score of the quality of the new password. Below the minimum required score, as defined in *etpass.ini*, the password quality indicator remains red.

Once the score reaches and passes the minimum required, this color changes to green as displayed:

4 Re-enter the new password in the **Confirm Password** field and click **OK**. The eToken password is replaced.

Renaming the eToken

For additional convenience and ease of identification, the eToken name can also be personalized.

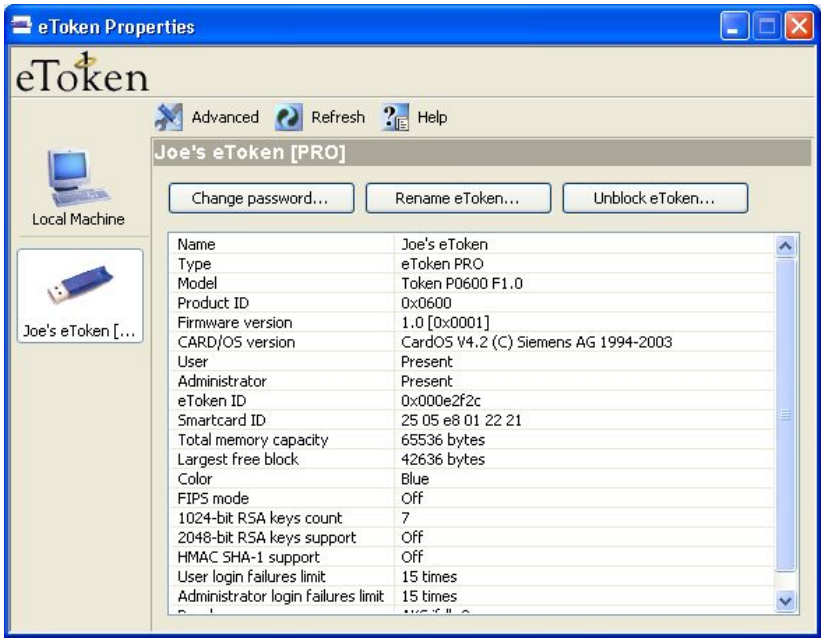
➢ **To rename the eToken:**

1 Click **Rename eToken...** on the eToken Properties screen. Since renaming the eToken requires the eToken password, if this is the first time the eToken password is needed, the following dialog is displayed:

2 Enter the eToken password, click **OK** and the **Input eToken Name** dialog is displayed.

3 Enter the new eToken name in the **eToken Name** field, as displayed:

4 Click **OK** and in the eToken Properties window the new eToken name is displayed:



Unblocking the eToken

Where an eToken has been initialized with an Administrator password, eToken Properties provides the ability to unblock a password on the eToken that may have been locked by attempting to enter an incorrect password too many times.

A challenge response authentication system is used that allows the administrator to unblock the eToken. The user contacts the administrator with the Challenge data from eToken Properties and enters the Response data provided by the administrator. The user then enters a password (either the one previously used or a new one) and the eToken is then unblocked.

➢ **To unblock a locked eToken:**

1 Click **Unblock eToken** in the main eToken Properties window and the following dialog opens:

2 Contact the administrator and provide him with the **Challenge data** (in the example DE B0 E7 55 0D 06 E8 41).

3 The administrator provides the **Response data** (in the example 67 D3 AB 06 4E 02 5A 71).

4 Enter the **Response data** in the appropriate text box as displayed:

5 Enter a **New Password** in the **Password** and **Confirm** text boxes as displayed:

6 Click **OK** and the eToken is unblocked.

Note:

After providing the Challenge data to the administrator, the user **MUST NOT** undertake any activities that use the eToken until after receiving the Response Data and completing the unblocking procedure.

If any other eToken activity occurs during this process, it will affect the context of the Challenge – Response process and invalidate the procedure.

Administrators can also unblock an eToken by using the Set user password option on the Administrator tab. For details see the eToken Administrator Guide.

Advanced eToken Properties

eToken Properties provides additional functionality that enables setting various advanced configuration options.

Click **Advanced** 

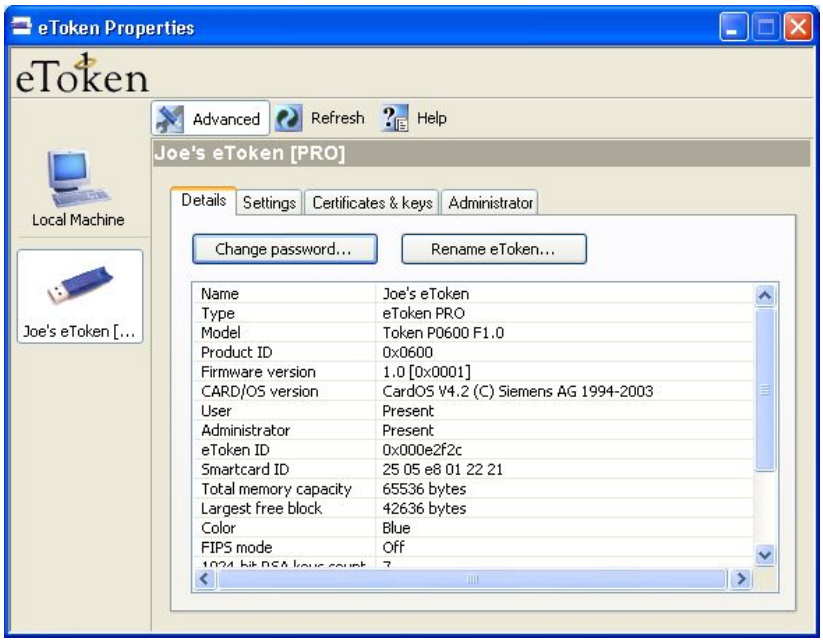
and for an eToken initialized **without** an Administrator password or an eToken R2 the following dialog is displayed:

For an eToken, initialized with an Administrator password, the following dialog is displayed:

For all eTokens (tokens and smartcards) except the eToken R2, you may log on as a user or as an administrator.

To log in as a user, enter the user password in the **Password** field and click **OK**.

The **Advanced Properties** dialog is displayed:



Advanced Properties consists of the following four tabs:

- Details
- Settings
- Certificates and Keys
- Administrator (only appears if an administrator password has been set)

NOTE:

Advanced Properties User access

If you log in as a user, you do not automatically have access rights to the Administrator tab. See Administrator tab, on page 47 for details.

Details tab

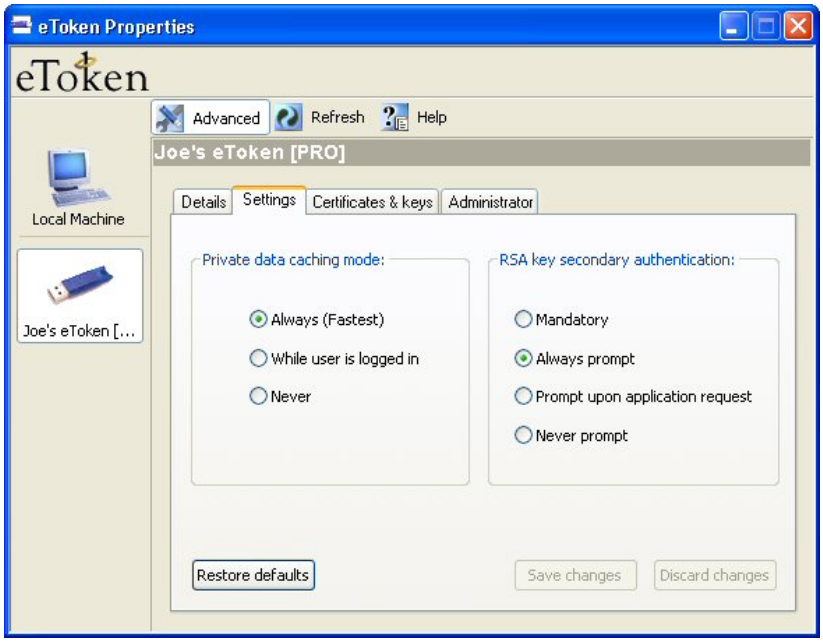
The **Details** tab provides the same information as the **Basic Properties** tab.

See Basic eToken Properties, on page 23, for details.

Settings tab

This tab enables the configuring of settings relating to cache policies and RSA secondary authentication.

Where no administrator entity exists for the token, the user may set these parameters as displayed:



Where an administrator entity exists, the administrator has the ability to allow or disallow the user to modify these parameters:

- Private data caching mode:

  In RTE 3.65, public information stored on the eToken is cached by the eToken drivers in order to enhance performance. This group defines the way private information (excluding private keys on the eToken PRO/NG-OTP/ Smartcard) can be cached outside the eToken. The following options are available:

  - **Always (Fastest)**

    Always caches private information in the eToken drivers. This enables fast performance as certain information is cached on the host machine but because of this, this option is less secure than if no cache is allowed.

- **While user is logged in**

  Caches private data outside the eToken as long as the user is logged into the eToken. Once the user logs out, all the private data in the cache is erased.

- **Never**

  Does not cache private data in the eToken drivers.

♦ **RSA key secondary authentication:**

In RTE 3.65, for the eToken PRO and NG-OTP an option exists to set an additional authentication password for an RSA key. If this option is used, then in addition to having the eToken and knowing the eToken's password, accessing the RSA key requires knowing the password set for that particular key (as displayed below):

This group defines the policy for making use of this secondary authentication of RSA keys. Various options can be set for this policy:

- **Mandatory**

  Every time an RSA key is generated, a secondary password for accessing this key is required as displayed:

Clicking **Cancel** will cause key generation to fail. Clicking **OK** generates the key and uses the entered password as the secondary RSA password for that key.

- **Always prompt**

  Every time an RSA key is generated, a secondary password for accessing this key is requested as above, however the user can choose to dismiss the prompt (by clicking **Cancel**) and key generation will continue without using a secondary password for the generated RSA key.

- **Prompt upon application request**

  This enables applications that wish to use secondary authentication for RSA keys to make use of this feature on the eToken (when creating the key in Crypto API with a user protected flag).

- **Never prompt**

  Secondary passwords will not be created for any RSA key and the authentication method will only use the eToken password to access the key.

♦ **Restore Defaults**

Clicking **Restore defaults** restores the settings to their default values (private data is always cached and secondary authentication is never allowed). This is only possible if the eToken administrator has defined that the eToken user can modify these parameters.

- **Save Changes**

  Saving changes is only possible if the eToken administrator has defined that the eToken user can modify these parameters.

  Clicking **Save changes** saves any setting changes that have been made.

- **Discard Changes**

  Clicking Discard changes discards any changes made to the private data cache settings or the secondary authentication policy.

Certificates & Keys tab

This tab shows the various certificates, keys and cryptography parameters available on the selected eToken. The following icons are used to identify the various PKI elements:

 - Represents a certificate

 - Represents an RSA private key

 - Represents an RSA private key that will serve as the default (This key is used for Smartcard Logon).

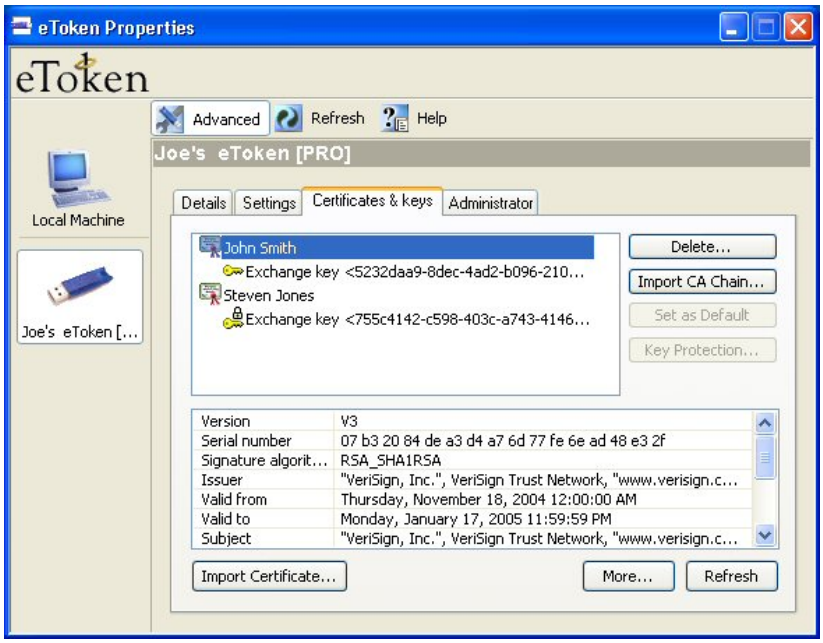
 - Represents an RSA private key that requires secondary authentication

 - Represents an RSA private key that requires secondary authentication stored in a default key container

 – Represents a CA Certificate that has been imported to the eToken

For more information on secondary authentication for private keys see RSA key secondary authentication, on page 36.

The **Certificate & keys** tab is divided into two windows as displayed:



The top window contains the list of certificates and keys that are stored on the eToken. The list is organized so that if a key corresponds to a certificate, the key appears directly below and to the right of the certificate it relates to.

The bottom window (below the key and certificate list) provides information on a key or certificate selected in the top window. The following tables summarize the available information fields and their meaning for RSA keys and certificates.

Information for RSA Certificates

Field Name	Field Description
Version	The version of the certificate format.
Serial Number	The serial number assigned by the certificate issuer.
Signature Algorithm	The algorithm used for the private key when using it for signing.
Issuer	The name of the organization that issued this certificate.

Field Name	Field Description
Valid from	The date the certificate becomes valid. The certificate cannot be used before this date.
Valid to	The date until which the certificate is valid. The certificate cannot be used after this date.
Subject	A combination of the purpose, conditions and name of the certificate owner might be used as the subject.
Key container	The name of the key container that holds the private key belonging to the certificate's public key.
Key specification	The key specification that defines the purpose of the key.
Public Key	The content of the key that is part of the certificate and is used for encryption.
Certificate Usage	Details for what purposes the certificate is dedicated.
Friendly Name	A combination of the reader name:: and the simple display name of the certificate.

Information for RSA Keys

Field Name	Field Description
Algorithm name	Defines the cryptographic algorithm used.
Default KC	The key container used when no specific key container name has been specified when trying to acquire a key container handle.
Key Container	The key container is the place on the token where keys are stored. This field is the name of the key container that holds the selected key.
Key Length	The size of the key in bits.

Field Name	Field Description
Key Permissions	Specifies what actions are permitted for this key, e.g. if the key is exportable, the permission would be 0x00000001. eToken PRO keys always have permissions 0x00000000. eToken R2 keys may have permissions 0x00000004.
Secondary Authentication	Details whether the RSA key needs another password in order to be used. Valid for eToken PRO and eToken NG-OTP.
Auxiliary KC	Specifies whether this KC serves as an auxiliary key container (if an auxiliary key container exists.)
Public Key	The public part of the RSA private key that enables encryption of messages, e. g. email, that can be decrypted and read only by the eToken owner (who holds the corresponding private key).

If one of the field names in the top window is selected, all the field information is displayed in the bottom window.

To the right of the certificate and key list window are buttons that perform an action on the currently selected RSA certificate or key as described in the following table:

Button	Description
	Removes the selected RSA key or certificate from the eToken. A confirmation message appears prior to performing this action.
	Imports the complete CA chain of the selected certificate onto the eToken.
	Sets the selected key's key container as the default.

Button	Description
Key Protection...	This key is enabled only when an RSA key created with secondary authentication capability is selected. Key protection… enables setting a new secondary authentication password for the selected key.

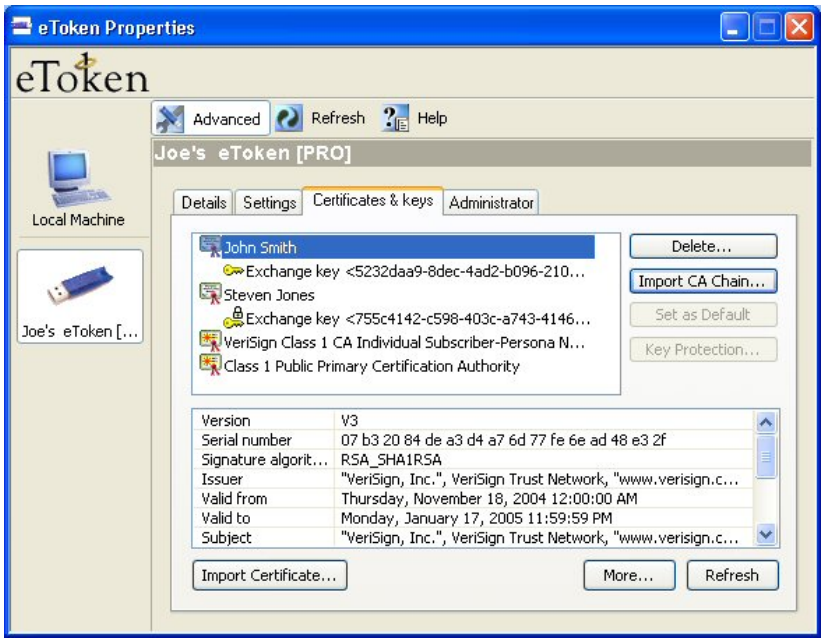
Note:
The buttons are only enabled if the action the button executes can be performed on that particular certificate or key.

Import CA Chain

A certificate that is stored on the computer may be part of a hierarchical structure with more than one Certificate in the chain up to the Root CA.

Importing a CA Chain takes the CA certificate and the complete CA Chain up to the root certificate that is stored on the computer and places it on the eToken.

When the **Import CA Chain** button is clicked, the CA Chain is imported onto the eToken and displayed in the certificate and key list window:



A message confirming the import was successful is displayed:

Key Protection

For keys with secondary authentication capability, it is possible to change the secondary authentication password. Click the button and a **Change eToken RSA key password** dialog box opens:

Enter the current and new password in the appropriate text boxes and click **OK**. A confirmation message is displayed:

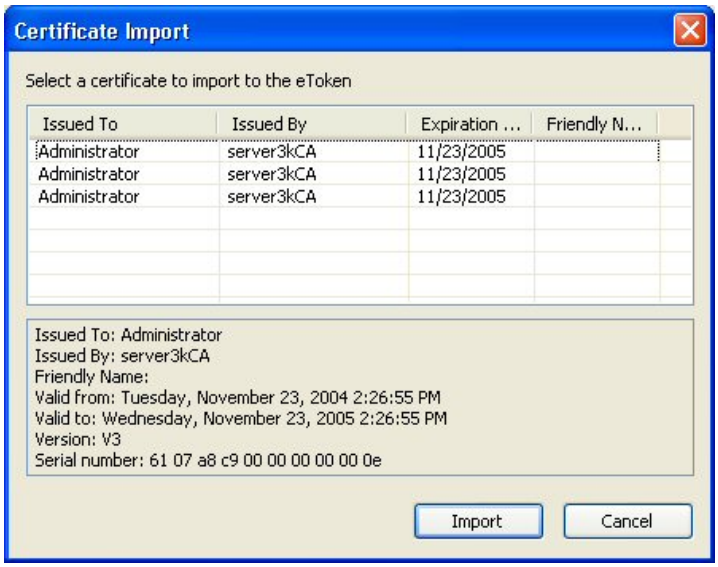
Import Certificate

On the left below the bottom window is the 

button. Click this button and the Certificate Import dialog box opens:

Select whether to import the certificate from either your personal store on the computer or a file.

If you select the personal certificate store, a list of available certificates to choose from is displayed:



Not all certificates in the store may be listed. Only certificates that can be imported on to the eToken will be listed. These are:

- Certificates with a private key already on the eToken
- Certificates that we might import from the computer together with its private key. (These only work with Windows XP and Windows 2000)

Select which certificate to import and click **Import**. A confirmation message is displayed if the import is successful.

If you want to import from a file, you can import either a PFX or CER file.

If a PFX file is selected (these files are not supported by all Operating Systems), the private key, corresponding certificate and (optionally) CA certificate(s) will be imported to the token. You will be asked to enter the password protecting the PFX file.

In the case of a CER file (which only contains X.509 certificates), the program looks to see if a private key exists on the token. If the private key is found on the token, the certificate is stored with it. If no private key is found, then you are asked if you want to store the certificate as a CA certificate. If you indicate yes, the certificate is stored.

When downloading a certificate to the computer and then importing the certificate to the eToken, the certificate should be removed from the computer and the eToken reinserted before using the certificate to sign and encrypt mail. If this is not done an error occurs while trying to use the certificate on the same computer.

General Buttons

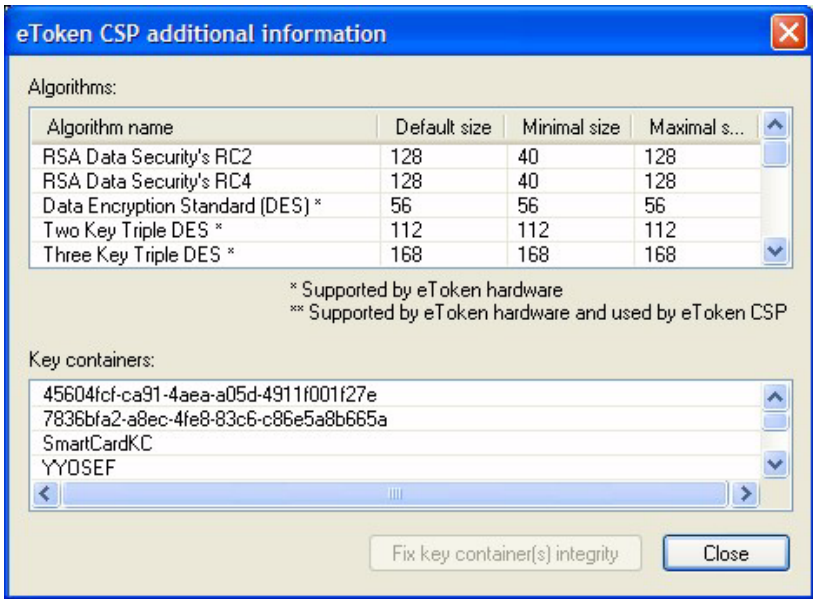
On the right below the bottom window are the **More…** 

and **Refresh** 

buttons.

Clicking **Refresh** rescans the eToken for RSA keys and certificates.

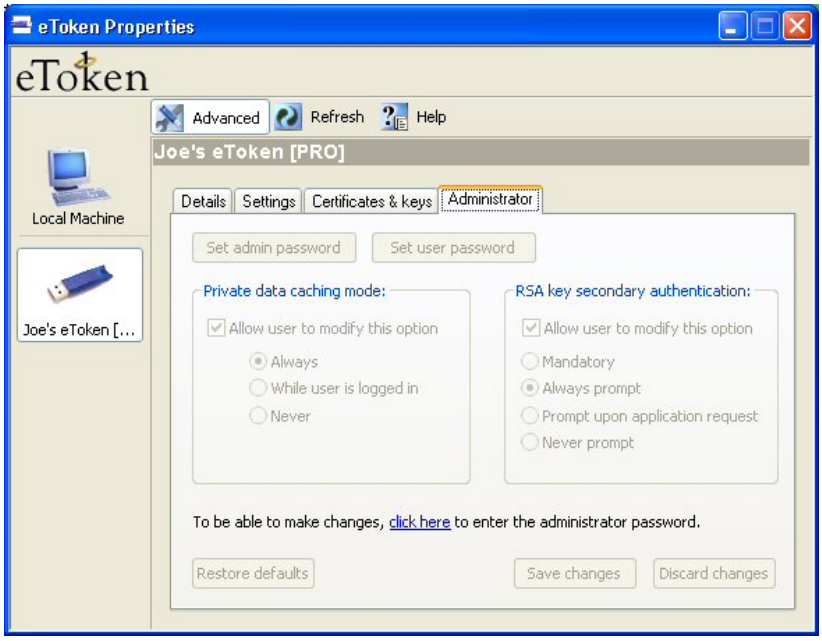
Clicking **More...** opens a pop-up window that provides additional information on the eToken CSP as displayed:



This window contains information on the set of available algorithms and the list of existing key containers.

Administrator tab

If logged on as a user, the administrator tab entries will not be accessible as shown below.



See eToken RTE Administrator Guide for more information.