

Product Name	Confidentiality level
mToken CryptolD	
Product version	
V3.0	

# mToken CryptolD User Manual



Century Longmai Technology Co., Ltd.

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## Revision Record

Date	Revision Version	Sec No.	Change Description	Author
2015/02/02	V1.0		Initial Version	Longmai ITD

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## **1. mToken CryptoID Product Overview**

### **1.0. Current Situation**

Today's world is increasingly getting connected due to rapid development in information and internet technology industry, peoples' work, study and life-style is changing greatly and growing more efficiency; meanwhile, E-Commerce, E-Government, Digital Currency, E-Banking, financial and retail sectors are accelerating utilization of digital information resources every day.

### **1.1. Challenge**

On the other hand, network security issues are prominently increasing; whereas in traditional process of network security authentication, "username + password" authentication method is used frequently, this kind of strategy is easy but insecure.

### **1.2. Century Longmai Solution**

Meanwhile PKI systems and network security technology based on portable hardware is a new and trending development in digital security to ensure data privacy, confidentiality and availability. Embedded with secure element and smart card chip technology, Century Longmai's mToken CryptoID is a PKI USB authenticator utilizing CCID drivers for highly robust authentication and verification deployments across multi-industry. The CCID drivers work to protect the USB connection and are therefore less susceptible to packet sniffing thus providing stronger authentication.

The mToken CryptoID product could be seamlessly integrated with the exiting PKI applications, like Web, E-mail, VPN, Windows Smart card logon, etc. The end users of mToken CyrptoID benefit from driverless Plug & Play operations (without need to manually install any software), which allows for unproblematic yet secure verification of users in web services, E-mail protection, VPN login, Windows smartcard logon for both network and local based authentication.



## 2. mToken CryptoID PKI Certificate Utility

mToken CryptoID PKI Certificate Utility is an easy to operate GUI application used to conveniently manage mToken device.

Please run *CryptoIDE\_Setup.exe* to install.

### 2.1 Basic Functions

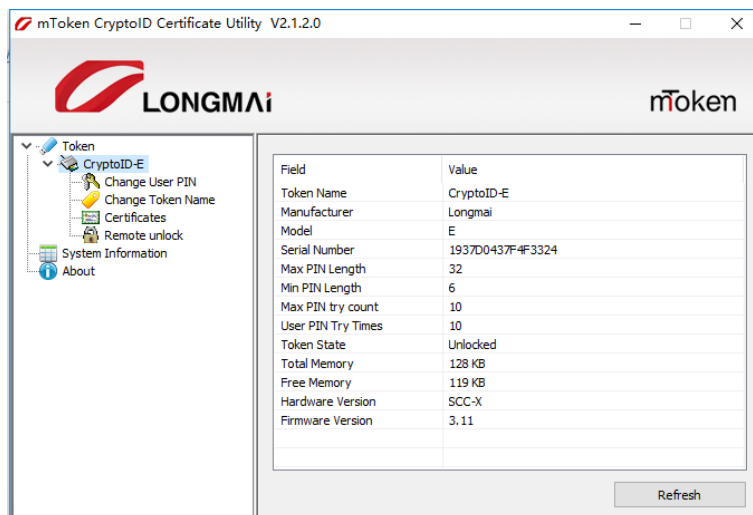
mToken CryptoID PKI Certificate Utility's functions include:

1. Import / delete / view certificates
2. Change device name and PIN
3. Advanced configuration

### 2.2 Basic Operations

#### 2.2.1 Device Detail

1. Start mToken CryptoID PKI Certificate Utility, all the connected devices will be auto-detected and listed in the left Panel.
2. Then select a device name, detailed information about connected token will be shown in the right Panel.

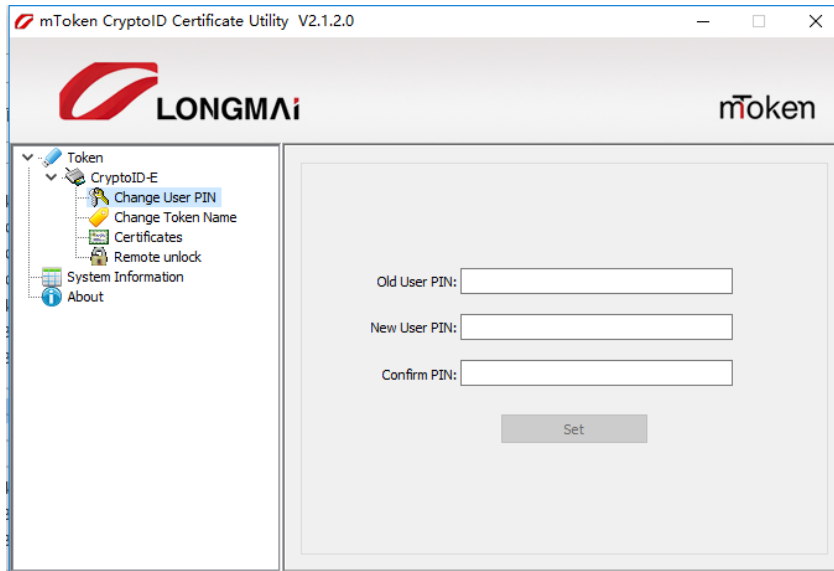


#### 2.2.2 Change User PIN and Name

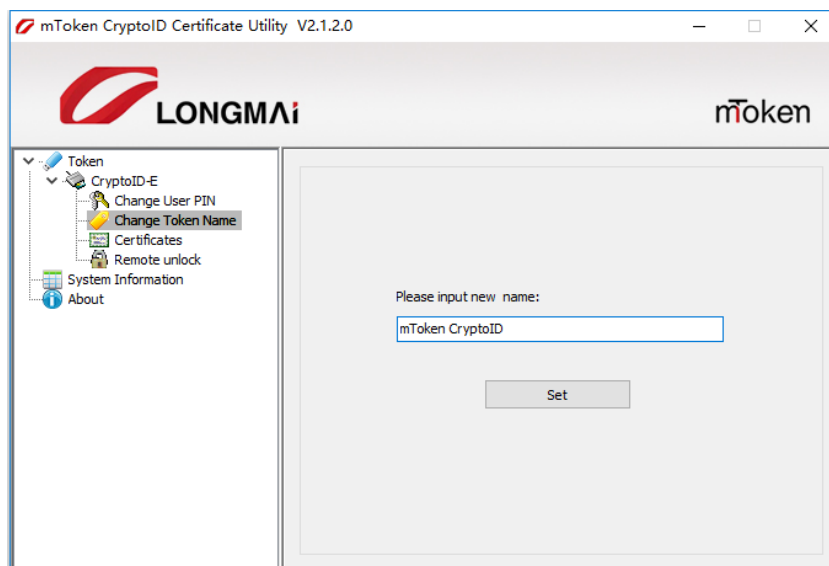
- To change User PIN:



1. Select **Change User PIN** in the left tree.
2. Input the old User PIN.
3. Input a new User PIN and a confirm PIN.
4. Click **Set** button.



- To change the token's name, select **Change Token Name** in the left tree and input a new name in the dialog box, click **Set** to save changes.



### 2.2.3 View Certificates

- To view certificates in the device, perform the following operations:

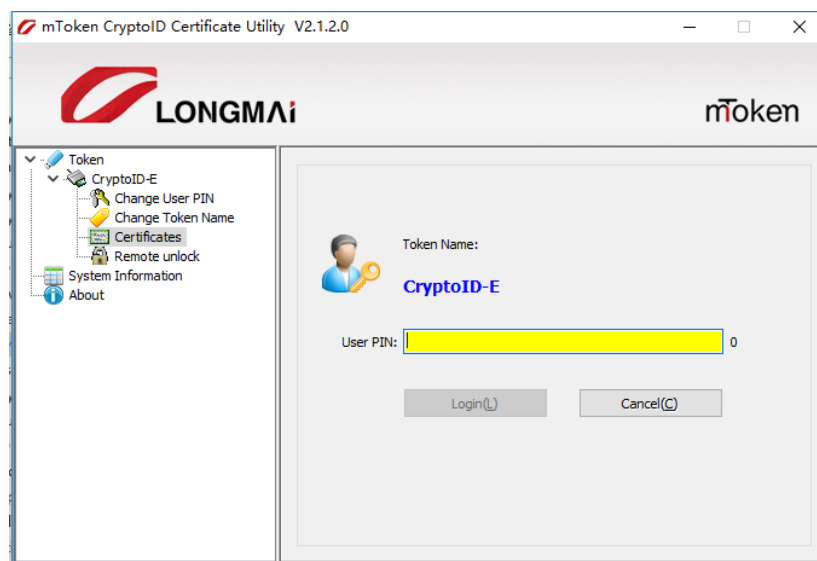


1. Select **Certificates** in the left tree.
2. Input the correct PIN in the dialog box that pops up. (The default value is 12345678)

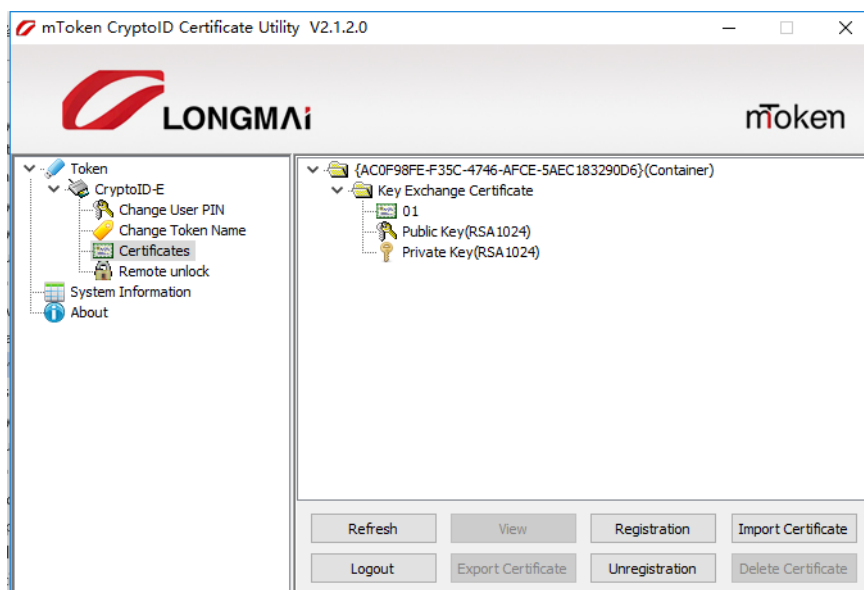
**Note:** The token will be locked after ten times wrong PIN inputs. In this case, user has to contact the developer to unlock it.

The remaining trials are independent of reconnection and time, but will restore to default value after successful PIN verification.

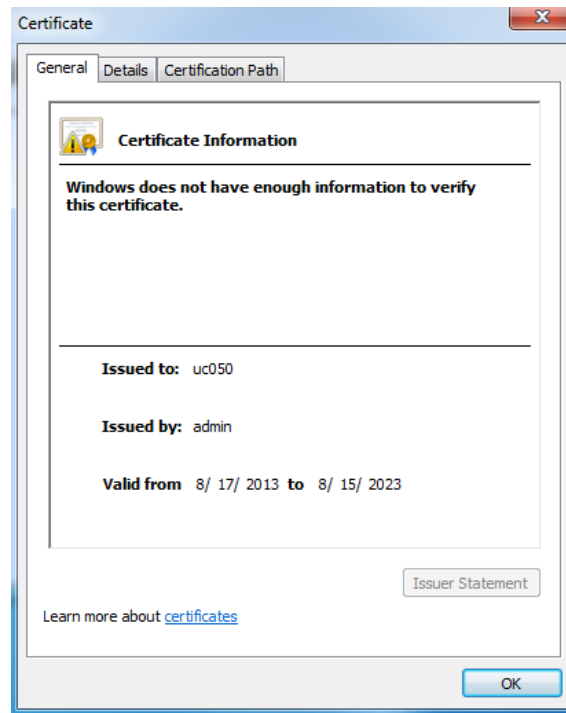
- User can check the “**User PIN Try Times**” by clicking the device name in the left tree.



After successful login the Certificate Utility, you can view the available containers and certificates in them.

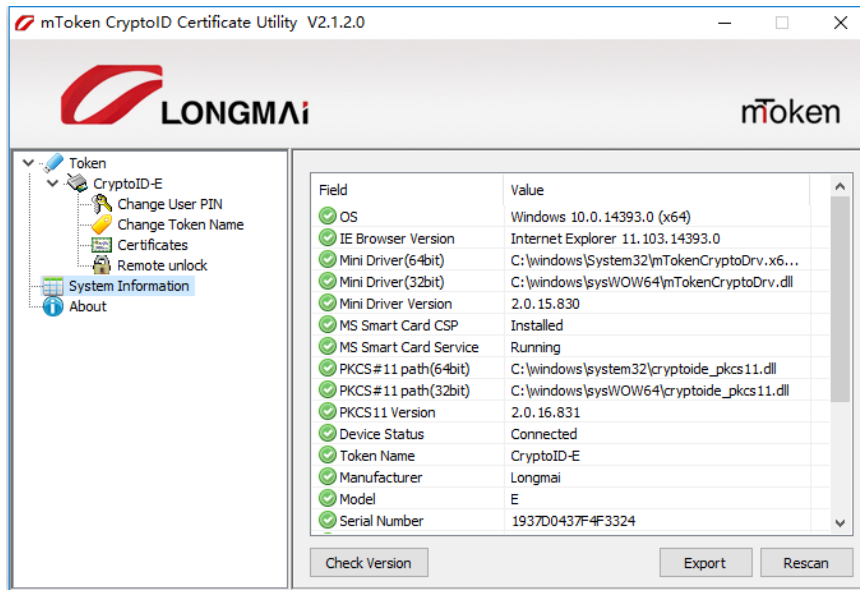


Double-click the *certificate* or click the **View** button to see the detailed information in the Certificate dialog box (as seen below)



### 2.2.3 System Information Collection and new version detection

The system information is displayed when click the “system information” item from the utility.



The “Rescan” button could be used to rescan the system and the “export” button could export the system information into a txt file for diagnosis.

The “Check version” button is for new version detection, if there is new version middleware released, this button could help the end user upgrade to it easily.



## 3. mToken CryptoID PKI Manager

### 3.1 Basic Functions

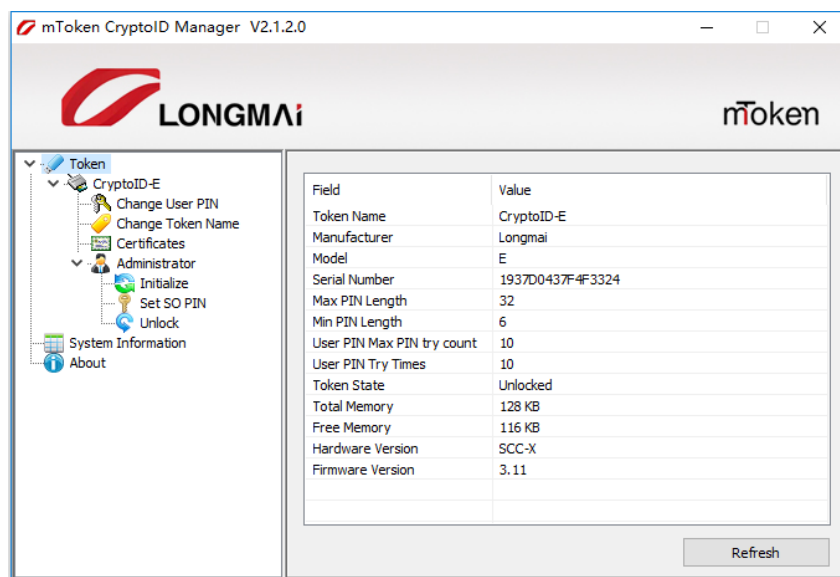
mToken CryptoID PKI Manager is designed to manage the token device, including *Device initialization, SO PIN setup, device Unlock, ISO download and Certificates management.*

**Note:** PKI Manager is designed to manage mToken CryptoID devices - it is not recommended to send this tool to end-users.

### 3.2 Basic Operations

#### 3.2.1 Find mToken CryptoID

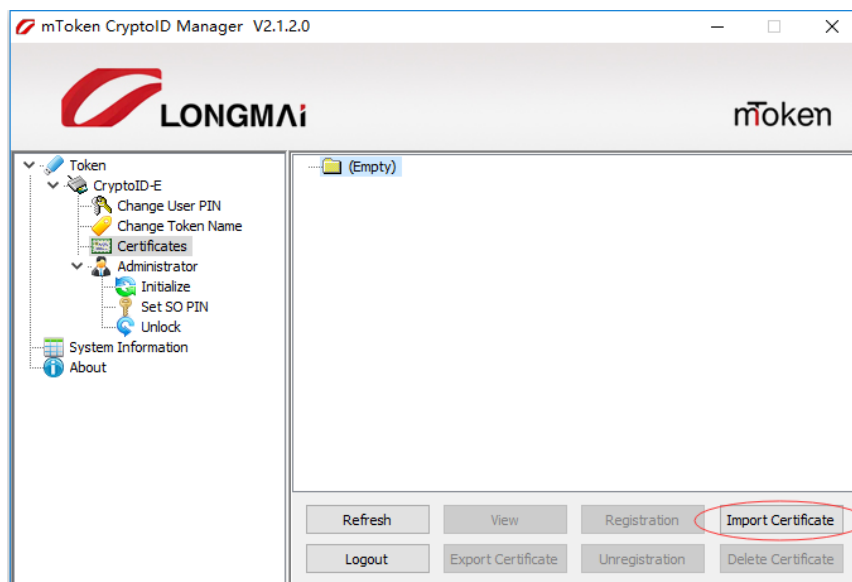
1. Starts the mToken CryptoID PKI Manager, all the connected mToken CryptoID devices are auto-detected and listed in the left part,
2. Then select a device name, the detail information of the connected token will be shown in the right Panel.

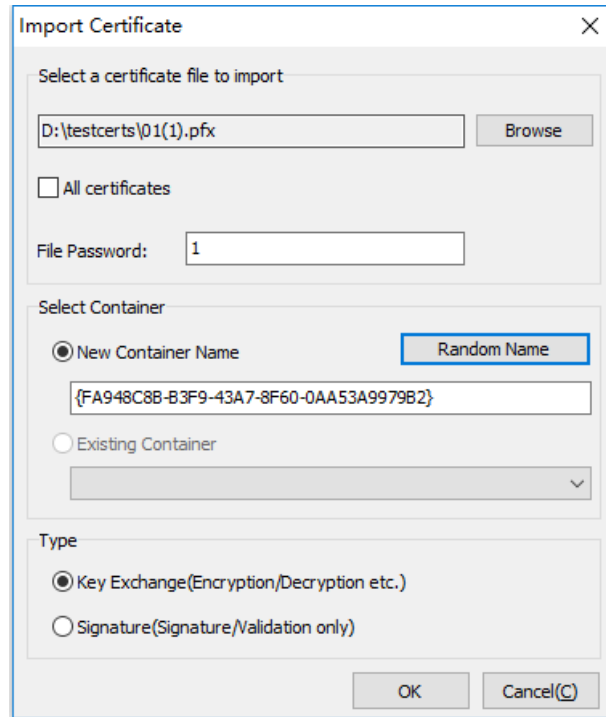


### 3.2.2 Import certificate

To import certificate into the mToken CryptoID, perform the following operations:

1. Select Certificate in the left tree and input correct User PIN.
2. Click Import Certificate button.
3. Click Browser button to select a certificate.
4. Input its correct password if needed.
5. Select New Container Name (manually input a name or use an auto-name by clicking Random Name button)
6. Select Existing Container (choose from drop-down list).
7. Select the type of the key.
8. Click OK button to import the key.





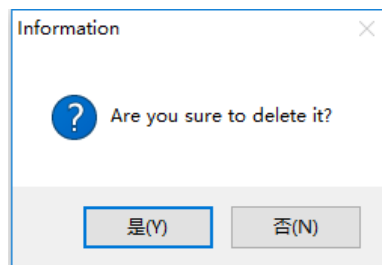
**Note:**

1. A container can contain up to two certificates, but must different type; for example, the first one's type is Key Exchange, the other one must be Signature and vice versa.
2. If it contains multiple certificates, you can select "All certificates" option to import the certificate chain.

### 3.2.3 Delete container

You can delete containers and certificates quickly with mToken CryptoID Manager. Select a container and click **Delete Container** button (all certificates in it will be deleted).

**Note:** You can only delete certificate through deleting the container.



### 3.2.4 Initialize mToken CryptoID

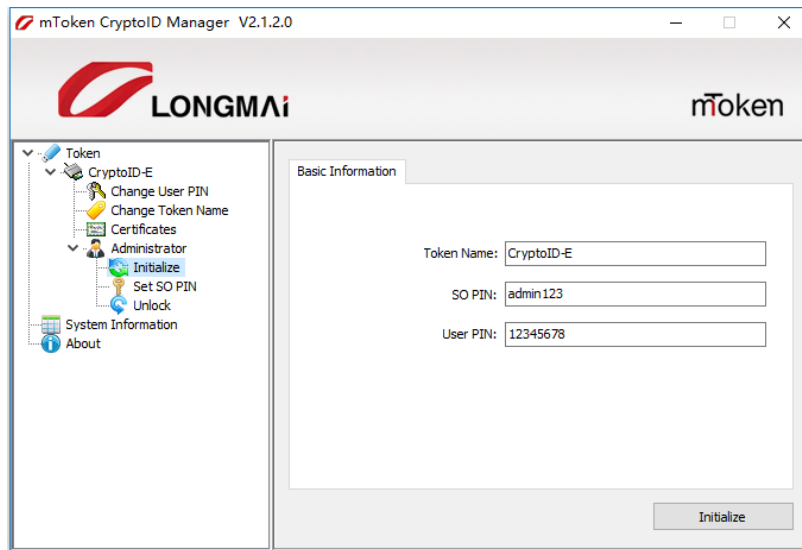
To initialize the mToken CryptoID device, perform the following operations:



1. Select Initialize in the left tree.
2. Fill out all input boxes.
3. Click **Initialize** and input the correct SO PIN.

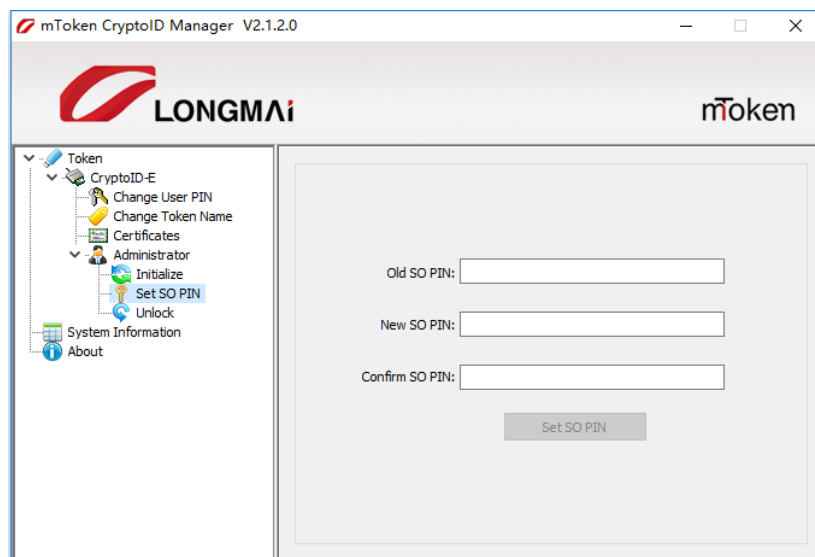
Min PIN length and Max PIN length are limited to 6~32 characters while Max PIN try count is limited to 15 trials.

**Note:** Initialize function should be used carefully, because all containers and certificates will be cleared during this process. In addition, all PINs (including SO PIN) will be reset.



### 3.2.5 Change SO PIN

- If the device administrator needs to change SO PIN, please directly use PKI Manager to for this modification.

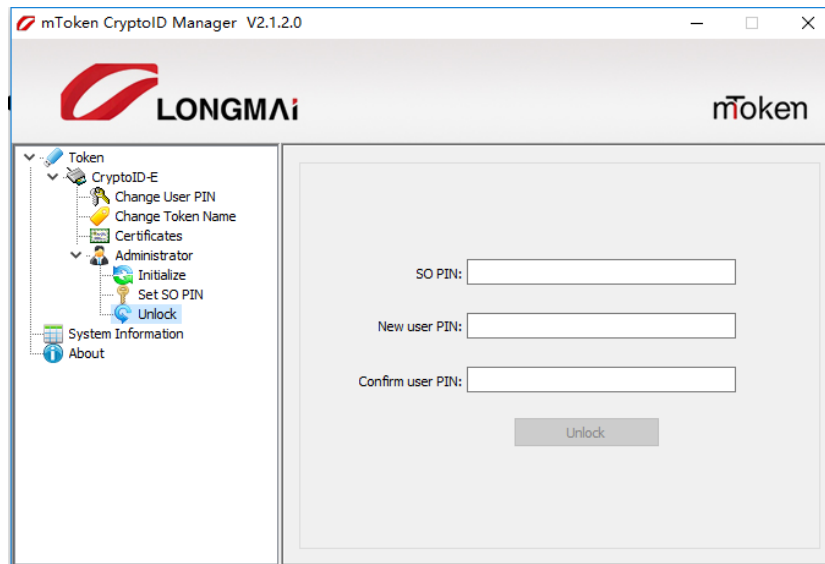


### 3.2.6 Unlock operation

In case the user forgets the PIN (user PIN); manager can use mToken CryptoID PKI Manager to unlock the device.

- To unlock the token, perform the following operations:
  1. Select **Unlock** in the left tree,
  2. Input the correct SO PIN, otherwise can't change the User PIN,
  3. Input a new User PIN and confirm it again,
  4. Click **OK** to change the User PIN.

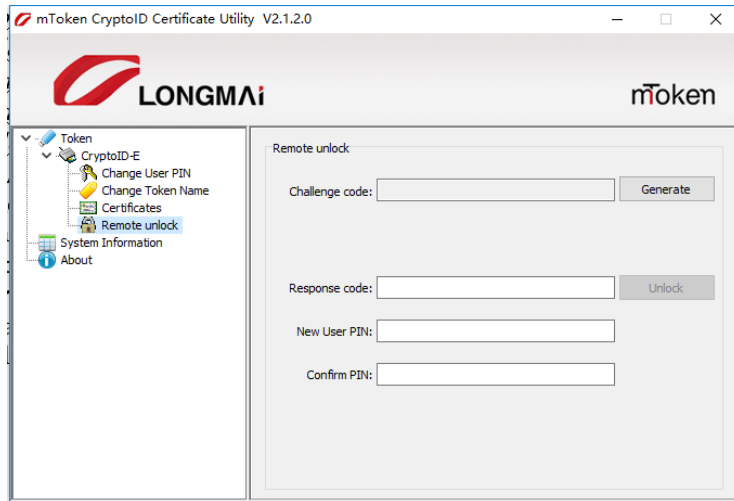
**Note:** The length of the PIN has to be limited by the Min PIN and MAX PIN length.



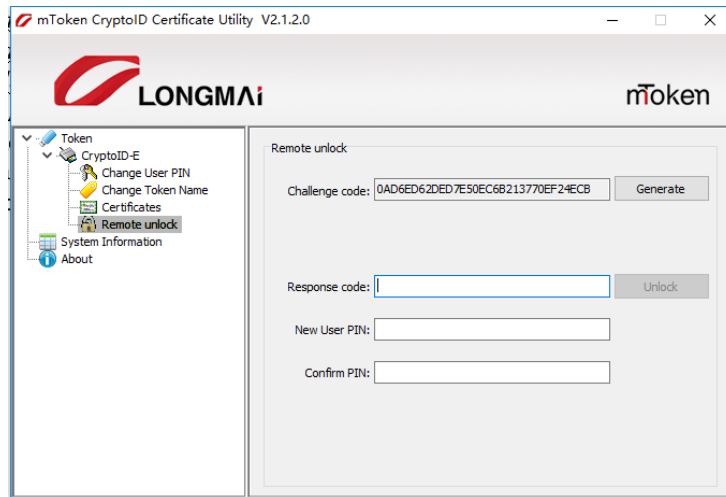
### 3.2.6 Remote Unlock

The token supports remote unlock by Request/Response mechanism if the user pin is locked.

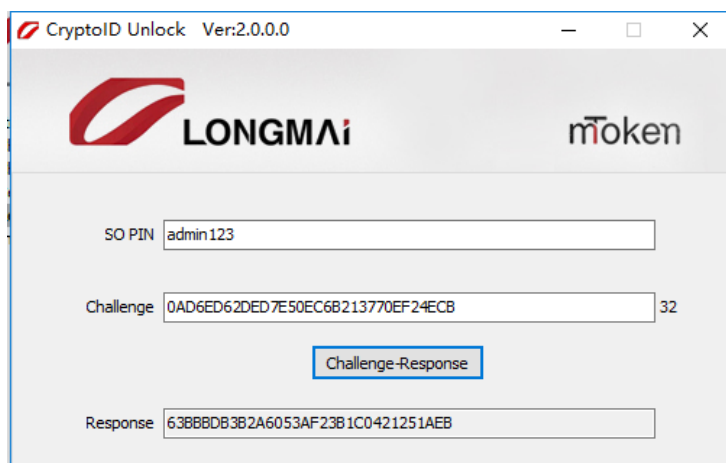
1. Select “Remote unlock” from the tree and show the dialog:



2. Click “Generate” button to generate the unlock request, please keep the dialog and don’t plug out the token during the unlock process.

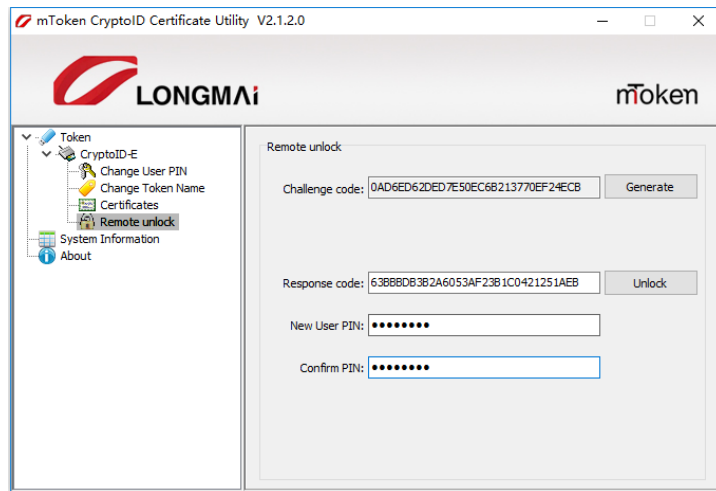


3. Run the “CryptoIDUnlock.exe” to generate the response code with the correct SO Pin and generated challenge code:



4. Fill the generated response code and new user pin to unlock it.

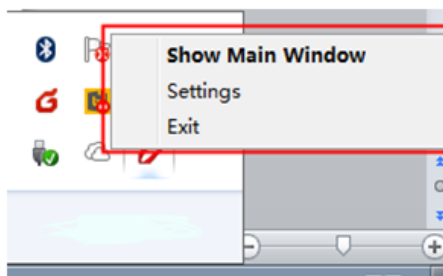




5. The token is unlocked with the new user pin.

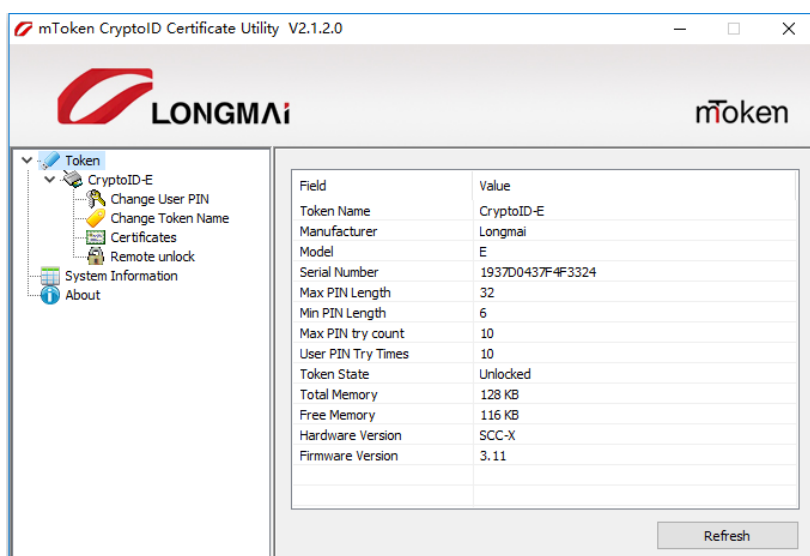
### 3.3 Extra Functions

If the user has mToken CryptoID Middleware installed, the mToken CryptoID tray icon will display upon connecting mToken CryptoID device.



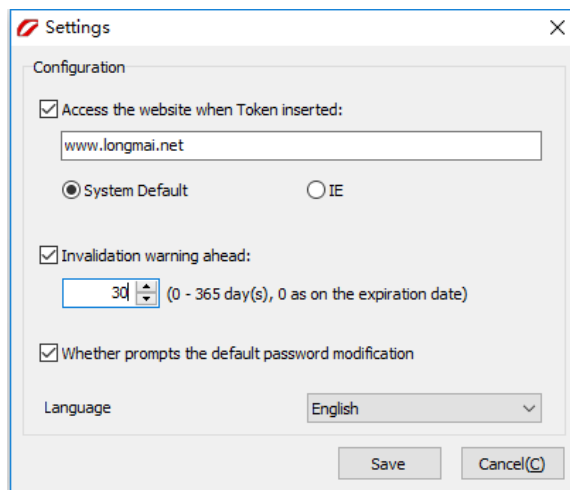
Right-click the tray icon to display the three functions shown in figure above.

① **Show Main Window** --- Click to start PKI Certificate Utility.



② **Settings** --- Click here to configure URL and warning period for expired certificate.





- ③ **Exit**– Click here to close PKI Certificate Utility.



## 4. About Century Longmai

Established in 2003, Century Longmai Technology Co., Ltd is one of the most leading information security device vendors in China with over 12 years' experience developing latest generation of digital security solutions and products for secure information access and transmission. Our product portfolios include PKI dongles, wireless PKI tokens, OTP tokens, smart card, smart card readers, electronic document protection solution, software license dongles, Smartcard readers and OEM services. Proved to be secure and convenient, our solutions and products are dedicated to help customers build safe, efficient and sustainable networks, financial systems and enjoy secure access to data and information everywhere whenever they want.

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