

Elite LC

Clave2 Basic Distributor Tool v1.0.2.0

Guide Book

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Overview

About the Guide

Mode	Model	Version	Releasing Date
Elite LC	Clave2 Basic Distributor Tool	V1.0.2.0	May 2014

▪ CONVENTIONS USED

The following conventions are used throughout this document:

<i>Italic</i>	File Names and Directory Names.
Bold	Keystrokes, Menu Items, and Window Names and Fields
Consolas	API parameter
Arial	API Macro, Error Code
CAP	API Struct
	Critical Information

▪ DOCUMENT IMPROVEMENT

Document Writing Team dedicates to insure the accuracy and completeness of context. Your feedback will assist them to make continuous improvement on Clave2 document. Please do not hesitate to email us info@senselock.com.

What is Clave2?

Great Price Quality, Great Performance Stability

Clave2 is the most cost-effective software protection series for developers, designed to be an affordable and easy solution to protect software developers' interests. Within the kit, APIs, tools, strategy and sample programs are provided to help you integrate your software with Clave2.

Clave2 Basic is a combination of former edition Clave LC and authentication product iToken L100 that enables developers to apply on different field in a short time.

Features

Clave2 Basic has an outstanding feature of built-in AES algorithm that is effective in fighting against “Soft-decryption” and direct physical attacks on the chip. Moreover, Clave2 Basic is also featured by a large space, rapid execution and convenient deployment.

1920-byte, Larger Space

Users can store more data, make the protection scheme more flexible and fulfill the requirement of protecting more software products (module) at the same time.

Driverless

Clave2 Basic supports HID standard, and in most circumstances, does not require installing the driver on purpose. It is highly compatible and convenient to use.

Rapid Execution

Users enable to set up more and higher-complex encryption points in order to increase the difficulty of decryption.

Multithread Access (Windows only)

It supports multi-thread access in hardware and teamwork between developers.

AES Algorithm Protection

128-bit AES (Advanced Encryption Standard) is commonly adopted over the world and binds the software and device more coherently.

Secure Channel

Using the AES algorithm to establish secure communication channels with application of random scrambling technology, Clave2 Basic have the communication data between equipment and software concealed so that crackers are unable to intercept any valid information.

Envelope Encryption

Without source code, users can implement the software protection rapidly by using envelope encryption.

Handy Remote Update

You can update the encrypted data remotely without callback of dongles. Furthermore, the updating process is reliable and secure that greatly improves work efficiency and saves the management and logistics costs.

Simplified API

3 types of interfaces are supported:

Generic API supports VC, Delphi, VB, VBScript, JavaScript, C# and etc.

Middleware ActiveX Controls has demos in VB and Delphi.

Script ActiveX Controls has demos in ASP, ASP.net, PHP and JSP.

Start to Know

Developer ID

The Developer ID for distributor to set is 4 characters or digits or mixed with both. The value itself will be converted into the Developer ID that defined in the Developer Guide automatically. Therefore the same value will be displayed differently in tools Developer and Distributor but stand for the same value.

Device SN

Device SN is short for Device Serial Number, which is used to uniquely distinguish the device from others. It is able to bind with software and trace back its using history.

Distributor PIN

The Distributor PIN bound with specific Distributor Key is 8-digit password that only can be granted by Senselock. It is only available to set devices with valid Distributor PIN and corresponding Distributor Key.

Dependent Files

The tool Distributor requires that “sqlite3.dll” and “lc.db” are located under the same path with it.

As the database applied on tool Distributor is local, it is required to copy the corresponding database file lc.db with the Distributor.exe in order to maintain the data integrity and uniqueness.

Database Backup

The database backups automatically in the bak file having naming pattern lc.db.YYYY-MM-DD-HH-MM-SS.bak while the data in the database is required to update.

Database Restore

When the database is corrupted, it is available to restore by selecting the specified backup lc.db.YYYY-MM-DD-HH-MM-SS.bak and change its name into lc.db.

Client Profile

As a distributor, it is required to input the correct profiles of clients in order to record their associations with sold devices. This is an effective way to regulate the sales territory of specific distributor.

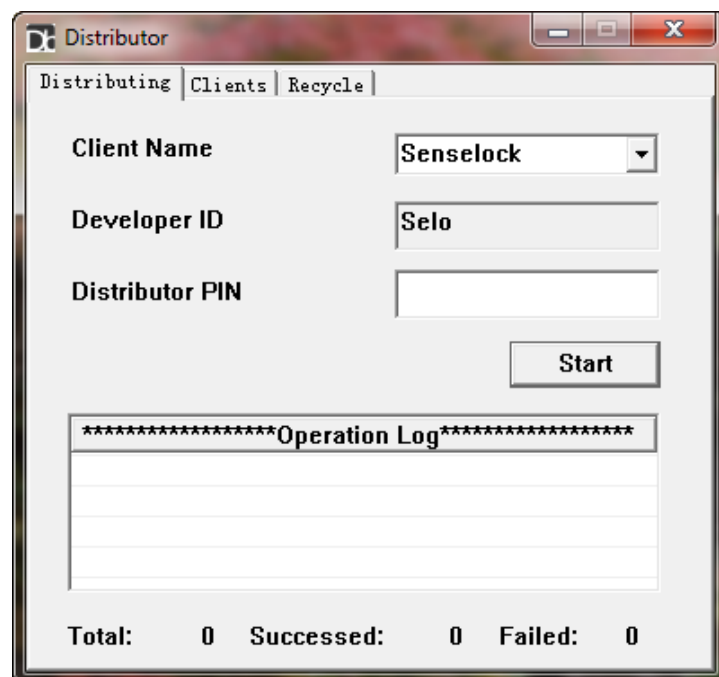
Distributor Tool

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The tool Distributor is developed based on the original command program with graphic user interface, its main features is to edit client information, set device and recycle.

Launch the Tool

1. Double click Distributor.exe to launch the tool.

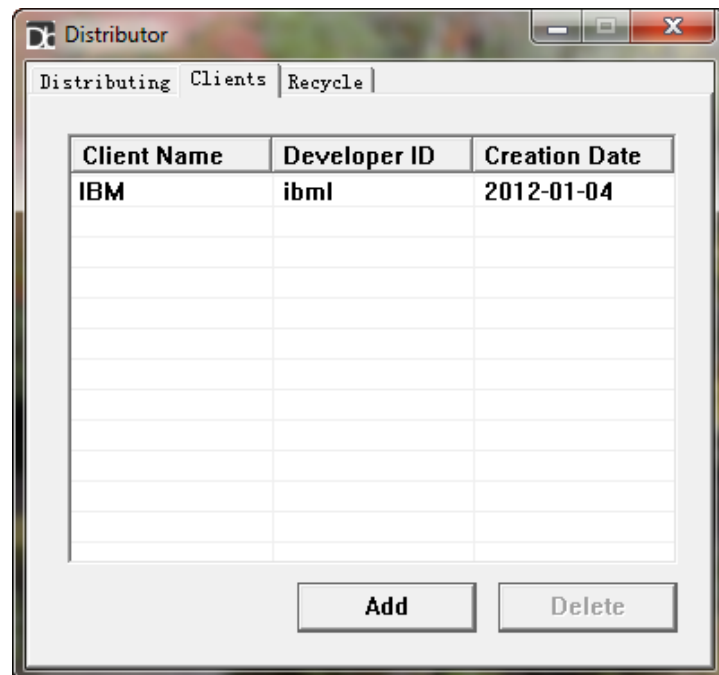


2. Plug in the Distributor Key if you intend to set the device. Other operations could be performed without Distributor PIN and Distributor Key.

Edit Clients Information

Create a Client Profile

1. Go to the **Clients** tab.

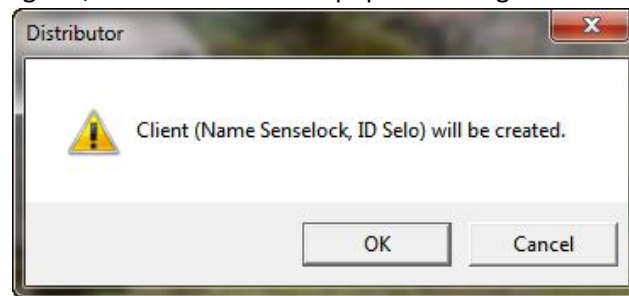


2. Click **Add** to come with a dialog box which requires you to input the Client Name and Developer ID.

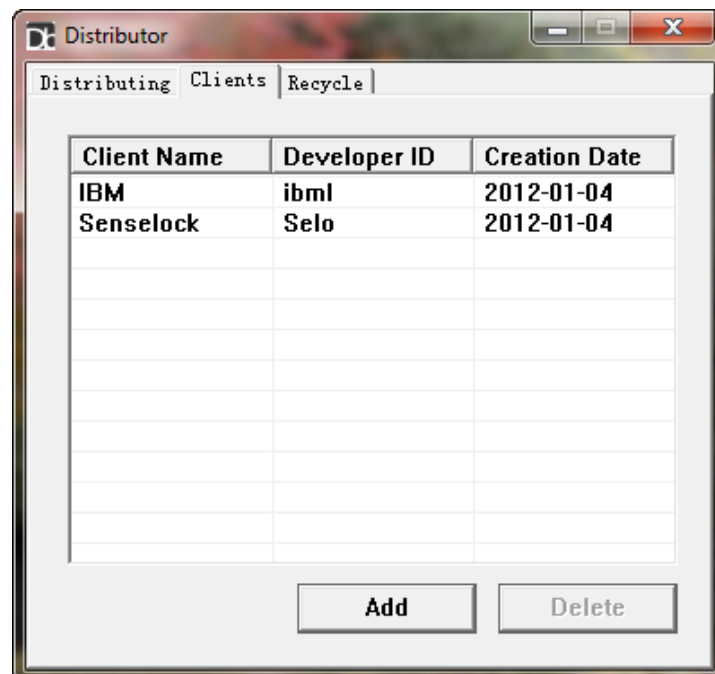


The Developer ID must be consisted of 4 characters (case-sensitive) or digits or mixed. The valid IDs are, for instance, "Sens", "SenS", and "Sen1". The first two are different IDs.

3. Click **OK** after filling out, and a reminder will pop out asking for confirmation.

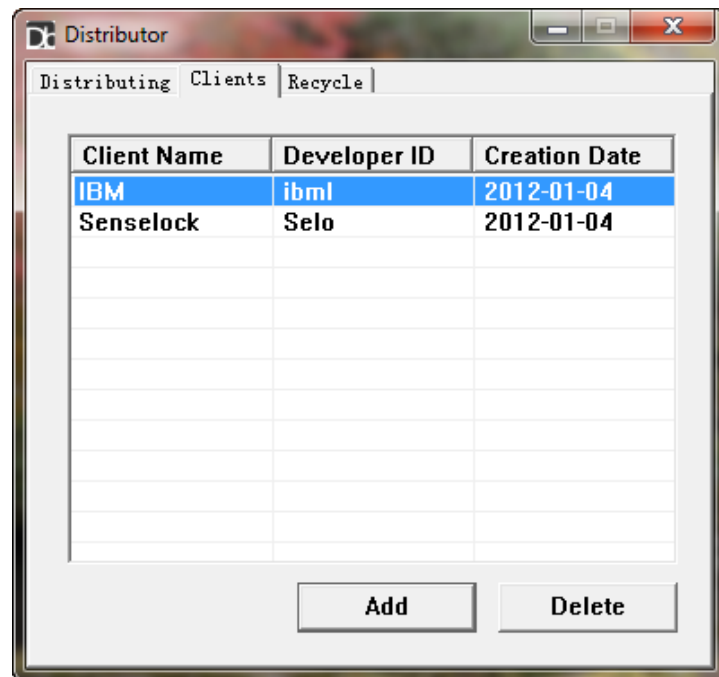


4. Click **OK**, the Distributor will add the information to the database, and display the new-added information in the grid.

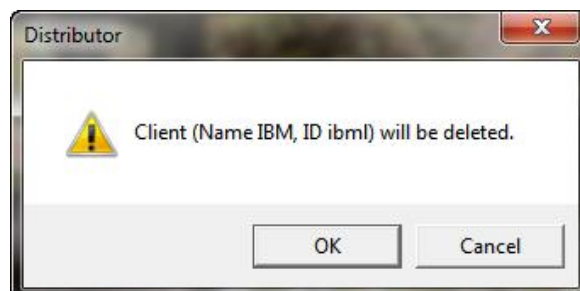


Delete a Client Profile

1. Go to the tab **Clients**, and select the client that activates the button Delete at lower bottom.



- Click **Delete** to come a reminder asking for confirmation.

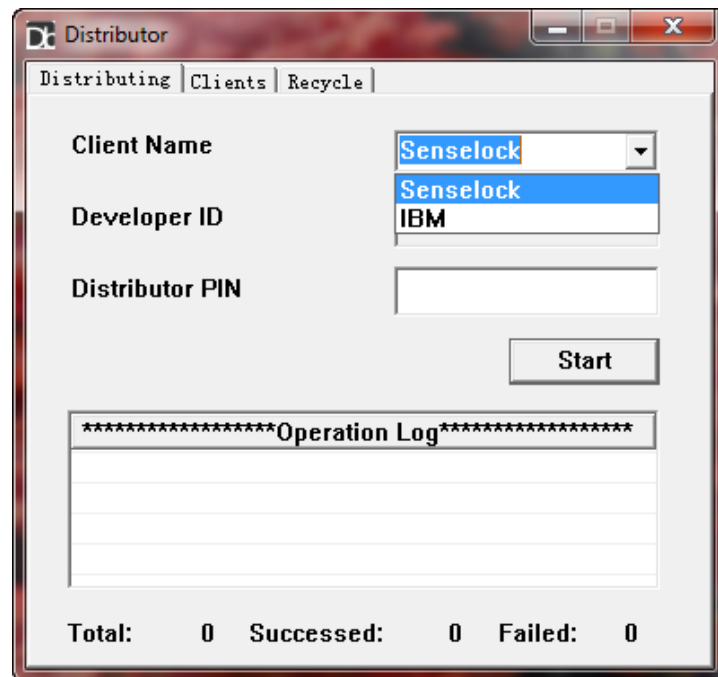


- Click OK, the Distributor will update the database after successful operation.

Set Device

All Clave2 Basic shares the same initiated status. It is essential to set the device to activate the features successfully.

- Go to the tab **Distributing** as following:

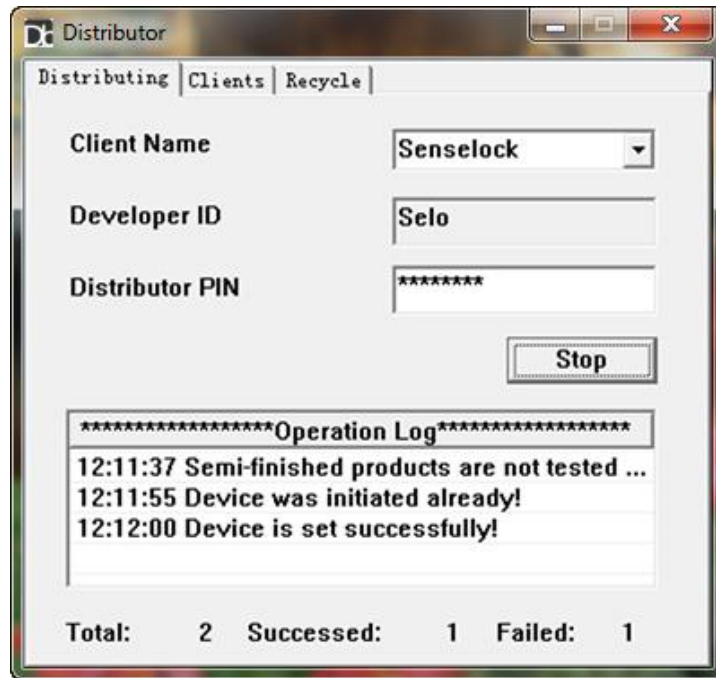


It shows that Senselock is in the combo box to be selected. If there are more than one client in the database, click the downward arrow to select item from the popped list. The Developer ID will be updated automatically according to the selected client.



Considering the security, the Developer ID of Clave2 Basic devices could not be changed or reset, please be careful with setting up.

2. Plug in the Distributor Key and fill the Distributor PIN.
3. After successful validation, it is ready to set the device. Click **Start** to get into the producing mode (**Start** will be altered **Stop**).
4. Plug in a device to be set for this specified client. The Distributor will set automatically. When **Operation Log** displays the implementing results, you could plug it out and plug in a new device to further the setup.

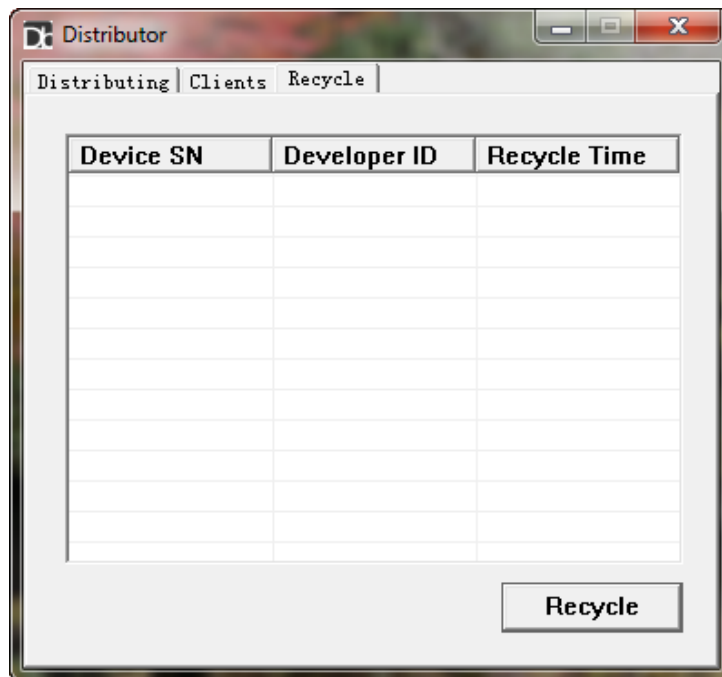


In the **Operation Log**, the first item means the device to be set is a semi-product which should return to the manufacturer; the second item means the device is already set, could not be set further; the third item is what we expected, means the successful setup. The statistic feature tells the setting results in the real time by three variables: Total, Succeeded and Failed.

Recycle Device

The tool Distributor can recycle the device which has exceeded the reading upper limit of memory or been defective for other reasons. However, the precondition to operate is that the device is able to open and output the hardware information.

1. Go to the tab **Distributing** as following:



2. Guarantee the device to be recycled is the only Clave2 Basic plugged in.
3. Click **Recycle**, if succeeded, there will be a new item recycled and displayed in the grid.
4. After completion, it is available to plug out the device.

Specification

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Item	Value	Note
Working Voltage	DC 5V +/- 5%	
Max Consumption	100mW	
Working Temperature	0°C~70°C	
Data Retention	10 Years	Typical
Write Circles	10,000	Lowest
Connection Type	USB 2.0	Low speed with HID

Item	Value	Note
AES Encryption Time	20ms	avg.16 bytes
AES Decryption Time	26ms	avg.16 bytes
Reading Time	179ms	avg.512 bytes
Writing Time	246ms	avg.512 bytes
HMAC Calculation Time	185ms	avg.100 bytes

Operating System Supported:

Windows 2000, Windows XP, Windows Vista, Windows 7, Windows Server 2003, Windows Server 2008, Mac OS, Linux

Programming Language Supported:

VC++, C#, Java, Delphi, VB, AutoCAD