

Read Me First - Guidance for VCAsysPC and VCAsysPCopen development

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1. Using the SDK

Please read this document carefully before starting the application development. It describes the guidelines for setting up and integrating VCA library. The VCA PC SDK offers required binaries, source code, documents, and tools to help you develop solutions.

Questions or inquiries about development to: [PCVCA support team](#)

2. Requirements

VCA Library

VCA5Lib.dll V1.2.0.xxx or higher version

VCAMetaRender.dll V1.0.7.0 or higher version

Additional Library and files

- Microsoft Visual C++ 2005 SP1 Redistributable Package (x86)

Only required for VCA5Lib.dll versions earlier than V1.2.0.xxx. V1.2.0.xxx is statically linked against the C runtime library so the redistributable is not required.

- MSXML 6.0

VCA Library requires Microsoft XML 6.0 library.

<http://www.microsoft.com/download/en/details.aspx?id=3988>

Capture card driver

VCAsysPC requires SYS and DLL files corresponding to the capture cards as below.

NCP Series

	DLL	SYS
All NCP series	CAPSERIES.SYS V3263 or higher version	CAPSV.SYS V3270 or higher version

ECP Series

	DLL	SYS
ECP 240 Series	ECPSVD.DLL V2000 or higher version	ECPSVD.SYS V2000 or higher version
ECP960-32EX	ECPSVC.DLL V2000 or higher version	ECPSVC.SYS V2000 or higher version

ECPR Series

	DLL	SYS
ECPR480 Series ECPR240 Series ECPR120 Series	ECPSV.DLL V1802 or higher version	ECPSV.SYS V1802 or higher version
ECPR480D-16EX	ECPSV.DLL V2000 or higher version	ECPSVU.SYS V2000 or higher version

MP Series

	DLL	SYS
MP2000 MP3000(EX) BMP4000EX	ECPSV.DLL V2004 or higher version MPJVS.DLL V 2010 or higher version	ECPSV.SYS V2010 or higher version MPJVS.SYS V2010 or higher version
MP4000L	ECPSV.DLL V2004 or higher version	ECPSVL.SYS V2000 or higher version

	MPJVS.DLL V 2010 or higher version	MPJVSL.SYS V2000 or higher version
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HP Series

	DLL	SYS
HP2000 HP3000(EX) BHP4000EX	HPSV.DLL V2000 or higher version	HPSV.SYS V2000 or higher version
HP4000EX	HP4K.DLL V1.7.6.0 or higher version	HP4K.SYS V5.3.0.2 or higher version

HM Series

	DLL	SYS
HM4000EX BHM4000EX	HMSV.DLL V2.3.14 or higher version	HMSV.SYS V2.3.5 or higher version

3. Product Activation

The VCAsys SDK is a licensed product and requires activation before it can be used. The VCAsys SDK generates a hardware GUID (Globally Unique Identifier) that uniquely identifies the PC on or the capture card which the SDK is installed. This GUID should be sent to PCVCA Technology in exchange for an activation key. An activation key is required before the example applications can be executed.

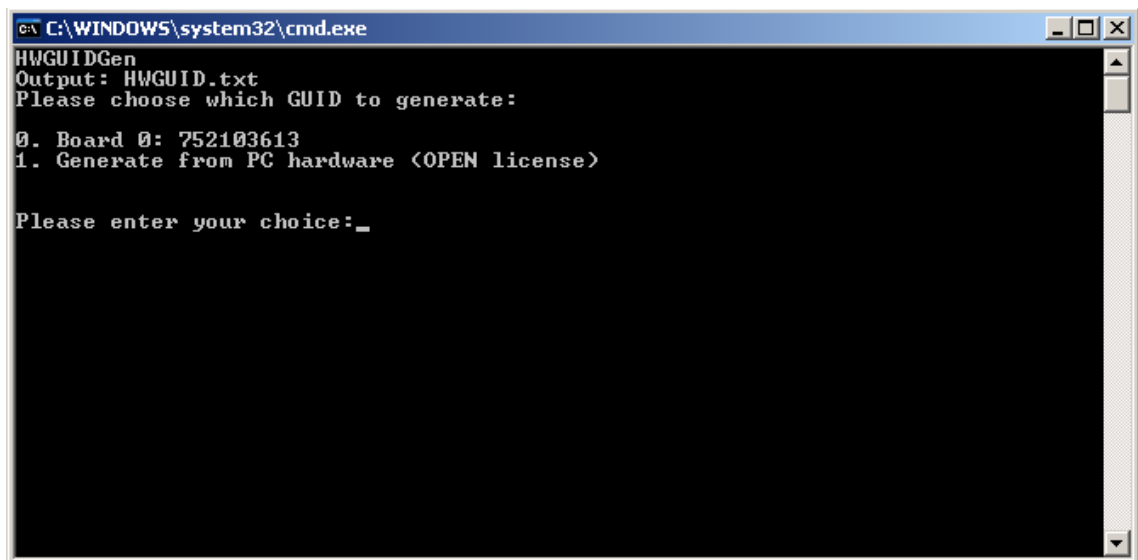
In order to get started as quickly as possible, a demo application included in the SDK will generate a hardware GUID for your PC. Run the HWGUIDGen application in the DEMO folder. This will drop a file in the current directory named HWGUID.txt that contains the GUID for your PC. Send this file (or its contents) to your sales contact and an activation key shall be returned. Drop the activation key into a file with the name “license.lic” in the DEMO directory in order to run the sample applications.

When using capture cards, VCApresence level of VCAsysPC package does not need a license but requires a capture card that has been produced since May 2009.

How to generate a HWGUID

To get the GUID for a specific card, follow the steps below.

- 1) Install the desired capture card.
- 2) Run batch file(e.g. ECPR_HWGUIDGen.bat in the Demo folder.
- 3) Check the USN for the installed card on the command prompt window as below.

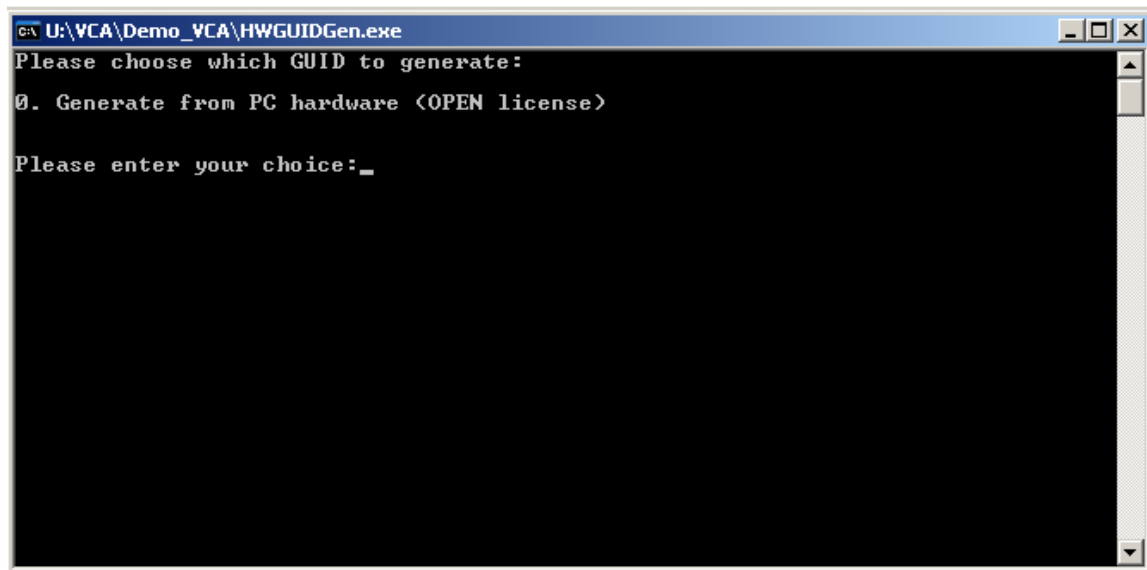


```
C:\WINDOWS\system32\cmd.exe
HWGUIDGen
Output: HWGUID.txt
Please choose which GUID to generate:
0. Board 0: 752103613
1. Generate from PC hardware <OPEN license>

Please enter your choice:_
```

- 4) Select and get the GUID for the desired card.

If you want to use an open license, select the open license instead of a specific USN. When there is no card driver installed or a wrong driver has been installed, the open license will be displayed only. Refer to the following figure.



- ✓ To get the GUID for a specific card, make sure to install the relevant card driver.

4. Sample programs

All sample programs are compiled by Visual studio .NET 2005.

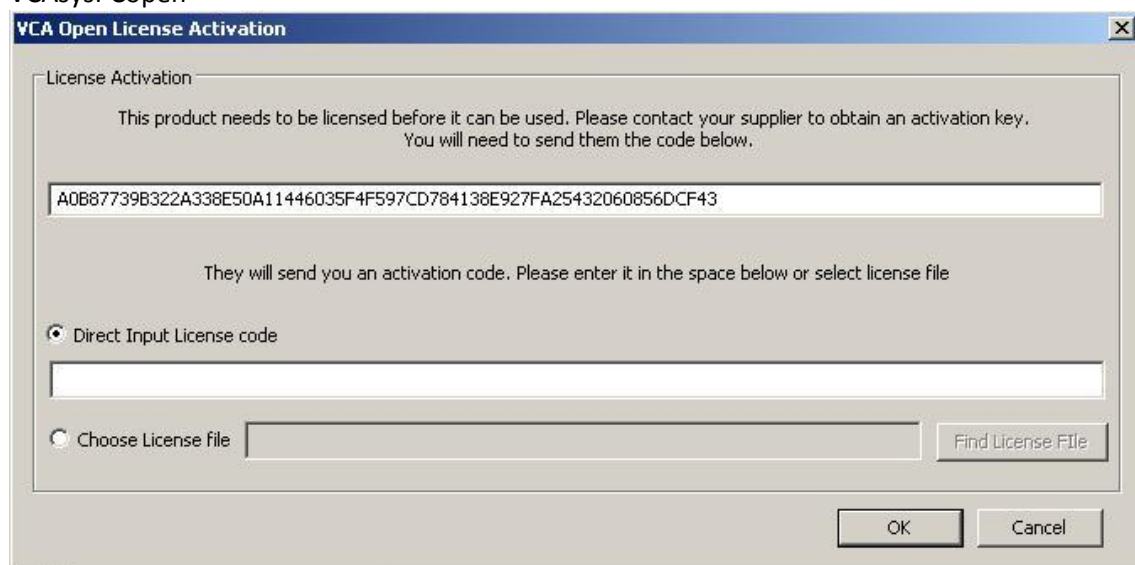
HWGUIDGen

This application demonstrates how to use the SDK to generate a hardware GUID, in order that the target PC or capture card can be activated for use with VCAsysPCopen and VCsysPC.

DemoVCA

A VCA Demo program that illustrates the full feature set of the VCA5 engine.

VCAsysPCopen



The above dialog box pops up when running the DemoVCA program. Paste the activation code into "Direct Input License Code" or select a license file with "Choose License file".

VCAsysPC

Run the batch file (.bat) in DEMO_VCA folder that is located under BIN folder of each SDK. 1 channel VCApresence is activated by default. You can modify as the below sequence.

VCAsysPCopen

- Remove *CAP5DllPath* and *CAP5ModelXMLPath* properties in APPSetting element.
- Leave the property value of *USN* in *License* element blank.
- Set the property value of *Path* in *License* element.

VCApresence of VCAsysPC

- Set the property values of *CAP5DllPath* and *CAP5ModelXMLPath* in APPSetting element
- Leave the property value of *Path* in *License* element blank.

If you do not input the value of USN, the system automatically tracks the first USN of the installed card and activates as VCApresence.

VCA surveillance of VCAsysPC

- Set the property values of *CAP5DllPath* and *CAP5ModelXMLPath* in *APPSetting* element
- Set the property value of *USN* and *Path* in *License* element.

VCA presence level of VCAsysPC

```
<root>
  <APPSetting VCA5DllPath="VCA5Lib.dll" VCAConfPath="VCAConf.xml"
    CAP5DllPath="ECPSV.dll" CAP5ModelXMLPath="Models_ECPR.xml">
    <LicenseSetting count="1">
      <License Id="0" USN="752103613" Path=" " />
    </LicenseSetting>
    <EngineSetting count="4">
      <Engine LicenseId="0" SourceType="1" Bd="0" Ch="0" VideoFormat="1"
ColorFormat="44" ImageSizeW="360"
ImageSizeH="240" FrameRate="15"/>
      <Engine LicenseId="0" SourceType="1" Bd="0" Ch="1" VideoFormat="1"
ColorFormat="44" ImageSizeW="360"
ImageSizeH="240" FrameRate="15"/>
      <Engine LicenseId="0" SourceType="1" Bd="0" Ch="2" VideoFormat="1"
ColorFormat="44" ImageSizeW="360"
ImageSizeH="240" FrameRate="15"/>
      <Engine LicenseId="0" SourceType="1" Bd="0" Ch="3" VideoFormat="1"
ColorFormat="44" ImageSizeW="360"
ImageSizeH="240" FrameRate="15"/>
    </EngineSetting>
  </APPSetting>
</root>
```

VCA surveillance level of VCAsysPC

```
<root>
  <APPSetting VCA5DllPath="VCA5Lib.dll" VCAConfPath="VCAConf.xml"
    CAP5DllPath="ECPSV.dll" CAP5ModelXMLPath="Models_ECPR.xml">
    <LicenseSetting count="1">
      <License Id="0" USN="752103613" Path="License_752103613.lic"/>
    </LicenseSetting>
    <EngineSetting count="4">
      <Engine LicenseId="0" SourceType="1" Bd="0" Ch="0" VideoFormat="1"
ColorFormat="44" ImageSizeW="360"
ImageSizeH="240" FrameRate="15"/>
      <Engine LicenseId="0" SourceType="1" Bd="0" Ch="1" VideoFormat="1"
ColorFormat="44" ImageSizeW="360"
ImageSizeH="240" FrameRate="15"/>
      <Engine LicenseId="0" SourceType="1" Bd="0" Ch="2" VideoFormat="1"
ColorFormat="44" ImageSizeW="360"
ImageSizeH="240" FrameRate="15"/>
      <Engine LicenseId="0" SourceType="1" Bd="0" Ch="3" VideoFormat="1"
ColorFormat="44" ImageSizeW="360"
ImageSizeH="240" FrameRate="15"/>
    </EngineSetting>
  </APPSetting>
</root>
```

```

    </EngineSetting>
  </APPSetting>
</root>

```

VCAsysPCOpen

```

<root>
  <APPSetting VCA5DllPath="VCA5Lib.dll" VCAConfPath="VCAConf.xml">
    <LicenseSetting count="1">
      <License Id="0" USN="" Path="License.lic"/>
    </LicenseSetting>
    <EngineSetting count="4">
      <Engine LicenseId="0" SourceType="0" SourcePath="u:\vca\test.raw"
FrameRate="15" DisplayFlag= "83"/>
    </EngineSetting>
  </APPSetting>
</root>

```

Multi License Sample (1 Open + 2 Surveillance license)

```

<root>
  <APPSetting VCA5DllPath="VCA5Lib.dll" VCAConfPath="VCAConf.xml">
    <LicenseSetting count="3">
      <License Id="0" USN="" Path="License.lic"/>
      <License Id="1" USN="752103613" Path="License_752103613.lic"/>
      <License Id="2" USN="752103614" Path="License_752103614.lic"/>
    </LicenseSetting>
    <EngineSetting count="3">
      <Engine LicenseId="0" SourceType="0" SourcePath="u:\vca\test.raw"
FrameRate="15" DisplayFlag= "83"/>
      <Engine LicenseId="1" SourceType="1" Bd="0" Ch="0" VideoFormat="1"
ColorFormat="44" ImageSizeW="360" ImageSizeH="240" FrameRate="15"/>
      <Engine LicenseId="2" SourceType="1" Bd="1" Ch="0" VideoFormat="1"
ColorFormat="44" ImageSizeW="360" ImageSizeH="240" FrameRate="15"/>
    </EngineSetting>
  </APPSetting>
</root>

```

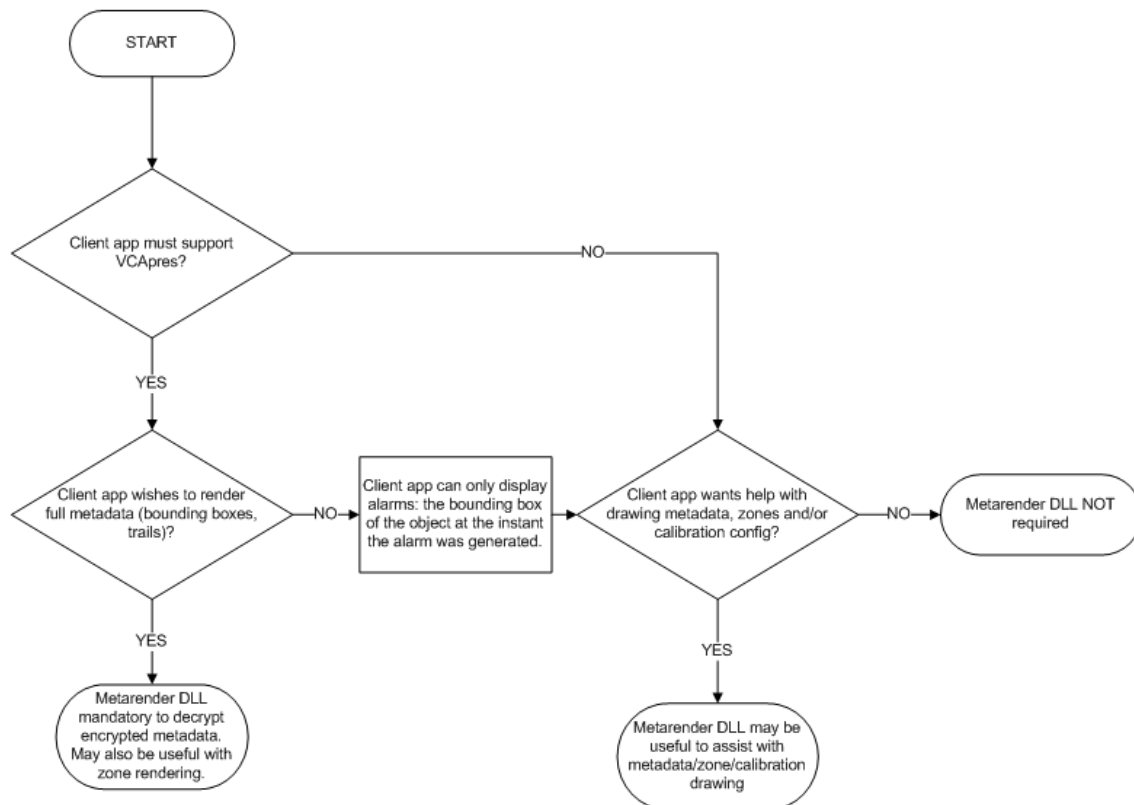
LicenseId is added to support multiple licenses. Each engine selects which license to activate via LicenseId.



A Surveillance license is set to process the sources of an activated card only. The sources for a different card cannot be processed. The Bd and USN for LicenseId must correspond to each other.

5. How to choose VCA metadata drawing method

According to a suit, VCA metadata may be encrypted. So decide a drawing method as following tree diagram.



REVISION HISTORY

MANUAL#	DATE (M/D/Y)	COMMENTS
02B.04	04/01/2010	Created
02B.05	06/04/2010	Added instructions for HWGUID Changed sample programs
03A.03	07/11/2011	SDK V1.2 Updated
03B.01	01/12/2012	Added support card list
03B.02	06/18/2012	HM/BHM series DLL version update
02-2017-A	02/27/2017	Manual name changed (VCAsysPC Read Me First: Guidance for Development -> Read Me First – Guidance for VCAsysPC and VCAsysPCopen Development)