Merit LILIN Ent. Co., Ltd.

LILIN Universal ActiveX Control Document

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LILIN Universal ActiveX Control

The purpose of this document describe (1) design guideline for LILIN Universal ActiveX Control (2) SDK usage of the ActiveX control.
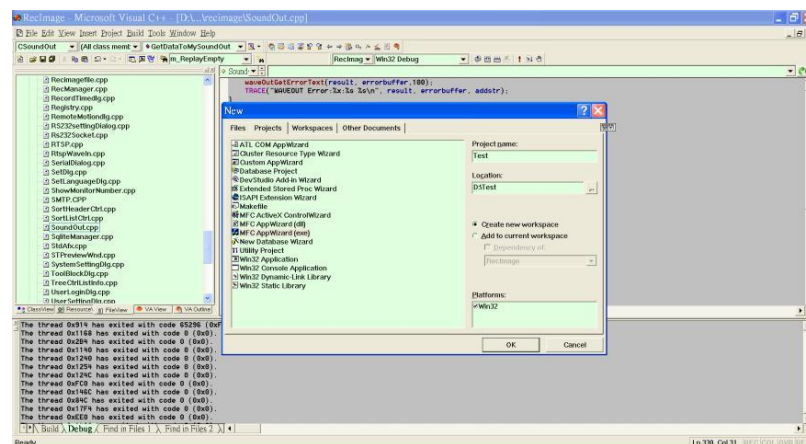
LILIN Universal ActiveX control, RtspClient.ocx, adopts RTSP streaming technology including RTSP over HTTP and RTSP over 554 port. LILIN's Universal ActiveX control only works for LILIN's IP cameras supporting RTSP streaming.

LILIN Universal ActiveX control, RtspClient.ocx, can be adopted by many programming platform including Microsoft Visual C++, C#, Visual Basic. Programming examples are also documented for programming purpose.
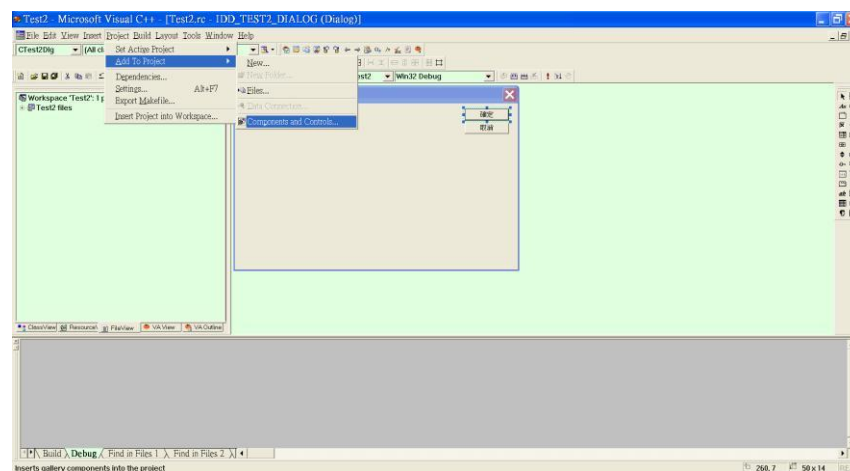
How To Use LILIN Universal ActiveX in VC++ 6.0
This example shows how to use ActiveX (RtspClient.ocx) in VC++6.0. You can also use other compile tool such as Visual Basic or CSharp.
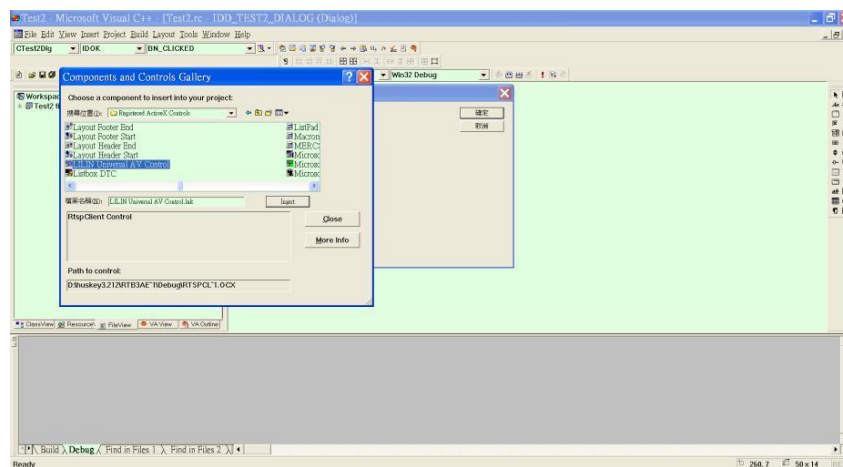
Step #1: Open VC++ 6.0 and Click on File->New Project. Click on "MFC AppWizard (exe)" for generating a new project.
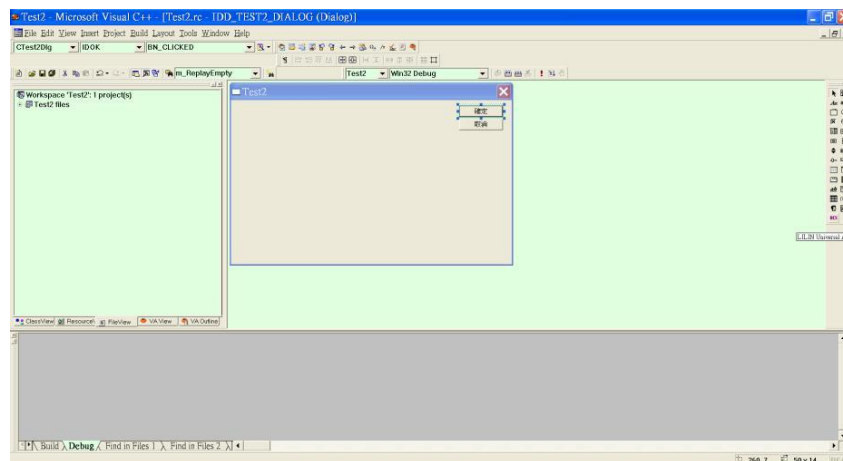

Step #2: Click on Project->Add To Project->Components and Control.

Step #3: Click on Registered ActiveX Control and locate "LILIN Universal AV Control" RtspClient.ocx to insert the ActiveX into tool box.

Step #4: Drag the OCX control from tool box into the dialog box and start to use LILIN Universal AV Control.

After create a variable of the ActiveX control, you can start to use the method of the ActiveX described below.

How to Register LILIN Universal AV Control

Please first use Internet Browser to access LILIN cameras. By default, LILIN Universal AV Control is used for displaying video. The ActiveX control is downloaded at C:\Windows\SysWOW64\lilin directory. Internet Explorer will try to register it at Windows system. You can also use c:\regsvr32 –s RtspClient.ocx

Chapter 1. Video Streaming

Bool ConnectVideo(char * sHTTP)
Function Purpose: this function connects LILIN universal ActiveX control's to an IP cameras source.

Parameters:
sHTTP = HTTP string
http://admin:pass@59.124.49.26:60015/rtsph2641080p
sHTTP = HTTP string http://admin:pass@lilin.dns.org/rtsph264720p

Return:
True: connect successfully.
False: fail to connect.

LILIN Universal ActiveX: supported
LILIN Universal Java Applet: support

Void SetReconnet(short pReconnectTime);
Function Purpose: Set reconnect time in second if the disconnects from an IP cameras.

Void SetNoDelay(short Delaytime)
Function Purpose: Set lantancy mode for smooth video. High delay time means smooth video by using video buffer.
Set delaytime to 15 for better setting.

BOOL GetRecorderStatus()
Function Purpose: Detect if the OCX is in recoding.

long GetBmpData(BSTR FAR* pData)
Function Purpose: Retrieve the BMP data from the OCX.

long GetBmpSize()
Function Purpose: Retrieve data length of the video frame.

Void SetParameter(LPCSTR pParameter)
Function Purpose: Set parameter.

Parameters:
(1)   "HTTPPORT==80", set CGI command port number.

Void SetfullScreen (LPCSTR pParameter)
Function Purpose: Disable full screen mode.

Parameters:
"FALSE" = Disable full screen mode
"TRUE" = Enable full screen mode

Bool StopVideoConnection()
Function Purpose: this function is to top playing a video source if the ActiveX is in playing.

LILIN Universal ActiveX: supported
LILIN Universal Java Applet: support

Bool TransportProtocol(char * Transport)

Function Purpose:

Parameters:
(1) "RTP/UDP": UDP connection
(2) "RTP/TCP": TCP 554 port connection
(3) "RTP/RTSP/HTTP/TCP": TCP 80 port connection

Chapter 2. Audio Streaming
Bool ConnectAudio(char * sHTTP)
Function Purpose:

Parameters:
sHTTP = HTTP string http://admin:pass@59.124.49.36/sendaudio sHTTP =
HTTP string http://admin:pass@lilin.dns.org/sendaudio

Return:
True: connect successfully.
False: fail to connect.

Bool SpeakToRemote()
Function Purpose:
Start speak PCM to remote IP camera.

Bool StopSpeakToRemote() Function Purpose:
Stop to speak to remote IP camera.

Bool StopAudioConnection()
Function Purpose:
Stop audio connection.

LILIN Universal ActiveX: supported

Chapter 3. Motion User Interface

Void EnableMotionUI()

Function Purpose:

Enable motion grid on the video.

Void DIsableMotioinUI()

Function Purpose:

Disable motion grid on the video.

LILIN Universal ActiveX: supported LILIN Universal Java Applet: support

Void UpdateMotionUI()

Function Purpose:

Set motion area to LILIN IP Camera areas.

LILIN Universal ActiveX: supported LILIN Universal Java Applet: support

Void CleanMotionGrid()
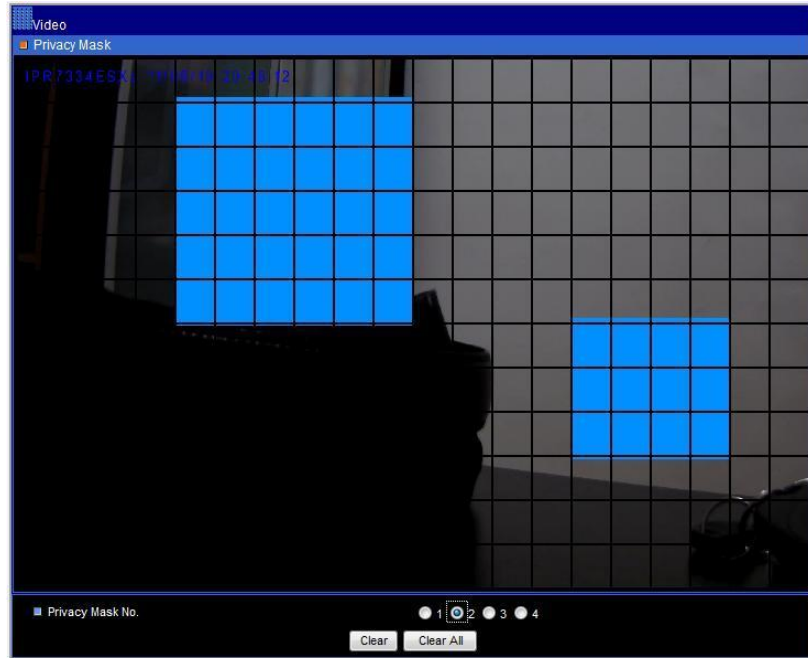
Function Purpose:

Clear all motion grids.

LILIN Universal ActiveX: supported LILIN Universal Java Applet: support

Chapter 4. Privacy Mask User Interface

Void EnablePrivacyMaskUI()

Function Purpose:

Enable privacy mask grid on the video.

Void DisablePrivacyMaskUI()

Function Purpose:

Disable privacy mask grid on the video.

Void SetPrivacyMaskUI(int)

Function Purpose:

Ready to update privacy mask area from 1 to 4.

Chapter 5. Recording

Void EnableRecord()
Function Purpose:
FullScreen = 1, Start to record H.264 AVI file on a local PC.

Void StopRecord()
Function Purpose:
FullScreen = 2, Stop to record H.264 AVI on a local PC.

Void TakeSnap()
Function Purpose:
FullScreen = 3, Start to take JPEG snapshot on a local PC.

Void InputParameter(LPCSTR pParameter)
Function Purpose:
To set recording and picture paths, please set "AVI_FOLDER=" and "PIC_FOLDER=".

string AVI_Folder = "AVI_FOLDER=" + textBox_AVI_Folder.Text.ToString();
string PIC_Folder = "PIC_FOLDER=" + textBox_PIC_Folder.Text.ToString();
axRtspClient1.InputParameter(AVI_Folder);
axRtspClient1.InputParameter(PIC_Folder);

Chapter 6. Audio Input User Interface
Void EnableAudioInUI()
Function Purpose:
Display audio bar audio input interface.

Void DisableAudioInUI()
Function Purpose:
Disable audio input user interface.

Void SetAudioVolumnDetectionThreshold(int iThreshold)
Function Purpose:
Set iThreshold value range from 0 to 100.

Void EnableAudioVolumnDetection()
Function Purpose:
Enable audio input volume detection user interface.

Void DisableAudioVolumnDetection()
Function Purpose:
Disable audio input volume detection user interface.

Void StartMic()
Function Purpose
Open MIC input.

Void StopMic()

Function Purpose
Close MIC input.

Void SetChannels(short Channel)
Function Purpose
Set audio input channel.

Parameters:
Ex: Channel = 1

Void SetBits(short Bits)
Function Purpose
Set audio bit rate.

Parameters:
Ex: Bits = 1

Void SetFrequency(int Frequency)
Function Purpose
Set audio output frequency (sample rate).
Ex: Frequency = 8000

Void SetMute(short bOpen)
Function Purpose
Enable, set bOpen = 1.

Chapter 7. Enable PTZ User Interface
Void EnablePTZUI()
Function Purpose
Enable PTZ setup dialog box.

Void DisablePTZUI()
Function Purpose
Disable PTZ setup dialog box.

Chapter 8. OSD
Void SetLangType(int itype)
Function Purpose
Set language of the user interface, Itype = 0 English, Itype = 1 Chinese.
Ignore SetLangType command. The right mouse click menu is disabled.

Void SetCameraName(LPCTSTR Name)
Function Purpose
Display camera name on the ActiveX.

Void DoSetting()
Function Purpose
Open setting dialog box.

Void SetOSDFont(short bEnable);
Function Purpose
Enable OSD set font dialog box, enable bEnable = 1, disable bEnable = 0.

Void SetOSDTime(short bEnable);
Enable display timer, enable bEnable = 1, disable bEnable = 0.

Chapter 9. Digital Zoom
Void SetZoomInOut(short bEnable);
Enable digital zoom, bEnable = 1 or disable bEnable = 0