

CSSN Update SDK

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Introduction

CSSN Update is a mechanism that helps to automatically synchronize the locally installed SDK files with the most recent file version on the Acuant's update server. The process to handle new updates includes as follows:

Step 1: User Registration

Please register before performing a software update in order to be granted the capability to perform these updates. This step is required only for the first software update (or whenever you wish to update the user personal details on the Card Scanning Solutions database) – with subsequent updates, you can skip this step.

In this first step you can register the following data:

- **License key**
- First Name
- Middle Name
- Last Name
- Address1
- Address2
- City
- State Zip
- Country
- Phone
- Fax
- **Email**
- Company Name
- Job Title

Note: The fields **EMAIL** and **LICENSE KEY** must be filled in for a successful registration.

Please notice that in Windows Vista\7 or above, any application that uses the Live update will need to be run as administrator or with administrator permissions in order to complete the Live update process.

Step 2: Check for New Updates

Checking for updates will return an indication if the local files have the most recent version. If there are files that need to be updated, the function returns the file names. The file names as well as the check progress can be captured by the receiving application by capturing the proper events. In general these files can be split into two groups:

- 1) **Application SDK Files** – Files that are part of the SCANW files set.
- 2) **Live update SDK Files** – Files that are part of the CSSN Update mechanism. Downloading these files requires rebooting the PC.

Step 3: Downloading the New Updates

Downloading the files should start after the main application was shut off (to prevent file sharing violation). The download application automatically creates a temporary directory and downloads all the files to it. Once the download is accomplished, the download function performs the following:

- 1) If the downloaded files belong to the SCANW file set, it will overwrite the new files on the old files (and register the proper dll libraries).
- 2) If the downloaded files belong to the CSSN Update file set, the downloading function accomplishes the installation by running CSSNResume.exe, and this program finishes copying the downloaded files over the old files (and registers the proper files, if needed). If CSSNResume.exe will fail to copy the files since they might be used by an open process, then a message will display to the user that says: “To complete the update process please restart your computer and run CSSNResume.exe”.

Note: The download program MUST reside in the same directory where the SDK files are.

Installation of the CSSN Update SDK

The CSSN Update SDK is built from a collection of ActiveX libraries and helper programs that are used internally by the update mechanism:

CSSN Update SDK files:

- CSSNUpdates.ocx
- CSSNUpdatesHelper.ocx (Internal use only)
- HTTP Wizard3.ocx
- CSSNResume.exe
- FileCheckSum.exe
- Unix2dos.exe

Before using the CSSN Update SDK you must:

- Place the files in the same directory where the main SCANW files are located
- Register *HTTP Wizard3.ocx*
- Register *CSSNUpdates.ocx* (after *CSSNUpdates.ocx* is already registered)

The SDK API functions are concentrated in the library *CSSNUpdates.ocx* (which is an ActiveX component).

Using the SDK in Microsoft Visual C++ environment

To insert the CSSN Update.ocx to your environment, do the following:

- From the menu item **PROJECT** select **ADD TO PROJECT -> COMPONENTS AND CONTROLS**. This will open a new dialog with the title *Components and Controls Gallery*.
- Select **Registered ActiveX controls** from the list. This will open a list of all the registered ActiveX controls on your machine.
- Select the control **CSSNUpdate** and click on the **Insert** button. This will add a control class to your project as well as a new component to your resource list.
- From your **RESOURCE->DIALOG** design screen, add the new component to your dialog and instantiate it in your code (Make sure to set the control's **VISIBLE** property to **FALSE**). Now you can use all the functionalities of the components from your code.

Using the SDK in Microsoft Visual Basic environment

To insert the CSSN Update.ocx to your environment, do the following:

- From the menu item **PROJECT** select **COMPONENTS**. This will open a new dialog with the title *Components* that lists the registered ActiveX on your PC.
- Select the control **CSSNUpdates ActiveX** from the list and click OK. This will add the control class to your project.
- Drag and drop the component to your form and use it in your code.

Using CSSNUpdate.exe Application

You can use the CSSNUpdate.exe application from any application to update the SDK files. This application will check and update the SDK files by itself.

The CSSNUpdate.exe needs to get the following command line arguments in this order:

1. Full SDK folder to update
2. LUsdk.ini
3. Valid License Key
4. Valid Email

To call this application, you need to register the license key you have using the CSSNUpdates.ocx by calling the function UpdateUserDetails.

If you use a Shell function to run the CSSNUpdate.exe it should be like this:

```
C:\Program Files\Card Scanning Solutions\SDK\CSSNUpdate.exe C:\Program Files\Card Scanning Solutions\SDK,LUsdk.ini,XXXXXXXXXXXXXXXXXXXX,myemail@mail.com
```

Note:

Live update SDK files must be in the first argument (Full SDK folder to update). The CSSNUpdates application uses 2 external OCX files: MSFLXGRD.OCX & MSCOMCTL.OCX so if you are going to use CSSNUpdate.exe these files need to be installed and registered as well as the rest of the CSSN Live update SDK files. You can find these files in the CSSN Live update SDK folder after installing it.

CSSN Update Functions and Properties

CSSN Update Functions

1.1.1. UpdateUserDetails

Format (VC)

```
long UpdateUserDetails ()
```

Format (VB)

```
ERR_RETURN_TYPES UpdateUserDetails ()
```

Parameters

[in] None

Return

If function succeeds, the return value is **ERR_SUCCESS**.

If function fails, the return value may be one of the following:

- **ERR_NO_LICENSE** – No given value for the license property.
- **ERR_LICENSE_EXPIRED** – The given license is expired.
- **ERR_LICENSE_NOT_VALID** – The given license is not valid.
- **ERR_SERVER_ERROR** – The server closed the connection or returned an internal server error.
- **ERR_CONNECTION_LOST** – The connection with the server was lost\disconnected.
- **ERR_NO_EMAIL** – No given value for the Email property.

Remarks

Register\Update the user details on the server. This function must be called before any other update functions if the user was never registered on the CSSN server before. This function writes the user data (as set in the data properties) and saves them on the server. The data fields LICENSE and EMAIL are mandatory fields and their absence will fail the registration.

1.1.2. CheckForUpdates

Format (VC)

long CheckForUpdates (LPCTSTR [strAppFilesFolder](#), LPCTSTR [Reserved](#))

Format (VB)

ERR_RETURN_TYPES CheckForUpdates ([strAppFilesFolder](#) As String, [Reserved](#) As String)

Parameters

[in] [strAppFilesFolder](#) – Null terminated string that holds the full path of the SCANW SDK.

[in] [Reserved](#) –

- To update the Driver License SDK only use an empty String (“”). Please see more options at Appendix C.

Return

If function succeeds, the return value may be one of the following values:

- **ERR_SUCCESS** - There are new updates available for download.
- **ERR_NO_UPDATES** – No new updates were found.

If function fails, the return value may be one of the following error values:

- **ERR_NO_LICENSE** – No given value for the license property.
- **ERR_LICENSE_EXPIRED** – The given license is expired.
- **ERR_LICENSE_NOT_VALID** – The given license is not valid.
- **ERR_SERVER_ERROR** – The server closed the connection or returned an internal server error.
- **ERR_CONNECTION_LOST** – The connection with the server was lost\disconnected.
- **ERR_NO_EMAIL** – No given value for the Email property.
- **ERR_NO_APPLICATION_DIRECTORY** – No given value for the *strAppFilesFolder*.
- **ERR_DOWNLOAD_FILES_FAILED** – Failed to download the catalog file from the server.
- **ERR_COMPARE_FILES_FAILED** – Failed to compare the local catalog file with the downloaded catalog file.
- **ERR_DELETE_FILE_FAILED** – Failed to clean the temporary files.
- **ERR_USER_NOT_REGISTERED** – The user is not registered in the server.
- **ERR_SERVER_UPDATE_IN_PROGRESS** - The server is being updated with new updates please try later again.

Remarks

Use this function to interrogate the server for new file updates. This is done by creating a local files catalog and downloading a corresponding file catalog from the server. Comparing the two files detects which files need to be updated. While this function executes, the ActiveX component sends events to its parent application, to indicate the operation progress. Once the function completes it returns one of the values as described above.

1.1.3. UpdateFiles

Format (VC)

long UpdateFile (LPCTSTR [strAppFilesFolder](#), LPCTSTR [Reserved](#))

Format (VB)

ERR_RETURN_TYPES UpdateFiles ([strAppFilesFolder](#) As String, [Reserved](#) As String)

Parameters

[in] [strAppFilesFolder](#) – Null terminated string that holds the full path of the SCANW SDK.

[in] [Reserved](#) –

- To update the Driver License SDK only use an empty String (“”). Please see more options at Appendix C.

Return

If function succeeds, the return value may be one of the following values:

- **ERR_SUCCESS** – The files were updated successfully.
- **ERR_NEED_RESTART** – The files were downloaded successfully and the PC needs to be restarted to complete the update process.
- **ERR_NO_UPDATES** – No new updates were found.

If function fails, the return value may be one of the following error values:

- **ERR_NO_LICENSE** – No given value for the license property.
- **ERR_LICENSE_EXPIRED** – The given license is expired.
- **ERR_LICENSE_NOT_VALID** – The given license is not valid.
- **ERR_SERVER_ERROR** – The server closed the connection or returned an internal server error.
- **ERR_CONNECTION_LOST** – The connection with the server was lost\disconnected.
- **ERR_NO_EMAIL** – No given value for the Email property.
- **ERR_NO_APPLICATION_DIRECTORY** – No given value for the *strAppFilesFolder*.
- **ERR_DOWNLOAD_FILES_FAILED** – Failed to download the catalog file from the server.

- **ERR_COMPARE_FILES_FAILED** – Failed to compare the local catalog file with the downloaded catalog file.
- **ERR_DELETE_FILE_FAILED** – Failed to clean the temporary files.
- **ERR_USER_NOT_REGISTERED** – The user is not registered in the server.
- **ERR_COPY_FILES_FAILED** – Failed to move the updates from the temporary directory to the application directory.
- **ERR_REGISTR_FILE_FAILED** – Failed to register one of *CSSN Update* files.
- **ERR_DELETE_FILE_FAILED** - Failed to remove the temporary files.
- **ERR_SERVER_UPDATE_IN_PROGRESS** - The server is being updated with new updates please try later again.

Remarks

Use this function to update the files from the server to your local application directory. If the downloaded files are part of the CSSN Update SDK – then the PC will also need to be restarted after the download is completed in order to accomplish the update process. While this function executes, the ActiveX component sends events to its parent application, to indicate the operation progress. Once the function completes it returns one of the values as described above.

1.1.4. Abort

Format (VC)

Abort ()

Format (VB)

Abort ()

Remarks

Use this function to abort any running process of the Live update.

CSSN Update Properties

The following is a list of the CSSN Update properties. The Properties LICENSE and EMAIL must be filled in for a successful function.

- **License: VC (LPCTSTR)\VB (String) -Mandatory property.**
- **FirstName: VC (LPCTSTR)\VB (String).**
- **LastName: VC (LPCTSTR)\VB (String).**
- **MiddleName: VC (LPCTSTR)\VB (String).**
- **Address1: VC (LPCTSTR)\VB (String).**

- Address2: VC (LPCTSTR)\VB (String).
- City: VC (LPCTSTR)\VB (String).
- State: VC (LPCTSTR)\VB (String).
- Country: VC (LPCTSTR)\VB (String).
- Zip: VC (LPCTSTR)\VB (String).
- Phone: VC (LPCTSTR)\VB (String).
- Fax: VC (LPCTSTR)\VB (String).
- **Email: VC (LPCTSTR)\VB (String) -Mandatory property.**
- Company: VC (LPCTSTR)\VB (String).
- Title: VC (LPCTSTR)\VB (String).
- Role (Job Title): VC (LPCTSTR)\VB (String).

CSSN Update Event functions

CSSN Update ActiveX reports its progress by sending events to its parent application. Each event comes to report the current download progress \ downloaded file name.

UpdatesList

VC: UpdatesList (short nFileID, LPCTSTR strFileName, long nStatus, LPCTSTR strFileSize)

VB: UpdatesList (ByVal nFileID As Integer, ByVal strFileName As String, ByVal nStatus As LiveUpdates.EUpdateStatus, ByVal strFileSize As String)

Description:

Event is sent when:

- An update was found.
- An update is in the process of downloading\installing\installed or updated.

Use this event to build the updates list that will show the file name, size and status.

Given Values:

- nFileID – A unique file id for each file that needs to be updated.
- strFileName – The file name that needs to be updated.
- nStatus – The status of the file - This value can be one of the EUpdateStatus values.
- strFileSize – The file size in bytes.

DownloadProgress

VC: DownloadProgress (long IMaxValue, long IValue, LPCTSTR strFileName)

VB: DownloadProgress (ByVal IMaxValue As Long, ByVal IValue As Long, ByVal strFileName As String)

Description:

Event is sent when a file is being downloaded. Use this event to build your download progress bar.

Given Values:

- IMaxValue – The file size.
- IValue – How many bytes that already have been downloaded.
- strFileName – The file name.

UpdateProgress

VC: UpdateProgress (long IMaxValue, long IValue, LPCTSTR strDescription)

VB: UpdateProgress (ByVal IMaxValue As Long, ByVal IValue As Long, ByVal strDescription As String)

Description:

Event is sent when the following operations are in progress:

- Downloading one or more updates.
- Installing the updates.
- Finish installing the updates.

- Finding\Not finding any new updates.

Given Values:

- IMaxValue – Sum of all the updates size.
- IValue – How many bytes that already have been downloaded.
- strDescription – The current action in the update process.

APPENDIX A: Installation and Library Registration

The Live update SDK files are packed in a single setup file (*CSSNUpdate_Setup.exe*). Installing the setup file will extract the following file list:

File name	Destination directory	Functionality
HTTP Wizard3.ocx	Sdk destination directory	Use to establish connection to the Live update server
CSSNUpdates.ocx	Sdk destination directory	Live update SDK
FileCheckSum.exe	Sdk destination directory	Live update SDK
CSSNUpdates.exe	Sdk destination directory	Application that will perform the Live update process
UNIX2DOS.exe	Sdk destination directory	Live update SDK
CSSNResume.exe	Sdk destination directory	Live update SDK

Before using the CSSN UPDATE mechanism you must register the two libraries: HTTP WIZARD3.OCX and CSSNUPDATE.OCX (in that order). The registration can be in one of the following manners:

Manual Registration 1:

One method to register an OCX library is to use the mouse right click button. To use this option you must first merge the attached OCX file '**ocxdllreg.reg**' (can be found under TOOLS directory) by clicking on it and selecting the YES button when asked.

This will enable the option to register ScanW.dll by using the mouse right click button when you click on the file name in Windows Explorer.

Manual Registration 2:

An additional method to register an OCX library is to open a shell command prompt and in the SDK files destination directory, type the following command:

REGSVR32.EXE CSSNUPDATE.OCX

APPENDIX B: Return values and ERROR codes

```
//Errors return values
#define ERR_SUCCESS 0
#define ERR_NO_LICENSE 1
#define ERR_NO_APPLICATION_DIRECTORY 2
#define ERR_NO_INI_FILE_NAME 3
#define ERR_LICENSE_EXPIRED 4
#define ERR_LICENSE_NOT_VALID 5
#define ERR_CONNECTION_LOST 6
#define ERR_DOWNLOAD_FILES_FAILED 7
#define ERR_COPY_FILES_FAILED 8
#define ERR_COMPARE_FILES_FAILED 9
#define ERR_REGISTR_FILE_FAILED 10
#define ERR_DELETE_FILE_FAILED 11
#define ERR_SERVER_ERROR 12
#define ERR_ABORTED 13
#define ERR_NO_UPDATES 14
#define ERR_NO_EMAIL 15
#define ERR_USER_NOT_REGISTERED 16
#define ERR_FILE_NOT_EXIST 17
#define ERR_IO 18
#define ERR_UNKNOWN 19
#define ERR_BUSY 20
#define ERR_NEED_RESTART 21
#define ERR_UNIXTODOS_NOT_FOUND 22
#define ERR_FILECHECKSUM_NOT_FOUND 23
#define ERR_USER_ABORT 24
#define ERR_SERVER_UPDATE_IN_PROGRESS 25
```

```
//Files status values (In the events)
#define ST_NEED_TO_BE_UPDATE 0
#define ST_DOWNLOADING 1
#define ST_INSTALLING 2
#define ST_INSTALLED 3
#define ST_UPDATED 4
#define ST_NEED_RESTART 5
```

APPENDIX C: Live Update Support options

The ini file name that can be used is one of these:

INI File name	SDK libraries
LUsdk.ini or empty value	ID\DL
LUSDKBiz.ini	ID\DL + Business cards
LUSDKCheck.ini	ID\DL + Checks
LUSDK_ALL.ini	All (ID\DL + Business cards + Checks + Medical + Receipt)
LUSDK_BIZ_MEDIC.ini	Business cards + Medical
LUSDK_BIZ_ONLY.ini	Business cards
LUSDK_CHECK_ONLY.ini	Checks
LUSDK_HEB_ID.ini	ID\DL Hebrew version
LUSDK_ID_BIZ_MEDIC.ini	ID\DL + Business cards + Medical
LUSDK_ID_MEDIC.ini	ID\DL + Medical
LUSDK_ID_RECEIPT.ini	ID\DL + Receipt
LUSDK_MEDIC.ini	Medical
LUSDK_RECEIPT.ini	Receipt