Software License Agreement

DOCX to HTML Converter

For Win32/Win64

version 13

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Getting Started

This chapter describes the contents of the software diskettes and provides a step by step process of incorporating DOCX to HTML Converter into your application.

Files

The package contains the DLL and header files. The package also includes a set of files to construct a demo program. The demo program shows by example the process of linking the DLL to your program.

DLL Demo Files:

The following demo files are included in the c_demo.zip file.

DEMO.C   Source code for the demo program

DEMO.H   Include file for the demo program

DEMO.RC	Resource source file for the demo program
DEMO.DEF	Definition file for linking the demo program
DEMO.EXE	Executable demo program
DEMO_DLG.H	Dialog Identifiers for the demo program
DEMO_DLG.DLG	Dialog templates for the demo program
DEMO_DLG.RES	Compiled dialogs for the demo program
DHS.H	The *include* file to include into a C/C++ application module that calls the DHS routine. It contains the constant definitions and the prototypes for the API functions.
DHS32.DLL	The DLL file
DHS32.LIB	Import library for the DHS32 DLL
ter31.dll	Used internally by the DHS32.DLL
txml2.dll	Used internal by the DHS32.DLL
hts26.dll	Used internally by the DHS32.DLL
DHCC.DLL	Wrapper DLL to used with an ASP page

Visual Basic Interface and Demo Files:

DHS.BAS	Function declaration file.
DMO_VB.FRM	Demo form file.
DMO_VB.BAS	Demo variable declaration file.
DMO_VB.VPB	Demo project file.

License Key

Your License Key and License number are e-mailed to you after your order is processed.
You would set the license information using the DhsSetLicenseInfo static function. This

should be preferably done before creating the converter session to avoid pop-up nag screens.

int DhsSetLicnseInfo(LPBYTE LicenseKey, LPBYTE LicenseNumber, LPBYTE CompanyName);

LicenseKey: Your license key is available in the product delivery email sent to you upon the purchase of the product. It consists of a string in the form of "xxxxx-yyyyy-zzzzz".

LicenseNumber: Your license number is also available in the product delivery email. The license number string starts with a "srab" or "smo" prefix.

CompanyName: Your company name as specified in your order.

Return Value: This method returns 0 when successful. A non-zero return value indicates an error condition. Here are the possible return values:

0   License application successful.

1   Invalid License Key.

2   Invalid License Number.

3   Ran out of available licenses. Please consider purchasing additional licenses.

Example:

result=DhsSetLicenseInfo("xxxxx-yyyyy-zzzzz","srabnnnn-n","Your Company Name")

Replace the 'xxxxx-yyyyy-zzzzz' by your license key, replace "srabnnnn-n" with your license number, and "Your Company Name" with your company name as specified in your order.

Note: *DhsSetLicenseInfo method should be called only once at the beginning of your application. Calling this method for each conversion would degrade the conversion performance.*

Also, you can use the DhsGetLicenseStatus function at anytime to retrieve the license status.

Incorporating the DLL into Your Application

A C/C++ application should include the DHS.h file into the application module that needs to call the DHS32 dll. It also should include the DHS32.LIB as the linker library. Please refer to the demo application for an example.

A Visual Basic application needs to include the DHS.BAS file in the project. Please refer to the DMO_VB project for an example.

Please also make sure that the dhs32.dll, hts26.dll, txml2.dll and ter31.dll files are copied

to a directory available at run-time.

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Sample Conversion Code

First you would create a new conversion session:

```
dim id as long
```

Set the product license key and create a session id:

```
DhsSetLicenseKey("xxxxx-yyyyy-zzzzz")

id = DhsNewSession()
```

You would use the session id to call other conversion functions.

Here are sample code examples to convert from DOCX to HTML format.

1. Convert a DOCX file to an HTML file.

```
DhsConvertFile(id,"test.docx","test.htm")
```

2. Convert an DOCX string to an HTML string

```
Dim hMem as long
Dim OutSize as long
Dim HtmlString as string

hMem = DhsConvertBuffer(id,DocxString, Len(DocxString),
OutSize)
If (hMem <> 0) Then
    HtmlString = Space$(OutSize + 1) ' allocate space for the
                                  output string
    DhsHandleToStr(HtmlString, OutSize, hMem) ' copy html from
            hMem global handle to the HtmlString variable.
End If
```

After the conversion process, end the session by calling the DhsEndSession function. This frees up the memory used by the session.

```
DhsEndSession(id)
```


Application Interface functions

These API functions allow you to convert from docx to html format. Your application must include the DHS.H file (c/c++), or DHS.BAS (VB) files. These files declare these functions.

The following is a description of the DHS API functions in an alphabetic order:

DhsConvertBuffer

Convert docx to html using memory buffers.

HGLOBAL DhsConvertBuffer(id, InString, InStringLen, OutStringLen)

DWORD id;   Session id.

LPBYTE InString;   Input string containing DOCX document.

int InStringLen;   length of the input document string.

LPINT OutStringLen;   The variable to receive the length of the converted
                                   document.

Return value: This function returns a global memory handle containing the converted documented. You can either use the DhsHandleToStr or GlobalLock functions to access the data string contained in this global memory handle. GlobalLock is a Windows SDK function.

A null return values indicates an error.

Examples:

Convert an DOCX string to an HTML string

```
Dim hMem as long
Dim OutSize as long
Dim HtmlString as string


id = DhsNewSession()


hMem = DhsConvertBuffer(id, DocxString, Len(DocxString),
OutSize)
If (hMem <> 0) Then
    HtmlString = Space$(OutSize + 1) ' allocate space for the
                                  output string
    DhsHandleToStr(HtmlString, OutSize, hMem) ' copy html
from
            hMem global handle to the HtmlString variable.
End If
```

DhsConvertFile

Convert docx to html using disk files.

BOOL DhsConvertFile(id, InFile, OutFile)

DWORD id;   Session id.

LPBYTE InFile;   Input file containing DOCX document

LPBYTE OutFile;   Output files, contains the converted document

Return value: This function returns TRUE when successful.

Examples:

Convert an DOCX file to an HTML file.

```
id = DhsNewSession()

DhsConvertFile(id, "test.docx", "test.htm")
```

DhsEndSession

End a conversion session.

BOOL DhsEndSession(id)

DWORD id;   Session id.

Description: This function is called at the end of the conversion process to free up the session related resources.

Return Value: The function returns TRUE when successful.

DhsGetLastMessage

Get the last message.

int DhsGetLastMessage(id, DhsMessage, DebugMessage);

DWORD id;   Session id.

LPBYTE DhsMessage;   Returns the default user message text in English

LPBYTE DebugMsg;   Returns any debug message associated with the last message. The debug message need not be displayed to the user.

Return Value: This function returns the last message generated by the editor. This value is valid only if saving of the messages is enabled by setting the DHFLAG_RETURN_MSG_ID flag. This flag is set using the DhsSetFlags function.

DhsGetLicenseStatus

Get the license status.

int DhsGetLicnseStatus()

Return Value:

0   License application successful.

1   Invalid License Key.

2   Invalid License Number.

3   Ran out of available licenses. Please consider purchasing additional licenses.

4   The evaluation period has expired.

You can use the DhsGetLicenseStatus function at anytime to retrieve the license status.

DhsGetPictCount

Return total number of pictures found during conversion.

int DhsGetPictCount(id)

DWORD id;   Session id.

Description: Thjs function is called after converting a file to get the number of pictures encountered during conversion. The picture names can be retrieved by using the DhsGetPictName function.

Return Value: When converting from docx to html formats, it returns the number of picture files referenced in the output html file.

DhsGetPictName

Return name of the picture file found during conversion.

BOOL DhsGetPictName(id, idx, PictFileName)

DWORD id;   Session id.

int idx;   The index of the picture file. The index value must be

between 0 and (Total pictures - 1). The total picture count can be retrieved using the DhsGetPictCount function.

LPBYTE PictFileName;

The location to receive the picture file name.

VB Note: This variable is defined as 'string'. This parameter must be assigned 300 spaces before calling this function:

```
PictFileName= space$(300)
DhsGetPictName(id,idx,PictFileName)
```

Description: Thjs function is called after converting a file to get the individual picture file name or picture url.

Return Value: This function returns TRUE when successful.

DhsHandleToStr

Convert a global memory handle to a Visual Basic string.

BOOL DhsHandleToStr(string, length, hMem)

LPBYTE string;   pointer to a visual basic string

long length   length of the string

HGLOBAL hMem;   Global memory handle

Description: This function can be used to copy the contents of a global memory handle to a given visual basic string. The calling routine must expand the string to appropriate length before calling this function.

Example:

```
string=space(length)
HandleToStr(string,length,hMem)
```

The input global memory handle is freed up after copying its contents to the string.

Return Value: This function returns TRUE if successful.

DhsNewSession

Create a new conversion session.

DWORD DhsNewSession()

Description: This function needs to be called before calling any other conversion function. This function creates a new conversion session.

The DhsEndSession must be called at the end to free up the session resources. All other conversion functions are called between the calls to the DhsNewSession and DhsEndSession functions.

Return Value: The function returns a non-zero session-id when successful. A zero value indicates a fail return.

DhsResetLastMessage

Reset the last editor message.

BOOL DhsResetLastMessage(id)

DWORD id;   Session id.

Description: This function can be called before calling any other function to reset the last error message.

Return Value: The function returns TRUE when successful.

See Also
DhsGetLastMessage
DhsSetFlags

DhsSetDownloadDir

Set the directory to be used for downloading pictures from Internet, and the directory where the picture files are generated during docx to html conversion.

BOOL DhsSetDownloadDir(id, DownloadDir);

DWORD id;   Session id.

LPBYTE DownloadDir;   The folder to be used to download pictures form Internet.

Comments: Normally the converter uses the current working directory to download pictures from Internet for temporary processing. However, when the converter is hosted in an ASP application, the default current directory is the Window system directory. In this case, you would use this function to specify a different download directory, such as c:\inetpub\wwwroot\MyProject. A directory specified with this function should have write access so the temporary files can be created.

The specified folder is also used to place the picture files generated during docx to html conversion.

Return Value: This function returns TRUE when successful.

DhsSetFlags

Set certain flags or retrieve the values of the flags.

DWORD DhsSetFlags(id, set, flags)

DWORD id;   Session id.

BOOL set;   TRUE to set the given flags, FALSE to reset the given flags

DWORD flags;   Flags (bits) to set or reset. Currently, the following flag values are available:

    DHFLAG_RETURN_MSG_ID   Do not display the error messages. Save the error code to be later retrieved using the DhsGetLastMessage function.

    DHFLAG_SEGMENT_ONLY   Do not include html header and body tags. Generate just html segment.

    DHFLAG_LIST_TO_TEXT   Convert docx lists to text numbers in html output.

    DHFLAG_NO_SPAN_TAG   Do not write the 'span' tag to html output.

    DHFLAG_NO_FONT   Do not write the 'font' tag to html output.

    DHFLAG_FLASH_SUPPORT   Create html tags to support Flash.

    DHFLAG_XLATE_SINGLE_QUOTE   Write single quote character as ' to html output.

    DHFLAG_PNG_RGB   Save PNG pictures in high-quality RGB colors.

Return value: This function returns the new value of all the flags. Call this function with the 'flags' parameter set to zero to retrieve flag values without modifying it.

ASP Interface

This chapter describes the usage of the DOCX to HTML Converter within an ASP page. The product includes an additional wrapper DLL called DHCC.DLL which is used to access the converter within an ASP page. Please follow the following steps:

Copy ter31.dll, txml2.dll, hts26.dll, dhs32.dll and dhcc.dll to the Windows system directory, or any other directory available at the run-time. Now register dhcc.dll using the regsvr32 system utility. The other dlls do not need registration. Now you are ready to use this product within an ASP page.

Here is an example ASP page to show a conversion of DOCX string into an HTML string:

```
<%@ LANGUAGE = "VBSCRIPT"%>
<%
Option Explicit

Dim DocxString
Dim HtmlString
Dim obj

Set obj = Server.CreateObject("dhcc.converter")

call obj.SetDownloadDir("c:\inetpub\wwwroot\DmoDhc") ' folder
                            where the picture files are created
call obj.SetFlags(1,obj.VAL_DHFLAG_RETURN_MSG_ID)   ' quiet
mode
call obj.SetFlags(1,obj.VAL_DHFLAG_NO_PICT_PATH)    ' dont add
                            file path to the 'img' tag

DocxString=""
HtmlString=""

' read the test.docx file into a string
DocxString=
obj.FileToString("c:\inetpub\wwwroot\DmoDhc\test.docx")

' do conversion
HtmlString = obj.ConvertBuffer(CStr(DocxString))


Set obj = Nothing
```

```
 %>


 ' show the converted html
 <%= HtmlString %>
```

IE would display the converted html data.

The method names used by the dhcc.dll are the same as the functions mentioned in the Application Interface functions. However the 'Dhs' prefix is not used by the dhcc method names. For example, the DhsConvertFile function is named as ConvertFile within the dhcc.dll file.

Also, the constants values are prefixed with an 'VAL_' prefix. For example, the constant DHFLAG_SEGMENT_ONLY becomes VAL_DHFLAG_SEGMENT_ONLY.