Software License Agreement

DOCX to Image Converter

For Win32/64

Version 8

2008-2017

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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 Image Converter into your application.

In This Chapter

Files
License Key
Incorporating the DLL into Your Application
Sample Conversion Code

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
DIS.H	The *include* file to include into a C/C++ application module that calls the dll routine. It contains the constant definitions and the prototypes for the API functions.
dis32.dll	The DLL file
dis32.lib	Import library for the Dis32 DLL
ter24.dll	Used internally by the dis32.dll
txml2.dll	Used internally by the dis32.dll
dicc.dll	Wrapper DLL to used with an ASP page

Visual Basic Interface and Demo Files:

DIS.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 WisSetLicenseInfo static function. This should be preferably done before creating the converter session to avoid pop-up nag screens.

int DisSetLicnseInfo(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=DisSetLicenseInfo("xxxxx-yyyyy-zzzzz","srabnnnnn-n","Your Company Name")

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

Note: *DisSetLicenseInfo 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 DisGetLicenseStatus function at anytime to retrieve the license status.

Incorporating the DLL into Your Application

A C/C++ application should include the DIS.h file into the application module that needs to call the Dis32 dll. It also should include the dis32.lib as the linker library. Please refer to the demo application for an example.

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

Please also make sure that the dis32.dll, txml2.dll and ter24.dll files are copied to a directory available at run-time.

.

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:

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

id = DisNewSession()
```

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

Here are sample code examples to convert DOCX to Image format.

1. Convert an DOCX file to an image file.

```
PageCount = DisLoadFile(id, "test.docx")
If (PageCount > 0) Then
   PageNo = 1  'Get image for the first page of the document
   result = DisImageToFile(id, "test.jpg", PageNo)
End If
```

2. Convert an DocxString to a string containing image data:

```
Dim hMem as long
Dim PageCount as long
Dim ImageType as long
Dim OutString as string
Dim DocxString as string

'load the document and return the number of pages
'in the document
```

```
PageCount = DisLoadBuffer(id, DocxString, Len(DocxString))

If (PageCount > 0) Then
   ' get the output image type from a file name
   ImageType = DisGetImageType(id, "test.jpg")

   ' set the output image type
   call DisSetNumProp(id, DIPROP_IMAGE_TYPE, ImageType)

   ' return the page image in global memory handle
   hMem = DisImageToBuffer(id, OutSize, PageNo)
   If (hMem > 0) Then
     ' allocate space for the output string
     OutString = Space$(OutSize + 1)
     Call DisHandleToStr(OutString, OutSize, hMem)
   End If
End if
```

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

```
DisEndSession(id)
```

Note: DOCX to Image converter makes use of Windows' GdiPlus API. GdiPlus must be installed on a system to use DOCX to Image Converter.

Application Interface functions

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

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

In This Chapter

DisEndSession
DisGetImageType
DisGetLastMessage
DisGetPageImage
DisLoadBuffer
DisImageToBuffer
DisImageToFile
DisGetLicenseStatus
DisHandleToStr
DisLoadFile
DisNewSession
DisResetLastMessage
DisSetFlags
DisSetBoolProp
DisSetHdrFtrText
DisSetImageSize
DisSetNumProp
DisSetPageMargin
DisSetPaperOrient
DisSetPaperSize
DisSetTextProp

DisEndSession

End a conversion session.

BOOL DisEndSession(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.

DisGetImageType

Get the image type constant for to the requested file name.

int DisGetImageType(id, ImageFile)

DWORD id; // Session id

LPBYTE ImageFile; // image file name

Return value: This method returns Image-type constant corresponding to the extension of the given file.

Examples:

```
' get the image type for a file name

ImageType = DisGetImageType(id, "test.jpg")


' set the output image type

DisSetNumProp(id, DIPROP_IMAGE_TYPE, ImageType)
```

DisGetLastMessage

Get the last message.

int DisGetLastMessage(id, HICMessage, DebugMessage);

DWORD id;	Session id.
LPBYTE HICMessage;	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 DIFLAG_RETURN_MSG_ID flag. This flag is set using the DisSetFlags function.

DisGetPageImage

Return the image for the requested page number for the currently loaded DOCX document.

HANDLE DisGetPageImage(PageNo)

DWORD id;	Session id.
int PageNo;	// Page number. This value should be between 1 and the PageCount for the currently loaded DOCX document.

Return value: This function returns a metafile handle for a metafile image, or a bitmap handle for other type of images. A null value indicates an error condition.

This function is useful if you wish to retrieve the image handle for further processing before saving to a Disk file.

Examples:

```
PageCount=DisLoadFile(id,"test.docx");


DisSetNumProp(id, DIPROP_IMAGE_TYPE, PICT_JPG)


handle=DisGetPageImage(id, 1);
```

DisLoadBuffer

Load rtf string and determine the number of pages in the rtf document..

int DisLoadBuffer(id, InString, InStringLen)

DWORD id;	Session id.
LPBYTE InString;	Input string containing DOCX document.
int InStringLen;	length of the input document string.

Return value: This function returns the number of pages in the rtf document. A value of zero indicates an error condition.

Examples:

```
Dim DocxString as string


PageCount = DisLoadBuffer(id,DocxString, Len(DocxString))
```

DisImageToBuffer

Save the current image in a memory handle.

HGLOBAL DisImageToFile(id, OutFile, PageNo)

DWORD id;	// Session id
LPLONG OutSize;	// (output) size of the global memory block returned by this function.
int PageNo;	// Page number. This value should be between 1 and the PageCount for the currently loaded DOCX document.

Return value: This method returns TRUE when successful.

Examples:

```
   PageCount = DisLoadBuffer(id, DocxString,
 Len(DocxString))



   If (PageCount > 0) Then

      ' set the output image type to Jpeg

      call DisSetNumProp(id, DIPROP_IMAGE_TYPE, PICT_JPG)



      ' return the page image in global memory handle

      hMem = DisImageToBuffer(id, OutSize, PageNo)

      If (hMem > 0) Then

        ' allocate space for the output string

        OutString = Space$(OutSize + 1)

        Call DisHandleToStr(OutString, OutSize, hMem)

      End If

   End if
```

DisImageToFile

Save the current image to the requested file name.

BOOL DisImageToFile(id, OutFile, PageNo)

DWORD id;	// Session id
LPBYTE OutFile;	// Output image file name
int PageNo;	// Page number. This value should be between 1 and the PageCount for the currently loaded DOCX document.

Return value: This method returns TRUE when successful.

Examples:

```
PageCount = DisLoadFile(id, "test.docx")

If (PageCount > 0) Then

   PageNo = 1  'Get image for the first page of

               'the document

   result = DisImageToFile(id, "test.jpg", PageNo)

End If
```

DisGetLicenseStatus

Get the license status.

int DisGetLicenseStatus()

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 DisGetLicenseStatus function at anytime to retrieve the license status.

DisHandleToStr

Convert a global memory handle to a Visual Basic string.

BOOL DisHandleToStr(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.

DisLoadFile

Load rtf file and determine the number of pages in the rtf document..

int DisLoadFile(id, InString, InStringLen)

DWORD id;	Session id.
LPBYTE InFile;	Input file containing DOCX document.
int InStringLen;	length of the input document string.

Return value: This function returns the number of pages in the rtf document. A value of zero indicates an error condition.

Examples:

```
Dim DocxString as string


PageCount = DisLoadFile(id,"test.docx")
```

DisNewSession

Create a new conversion session.

DWORD DisNewSession()

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

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

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

DisResetLastMessage

Reset the last editor message.

BOOL DisResetLastMessage(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

DisGetLastMessage
DisSetFlags

DisSetFlags

Set certain flags or retrieve the values of the flags.

DWORD DisSetFlags(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:

DIFLAG_RETURN_MSG_ID	Do not Display the error messages. Save the error code to be later retrieved using the DisGetLastMessage function.

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.

DisSetBoolProp

Set a boolean property for the conversion.

BOOL DisSetBoolProp(id, prop, val)

DWORD id;	Session id.
int prop;	One of the following property type to set:
DIPROP_AUTO_WIDTH	Adjust the image width to fit the contents.
DIPROP_SHRINK_TO_FIT	Set to TRUE to eliminate the ending white spaces to shrink the image height. This property is only effective for one page rtf documents.
LPBYTE val;	The text value of the selected property.

Return value: This function returns TRUE when successful.

DisSetHdrFtrText

Set header or footer text.

BOOL DisSetHdrFtrText(id, HdrFtrType, TextType, text)

DWORD id;	Session id.
int HdrFtrType;	Select header or footer to set:

HF_FIRST_HDR	Header text to print on the first page.
HF_FIRST_FTR	Footer text to print on the first page..
HF_HDR	Regular header for all pages. When the first page header is also set, then the regular header text is printed on all pages except the first page.
HF_FTR	Regular footer for all pages. When the first page footer is also set, then the regular footer text is printed on all pages except the first page.

int TextType;	Text type:

HFTYPE_TEXT	Plain text.
HFTYPE_DOCX	DOCX text.

LPBYTE text;	Header or footer text. The header/footer text must be specified as plain text or DOCX text depending upon the value passed for the 'TextType' parameter.

Comment: The function should be called before calling the conversion functions to set the header or footer text. You can call this function multiple times to set various types of header or footer.

Return value: This function returns TRUE when successful.

Examples:

```
DisSetHdrFtrText(id, HF_FIRST_HDR, HFTYPE_TEXT,
                 "This is first page header.");
DisSetHdrFtrText(id, HF_FIRST_FTR, HFTYPE_TEXT,
                 "This is first page footer.");
DisSetHdrFtrText(id,HF_HDR, HFTYPE_TEXT,
                 "This is regular page header.");
```

```
DisSetHdrFtrText(id,HF_FTR, HFTYPE_DOCX,"{\\rtf1 \\qc
    Page: {\\field{\\fldinst PAGE}{\\fldrslt 12}} of
    {\\field{\\fldinst NUMPAGES}{\\fldrslt 12}}
    \\par}" );  // rtf example to insert page: n of m string
```

DisSetImageSize

Set the image size.

BOOL DisSetImageSize(id, ImageWidthTwips, ImageHeightTwips)

DWORD id;	Session id.
int ImageWidthTwips;	The image width in twips units (1440 twips = 1 inch).
int ImageHeightTwips;	The image height in twips units (1440 twips = 1 inch).

Return Value: The function returns TRUE when successful.

Comment: This function is used to override the default image size when converting an DOCX document to the PDF format. This function should be called before calling the DisConvertFile or DisConvertBuffer if you wish override the image size. The default image size is derived from the paper-size specification embedded in the rtf file.

This method works the same as the DisSetPaperSize method when called with the 'size' parameter set to 0.

DisSetNumProp

Set a numeric property for the conversion.

BOOL DisSetNumProp(id, prop, val)

DWORD id;	Session id.
int prop;	One of the following property type to set:
DIPROP_IMAGE_RES	Use this property to specify the resolution of an image. The default value is 96 dpi.
DIPROP_META_RES	Use this property to specify the resolution of a metafile image. The default value is 300
DIPROP_SIZE_PERCENT	Use this property to change the size of the output image. The default value for this property is 100. You can specify a value small than 100 to obtain a smaller image. Similarly you can specify a value greater than 100 to obtain a larger image.
DIPROP_IMAGE_TYPE	Use this property to request a particular type of image (default is Bitmap file):

PICT_BMP	Bitmap image
PICT_EMF	Enhanced metafile
PICT_TIF	Tiff image
PICT_JPG	Jpeg image
PICT_PNG	PNG image
PICT_GIF	GIF image

int val;	The numeric value of the selected property.

Return value: This function returns TRUE when successful.

DisSetPageMargin

Set the page margins for PDF output.

BOOL DisSetPageMargin(id, left, right, top, bottom)

DWORD id;	Session id.
int left;	Left margin in twip units (1440 twips = 1 inch)
int right;	Right margin in twip units
int top;	Top margin in twip units
int bottom	Bottom margin in twip units

Return Value: The function returns TRUE when successful.

Comment: This function is used to override the default page margins when converting an DOCX document to the PDF format. This function should be called before calling the DisConvertFile or DisConvertBuffer if you wish override the page margin values.

DisSetPaperOrient

Set the page orientation for PDF output.

BOOL DisSetPaperOrient(id, orient)

DWORD id;	Session id.
int orient;	Orientation: DMORIENT_PORTRAIT or DMORIENT_LANDSCAPE

Return Value: The function returns TRUE when successful.

Comment: This function is used to override the default portrait orientation when converting an DOCX document to the PDF format. This function should be called before calling the DisConvertFile or DisConvertBuffer if you wish override the paper orientation.

DisSetPaperSize

Set the page size for PDF output.

BOOL DisSetPaperSize(id, PageSize, PageWidth, PageHeight)

DWORD id; Session id.

int PageSize; Use one of the following Windows SDK defined constants:

Constant	Value
DMPAPER_LETTER	1
DMPAPER_LEGAL	5
DMPAPER_LEDGER	4
DMPAPER_TABLOID	3
DMPAPER_STATEMENT	6
DMPAPER_EXECUTIVE	7
DMPAPER_A3	8
DMPAPER_A4	9
DMPAPER_A5	11
DMPAPER_B4	12
DMPAPER_B5	13

If you need to use a paper size not listed above, please set the PageSize argument to zero and specify the page width and height using the next two arguments.

int PageWidth; The page width in twips units (1440 twips = 1 inch). This argument is ignored if the PageSize is set to one of the defined page sizes listed above.

int PageHeight; The page height in twips units (1440 twips = 1 inch). This argument is ignored if the PageSize is set to one of the defined page sizes listed above

Return Value: The function returns TRUE when successful.

Comment: This function is used to override the default letter size paper when converting an DOCX document to the PDF format. This function should be called before calling the DisConvertFile or DisConvertBuffer if you wish override the paper size.

DisSetTextProp

Set a text property for the conversion.

BOOL DisSetTextProp(id, prop, val)

DWORD id;	Session id.
int prop;	One of the following property type to set:
DIPROP_DOWNLOAD_DIR	Folder to store temporary rtf pictures files during conversion.
LPBYTE val;	The text value of the selected property.

Return value: This function returns TRUE when successful.

ASP Interface

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

Copy ter24.dll, txml2.dll and dis32.dll and dicc.dll to the Windows system directory, or any other directory available at the run-time. Now register dicc.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 Rtf string into an image:

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

<%

Option Explicit


Dim obj

Dim PageCount

Dim result

Dim DocxString


DocxString=""


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


call obj.SetFlags(1,obj.VAL_DIFLAG_RETURN_MSG_ID) ' quiet mode


' read the test.docx file into a string

DocxString =

    obj.FileToString("c:\inetpub\wwwroot\DmoDic\test.docx")


if len(DocxString) > 0 then
```

```
  PageCount = obj.LoadBuffer(CStr(DocxString))

  result =
obj.ImageToFile("c:\Inetpub\wwwroot\DmoDic\test.jpg",1)

End If



Set obj = Nothing

%>



<html>

<head>

</head>



<body>

<p> Some text before </p>



<img src="test.jpg">



<p> Some text after </p>

</body>

</html>
```

When the above asp file is loaded, IE Displays the generated image.

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

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