



Software License Agreement

DOCX to RTF Converter

For Win32/Win64

Vesion 16

2008-2025

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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 RTF 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
HRS.H	The <i>include</i> file to include into a C/C++ application module that calls the HRS routine. It contains the constant definitions and the prototypes for the API functions.
drs32.dll	The DLL file and other DLLs
HRS32.LIB	Import library for the HRS32 DLL
drcc.dll	Wrapper DLL to used with an ASP page

Visual Basic Interface and Demo Files:

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

```
int DrsSetLicenseInfo(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=DrsSetLicenseInfo("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: *DrsSetLicenseInfo 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 DrsGetLicenseStatus function at anytime to retrieve the license status.



Incorporating the DLL into Your Application

A C/C++ application should include the drs.h file into the application module that needs to call the drs32.dll. It also should include the drs32.LIB as the linker library. Please refer to the demo application for an example.

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

Please also make sure that the drs32.dll and other DLLs from the distribution zip file 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:

```
result=DrsSetLicenseInfo("xxxxx-yyyyy-zzzzz",  
    "srabnnnnn-n","Your Company Name")
```

```
id = DrsNewSession()
```

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

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

1. Convert an DOCX file to an RTF file.

```
DrsConvertFile(id,"test.docx","test.rtf")
```

2. Convert an DOCX string to an RTF string

```
Dim hMem as long
```

```
Dim OutSize as long
```

```
Dim RtfString as string
```

```
hMem = DrsConvertBuffer(id, DocxString, Len(DocxString),  
    OutSize)
```

```
If (hMem <> 0) Then
```

```
    RtfString = Space$(OutSize + 1) ' allocate space for  
    ' the output string
```

```
    Call DrsHandleToStr(RtfString, OutSize, hMem)
```

```
End If
```

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

DrsEndSession(id)



Application Interface functions

These API functions allow you to convert between DOCX and RTF formats. Your application must include the drs.h file (c/c++), or drs.bas (VB) files. These files declare these functions.

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

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[DrsConvertBuffer](#)

[DrsConvertFile](#)

[DrsEndSession](#)

[DrsGetLastMessage](#)

[DrsGetLicnseStatus](#)

[DrsHandleToStr](#)

[DrsNewSession](#)

[DrsResetLastMessage](#)

[DrsSetDownloadDir](#)

[DrsSetFlags](#)

[DrsSetPageMargin](#)

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[DrsSetPaperSize](#)



DrsConvertBuffer

Convert DOCX to RTF using memory buffers.

HGLOBAL DrsConvertBuffer(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 DrsHandleToStr 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:

1. Convert an DOCX string to an RTF string

```
Dim hMem as long
Dim OutSize as long
Dim RtfString as string

hMem = DrsConvertBuffer(id, DocxString, Len(DocxString),
                        OutSize)
If (hMem <> 0) Then
    RtfString = Space$(OutSize + 1) ' allocate space for
                                   ' the output string
    Call DrsHandleToStr(RtfString, OutSize, hMem)
End If
```



DrsConvertFile

Convert DOCX to RTF using disk files.

BOOL DrsConvertFile(id, InFile, OutFile)

DWORD id;	Session id.
-----------	-------------

LPBYTE InFile;	Input file containing DOCX document
----------------	-------------------------------------

LPBYTE OutFile;	Output files, contains the converted RTF document
-----------------	---

Return value: This function returns TRUE when successful.

Examples:

```
id = DrsNewSession()
```

```
DrsConvertFile(id, "test.htm", "test.rtf")
```



DrsEndSession

End a conversion session.

```
BOOL DrsEndSession(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.



DrsGetLastMessage

Get the last message.

```
int DrsGetLastMessage(id, DrsMessage, DebugMessage);
```

DWORD id; Session id.

LPBYTE DrsMessage; 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 DRFLAG_RETURN_MSG_ID flag. This flag is set using the DrsSetFlags function.



DrsGetLicnseStatus

Get the license status.

```
int DrsGetLicnseStatus()
```

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 DrsGetLicenseStatus function at anytime to retrieve the license status.



DrsHandleToStr

Convert a global memory handle to a Visual Basic string.

```
BOOL DrsHandleToStr(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.



DrsNewSession

Create a new conversion session.

DWORD DrsNewSession()

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

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

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



DrsResetLastMessage

Reset the last editor message.

BOOL DrsResetLastMessage(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

[DrsGetLastMessage](#)

[DrsSetFlags](#)



DrsSetDownloadDir

Set the directory to be used for downloading pictures from Internet.

BOOL DrsSetDownloadDir(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.

Return Value: This function returns TRUE when successful.



DrsSetFlags

Set certain flags or retrieve the values of the flags.

DWORD DrsSetFlags(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:

DRFLAG_RETURN_MSG_ID	Do not display the error messages. Save the error code to be later retrieved using the DrsGetLastMessage function.
----------------------	--

DRFLAG_EMBED_PICTURE	Embed the pictures into the output RTF file (instead of inserting picture links).
----------------------	---

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.



DrsSetPageMargin

Set the page margins for RTF output.

BOOL DrsSetPageMargin(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 margin contained in the input DOCX document.



DrsSetPaperOrient

Set the page orientation for RTF output.

BOOL DrsSetPaperOrient(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 orientation contained in the input DOCX document.



DrsSetPaperSize

Set the page size for RTF output.

BOOL DrsSetPaperSize(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 paper size contained in the input DOCX document.



ASP Interface

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

Copy drs32.dll, drcc.dll and other DLLs from the distribution zip file to the Windows system directory, or any other directory available at the run-time. Now register drcc.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 RTF string:

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

```
<%
```

```
Option Explicit
```

```
Dim DocxString
```

```
Dim sRtf
```

```
Dim obj
```

```
Set obj = Server.CreateObject("drcc.converter")
```

```
call obj.SetFlags(1,obj.VAL_DRFLAG_RETURN_MSG_ID) ' quiet mode
```

```
DocxString=""
```

```
sRtf=""
```

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

```
if len(DocxString) > 0 then
```

```
    sRtf = obj.ConvertBuffer(CStr(DocxString))
```

```
End If
```

```
Set obj = Nothing
```

```
%>
```

```
<html>
```

```
<head>
```

```
</head>
```

```
<body>
```

```
<p> Generated RTF code:</p>
```

```
<%  
=sRtf  
%>
```

```
<p> End of generated RTF code </p>  
</body>  
</html>
```

IE displays the following text

Generated RTF Code:

{\rtf.....}.

End of generated RTF code

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

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