Software License Agreement

RTF to DOCX Converter

For Win32/Win64

Vesion 14

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Getting Started

This chapter describes the contents of the software diskettes and provides a step by step process of incorporating RTF to DOCX 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
RDS.H	The *include* file to include into a C/C++ application module that calls the Rds routine. It contains the constant definitions and the prototypes for the API functions.
RDS32.DLL	The DLL file
RDS32.LIB	Import library for the RDS32 DLL
ter31.dll	Used internally by the RDS32.DLL
txml2.dll	Used internally by the RDS32.DLL
RDCC.DLL	Wrapper DLL to used with an ASP page

Visual Basic Interface and Demo Files:

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

int RdsSetLicnseInfo(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=RdsSetLicenseInfo("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: *RdsSetLicenseInfo 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 RdsGetLicenseStatus function at anytime to retrieve the license status.

Incorporating the DLL into Your Application

A C/C++ application should include the RDS.h file into the application module that needs to call the RDS32 dll. It also should include the RDS32.LIB as the linker library. Please refer to the demo application for an example.

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

Please also make sure that the rds32.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:

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

```
  id = RdsNewSession()
```

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

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

1. Convert an RTF file to an DOCX file.

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

2. Convert an RTF string to an DOCX string

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

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

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

```
RdsEndSession(id)
```


Application Interface functions

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

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

RdsConvertBuffer

Convert RTF to DOCX using memory buffers.

HGLOBAL RdsConvertBuffer(id, InString, InStringLen, OutStringLen)

DWORD id;   Session id.

LPBYTE InString;   Input string containing RTF 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 RdsHandleToStr 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:

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


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

RdsConvertFile

Convert RTF to DOCX using disk files.

BOOL RdsConvertFile(id, InFile, OutFile)

DWORD id;   Session id.

LPBYTE InFile;   Input file containing RTF document

LPBYTE OutFile;   Output files, contains the converted document

Return value: This function returns TRUE when successful.

Examples:

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

RdsEndSession

End a conversion session.

BOOL RdsEndSession(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.

RdsGetLastMessage

Get the last message.

int RdsGetLastMessage(id, RdsMessage, DebugMessage);

DWORD id;   Session id.

LPBYTE RdsMessage;   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 HRFLAG_RETURN_MSG_ID flag. This flag is set using the RdsSetFlags function.

RdsGetLicnseStatus

Get the license status.

int RdsGetLicnseStatus()

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 RdsGetLicenseStatus function at anytime to retrieve the license status.

RdsHandleToStr

Convert a global memory handle to a Visual Basic string.

BOOL RdsHandleToStr(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)
RdsHandleToStr(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.

RdsNewSession

Create a new conversion session.

DWORD RdsNewSession()

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

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

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

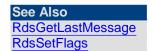# RdsResetLastMessage

Reset the last editor message.

BOOL RdsResetLastMessage(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
RdsGetLastMessage
RdsSetFlags

RdsSetFlags

Set certain flags or retrieve the values of the flags.

DWORD RdsSetFlags(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:

RDFLAG_RETURN_MSG_ID	Do not display the error messages. Save the error code to be later retrieved using the RdsGetLastMessage function.
DRFLAG_EMBED_PICTURE	Convert the 'linked' pictures to the embedded pictures when saving to the DOCX format.

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.

RdsSetPageMargin

Set the page margins for RTF output.

BOOL RdsSetPageMargin(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 RTF document to the DOCX format. This function should be called before calling the RdsConvertFile or RdsConvertBuffer if you wish override the page margin values.

RdsSetPaperOrient

Set the page orientation for RTF output.

BOOL RdsSetPaperOrient(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 RTF document to the DOCX format. This function should be called before
calling the RdsConvertFile or RdsConvertBuffer if you wish override the paper orientation.

RdsSetPaperSize

Set the page size for RTF output.

BOOL RdsSetPaperSize(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 RTF document to the DOCX format. This function should be called before calling the RdsConvertFile or RdsConvertBuffer if you wish override the paper size.

RdsWriteToFile

Write the content of a global memory handle to a disk file.

BOOL RdsWriteToFile(id, OutFile, hMem, InSize)

DWORD id;	Session id.
LPBYTE OutFile;	Output file name.
HGLOBAL hMem;	Global memory handle
long length	length of the string

Description: This function can be used to write the contents of a global memory handle to a file.

Example:

```
   hMem = RdsConvertBuffer(id, RtfString, Len(RtfString),
 OutSize)

   If (hMem <> 0) Then

      RdsHandleToStr(id, "test.docx",hMem,OutSize)

   End If
```

The input global memory handle is freed up after writing its contents to the file.

Return Value: This function returns TRUE if successful.

ASP Interface

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

Copy ter31.dll, txml2.dll, rds32.dll and rdcc.dll to the Windows system directory, or any other directory available at the run-time. Now register rdcc.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 DOCx string:

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

Dim sRTF
Dim DocxBytes
Dim obj

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

call obj.SetLicenseInfo("Your-Licence-Key","Your-Order-
number","Your-company-name")

sRTF = "{\rtf1 This \b is \b0 a test of \i RTF \i0 to \i DOCX
\i0 Conversion. {\field{\fldinst INCLUDEPICTURE
c:\\\\disk1\\\\www\\\\DmoRdc\\\\test.bmp \\d}{\fldrslt}}} }"

if len(sRTF) > 0 then
  DocxBytes = obj.ConvertRtfToDocxBytes(CStr(sRTF))
End If

Set obj = Nothing

%>

<html>
<head>
</head>

<body>
<%

        if ArrayEmpty(DocxBytes) then
```

```
          call Response.Write("Conversion failed!" + " <br/>")

          if IsArray(DocxBytes) then Response.Write("size:
"+CStr(UBound(DocxBytes))+" <br/>") else
Response.Write("ConvertRtfToDocxBytes returned null"+ "<br/")

      else


          Response.Clear()

          Response.Charset = ""

          Response.ContentType =
"application/vnd.openxmlformats-
officedocument.wordprocessingml.document"


          Response.AddHeader "Content-Disposition",
"attachment;filename=" + "test.docx"

          Response.AddHeader "Content-Length",
CStr(UBound(DocxBytes))


          call Response.BinaryWrite(DocxBytes)


          Response.Flush()

          Response.End()
      end if


      function ArrayEmpty (a)
        ArrayEmpty = true
        if IsArray(a) and UBound(a) > 0 then ArrayEmpty = false
      end function
 %>
 </body>
 </html>
```

When the above asp file is loaded, IE displays generated docx codes

----

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

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