



Software License Agreement

HTML to Image Converter

For Win32/64

Version 10

2018

ALL RIGHTS RESERVED BY

SUB SYSTEMS, INC.

1221 New Meister Lane, #2712

Pflugerville, TX 78660

512-733-2525

Software License Agreement

The Software is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The Software is licensed, not sold. This LICENSE AGREEMENT grants you the following rights:

- A. This product is licensed per developer basis only. Each developer working with this package needs to purchase a separate license.
- B. The purchaser has the right to modify and link the DLL functions into their application. Such an application is free of distribution royalties with these conditions: the target application is not a stand-alone HTML to Image Converter; the target application uses this product for one operating system platform only; and the source code (or part) of the editor is not distributed in any form.
- C. The DESKTOP LICENSE allows for the desktop application development. Your desktop application using this product can be distributed royalty-free. Each desktop license allows one developer to use this product on up to two development computers. A developer must purchase additional licenses to use the product on more than two development computers.
- D. The SERVER LICENSE allows for the server application development. The server licenses must be purchased separately when using this product in a server application. Additionally, the product is licensed per developer basis. Only an UNLIMITED SERVER LICENSE allows for royalty-free distribution of your server applications using this product.
- E. ENTERPRISE LICENSE: The large corporations with revenue more than \$500 million and large government entities must purchase an Enterprise License. An Enterprise license is also applicable if any target customer of your product using the Software have revenue more than \$500 million. Please contact us at info@subsystems.com for a quote for an Enterprise License.
- F. Your license rights under this LICENSE AGREEMENT are non-exclusive. All rights not expressly granted herein are reserved by Licensor.
- G. You may not sell, transfer or convey the software license to any third party without Licensor's prior express written consent.

This software is designed keeping the safety and the reliability concerns as the main considerations. Every effort has been made to make the product reliable and error free. However, Sub Systems, Inc. makes no warranties against any damage, direct or indirect, resulting from the use of the software or the manual and can not be held responsible for the same. The product is provided 'as is' without warranty of any kind, either expressed or implied, including but not limited to the implied warranties of suitability for a particular purpose. The buyer assumes the entire risk of any damage caused by this software. In no event shall Sub Systems, Inc. be liable for damage of any kind, loss of data, loss of profits, interruption of business or other financial losses arising directly or indirectly from the use of this product. Any liability of Sub Systems will be exclusively limited to refund of purchase price.

Sub Systems, Inc. offers a 30 day money back guarantee with the product. Must call for an RMA number before returning the product.



Getting Started

This chapter describes the contents of the software diskettes and provides a step by step process of incorporating HTML 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
HIC.H	The <i>include</i> file to include into a C/C++ application module that calls the HIC routine. It contains the constant definitions and the prototypes for the API functions.
His32.DLL	The DLL file
His32.LIB	Import library for the His32 DLL
ter25.dll	Used internally by the His32.DLL
hts20.dll	Used internally by the His32.DLL
HICC.DLL	Wrapper DLL to used with an ASP page

Visual Basic Interface and Demo Files:

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

```
int HisSetLicenseInfo(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=HisSetLicenseInfo("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: HisSetLicenseInfo 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 HisGetLicenseStatus function at anytime to retrieve the license status.



Incorporating the DLL into Your Application

A C/C++ application should include the HIC.h file into the application module that needs to call the His32.dll. It also should include the His32.LIB as the linker library. Please refer to the demo application for an example.

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

Please also make sure that the His32.dll, hts20.dll and ter25.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:

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

```
id = HisNewSession()
```

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

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

1. Convert an HTML file to an image file.

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

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

```
Dim hMem as long  
Dim PageCount as long  
Dim ImageType as long  
Dim OutString as string  
Dim HtmlString as string  
  
'load the document and return the number of pages
```

```

'in the document
PageCount = HisLoadBuffer(id, HtmlString, Len(HtmlString))

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

    ' set the output image type
    call HisSetNumProp(id, HIPROP_IMAGE_TYPE, ImageType)

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

```

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

```
HisEndSession(id)
```

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



Application Interface functions

These API functions allow you to convert from HTML to Image format. Your application must include the HIC.H file (c/c++), or HIC.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

[HisEndSession](#)

[HisGetImageType](#)

[HisGetLastMessage](#)

[HisGetLicnseStatus](#)

[HisGetPageImage](#)

[HisLoadBuffer](#)

[HisImageToBuffer](#)

[HisImageToFile](#)

[HisHandleToStr](#)

[HisLoadFile](#)

[HisNewSession](#)

[HisResetLastMessage](#)

[HisSetFlags](#)

[HisSetBoolProp](#)

[HisSetHdrFtrText](#)

[HisSetNumProp](#)

[HisSetPageMargin](#)

[HisSetPaperOrient](#)

[HisSetPaperSize](#)

[HisSetTextProp](#)



HisEndSession

End a conversion session.

BOOL HisEndSession(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.



HisGetImageType

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

```
int HisGetImageType(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 = HisGetImageType(id, "test.jpg")  
  
' set the output image type  
HisSetNumProp(id, HIPROP_IMAGE_TYPE, ImageType)
```



HisGetLastMessage

Get the last message.

```
int HisGetLastMessage(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 HPFLAG_RETURN_MSG_ID flag. This flag is set using the HisSetFlags function.



HisGetLicnseStatus

Get the license status.

```
int HisGetLicnseStatus()
```

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 HisGetLicenseStatus function at anytime to retrieve the license status.



HisGetPageImage

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

```
HANDLE HisGetPageImage(PageNo)
```

```
DWORD id;           Session id.
```

```
int PageNo;        // Page number. This value should be between 1 and  
                   the PageCount for the currently loaded HTML  
                   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=HisLoadFile(id, "test.htm");
```

```
HisSetNumProp(id, HIPROP_IMAGE_TYPE, PICT_JPG)
```

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



HisLoadBuffer

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

```
int HisLoadBuffer(id, InString, InStringLen)
```

DWORD id; Session id.

LPBYTE InString; Input string containing HTML document.

int InStringLen; length of the input document string.

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

Examples:

```
Dim HtmlString as string
```

```
PageCount = HisLoadBuffer(id,HtmlString, Len(HtmlString))
```



HisImageToBuffer

Save the current image in a memory handle.

```
HGLOBAL HisImageToFile(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 HTML  
document.
```

Return value: This method returns TRUE when successful.

Examples:

```
PageCount = HisLoadBuffer(id, HtmlString,  
Len(HtmlString))
```

```
If (PageCount > 0) Then
```

```
    ' set the output image type to Jpeg
```

```
    call HisSetNumProp(id, HIPROP_IMAGE_TYPE, PICT_JPG)
```

```
    ' return the page image in global memory handle
```

```
    hMem = HisImageToBuffer(id, OutSize, PageNo)
```

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

```
        ' allocate space for the output string
```

```
        OutString = Space$(OutSize + 1)
```

```
        Call HisHandleToStr(OutString, OutSize, hMem)
```

```
    End If
```

```
End if
```




HisImageToFile

Save the current image to the requested file name.

```
BOOL HisImageToFile(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 HTML  
                   // document.
```

Return value: This method returns TRUE when successful.

Examples:

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



HisHandleToStr

Convert a global memory handle to a Visual Basic string.

```
BOOL HisHandleToStr(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.



HisLoadFile

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

```
int HisLoadFile(id, InString, InStringLen)
```

DWORD id; Session id.

LPBYTE InFile; Input file containing HTML document.

int InStringLen; length of the input document string.

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

Examples:

```
Dim HtmlString as string
```

```
PageCount = HisLoadFile(id, "test.htm")
```



HisNewSession

Create a new conversion session.

DWORD HisNewSession()

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

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

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



HisSetFlags

Set certain flags or retrieve the values of the flags.

DWORD HisSetFlags(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:

HPFLAG_RETURN_MSG_ID	Do not display the error messages. Save the error code to be later retrieved using the HisGetLastMessage 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.



HisSetBoolProp

Set a boolean property for the conversion.

BOOL HisSetBoolProp(id, prop, val)

DWORD id; Session id.

int prop; One of the following property type to set:

HIPROP_USE_WEB_BROWSER Use this property to instruct the converter to use the Internet Explorer control to render the html page to convert to image. This option results in images similar to as displayed by IE.

When this property is not set, the converter uses a built-in html renderer which might be suitable for html files that use simpler html formatting.

This property is set to TRUE by default.

HIPROP_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 html documents.

LPBYTE val; The text value of the selected property.

Return value: This function returns TRUE when successful.


```
        "This is regular page header.");  
HisSetHdrFtrText(id, HF_FTR, HFTYPE_RTF, "{\\rtf1 \\qc  
    Page: {\\field{\\fldinst PAGE}{\\fldrslt 12}} of  
    {\\field{\\fldinst NUMPAGES}{\\fldrslt 12}}  
    \\par}" ); // rtf example to insert page: n of m string
```



HisSetNumProp

Set a numeric property for the conversion.

BOOL HisSetNumProp(id, prop, val)

DWORD id;

Session id.

int prop;

One of the following property type to set:

HIPROP_IMAGE_RES

Use this property to specify the resolution of an image. The default value is 96 dpi.

HIPROP_META_RES

Use this property to specify the resolution of a metafile image. The default value is 300

HIPROP_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.

HIPROP_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.



HisSetPageMargin

Set the page margins for PDF output.

BOOL HisSetPageMargin(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 HTML document to the PDF format. This function should be called before calling the HisConvertFile or HisConvertBuffer if you wish override the page margin values.



HisSetPaperSize

Set the page size for PDF output.

BOOL HisSetPaperSize(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 HTML document to the PDF format. This function should be called before calling the HisConvertFile or HisConvertBuffer if you wish override the paper size.



ASP Interface

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

Copy ter25.dll, hts20.dll, and His32.dll and HICC.dll to the Windows system directory, or any other directory available at the run-time. Now register HICC.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 Html string into an image:

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

<%

Option Explicit

Dim sHTML

Dim obj

Dim PageCount

Dim result

Dim ErrorMessage

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

result=obj.SetTextProp(obj.VAL_HIPROP_DOWNLOAD_DIR,

                      "c:\inetpub\wwwroot\MyProjectFolder")

sHTML = "<html><body> This <b> is </b> a test of <i> HTML </i>
        to <i> Image </i> Conversion. This sample would
        convert this html to a jpeg file and save it as
        test.jpg file.</body></html>"

PageCount = 0
```

```

if len(sHTML) > 0 then

    PageCount = obj.LoadBuffer(CStr(sHTML))

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

End If

if PageCount = 0 then

    ErrorMessage = obj.GetLastMessage

    response.write(ErrorMessage)

end if

Set obj = Nothing

%>

<html>
<head>
</head>

<body>



</body>
</html>

```

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

The method names used by the HICC.dll are the same as the functions mentioned in the Application Interface functions. However the 'His' prefix is not used by the HICC method

names. For example, the HisConvertFile function is named as ConvertFile within the HICC.dll file.

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