

Using OIPI to Export to Files

OIPI is by far one of the best ways to achieve high quality output from OpenInsight. However, did you know that it also has the ability to export your report output into file formats such as Adobe PDF, RTF, and HTML? Read on to find out how.

Most of what will be discussed requires OIPI version 4.1 professional, which is available from Revelation at WWW.Revelation.com, and is free to Works Subscribers. This article also presumes that the developer is familiar with the different Set_Printer messages available in OIPI. If not, please refer to the OIPI.HLP file that was installed when OIPI was installed.

Adobe **PDF** is a universal file format that preserves all the fonts, formatting, graphics, and color of any source document, regardless of the application and platform used to create it. Adobe PDF files are compact and can be shared, viewed, navigated, and printed exactly as intended by anyone with free Adobe Acrobat® Reader® software.

RTF (Rich Text Format) is a file format that lets you exchange text file between different word processors in different operating systems. For example, you can create a file using Microsoft Word 97 in Windows 95, save it as an RTF file (it will have a ".rtf" file name suffix), and send it to someone who uses WordPerfect 6.0 on Windows 3.1 and they will be able to open the file and read it.

HTML (Hypertext Markup Language) is the set of markup symbols or codes inserted in a file intended for display on a World Wide Web browser page. The markup tells the Web browser how to display a Web page's words and images for the user. Each individual markup code is referred to as an element (but many people also refer to it as a tag). Some elements come in pairs that indicate when some display effect is to begin and when it is to end.

The three formats mentioned above are among the most popular file formats, and are widely used.

Start32- The magic (and often missing) Command

When using OIPI 4.01 Pro (OIPI) to make use of the export commands, we need to start the 32-bit processes in the OIPI. Invoking the START32 message of the Set_Printer command does this. This is also the step that most developers forget to do. The following program is an example of how to call the Start32 message.

```
Subroutine Start_oipi32(Parent)

* Starts the 32-bit engine. Only needed once per OI session
* For example, this program should be called from the Create Event of
* the Application Entry point of an application

Declare Function Set_Printer, Msg

$INSERT OIPRINT_EQUATES

STAT = Set_Printer("START32",' ',' ',' ',' ')
if stat # 1 then
    x = msg(Parent, 'An error occurred during Set_Printer START32 operation. |Error is ':stat)
end

Return 0
```

The START32 message must be called once to enable the Professional 32-bit features of the OIPI. This message must be called before the first INIT message. We recommend that this program be called from the Create Event of your applications entry point window.

Don't Forget Stop32

The flip-side of Start32 is, logically enough, Stop32. This stops the OIPI 32-bit engine. The following program is an example of how to call the Stop32 message.

```
Subroutine Stop_oipi32(Dummy)

* Stops the 32-bit engine. Only needed once per OI session
* For example, this program should be called from the Close Event of
* the Application Entry point of an application

DECLARE FUNCTION SET_PRINTER, MSG

$INSERT OIPRINT_EQUATES

STAT=SET_PRINTER("STOP32",' ',' ',' ',' ')
if stat # 1 then
    x = msg(Parent, 'An error occurred during Set_Printer STOP32 operation. |Error is ':stat)
end

Return 0
```

Exporting your report to a File

The following program shows how to export a report into PDF, RTF or HTML output. The OIPI does not export into Text files- too much formatting would be lost.

```
Subroutine OIPI_Export_Example(Parent)
/*
-----
This program is proprietary and is not to be used by or disclosed to
others, nor is it to be copied without written permission from Revelation Technologies, Inc.

VERSION      : OI 3.7.5

PURPOSE      : An example program to show how to use OIPI to export reports into
               common file formats

AUTHOR       : Mike Ruane

CREATED      : October, 2001

PROCEDURES   : This module may be called either as a stored procedure or as an internal
               subroutine.

WARNINGS     :

THEORY OF OPERATION :
               Given that the user has already called the START32 message prior to this
               program, this program lets a developer run reports written in Basic+ using the OIPI Pro to
               generate reports into HTML or RTF file formats.

REVISION HISTORY      (Most CURRENT first) :

    DATE      IMPLEMENTOR      FUNCTION
    -----
    MM-DD-YY   initials        Modification

-----*/
DECLARE FUNCTION Set_Printer, Msg
```

```

$INSERT OIPRINT_EQUATES
$Insert Colors

*---
* print to a PDF File
*---
Filename = 'Text Test Print':@FM: '' :@FM: 6 :@FM: 'C:\temp\pdf_file.pdf'

x      = Set_Printer("INIT",FILENAME,','',',5:@VM:@VM:1)
text = 'Export to PDF Example'
x      = Set_Printer("TEXT",TEXT)
For I = 1 To 10
    TEXT = 'Line ':I
    x = Set_Printer("TEXT", TEXT)
Next I
*---
* print a table
*---
table = "1,2,3,4":@fm
table := "5,6,7,8/"
table := "9,10,11,12/"
table := "Row Number 4 - Column Number 1,Row Number 4 - Column Number 2,"
table := "Row Number 4 - Column Number 3,Row Number 4 - Column Number 4"
convert "," to @vm in table
convert "/" to @fm in table

head      = "Column 1":@VM: "Column 2":@VM: "Column 3":@VM: "Column 4"
Column_Defs = "+<2160":@VM: "_^2160":@VM: "~>2160":@VM: "=2160"

x = Set_Printer("TEXT", @FM: "Here's a Table":@FM)
x = Set_Printer("ADDTABLE", Column_Defs, head, table, Red$, Cyan$, 0, TB_ALL)
x = Set_Printer("TERM")

*---
* print to an RTF File
*---
Filename = 'RTF Test Print':@FM: '' :@FM: 1 :@FM: 'C:\temp\rtf_file.rtf'
x      = Set_Printer("INIT",FILENAME,','',',5:@VM:@VM:1)
text = "Export to RTF Example"
x      = Set_Printer("TEXT",TEXT)
For I =1 TO 10
    TEXT = 'Line ':I
    x      = Set_Printer("TEXT", TEXT)
Next I
*---
* print a table
*---
table = "1,2,3,4":@fm
table := "5,6,7,8/"
table := "9,10,11,12/"
table := "Row Number 4 - Column Number 1,Row Number 4 - Column Number 2,"
table := "Row Number 4 - Column Number 3,Row Number 4 - Column Number 4"

convert "," to @vm in table
convert "/" to @fm in table

head      = "Column 1":@VM: "Column 2":@VM: "Column 3":@VM: "Column 4"
Column_Defs = "+<2160":@VM: "_^2160":@VM: "~>2160":@VM: "=2160"

x = Set_Printer("TEXT", @FM: "Here's a Table":@FM)
x = Set_Printer("ADDTABLE", Column_Defs, head, table, Red$, Cyan$, 0, TB_ALL)

```

```

STAT = Set_Printer("TERM")

*---
* Print to an HTML File
*---
Filename = 'HTML Test Print':@FM: ':@FM: 4 :@FM: 'C:\temp\HTMLfile.HTML'
x      = Set_Printer("INIT",FILENAME,','',',5:@VM:@VM:1)
text = "Export to HTML Example"
x      = Set_Printer("TEXT", TEXT)

*---
* Print 10 Lines
*---
For I = 1 TO 10
    TEXT      = 'Line ':I
    STAT = Set_Printer("TEXT", TEXT)
Next I

*---
* print a table
*---
table = "1,2,3,4":@fm
table := "5,6,7,8/"
table := "9,10,11,12/"
table := "Row Number 4 - Column Number 1,Row Number 4 - Column Number 2,"
table := "Row Number 4 - Column Number 3,Row Number 4 - Column Number 4"

convert ", " to @vm in table
convert "/" to @fm in table

head      = "Column 1":@VM: "Column 2":@VM: "Column 3":@VM: "Column 4"
Column_Defs = "+<2160":@VM: "_^2160":@VM: "~>2160":@VM: "=2160"

x = Set_Printer("TEXT", @FM: "Here's a Table":@FM)
x = Set_Printer("ADDTABLE", Column_Defs, head, table, Red$, Yellow$, 0, TB_ALL)

x = Set_Printer("TERM")

x = msg('','Process has completed')

return 0

```

What's this ExportData Message?

Since you can't embed HTML tags in the text you're printing (just use the regular OIPI messages for bold, italic, etc), how can you print graphics or other 'Raw' data in a file that you're exporting to? There's another OIPI message called ExportData that will let you put data, such as a graphic, into an HTML Document. Remember, when testing this program, that some browsers don't display bitmap files correctly.

```

Subroutine OIPI_ExportData_Example(Parent)
/*
  This program is proprietary and is not to be used by or disclosed to
  others, nor is it to be copied without written permission from Revelation Technologies, Inc.

VERSION      : OI 3.7.5

PURPOSE      : An example program to show how to add a graphic to an existing HTML file

AUTHOR       : Mike Ruane

CREATED      : October, 2001

PROCEDURES   : This module may be called either as a stored procedure or as an internal
subroutine.

WARNINGS     :

THEORY OF OPERATION :
      Add a graphic to an already existing HTML file.

REVISION HISTORY      (Most CURRENT first) :

      DATE            IMPLEMENTOR      FUNCTION
      -----            -
      MM-DD-YY        initials         Modification
-----*/
Declare Function Set_Printer, Get_Printer, Msg

Filename = 'HTML Test ':@FM: '':@FM: 2 :@FM: 'C:\temp\EXPORTDATA.HTML'
x      = Set_Printer("INIT",FILENAME,','',',5:@VM:@VM:1)
stat = Set_Printer("TEXT", "This is an HTML test.")
pos = Get_Printer("POS")
y = pos<2>

Bitmap = 'oilogon.bmp'
stat = Set_Printer("BMP", Bitmap, 0:@FM:y)
*---
* the following command supposes that the image is relative to the webserver!
*---
stat = Set_Printer("EXPORTDATA", '<IMG SRC="/OIOLOGON.BMP">')
stat = Set_Printer("TERM", 1) ;* End printing
x = msg(Parent, 'Process has completed')
return ''

```

(For Netscape users, some versions of Netscape won't display bitmaps. Try a GIF or JPG)

Conclusion

And that's it! As we said in the opening paragraph, OIPI is a tremendously powerful. We've outlined only one of the features available, the exporting to files. We encourage you try some of the example programs included in the OIPI, or to take a look at S/List from Sprezzatura at http://www.sprezzatura.com/slist2_0.htm The S/List output is generated by OIPI.

Take advantage of all the output power embedded in the OIPI- try it today!