

## PrintNotebook

**PrintNotebook** [*flags*] *notebookName*

The PrintNotebook operation prints the named notebook window.

### Parameters

*notebookName* is either `kwTopWin` for the top notebook window, the name of a notebook window or a host-child specification (an `hcSpec`) such as `Panel0#nb0`. See **Subwindow Syntax** on page III-92 for details on host-child specifications.

### Flags

<code>/B=hiResMethod</code>	<i>Macintosh only</i> ; this flag has no effect on Windows.
<code>hiResMethod=1:</code>	Print HiRes PICTs using high resolution bitmaps.
<code>hiResMethod=0:</code>	Don't print HiRes PICTs using high resolution bitmaps.
<code>hiResMethod=-1:</code>	Print using the default method. Prints HiRes PICTs using high resolution bitmaps and is the same as method 1.
<code>/P=(startPage,endPage)</code>	Specifies a page range to print. 1 is the first page.
<code>/S=selection</code>	Controls what is printed.
<code>selection=0:</code>	Print entire notebook (default).
<code>selection=1:</code>	Print selection only.

### Details

If no `/B` flag is given, the default method of handling HiRes PICTs is used (`/B=1`). Printing of HiRes PICTs is not well supported on the Macintosh, so by default it prints them using temporary high resolution bitmaps. If a future version of the Mac OS improves in this respect, we will change the default method to print directly.

### See Also

Chapter III-1, **Notebooks**.

The **PrintSettings**, **PrintGraphs**, **PrintTable** and **PrintLayout** operations.

## PrintSettings

**PrintSettings** [`/I` `/M` `/W=winName`] [`copySource=source`, `orientation=o`, `margins={left,top,right,bottom}`, `scale=s`, `colorMode=m`, `getPrinterList`, `getPrinter`, `setPrinter=printerNameStr`, `getPageSettings`, `getPageDimensions`]

The PrintSettings operation gets or sets parameters associated with printing, such as a list of available printers or page setup information for a particular window.

An exception is the `graphMode` and `graphSize` keyword pair which affect printing of all graphs. This pair was added in Igor Pro 7.00.

Prior to Igor Pro 7.00, PrintSettings applied to a page layout affected the size and orientation of the layout page. In Igor Pro 7.00 and later, the size and orientation of the layout page are independent of print settings. See **Page Layout Page Sizes** on page II-478 for details.

When getting or setting page setup information, PrintSettings acts on a particular window called the destination window. The destination window is the top graph, table, page layout, or notebook window or the window specified by the `/W` flag.

PrintSettings can not act on page setup records associated with the command window, procedure windows, help windows, control panel, XOP windows, or any type of window other than graphs, tables, page layouts, and notebooks.

The PrintSettings operation services the keywords in the order shown above, not in the order in which they appear in the command. Thus, for example, the `getPageSettings` and `getPageDimensions` keywords report the settings after all other keywords are executed.

## PrintSettings

### Flags

/I	Measurements are in inches. If both /I and /M are omitted, measurements are in points.
/M	Measurements are in centimeters. If both /I and /M are omitted, measurements are in points.
/W= <i>winName</i>	Acts on the page setup record of the graph, table, page layout, or notebook window identified by <i>winName</i> . If <i>winName</i> is omitted or if <i>winName</i> is "", then it used the page setup for the top window.

### Keywords

colorMode= <i>m</i>	Sets the color mode for the page setup to monochrome ( <i>m</i> =0) or to color ( <i>m</i> =1). This keyword does nothing on Macintosh because it is not supported by Mac OS X.
copySource= <i>source</i>	Copies page setup settings from the specified source to the destination window. <i>source</i> can be the name of a graph, table, page layout, or notebook window or it can be one of the following special keywords: Default_Settings: Sets the page setup record to the default for the associated printer as specified by the printer driver. Factory_Settings: Sets the page setup record to the WaveMetrics factory default. This is the page setup you get when creating a new window with user preferences turned off. Preferred_Settings: Sets the page setup record to the user preferred page setup. This is the page setup you get when creating a new window with user preferences turned on. Because there is only one page setup for all graphs and one page setup for all tables, this has no effect when the destination window is a graph or table. It does work for layouts and notebooks.
getPageDimensions	Returns page dimensions via the string variable S_value, which contains keyword-value pairs that can be extracted using <b>NumberByKey</b> and <b>StringByKey</b> . See <b>Details</b> for keyword-value pair descriptions.
getPageSettings	Returns page setup settings in the string variable S_value, which contains keyword-value pairs that can be extracted using <b>NumberByKey</b> and <b>StringByKey</b> . See <b>Details</b> for keyword-value pair descriptions.
getPrinter	Returns the name of the selected printer for the destination window in the string variable S_value. On Macintosh the returned value will be "" if the setPrinter keyword was never used on the destination window. This means that the window will use the operating system's "current printer".
getPrinterList	Returns a semicolon-separated list of printer names in the string variable S_value. Mac OS X: Returns a list of printers added through Print Center. Windows: Returns the names of any local printers and names of network printers to which the user has made previous connections.
graphMode= <i>g</i>	Sets the printing mode for graphs: 1: Fill page 2: Same size 3: Same aspect ratio 4: Custom size as set by graphSize keyword 5: Same size or shrink to fit page (default)  The graphMode keyword was added in Igor Pro 7.00.
graphSize={ <i>left, top, width, height</i> }	

Sets the custom graph size used when graphMode is 4. Parameters are in points unless /I or /M is used.

Invoking the graphSize keyword automatically sets the graphMode to 4.

*left* and *top* are clipped so that they are no smaller than the minimum allowed by the printer driver. *width* and *height* are not clipped.

This setting is not saved and is set to a default value when Igor starts.

The graphSize keyword was added in Igor Pro 7.00.

margins={*left, top, right, bottom*}

Sets the page margins. Dimensions are in points unless /I or /M is used.

This setting is ignored for notebook windows. Use the Notebook operation pageMargins keyword instead.

The margins are clipped so that they are no smaller than the minimum allowed by the printer driver and no larger than one-half the size of the paper.

The terms *left*, *top*, *right*, and *bottom* refer to the sides of the page after possible rotation for landscape orientation.

Passing zero for all four margins sets the margins to the minimum margin allowed by the printer.

On Macintosh only, passing -1 for all four margins sets the margins to whatever minimum margin is allowed by the printer, even if the printer is changed later. This is how Igor Pro behaved on Macintosh prior to the creation of the PrintSettings operation, when the minimum printer margins were always used.

orientation=*o*

Sets the paper orientation to portrait (*o*=0) or to landscape (*o*=nonzero).

scale=*s*

In Igor Pro 7 and later, the scale keyword returns an “unimplemented” error, unless *s*=100, because it is currently not supported. Let us know if this feature is important to you. Though *s*=100 does not generate an error, it does nothing. You can still set the scaling manually using the Page Setup dialog.

setPrinter=*printerNameStr*

Sets the selected printer for the destination window.

SetPrinter attempts to preserve orientation, margins, scale, and color mode but other settings may revert to the default state.

*printerNameStr* is a name as returned by the getPrinterList keyword and may not be identical to the name displayed in various dialogs. For example, on Mac OS X, the printer name “DESKJET 840C” is returned by getPrinterList as “DESKJET\_840C”. The latter is the “Queue Name” displayed by the Mac OS X Print Center or Printer Setup Utility programs.

If *printerNameStr* is “”, the printer for the destination window is set to the default state. This means different things depending on the operating system:

Mac OS X: The destination window will use the operating system’s “current printer”, as if the setPrinter keyword had never been used.

Windows: The destination window will use the system default printer.

If you receive an error when using setPrinter, use the getPrinterList keyword to verify that the printer name you are using is correct. Verify that the printer is connected and turned on.

Windows printer names are sometimes UNC names of the form “\\Server\Printer”. You must double-up backslashes when using a UNC name in a literal string. See **UNC Paths** on page III-451 for details.

## PrintSettings

### Details

All graphs in the current experiment share a single page setup record so if you change the page setup for one graph, you change it for all graphs.

All tables in the current experiment share a single page setup record.

Each page layout window has its own page setup record.

Each notebook window has its own page setup record.

The keyword-value pairs for the getPageSettings keyword are as follows:

Keyword	Information Following Keyword
ORIENTATION:	0 if the page is in portrait orientation, 1 if it is in landscape orientation.
MARGINS:	The left, top, right, and bottom margins in points, separated by commas. These margins are ignored for notebook windows. Use the Notebook operation pageMargins keyword instead.
SCALE:	The page scaling expressed in percent. 50 means that the graphics are drawn at 50% of their normal size.
COLORMODE:	0 for black&white, 1 for color. This is not supported on Macintosh and always returns 1.

The keyword-value pairs for the getPageDimensions keyword are as follows:

Keyword	Information Following Keyword
PAPER:	The left, top, right, and bottom coordinates of the paper in points, separated by commas. The top and left are negative numbers so that the page can start at (0,0).
PAGE:	The left, top, right, and bottom coordinates of the page in points, separated by commas. The term page refers to the part of the paper inside the margins. The top/left corner of the page is always at (0, 0).
PRINTAREA:	The left, top, right, and bottom coordinates of the page in points, separated by commas. The print area is the part of the paper on which printing can occur, as determined by the printer. This is equal to the paper inset by the minimum supported margins. The top and left are negative numbers so that the page can start at (0,0).

### Examples

For an example using the PrintSettings operation, see the PrintSettings Tests example experiment file in the "Igor Pro Folder:Examples:Testing" folder.

Here are some simple examples showing how you can use the PrintSettings operation.

```
Function GetOrientation(name)      // Returns 0 (portrait) or 1 (landscape)
    String name                  // Name of graph, table, layout or notebook

    PrintSettings/W=$name getPageSettings
    Variable orientation = NumberByKey("ORIENTATION", S_value)
    return orientation
End

Function SetOrientationToLandscape(name)
    String name                  // Name of graph, table, layout or notebook

    PrintSettings/W=$name orientation=1
End

Function/S GetPrinterList()
    PrintSettings getPrinterList
    return S_value
End

Function SetPrinter(destWinName, printerName)
    String destWinName, printerName

    PrintSettings/W=$destWinName setPrinter=printerName
    return 0
End
```