FinalCalc.hyper

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1.2 Introduction to Printing...

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FinalCalc allows you to print data or graphs from the current project to a
printer as one or more pages.  This is done as a three step process:

1.  Define a Print Job:
   A Print Job is a definition of what to print (a sheet range or a graph)
   and how to print it.  (number of pages, formatting, grid, margins, etc.)
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2. Define Printer Type and Output Destination:
   Define the type of printer to print to (Postscript printer, HP Laserjet,
   Preferences, or a text-only printer) and the system address for that
   printer (PRT:, SER:, PAR: or a file).

3. Print:
   Do the print. FinalCalc sends the print job to a local print spooler that
   does the print job in the background.

1.3   Print Jobs...

              Print Jobs:

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1.4   Print Jobs List...

Print Jobs List:
A 'Print Job' is a definition of what to print (either a data range or a graph
from the current project), and how to print it (number of pages, formatting,
grid, margins, etc.)

FinalCalc allows you to define multiple print jobs in a project. This makes
it easy to build many different print outs (or reports) and to access them
quickly and easily.

Print Jobs can also be printed in batches, where you select a number of print
jobs to print in a specific sequence, or all the print jobs in the project,
allowing sequencing of page numbers across the jobs.

The Print Jobs requester controls all aspects of Print Jobs. It shows a list
of all Print Jobs currently defined. From it, you can do the following
actions:

- Define a new print job:
  Click on the 'New' button. This will create a new print job and then allow
  you to define it. If the current project has graphs defined, you will be
  asked whether you want a graph or a sheet data print job. A Sheet Print Job
  defaults to the currently highlighted range on the current sheet.

- Edit a print job:
  Click on the 'Edit' button. This will bring up the 'Edit Print Job'
  requester, which allows you to edit the print job parameters.

- Clone a print job:
  Click on the 'Clone' button. This will create a copy of the selected job
  with ".copy" added to its title.

- Delete a print job:
  Click on the 'Delete' button. Removes the selected job from the jobs list.

- Select multiple jobs for printing:
  The 'select', 'deselect', 'all' and 'clear' select and deselect jobs for
  printing. To select a job for printing, click on the 'Select' button. It
  will show as '(selected)' in the print jobs list. To deselect a job, use
  the 'Deselect' button. The 'All' button selects all jobs, and the 'Clear'
  button clears all selections.

- Rearrange print jobs order:
  The 'up', 'down', 'top' and 'bottom' buttons move the current job up, down,
  to the top, or bottom of the print jobs list. This allows you to set the
  order in which they will be printed if multiple jobs are selected.

- Print a job:
  Click on the 'Print' button. This will print the selected job(s). If no
  jobs were selected, then the currently highlighted job will be printed.
  The 'Print' requester will come up to allows you to define printer type
  and destination, along with other print settings.

- Preview a job:
  Click on the 'Preview' button. This will show you a preview of what the
  currently selected print job will look like on paper.

1.5 The Print Job...

                    The Print Job

The Print Job is a collection of settings that control how your data will
be printed. The 'Edit Print Job' requester controls those settings.

Print Job Settings:

- Paper Size and Type:
  The Paper Size is defined as the paper's width and height in inches. You
  can either directly enter those values, or use the Paper Type definition
  to select a standard paper size. Click on the 'Pick' button and you will
  get a list of standard paper sizes to select from.

  The Default paper size, when selected, will use the paper size defined in
  your global print settings. This will also disable the paper width and
  height gadgets, but will show the default value in them. If you need to
  enter direct values in those gadget again, select any other standard paper
  type to re-enable them.

- Print Margins:

The print margins are defined as the distance (in inches) from the sides of the paper to the actual printing area. You can define the left, right, top and bottom margins.

- Default Font Size:
  The default font size is the basic width and height of the default font to use for printing. It is defined as CPI (characters per inch) and LPI (lines per inch). The default values for those are 10 CPI and 6 LPI. Changing these values effectively scales all the print job. It is recommeneded, however, that you use the Zoom Ratio controls instead for fine control over job width and height scaling.

- Zoom Ratio:
  The zoom ratio allows you to scale the print output in the X (width) and Y (height) directions. The default value for these is 1, which means that the scale used will be exactly the size defined in the Default Font Size CPI and LPI (as described above). Changing it to a value less than 1 will shrink the output in the selected direction. Changing it to a value larger than 1 will expand the output in the selected direction.

  The X (width) and Y (height) zoom ratios have Locks. The default mode is to have them both locked.

  If they are unlocked, the zoom ratios are automatically adjusted before printing the job to fit the number of pages wide and high as specified by the user and displayed in the Print Estimates. This allows you, for example to insert and delete rows, change column widths, etc., and still have the number of pages wide and high stay the same for the print job. FinalCalc will rescale the output as necessary to get the number of pages requested.

  When you edit either zoom ratio, that ratio's lock is automatically activated. This prevents the automatic 'autofit' being applied to the print job when printing it. Using 1 Page AutoFit or Range AutoFit turns the locks off.

  You can also have only one of the locks active, e.g. if you have Width (X) lock unlocked and Height (Y) locked, you can force the print job to be always 1 (or more) pages wide and as many pages high as the job requires.

- Auto-Fit:
  The AutoFit feature calculates the correct X and Y zoom ratio values (as defined above) that would make the current print job fit in a specified number of pages.

  To use AutoFit, click on the '1 Page' button and X and Y zoom ratios will be changed to values that will make the print job fit in one page. The X and Y locks will also be unlocked.

  If you want to set a specific number of pages wide and high, click on the 'Range' button and enter the numbers in the 'AutoFit Multiple Pages' requester.

- Data Range to Print:
  Defines the source of the data to printed. This should be defined as a spreadsheet range. This can be a normal range (e.g. A1:Z100), a range name (e.g. SALES), or a 3D range reference (e.g. B_A1:B_Z100) If it contains more

   than one sheet, the print job will only use the first sheet in the specified
   range.

– Sideways Printing:
   A Print Job can be set to print in 'sideways' mode. i.e. the page will be
   printed in a landscale format. The 'Sideways' button toggles this mode
   between off (portrait) and on (landscape) print orientation.

– Output Estimates:
   As you edit the print job, the 'Output Estimates' box in the requester will
   constantly show you FinalCalc's current estimates of what the job will look
   like. It shows the number of characters per line, number of lines per page,
   and total pages that job will result in, and how many pages wide and high
   the job currently is.

– Page Headers and Footers:
   A Page Header is a single line that gets printed at the top of each page in
   the print job. You can define the header by clicking on the 'Header' button.
   The header consists of three strings, left, center, and right. These
   strings are placed to the top left, top center, and top right of the page.

   Simply enter a string in any of the three gadgets. You can enter any text
   you like. Special tokens (that start with a % sign) are replaced by specific
   entries like the current date, time or page. Appendix 5 contains a full
   description of these tokens. To access a list of these tokens in FinalCalc,
   click in the [?] gadget next to the header string gadgets. This will bring
   up the 'Edit Header/Footer String' requester, which allows you to directly
   paste tokens into the header strings.

   The 'Edit Header/Footer String' requester shows you the tokens available and
   a simple description of each. To use it, simply select the token you need
   and click on 'Add' to add the token to the string. The 'Delete' button
   the last word in the string, and the 'Clear' button clears the entire string.
   As you edit the string, it is evaluated and a sample output of what the header
   will look like is shown below the string entered.

   When you are done with the requester, click on 'Paste' to enter the string
   back into the Edit Header requester.

   The Page Footer is identical to the Page Header except that it is printed at
   the bottom of every page. To access it, click on the 'Footer' button in the
   Edit Print Job requester.

– Page Titles:
   Page Titles are columns that appear at the left or right of every page,
   or rows that appear at the top or bottom of every page in the print job.
   To define Page Titles, click on the 'Titles' button in the Edit Print Job
   requester. The 'Edit Page Titles' requester will come up. In it, you can
   define the following:

   Top:
   The start and end row of the provided range are used to define the
   titles range. These titles are printed at the top of each page.

   Bottom:
   The start and end row of the provided range are used to define the
   titles range. These titles are printed at the bottom of each page.

Left:
The start and end column of the provided range are used to define the
titles range. These titles are printed at the left of each page.

Right:
The start and end column of the provided range are used to define the
titles range. These titles are printed at the left of each page.

In all the above, you must enter a sheet range, (e.g. A1:B1 or A1:A10).
Column Titles (left and right) ignore the row number in the range, and Row
titles (top and bottom) ignore the column number in the range.

Page titles support 3D ranges (e.g. A_A1:A_B1), so you can have titles from
different sheets. Note, however, that FinalCalc uses the column widths from
the sheet the main data range is on, not the specified titles ranges in order
to keep the printing aligned.

– Column and Row Grid:
  The Column and Row Grid is a thin dotted line that is drawn between columns
  and/or rows. The grid is controlled by the 'Show Column Grid' and 'Show Row
  Grid' toggle gadgets in the 'Other Print Job Settings' requester, which is
  called by the 'Other' button in the Edit Print Job requester.

– Column and Row Names:
  You can have the name of each column (e.g. A, B, AZ) printed at the top of
  the page, or the number of each row printed at the left of each page by
  turning on the 'Show Column Names' and 'Show Row Names' options in the
  'Other Print Job Settings' requester.

  If a column has a title, the then title of that column will show up instead
  of its name.

– Ignore Sheet Format:
  By default, the print job will duplicate all the sheet data's format. You
  can, however, force it to ignore some of the sheet's format. The following
  sheet format objects can be set to 'ignore':

  Lines:
  Ignores Lines and Borders when printing.

  Fonts:
  Different font types and sizes will be ignored, only the default
  font will be used.

  Styles:
  Text styles will be ignored. This includes bold, italics, reverse
  and shaded cells. (Underline is not ignored)

  Colors:
  Print all cells in the default color.

– Show Margins:
  The Show Margins option (accessed from the Edit Other Print Job Settings
  requester) prints dotted lines across the margins in each page allowing
  you to see where the margins are and what the visible 'print area' of your
  printer is. The header and footer margins are also shown.

- Page Numbering:
  The current page number is a running count of the current page being printed
  in a print job. It can be shown on a page in its header and footer as
  described in the
                  Page Headers and Footers
                    section.

  The default numbering starts at page 1 for the first page printed in a job
  and is incremented by 1 for each page. FinalCalc allows you to control
  what the page number starts at and how it is incremented using the following
  print job settings: (All these settings are in the 'Edit Other Print Job
  Settings' requester)

- Start Numbering at:

  This defines the first page number for the job. It defaults to 1. This
  value can be automatically adjusted by FinalCalc in two situations:

  1. The Print Page Offset number in the 'Print' requester is
      set to a number other than 0. This offset will be added
      to the start page number.

  2. Multiple print jobs are selected for printing. The total
      number of pages printed in the jobs previous to this one
      will be added to the start page number.

- Page Count Step:

  The Page Count Step defines the step that is added to the page count every
  time it is incremented. This defaults to one page, unless changed by
  the Page Count Increment Options (as described below).

  For example, if the first page number is 1, and the Page Count Step is set
  to 2, the page numbers will be 1, 3, 5, 7, 9, etc.

- Page Count Increment Control:

  The Page Count Increment Control defines when and if the page count is
  incremented. It defaults to incrementing at the end of every page. The
  following options are available:

  1. Every Page:
      Increments the page number after every page printed.

  2. Every Page 'High':
      Increments only at the end of a series of pages 'wide'.
      e.g. if a print job prints 2 pages wide by 3 high, the page
      count will only be incremented after the 2nd, 4th and 6th page.

  3. End of job only:
      Increments page count at the end of the job only. This works
      with the 'Sequence page numbers across jobs' option.

  4. Never:
      The page count is never incremented.

- Postscript Include File:
  The Postscript Include File is a PostScript (PS) file that is inserted into
  each page in the current job. The PS file is executed before FinalCalc
  renders its own page. This allows you to print company logos, background
  images, specialized images, etc. The PS file can be in Encapsulated
  Postscript (EPSF) format.

  To set the Postscript Include File, click on the 'Include' button in the
  Edit Print Job requester, you will get the 'Edit Page Include File' requester
  (show above) and then enter the name of the PS file to include in the Include
  File gadget.

  You can also scale, shift and rotate the included PS image to make it
  fit in your page.

  Scale X:
  Scales the include image to a smaller or larger size horizontally.
  e.g. 2 makes it twice the size, 0.5 makes it half the size.
  Using a negative scale value, e.g. -1, reverses the image.
  Note that after scaling, it is often necessary to use the Shift
   values below to get the image into the required position on the page.

  Scale Y:
  Scales the include image to a smaller or larger size vertically.
  e.g. 2 makes it twice the size, 0.5 makes it half the size.
  Using a negative scale value, e.g. -1, reverses the image.
   Note that after scaling, it is often necessary to use the Shift
  values below to get the image into the required position on the page.

  Shift X:
  Moves the image horizontally by X inches. e.g. -1 shifts the image
  one inch to the left, 0.5 shifts the image half an inch to the right.

  Shift Y:
  Moves the image vertically by X inches. e.g. -1 shifts the
  image one inch to the top, 0.5 shifts the image half an inch
  to the bottom.

  Rotate:
  Rotates the image. Takes the number of degrees to rotate the
  image on the page. (from 0 to 359 degrees).

1.6   Printing a Print Job...

                   Printing a Print Job:
To print a print job, select the job in the
                   Print Jobs
                    requester. Next, click
on the 'Print' button. The Print requester will come up. Select your printer
type, output destination, and other print settings. Next, click on the
'Print' button. A status window will come up while the job is being built
and then sent to the
                   Print Spooler
                   . You can abort the print job as long as

the status window is still up by hitting the Escape key or clicking on the
'Abort' button. Once the status window goes, the job is then handled by
the spooler. To abort it at that point, use the spooler's Abort button.

To print multiple jobs, select all the jobs you want to print in the Print
Jobs requester and then click on 'Print'.

1.7 Graph Print Jobs...

Graph Print Jobs:
A Graph Print Job is a print job that prints a single graph on a single page.
To add a Graph Print Job simply use the Print Jobs requester and hit 'New'.
If any graphs have been defined in the current project, you will be asked if
you want to add a normal Job or a Graph Print Job.

In the Print Job requester, graph jobs have "(graph)" appended to their
name and act exactly like Sheet Data Print Jobs except for the following
differences:

- Editing a Graph Print Job brings up the Edit Graph Print Job requester.
  You have to define the name of the graph to attach to the print job here.

- All graph jobs are printed as one page.

- You cannot print a Graph in Text Only mode.

- Several Settings in the 'Other Print Job Settings' requester are not
  available since these only apply to normal Jobs.

If the Graph name defined in the Graph Print Job is not a valid graph name or
was not defined, FinalCalc will complain when you try to print the job.

1.8 Printers & Print Settings...

Printers & Print Settings:

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The Print Requester

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Printer Types

>
B&W, Grayscale & Color Printing

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Print Colors

>
Default Paper Size

1.9   The Print Requester...

FinalCalc directly supports PostScript and LaserJet printers as well as the
normal Preferences printer drivers. You can select the printer type from
the Print requester, which controls the printer type and other print settings.
It is called by hitting the 'Print' button in the 'Print Jobs' requester to
print a job or jobs.

The Print Requester:

The Print requester comes up in two different modes, depending on whether one
or multiple jobs have been selected for printing.

The Print Requester controls the following settings:

– Printer Type:
  The type of printer connected to your system.

– Printer Options:
  Specific options for the selected printer type. This is available for
  Preferences and HP Laserjet printers only.

– Color Mode:
  Print the job in black & white, grayscale or color mode.

– Output Path:
  The system device or file to send the print output to. This can be any valid
  system device or file name.

  The Output Path can be a real printer attached to the SER: or PAR: ports, or
  any file name. If no output is defined, the user is asked for the
  destination when the print job is actually printed.

  The Output Path is ignored when printing to a Preferences printer. The
  output in that mode is always sent to the printer selected in Preferences.

  When directing output to a file, note that the output is real printer codes
  when either Postscript or HP LaserJet printers are selected, and ASCII text
  when Text Only is selected.

– Number of copies:
  The number of copies to print of each page in the job.

– Range of pages to print:
  By default all pages are printed in the job. If you set this mode to Range,
  and enter start and end page numbers in the 'From' and 'To' gadgets, only the
  selected range of pages in the job will be printed.

– Page Number Offset:
  This is a fixed number that is added to all page numbers being printed. It
  defaults to zero.

– Sequence Page Numbers Across Jobs: (only in multiple-job mode)
  By default, the starting page number for each job is the one defined
  in the job's settings. If the Sequence Page Numbers Across Jobs is
  turned on, however, page numbering will continue across jobs, i.e.

if job 1 ends at page 11, job 2 will start at page 12.

Note that the the Starting Page Number defined in the print job defintion
is always added to the current page number, minus one. Thus, if you start
numbering at page 20, for example, all jobs starting with the current one
onwards will be affected by that, thus the starting page number is additive
when sequence page numbers is on.

– Output All Jobs To Single File: (only in multiple-job mode)
  By default, if multiple jobs are printed to a file, multiple files are
  generated using the filename plus a ".001" ending. In Text Only mode,
  however, if you turn Output All Jobs To Single File option on, all
  the output will be sent to a single file. (This option is of no real
  use in modes other than Text Only and it is ignored by those modes.)

Once the print settings are confirmed, you can do one of the following actions:

– Hit the 'Print' button. This sends the job(s) to the print spooler, which
  then sends it to the Output destination selected.

– Hit the 'Exit' button. No printing is done, but the settings are stored.

– Hit the 'Preview' button. A preview of what the job will look like is
  shown on the screen.

1.10   Printer Types...

Printer Types:

There are 4 printer types that can be selected:

1. Preferences Printer:
    The current printer selected in the Workbench Printer Preferences. All
    printing is done as a graphics dump and is affected by the Preferences
    PrinterGfx settings.

    The 'Options...' button in the Print requester allows you to set the print
    density (from 1 – 7). The exact meaning of the density depends on the
    currently selected preferences printer driver.

    The job is always sent to the currently selected output port in Preferences.
    This is normally the serial or the parallel port.

    If the selected preferences printer driver supports color output, setting
    the print mode to Color (from the Print requester) will send a color
    printout to the printer.

2. Text Only:
    Prints out the print job as simple ASCII text with no special formatting
    other than the use of spaces to align cells. A form-feed character is sent
    after every page.

    The output is sent to the destination selected in the 'Output' gadget in
    the Print requester. This can be a file or a printer.

3. Postscript Printer:
    Prints to any printer that supports the Postscript page description language.

    The output is sent to the destination selected in the 'Output' gadget in
    the Print requester. This can be a file or a printer.

    The output is formatted as Postscript Level 2 output. The output has the
    traditional Level 2 postscript header. This makes the output postscript
    files easier to import into other programs.

    If the print mode is set to Color (from the Print requester), FinalCalc will
    print the job in color. If the printer does not support color, it will show
    the printout in grayscale. You must have a Level 2 Postscript printer to
    use Color mode. Level 1 Postscript printers do not support the color
    commands and will most likely ignore the entire job.

4. LaserJet printers:
    Prints to any printer that supports Hewlett Packward LaserJet or DeskJet
    printer command language.

    The output is sent to the destination selected in the 'Output' gadget in
    the Print requester. This can be a file or a printer.

    The 'Options...' button in the Print requester allows you to set the type
    of printer (Deskjet, Laserjet II, Laserjet IIp, Laserjet III, Laserjet 4L,
    or Laserjet 4), and density of printout in dots-per-inch (75, 100, 150, 200,
    300 or 600).

    This mode does not support color printouts. If you want to print on a
    color HP printer, use the Preferences setting.

Generally, the best printer type is Postscript if you have a printer that
supports Postscript. FinalCalc internally generates its output in Postscript
and then converts it to a format acceptable to Preferences and Laserjet
printers. This conversion process takes some time. Printing to a Postscript
printer does not need this conversion process, and is very quick.

1.11   B&W, Grayscale & Color Printing...

BW, Grayscale & Color Printing...

The Color mode in the Print requester selects how colors in a print job are
handled.

– B&W mode:
  All objects in the print job are printed as black. The color of the objects
  is ignored.

– Grayscale mode:
  Objects in the print job are printed as a selected shade of gray based on
  their color's value. The actual grayscale value used is defined by the
  Print Colors setting, as decribed below.

– Color mode:
  Objects in the print job are printed in the color they were set to in the
  project. The actual color values used are defined by the Print Colors
  settings, as described below.

1.12   Print Colors...

Print Colors:

When FinalCalc prints in Grayscale or Color modes, it decides the grayscale
level or color value of each cell in the project as its prints it based on
a conversion table of screen to printer colors. This list can be edited
by the user.

To access this list, use the 'Settings – Print – Print Colors' menu. It
will bring up the Printer Colors requester. It allows you to control how
colors are printed on a printer. Select a color to edit, and the Edit Print
Color requester comes up.

From this, you can set the mixture of CYMK (cyan, yellow, magenta, and black)
for the selected color, as well a Gray, which is a percentage of black that is
used when printing in Grayscale mode.

1.13   Default Paper Size...

Default Paper Size:

The Default Paper Size is defined as the width and height of the printer
paper in inches. It is used by all print jobs that are set to the
'Default' size. It makes easier to share projects between different paper
types without having to manually change the paper type in every print job.

To set the Default Paper Size, use the 'Settings – Print – Default Paper Size'
menu. It will bring up the Default Paper Size requester.

To set a print job to the Default Paper Size, use the Pick gadget in the Edit
Print Job requester and select 'Default'. The width and height gadgets
will show the default size and will be disabled. The current paper size
will be shown as 'Default'.

1.14   Outline Fonts...

                    Outline Fonts:

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1.15   What are Outline Fonts?...

What are Outline Fonts?

An Outline Font is a file that describes how a printer font looks like.
FinalCalc uses outline fonts when printing in order to achieve the best
print quality possible on your printer.

FinalCalc supports several different types of outline fonts. To use an
outline font, it must be placed in one of the directories pointed to by
your Outline Fonts Paths.

FinalCalc uses normal Amiga bitmap fonts (the ones font in the FONTS:
directory) for its display, and it has a 'translation table' that tells it
what Outline font to use for each Amiga bitmap font when printing.

Outline Fonts are used in the following actions:

a. Printing to a Preferences or a Laserjet printer.
b. Previewing a print job.
c. Printing a font that doesn't exist in a Postscript printer.

1.16   Types of Outline Fonts Supported...

Types of Outline Fonts Supported:

FinalCalc supports the following types of outline fonts:

a. Softwood Font Files (in Nimbus-Q format). These are the fonts included in
    the FinalCalc release disks. More font sets are available from Softwood.

b. Postscript Type1 and Type 3 fonts:
    These are standard Postscript font files. FinalCalc can handle ASCII and
    binary formats of these fonts as well as encoded fonts.

c. Macintosh ATM font files.

1.17   Outline Font Paths...

Outline Font Paths:

FinalCalc looks for its Outline Fonts in the Outline Font Paths. These define
places on your system where the outline fonts are stored.

To edit your Outline Font Paths, use the 'Settings – Print – Outline Fonts Paths'
menu. This will bring up the 'Outline Fonts Paths' requester.

You can define up to three different locations. These are searched in
order to find a font. You can also define an extension that is appeneded to
the font name when looking for the font. For example, most Postscript Type 1
fonts come have an extension of ".PFB". You simply define the extension for
this path as ".pfb" and FinalCalc will be able to see the fonts in that
directory.

The names of the files in the Fonts Paths must match the font name they
contain. For example, if a font is named 'Helvetica', the name of the file
that contains the font must have the same name, or the same with with the
defined extension for the path the file is in. FinalCalc will attempt to
repair name conflicts if it can by renaming the file. This means you can
can simply drop MS-DOS fonts into an outline font path without having to
rename them and FinalCalc will fix them into the correct file names.

If you need more than 3 paths for your outline fonts, you can use the AmigaDOS
multiple assign feature to assign multiple paths to a single assign. For
example: The Shell command "Assign FCFONTS: path1 path2 path3" will make
a single assign name FCFONTS: that contains three paths. You can then use
FCFONTS: as one of your Outline Font Paths and all of its sub-paths will be
scanned by FinalCalc.

1.18   Outline Fonts List...

Outline Fonts List:

The Outline Fonts List is the translation list FinalCalc uses to decide which
outline font to use for each display font. To access this font, use the
'Settings – Print – Outline Fonts List' menu. The 'Outline Fonts List'
requester will come up.

The requester shows the translation list. From it you can do the following
actions:

– Edit a translation list entry.

– Define a new translation list entry.

– Delete an entry.

– Save the translation list to your configuration. The list will then be
  used in future FinalCalc sessions.

1.19   Editing an Outline Fonts List Entry...

Editing an Outline Fonts List Entry:

The 'Edit Outline Font' requester edits an Outline Fonts List entry. Each
entry contains the following settings:

a. Amiga Font Name:
    This is the name of the Amiga bitmap font. This is the base name of the
    entry, and the entry is used to replace this display font with the outline
    font defined in this requester.

b. Postscript Printer Font Names: (Box 1)
    This defines the font names to replace for the bitmap font when printing
    to a Postscript printer. These names can be fonts in the Outline Fonts
    Paths, or printer built-in fonts.

    The font names define the 4 forms of the font: Normal, bold, italic, and
    bold/italic.

    The 'Download' toggle switch decides whether the font is downloaded to
    the printer or not during printer. If the font selected is not a resident
    printer font, (i.e. it is in the Outline Fonts Paths), the Download toggle
    MUST be set to ON.

c. Preview/Preferences/Laserjet Font Names: (Box 2)
    This defines the font names to replace for the bitmap font when printing to
    a Preferences or Laserjet printer, or when Previewing a print job.

    The font names define the 4 forms of the font: Normal, bold, italic, and
    bold/italic.

The requester also contains several 'tool' gadgets that aid in entering its
contents:

- Paste Outline Font button:
  The Paste Outline Font button is the [?] button next to each font name entry.
  It brings up the 'Paste Outline Font' requester (described in 6.3.5 below)
  which allows you to paste a font name from the Outline Fonts Paths into the
  gadget it is attached to.

- Copy:
  Copies the four font names from Box 1 (the Postscript Printer box) to Box 2
  (the Prefs/Laserjet/Preview Font Names box) or vice-versa.

- Fill:
  Reads the first font name in the box (the 'normal' font) and scans the
  fonts paths to find the bold, italic and bold/italic formats of the font.
  If font names are found that look like the bold, italic and bold/italic forms
  of the selected font, they are filled into the box. If the name in the
  'normal' gadget was not the base form of the font and the base form of the
  font was found, that is replaced with the correct name, too.

  The first time Fill is used, the Font Paths are scanned to read the Outline
  Fonts list.

– View:
  Shows a preview of what the font looks like. It will show one or more forms
  of the font. You can abort the preview at any time by hitting the Escape
  key.

1.20   Paste Outline Font Requester...

Paste Outline Font Requester:

The 'Paste Outline Font' requester is called when the [?] button next to an
outline font name is used in the 'Edit Outline Font' requester.

The requester's main job is to select a font from the Outline Font Paths into
the [?] gadget that called it. The requester comes up in one of two modes
depending on what [?] gadget called it:

a.   Outline Fonts Paths only:
     In this mode, it shows only the fonts in the Outline Fonts Paths.

b.   Outline Fonts Paths and Adobe standard fonts:
     In this mode, it shows the fonts in the Outline Fonts Paths, plus set of
     standard Adobe fonts names. These are marked with 'Printer Font' in the
     list to identify them.

The first time the requester is called up, it will scan through the defined
Outline Fonts Paths to find the fonts, which might take a while. A status
window is shown while this is happening, showing you the fonts found so far.
The list is buffered, and FinalCalc will not scan the paths again unless the
paths have been changed.

The requester has two other functions:

– Outline Font Preview:
  You can preview any printer outline font installed in the Outline Fonts
  Paths. Just select a font and click on the 'View' button. A screen will
  come up with a font preview that will show the font name and all the
  characters in the font in a table format.

  You can abort the preview at any time by hitting the Escape key.

– Amiga Bitmap Font Builder:
  The Amiga Bitmap Font Builder reads any outline font in the Font Paths and
  builds a standard Amiga font from it and installs it in your Fonts:
  directory. You can select the sizes to generate.

  To use this feature click on the 'Build' button in the Paste Outline Font
  requester. Another requester will come allowing you to define the name for
  font to use, the name for the Amiga font to build, and the sizes to build.

  The process goes through the following steps:

  1. The outline font is read and internally decoded.

2. The characters in the font are scanned and their 'bounding boxes' (the
    physical limits of each characters) are determined.

3. A new sub-directory in Fonts: will be created if necessary.

4. The bitmap fonts are generated size by size. The fonts are then saved
    to the sub-directory under Fonts:.

5. Once all the sizes have been generated, a #?.font file will be generated
    under Fonts: so that the system can access the new font.

    Notes:

a. The font sizes generated are limited to a maximum size of 255.

b. Since this changes your Fonts: directory, any other program that buffers
    the Fonts: directory will need to be informed of the changes.

1.21   Automatic Outline Font Entry Generation...

Automatic Outline Font Entry Generation:

When the user selects a new font for a cell or a format tag, if that font
does not exist in the Outline Fonts List, the user is informed and asked
whether he wants to select another font. If the user insists on that font,
he/she is then asked whether he wants the new font to be added to the
Outline Fonts List, and if he agrees, the Define New Outline Font requester
comes up allowing him to do so.

The user is only warned once that the font selected does not exist in the
Outline Fonts List. After that, using that font again for other cells in
the same project will not cause the warning to come up anymore.

The same is done for any string gadget in any requester that asks for a
font. (e.g. Graph Titles and Legends fonts.)

1.22   Previewing Print Jobs...

Previewing Print Jobs:

Any Print Job can be previewed on the screen before printing. This shows a
very accurate representation of what the print job will look like when it is
printed. To view a Print Job, use the 'Preview' button from the Print Jobs
requester or the 'Preview' button from the Print requester.

The Preview opens up its own screen and starts rendering the page(s). You can
quit at any time during the rendering by hitting the Escape key.

When the rendering is done, you can hit any key or click any mouse button
to exit the preview mode.

Preview Screen Mode:

The Settings Display Preview menu allows you to define the type of screen used
the Print Preview screen. You can select the screen mode, width and height.
These settings can be saved using the Settings Global Save Settings menu.

If you define a width and/or height that is larger than the screen, the screen
can be scrolled around by moving the mouse. This allows for very large preview
screen. (This does require a lot of chip RAM, however.)

A recommended preview screen size is 1100 pixels wide by 800 pixels high. This
gives a good resolution for previewing.

Color Print Preview:

If the Printer mode is set to Color, Print Previews will come up on an 8-color
screen in color. This is generally very close to the color output when
printing to a color printer. Color Print Preview only works if the print
output is one page. If it is more than one page, Preview goes back to B&W mode.

1.23   Page Breaks...

Page Breaks:

A Page Break is a marker on a column or row in the sheet that defines where a
new page starts when printing. The marker is shown as a small dot in the row
or column title in the sheet view.

Page Breaks override the automatic page break mechanism during printing and
forces FinalCalc to break pages according to the user's selection.

Setting & Clearing Page Breaks:

Any column or row in a sheet can be set as a 'break'. This defines it as
a vertical or horizontal page break. The Settings Page Breaks menu contains
the following items that control page breaks:

- Toggle Column Break:
  Sets/Clears the current column as a vertical break point.   A small
  marker in the column title (at the bottom left of the title) indicates
  if there is a break set at that column.

- Toggle Row Break:
  Sets/Clears the current row as a horiztonal break point.   A small
  marker in the row number (at the top right of the number) indicates
  if there is a break set at that row.

- Clear All Breaks:
  Clears all column and row breaks from the current sheet.

Page Breaks vs. AutoFit:

Page Break and AutoFit have opposite effects. For this reason, Page Breaks
are only applied if the X or Y Zoom Locking is ON. i.e. if X zoom locking is
off, column breaks are ignored.

Page Break Control in Print Jobs:

For each Print Job, you can select whether to use or ignore Page Breaks.
The 'Other Print Job Settings' requester, the 'Page Break Handling' box
contains the following options:

1. Hard Breaks:
    The page is always stopped at the row/column break, and a new page is
    started.

2. Soft Breaks:
    FinalCalc looks forward to see if another break occurs down the same page,
    and if so, ignores the break. This allows you to set points where you
    advise the program it is possible to break.

3. Ignore Breaks:
    Page breaks are totally ignored.

1.24 The Spooler...

The Spooler:

All Printing in FinalCalc is diverted through a background print spooler.
When a print job is selected to be printed, FinalCalc simply generates the
output pages and stores them in a temporary directory in your RAM: disk.

The Spooler runs independantly of FinalCalc itself. Whenever FinalCalc adds
a job to the spool list, it informs the spooler of that. FinalCalc then
returns to the user interface, so it is not locked out while the print is
running.

The spooler sends each print job to the appropriate destination in order of
the job being delivered to it.

You can view the current spool job list from the Print Spool Control requester.
(Project Print Spool Control menu). It shows the spool job list and the
following information about each job:

- Title of job, normally the Print Job title, or the sheet title.

- Printer type: Postscript, HP Laserjet, Text Only or Preferences.

- Destination

- Start and end page numbers

- Status: which is one of the following:
  - Printing   Job currently being printed
  - On Hold   Job put on hold, will not be printed until hold is removed.
  - Killing   Job will be killed when the requester is closed.

```
  - Aborting      Job is being aborted.
  - Aborted       Job was aborted.
  - <blank>       Job is waiting for its turn to be printed.
```

From the Print Spool Control requester, you can do the following to a spool job:

```
  Abort:
  Aborts the job currently being printed.  It flags the background
  print task to abort the job.  A confirmation requester comes up
  before the job is aborted.  In some modes, like Laserjet or
  Preferences printing, the abort might take a few minutes.  FinalCalc
  simply signals the background print task to abort the job.

  Hold:
  Puts a job on hold.  The job will not be printed until the hold
  is removed by using the Hold button again.

  Kill:
  Flags a job to be killed.  You can toggle this off, but the job
  will be killed when you close the Spool Control requester.
```

While the print spooler is active, a "Printing" indicator will show up in
the title bar of all FinalCalc screens.

If you close FinalCalc while the spooler is still running, or has some jobs
on hold, the Spool Control requester will come up to show you the current
status and allow you to kill jobs or remove them from hold. The requester
will go away and the program will quit only when all jobs have been done
or killed.

Printer Status Detection:

If the output is set to PAR:, PRT: or a Preferences printer, FinalCalc
attempts to find out the status of the printer before sending a print job.

If the printer is off, offline, not connected, out of paper, or is in use
by another program, the Spooler will wait until the printer is ready and
available before trying to send the job. The Spooler Control requester
displays one of the following messages during that time:

```
  - Printer is off or not connected.
  - Printer is offline.
  - Printer is out of paper.
  - Printer is busy.
```

This enables you to Abort the current print job even if the printer is
offline or not connected. You can, in fact, start a print job even before
you turn the printer on and the Spooler will wait until the printer is
online and ready.

If the Spooler is waiting for the printer, the 'Printing' indicator in the
screen titlebar will change to 'Printer Off', 'Printer Offline', 'Paper Out',
or 'Printer Busy'.

1.25 The Spool Path...

The Spool Path:

When FinalCalc is printing a job, the job is first stored in a place called
the Spool Path. This normally defaults to a temporary directory in the RAM
disk, which means that it will use up RAM when doing so.

You can, however, set the Spool Path to point to a disk device where the
spool jobs will be stored. This reduces the memory requirements of FinalCalc
when printing, but uses space on your hard disk.

To set the spool path, add the following tooltype to the FinalCalc or
FinalCalc.FPU program icon:

   spoolpath=work:myspoolpath

where work:myspoolpath is the directory to store spool and preview files in.
This will be used the next time you run FinalCalc. To revert back to using
the RAM disk for spool jobs, simply delete the tooltype.

The contents of the spoolpath directory will be deleted when FinalCalc shuts
down. As FinalCalc deletes a spool job from the Spool Path once it is done,
this generally does not grow too large unless you print many jobs over a
short period of time.

FinalCalc also checks to see how much space is available on the destination
device when printing a print job to the spooler. If it is set to the default
Spool Path (the RAM disk), it will abort the job if free RAM drops below 100k.
If it is set to a path on a disk device, it will abort the job if free space
on the device drops to below 20k. In either case, you will be informed of
that.