Great Cut

GreatCut

Manual

GCC

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1 Introduction

GreatCut™ is add-on software for cutting vinyl from CorelDRAW™, Illustrator, Freehand and AutoCAD. On account of their wide range of graphic possibilities these illustration programs are eminently suited to producing high-quality drawings that can easily be printed using powerful printer drivers.

For most professional requirements GreatCut is the best choice, as it enhances your illustration program with high-end signmaking tools such as automatic print & cut with contour lines. This tool supports Accu-Aligning system (AAS) with Puma III and Jaguar IV series.

Its sophisticated welding functions allow multi-colored cuttings. Its Inline/Outline tool outlines texts - both tools can only else be found in specialized cutting programs. So GreatCut is the ideal plug-in for vinyl signage, screen printing and copy shops, which need to convert logos and all kinds of vector graphics into cutable data.

1.1 What GreatCut Can Do?

- GreatCut is able to work with GCC cutters and adapt to their particular features.
- GreatCut automatically converts lines to cutable contours.
- Cutting by color and precise mounting using register marks
- Color welding: user-defined color overlaps and screen-printing overlaps with user-defined color sequence.
- Cutting preview of vinyl width and display of the amount of vinyl used.
- Positioning, resizing, duplicating, etc. of objects.
- GreatCut evaluates the data produced by the host program and prepares it for cutting on GCC cutters
- GreatCut can cut even extremely large drawings without any difficulty. You can resize and segment your drawings to any scale you wish, no matter what the size of the drawing in the host program.
- If the drawing is too wide for your cutter, it will be automatically sectioned, i.e. divided so that your cutter can cut it.
- You can set up default values for printing and speed for different materials. These values can be stored in a material database for reuse at any time.
- While your cutter is cutting, you can continue working with CorelDRAW or any other Windows program. The cutter works in the background.

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1.1 What GreatCut Can Do?

2 Quickstart and installation

2.1 Quickstart

2.1.1 How to Install GreatCut?

2.1.2 Step 1: Connection

Cutter control via USB

Install cutter USB drivers, which were delivered by GCC. Please use the instructions given by cutter manual.

Cutter control via COM port (serial)

Make sure, that cutter and serial Windows port are configured **identically**.

You´ll find this port configuration in the system *Control Panel* under: *System/Hardware/Device Manager/Ports/Communications Port*. Select via double click the respective port (e. g. COM1) and activate *Port Settings.*

Default settings are: Bits per second: 9600 or 19200, Data bits: 8, Parity: None, Stop bits: 1, Flow control: Hardware

Check also Resources: COM 1: I/O Range 03F8 and IRQ 4 and COM 2: I/O Range 02F8 and IRQ 3 respectively

2.1.3 Step 2: Installation

Start the GreatCut installation by double clicking greatcut.exe.

2.1 Quickstart
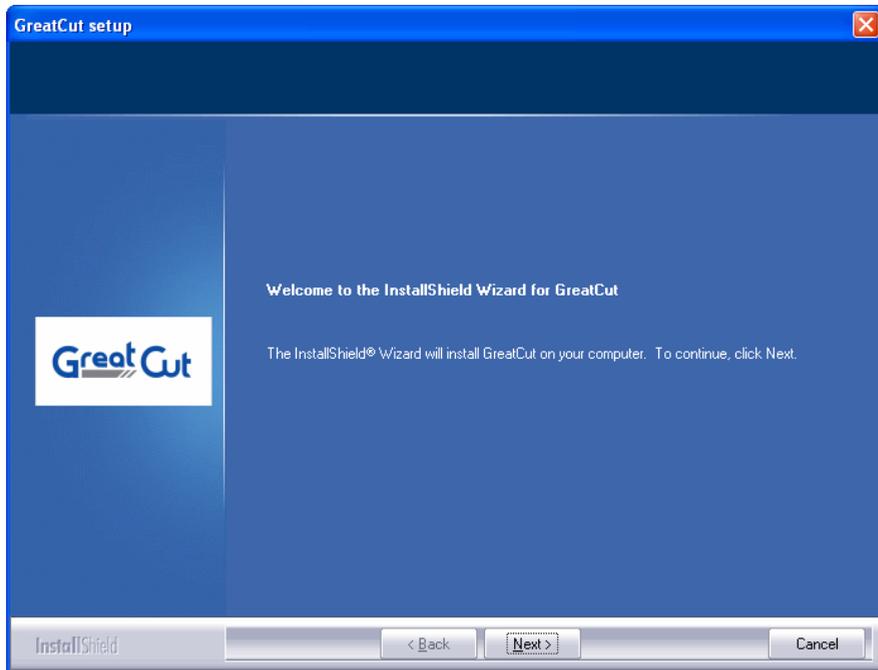
Fig. 2.1-1: GreatCut setup

Note: Installation process is done again for each selected application.
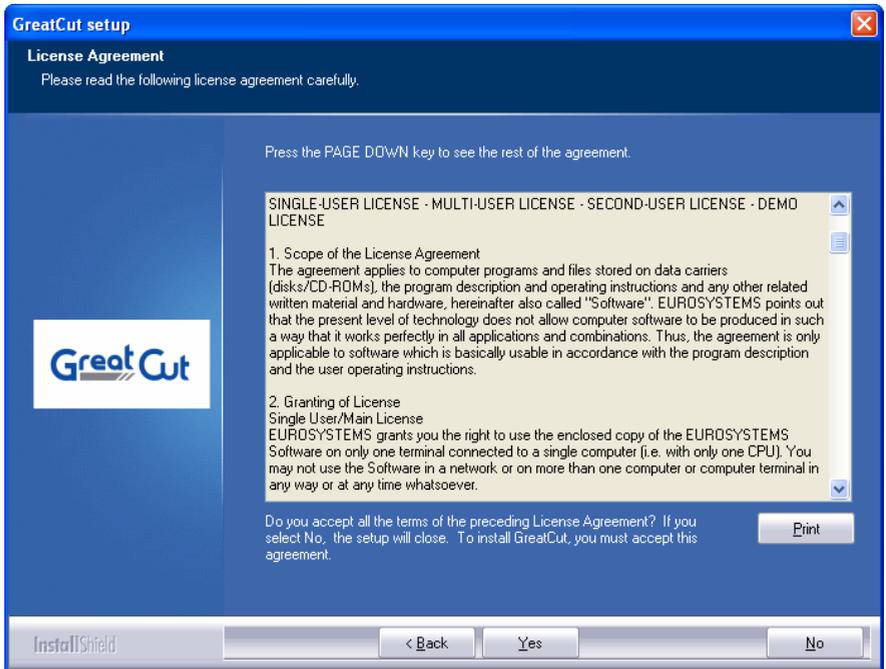
Fig. 2.1-2: Software License Agreement

In this dialog the installation folder for GreatCut is chosen. By default the folder C:\Program Files\GCC\GreatCut is suggested.
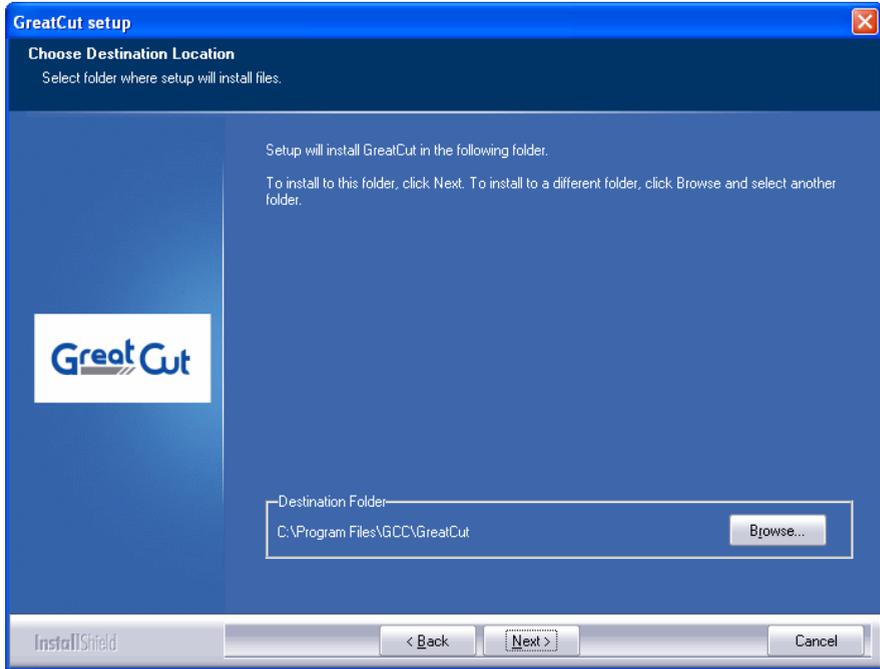
Fig. 2.1-3: Selection of destination folder

Hint: To install additional drivers select custom setup.
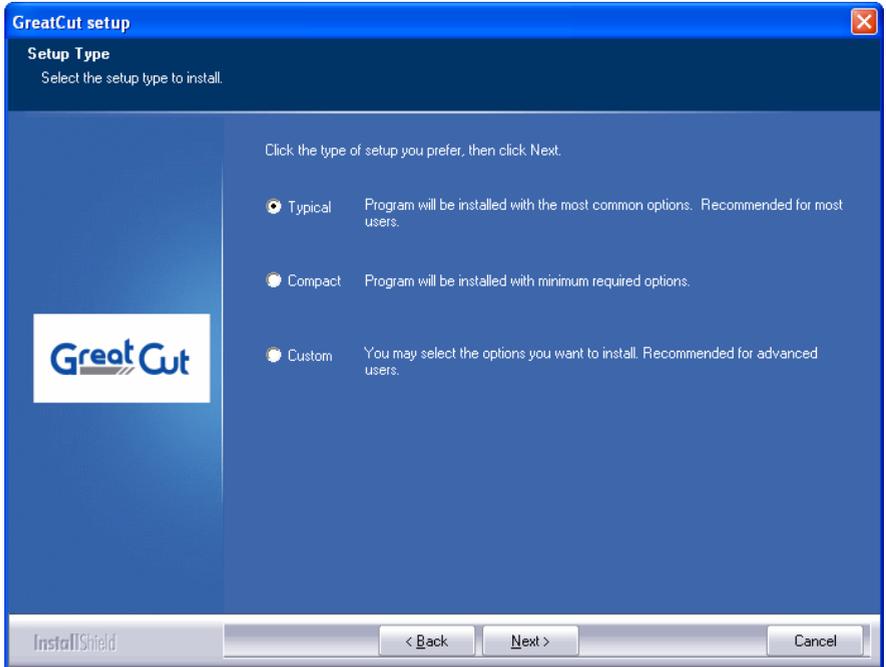
Fig. 2.1-4: Selection of setup type

Default program folder in start menu is GCC\GreatCut.
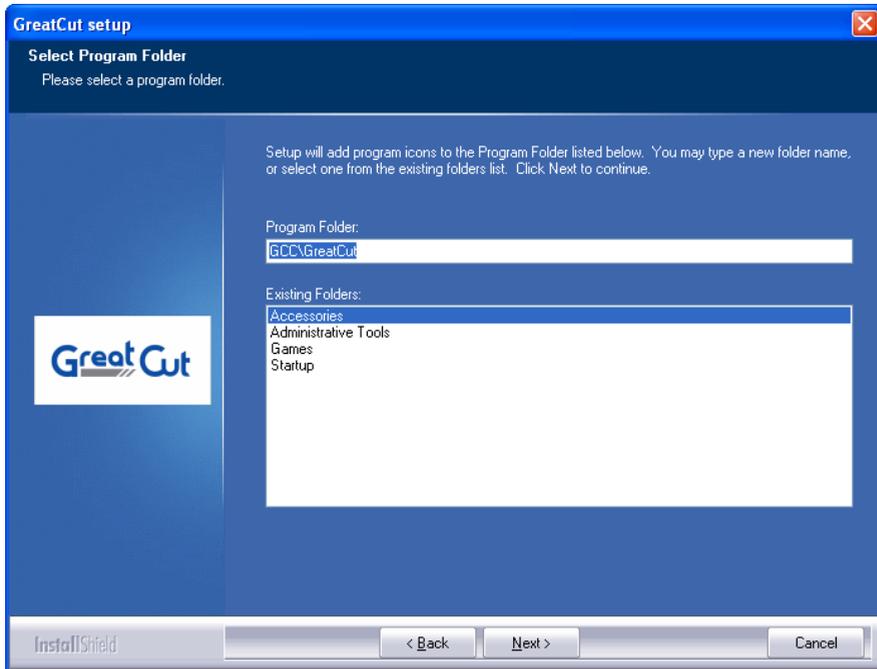
Fig. 2.1-5: Position in start menu

2.1.4 Enter license data

2.1.5 Use .ecf file: Recommended, if license data was sent via email.

In the eMail with license data you´ll find an attached file with the extension .ecf.

A double click on this file will license your software automatically!

Fig. 2.1-6: Start window with invalid code

By clicking "*License...*" button following dialog is opened.
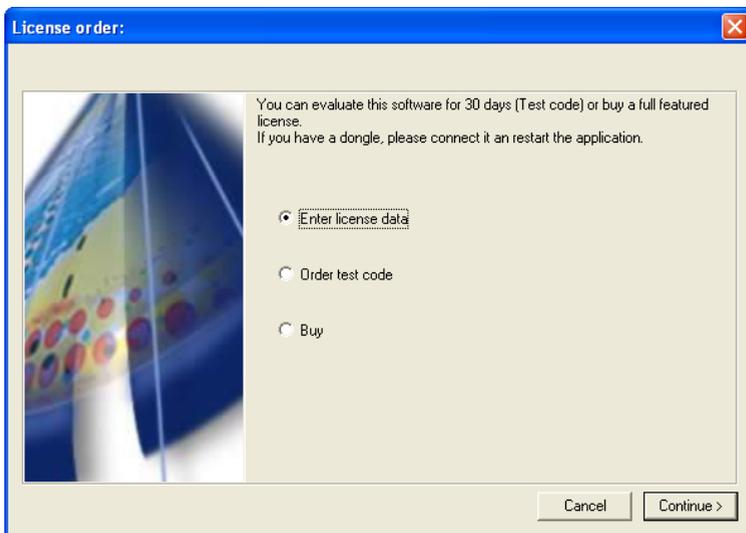
Fig. 2.1-7: Option for first installation of GreatCut
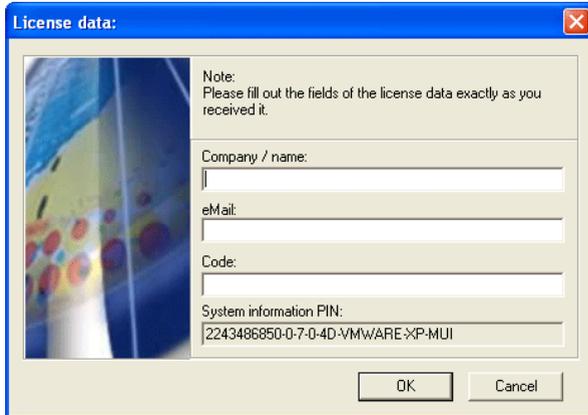
Fig. 2.1-8: These fields have to be filled with license data

2.2 GreatCut Scripts

2.2.1 Insert GreatCut icon in CorelDRAW toolbar

CorelDRAW 6

- Select the menu *Extras*
- Select the menu item *Adjust*
- Select the file card entry *Toolbar*
- Double click on *Script general*
- Select the *CoCut 6 Professional.csc* from the script list
- Select any symbol and drag it - while keeping pressed the left mouse button - to the CorelDRAW-toolbar.
- Press the OK-button

CorelDRAW 7

- Select the menu *Extras*
- Select the menu item *Adjust*
- Select the file card entry *Toolbar*
- Double click on *Script applications*
- Select the *CoCut 7 Professional.csc* from the script list
- Select any symbol and drag it - while keeping pressed the left mouse button - to the CorelDRAW-toolbar.
- Press the OK-button

CorelDRAW 8

- Select the menu *Extras*
- Select the menu item *Options*

- Select the file card entry **Work area/Adjust/Toolbar**
- Double click on **Script applications**
- Select the **CoCut 8 Professional.csc** from the script list
- Select any symbol and drag it - while keeping pressed the left mouse button - to the CorelDRAW-toolbar.
- Press the OK-button

CorelDRAW 9

- Select the menu **Extras**
- Select the menu item **Options**
- Select the file card entry **Work area/Adjust/Toolbar**
- Double click on **Script applications**
- Select the **CoCut 9 Professional.csc** from the script list
- Select any symbol and drag it - while keeping pressed the left mouse button - to the CorelDRAW-toolbar.
- Press the OK-button

CorelDRAW 10, 11, 12, X3, X4

Indication: CorelDRAW must be installed with the option "Visual Basic for Application".

This option can be installed as follows:

Insert CorelDRAW 10/11/12/X3/X4 medium into the drive/ start setup / select type of installation „**Custom setup**". If already a CorelDRAW-version is installed on your computer first select „**user defined setup**" and then „**Custom setup**".

In the dialog that now opens, double click on main applications or one click on the **Plus**-field. Here, double click on **productivity support** and activate the option „**Visual Basic for Application**". After the installation of GreatCut you have to link the CoRUN-Script with the toolbar.

- Select the menu **Tools/Customization**
- Select the option **Workspace/Customization/Commands** in the left option bar
- Right next to the option bar, click once on **File** and select **Macros** and drag **CoCutProf.CoCut** to the toolbar of CorelDRAW 10/11/12/X3/X4.
- Activate the tab **Appearance**. Here, press the **Import**-button and select any symbol.
  Indication: the symbol disappears at each new start of CorelDRAW 10 and changes to the book-icon (CorelDRAW Bug in the User Interface).
- Select the option **Workspace/Customization/Command Bars** in the left option bar .
- Change the name of the toolbar „**New ToolBar 1**" to GreatCut.
- Click on OK.

If you now mark one or several objects and click on the thus created icon, the objects are passed on to GreatCut and can be plotted.

2.2.2 GreatCut Script in Macromedia Freehand

Freehand 8, 9, 10, MX

GreatCut is in the *Xtras-*menu underneath the menu item *Animate* and in the
*window-*menu / menu item *Xtras* under functions.

How does the passing on of data from Freehand 8, 9, 10, MX to GreatCut take place?

Selected /marked objects

Start the GreatCut via the *Xtras*-menu. If the objects are marked, only the marked objects
are passed on to GreatCut.

All objects

Start the GreatCut via the *Xtras*-menu. If no objects are marked, all objects on the desktop
are passed on to GreatCut.

Indication: Process-fillings and lens-effects are not passed on. Indication: Freehand
8 possesses a color -correction -mechanism (as for example CorelDRAW), that
influences the display of the colors in Freehand. Solution: Switch off the function in
the file menu / menu item settings / tab color

2.2.3 GreatCut Script in Adobe Illustrator 8, 9, 10, CS, CS2, CS3, CS4

GreatCut is in the *file* menu underneath the menu item *export*.

How does the passing on of data from Illustrator 8, 9, 10, CS, CS2, CS3, CS4 to
GreatCut take place?

Start GreatCut from the *file* menu. If the objects are marked, only the marked objects are
passed on to GreatCut. If also texts are passed on they will automatically be converted to
curves.

Indication: If no objects are marked, GreatCut is not active!Indication: Special
process-fillings are not passed on.

2.2.4 GreatCut Script in AutoCAD

Menu file for AutoCAD LT 98 and R14

- In the menu *Extras* select the menu item *Adjust/Menus*.
- In the dialog that now opens press the *browse* button.
- The file selection dialog opens. Change the file ending to **.mnu* in this dialog.
- Select the file *cocut.mnu* and close the dialog.
- Now press the *Load*-button and confirm the inquiry dialog with OK.
- The GreatCut-menu is now loaded.

- Now change to the ***menu bar*** dialog in the upper tab. In the menu group select ***GreatCut Plot*** and insert it into the desired place in the AutoCAD menu.
- In the menu ***file*** select the menu item ***printer installation***.
- In the dialog that now opens press the ***open*** button and select the file ***cocutlt98.pc2 (LT98)*** respectively ***cocutr14pc2 (R14)***.
- Close the dialog.
- Start now the print-job by activating the menu item ***print*** in the ***file*** menu in order to do following settings: activate the button ***Plot in file***, set the ***scale factor*** to 1:1 and the ***unit*** to mm.

Menu file for AutoCAD 2000 2000i, 2002, 2002LT, 2004 & 2004LT, 2005, 2005LT, 2006, 2006LT, 2007, 2007LT, 2008, 2008LT, 2009, 2009LT

- In the menu ***Extras*** select the menu item ***adjust menus***.
  (*Indication: Alternatively you can also open the dialog via the command* ***_menuload***)
- In the dialog that now opens select the tab ***menu groups*** and press the ***browse*** button.
- The file selection dialog opens. Change the file ending to **.mnu* in this dialog.
- Select the file ***cocut.mnu*** and close the dialog.
- Now press the ***Load***-button and confirm the inquiry dialog with OK.
- The GreatCut-menu is now loaded.
- Now change the menu bar dialog in the upper tab. In the menu group select ***GreatCut Plot*** and insert it into the desired place in the AutoCAD menu.

In the menu is now a GreatCut-entry and in the toolbars a GreatCut-toolbar was added.

Important: Be careful that at the first output the checkbox "plot to file " is activated.

With this procedure, all graph elements are passed on. The change-pen commands are interpreted from the Plt-file so that the 8 layers are separable. AutoCAD does not plot with Arcs which means that all elements are resolved in lines and dots are interpreted as bores.

Indication: If DXF is used, you have to press **twice** the ENTER button after the selection of the object as the execution of the macro menu is aborted by the object selection. At the passing on via DXF the dimensions and texts are not passed on but it is possible to select and output them. The curves are not converted to lines but the Splines or Arcs in the DXF-file are converted to Bezier curves. The layer amount is not limited to 8.

In the startup-group of Windows a link to the program ***autoimp.exe*** is installed during the installation with which the passing on of files to GreatCut is realized. If autoimp.exe is started an ***icon*** is shown in the system tray (lower right corner of the screen). Double clicking on the icon ends the program.

Attention: If the icon is switched off the passing on to GreatCut does not work anymore!

Via ***Start/All Programs/Startup/Auto-Import*** for GreatCut it can be started again.

Indication: During the installation you have to pay attention that GreatCut is always installed for the last used AutoCAD-version if several AutoCAD-versions are installed on

your computer.

2.3 MultiSkin

2.3.1 MultiSkin and export scripts for CorelDRAW, Illustrator, Freehand and AutoCAD

2.3.2 What is MultiSkin?

It is a free floating graphic element that can have different faces - so called skins. It improves the handling if different CorelDRAW versions are used.

Fig. 2.3-1: Different skins of MultiSkin

2.3.3 How to install MultiSkin?

The MultiSkin is used for the transfer of objects from CorelDRAW (9-X4) to GreatCut. If you install GreatCut from CD the installation of the MultiSkin is done automatically. With the test version respectively the download version the MultiSkin must be downloaded and installed separately. After having installed MultiSkin on your system it will automatically be started with CorelDRAW.

2.3.4 How to use MultiSkin wisely?

MultiSkin facilitates the data transfer from CorelDRAW (9-X4) to GreatCut by automatically starting GreatCut and also passing on the data that are on the desktop to GreatCut. Depending on the skin it is sufficient to double click or click once on the knife-icon in order to carry out the previously described function.

2.3.5 Which function or which purpose does the GreatCut Export-Scripts have? With which host programs do they function?

Similar to the previously described MultiSkin the Export-Scripts facilitates the data export to GreatCut. The scripts function with the following host programs: CorelDRAW, Illustrator, Freehand and AutoCAD (MultiSkin only works with CorelDRAW). The Export-Scripts enable a smooth data export to GreatCut without having to convert texts to curves. Contour-pens and fillings are also exported and can be converted automatically to vector-objects before cutting.

Depending on the host program the scripts are either started via a menu entry in the host program or via an additional function-icon in the toolbars.

2.3.6 How to install or activate them?

▶ please refer to 2.2: [[P]] Scripts

2.3.7 What cannot be exported (limits)?

CorelDRAW

- mass text
- complex fill bitmaps
- types of lines must be converted to objects before the transfer (menu arrange -> convert contour to object)

AutoCAD

- DXF transfer: dimension, types of lines, regions
- AutoCAD Fonts are converted in standard font
- PLT transfer: max. transfer size A0

Illustrator & Freehand

- complex clip paths
- complex fill bitmaps

2.4 Selection of the device driver

Please, select first your output device from the list **driver**. In the field **name of device** the identical name for the selected device that is shown in the cutting dialog appears. This name can be changed individually in this field. After the selection of the driver please select in the area **type of connection** the **local interface** with which the device is connected to the computer.

Tip: If the driver you search for is not in the list you can try an alternative driver from the same manufacturer.

2.4 Selection of the device driver
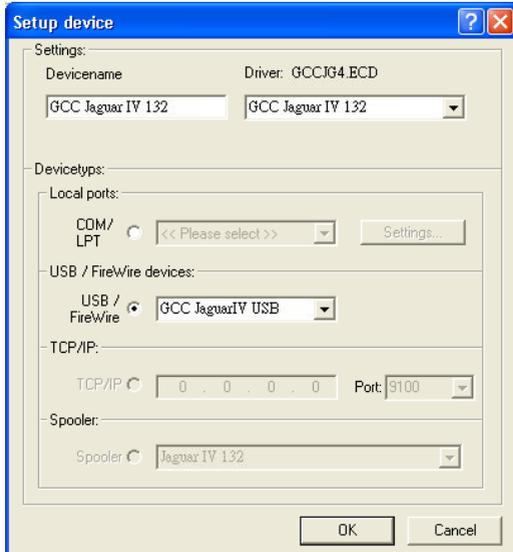
Fig. 2.4-1: Dialog for the selection of the device driver

Detailed information for the setting of the **local interface** is here: ▶ **please refer to 3.4: Cutting - Milling - Creasing - Drawing …**

3 How to work with GreatCut

3.1 Import

With this command the graphics that have *not* been saved in the GreatCut-job-format are transfered to the working surface.

The functionality of this dialog box corresponds to the **open file** command. Differences are only due to the possibility to change the size of the data to be imported by means of the parameter **X-** and **Y-factor**. The desired file is chosen respectively specified via the **name of file, type of file** and **directories** (search in).
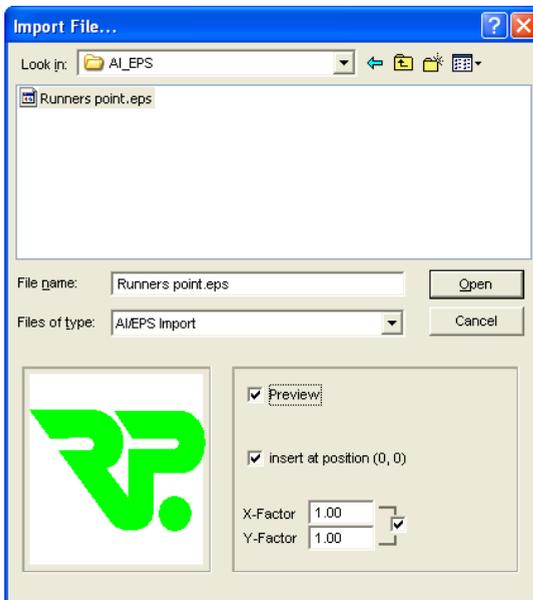
Fig. 3.1-1: Import window with preview

With the preview window in the import dialog all following **formats** can be displayed.

*.ai/eps, *.pcx, *.jtp, *.tif, *.bmp, *.wmf, *.emf, *.dxf, *.gif, *.hpgl, *.gtp, *.ik

Indication: With text files (.txt) the preview window is switched off.*

Search in

In the row **Search in** the path can be set that shall be searched.

File name

If the file name is know it can be entered into this field

Type of file

Here, you have to choose the format of the file to be imported in order to activate the corresponding import filter

Preview

The activation of this option draws a preview of the file content to the left preview window

Insert at Position (0,0)

This option inserts the objects at the 0 (zero) position of the GreatCut-working surface.

X-factor, Y-factor

With these two factors the data can be scaled (increased or decreased) during the import. The scale can be proportional or unproportional.

3.2 Export

If you want to use a job-file also in other programs the data must be made available in another format than the GreatCut-job-format. This process is called *„export"*

Indication: Exporting is done with the highest quality and lowest compression.
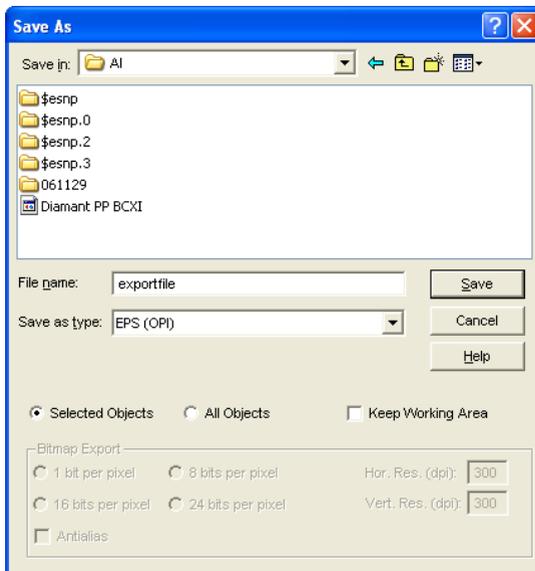
Fig. 3.2-1: GreatCut Export window with file selection

Save

With the icons next to the **Save-field** you choose the path in which the export-file shall be saved.

File name

In this field you enter the name of the export-file.

Type of file

Here, you select in which other format the data on the desktop is to be written.

Following export-filters are available in GreatCut: *.eps (opi), *.cmx (Corel6-X4), *.plt (HPGL), *: jpg, .pcx, *.tif, *.bmp.

Indication: If objects are selected only those are exported, otherwise all of them.

Selected objects

If this option is activated only the marked objects are written in the export-file.

All objects

 If this option is activated all objects are written in the export-file.

Maintain worksheet

With this option the contour of the worksheet is written as object in the export-file.

Bitmap-Export

Fig. 3.2-2: Shade and resolution at Bitmap-export

Shade

The number in front of „Bit per pixel" indicates the exponent of the shade.

Example: 8 bits per pixel = 2^8 = 256 colors

Resolution

This value defines the amount of pixels per inch. The higher the value the finer becomes the resolution. The value dpi 300 for example is sufficient for the offset printing.

Indication: Higher values are often not suggestive as the size of the file increases with higher dpi.

Antialias

The export of a bitmap can also be done with antialiasing short: Antialias, which is a **jaggies smoothing** or **edge smoothing**.

3.3 Printing

Fig. 3.3-1: The print button in the standard toolbar

Without RIP-software

The following chapters explain in detail the single functions of the GreatCut print dialog.

Open the GreatCut *print…* dialog by selecting the menu item *print* in the *file* menu, via the keyboard hotkey CTRL+P or by pressing the button in the toolbox.
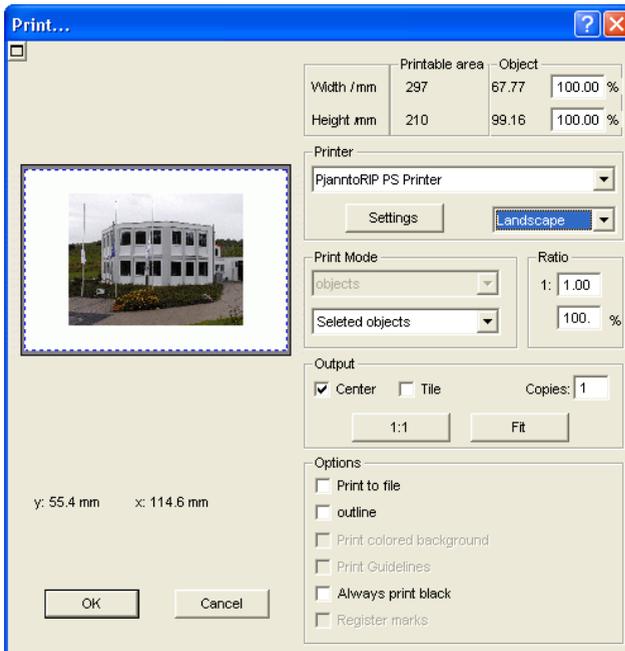
Fig. 3.3-2: The print dialog

In the down right part of the dialog you find the option **tile** and the ***adapt*** button and the ***1:1*** button under *output*. Depending on which option you have activated the appearance of the preview of the ***print -***dialog changes.

Indication: If the **print -***dialog is opened the* ***adapt*** button is automatically active because we do not assume formats that exceed the maximum output-size of the device to be accessed as standard for the printing of objects or graphics.

The adapt mode

The ***adapt***-mode corresponds to the printable area. The values for the printable area are shown in the field ***print area*** which is in the upper right part of the print dialog.

The preview window in the *adapt* mode

The preview window offers the possibility to check your job before printing. The edges of the window are *magnetic* which means that if an object is approaching the edge of the sheet the object stays at the edge of the window. Thus, a faster positioning of the objects in the corners or at the edges of the sheets is obtained.

Tip: If the magnetization of the edges shall be switched off, keep the SHIFT button pressed while positioning your objects.

The ***x- and y-coordinates*** that are shown underneath the preview window express the location of the left upper edge of the object on the working surface.

Mouse-functions in the preview window (*adapt*-mode)

Clicking once with the *right* mouse button or activating the ***preview*** button increases the preview window to the maximum size of display.

Fig. 3.3-3: The print preview button

Fig. 3.3-4: Print preview in the complete picture mode

Indication: The size of display depends on the set screen resolution (800*600, 1024*768, ...). Clicking again with the *right* mouse button resets the original status.

Indication: If the left mouse button is pressed and kept pressed, a dashed black frame appears around the objects to be printed. This frame covers all objects that are on the working surface and corresponds to the printing area.

Printing area and object

The fields **printing area** and **objects** are in the upper right part of the **print** dialog.

Fig. 3.3-5: Section field printing area and object

Printing area

In this field, the specified printing area with height and width values is shown.

Object

In this field the object/s to be printed with height and width values is/are are shown.

Indication: The fields for the percental enlargement of the objects are not active in the adapt-mode.

One field below on the right side of the **print** dialog is the field **printer.**
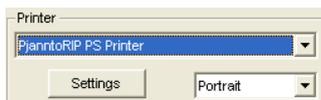
Fig. 3.3-6: Printer selection and setup

If you open the list you will get a list of all printers that are installed on your system. Select the printer that you want to use. In order to do more settings for the printing activate the *setup* button. The dialog that now opens corresponds to the menu item properties of the respective printer file menu.

Indication: The print dialog that is opened by pressing the setup button depends on the loaded printer driver and is therefore not further explained.

Right next to the **setup**-button the orientation of the sheet (portrait / landscape) can be set.

What is printed?

In the area named print mode are two combo-boxes in which you can define what shall be printed. In the first list you can choose between the options **objects**, **objects with worksheet, job-info** and **job-calculation**.

Objects

All objects on the worksheet are printed.

Objects with worksheet

All objects and the worksheet (black frame) are printed. Underneath the black frame the company´s name, the dimensions of the working surface and the proportion in which it shell be output are also automatically printed.

Job-info

If this option is activated all information that have been entered in the **job-info** are output as well as all objects in the below right area of the sheet are printed downsized.

Job-calculation

If this option is activated the information that have been entered in the **job-calculation** are output.

The following setting- possibilities are available in the second list: **all objects**, **selected objects**, **color separated printing** (printing in the order of the layer), **printing of single layer** (colors).

All objects

All objects that are on the working surface are printed.

Selected objects

Only objects are printed that have been marked on the working surface.

Color separated printing

All objects of one color are printed in the order previously set. The color bar (layer-order) in the second list contains all colors (layers) that have been used on the working surface and corresponds to the later printing order.

Indication: The printing is always started with the darkest color.

Printing of single colors (layer)

All colors listed in the second list correspond to those that have been used for the objects on the working surface. If there is for example only one black and one red object only two color bars (layers) are offered as selection.

Proportion

Here, you have the possibility to enter the proportion in which shall be printed as numeric or percentage values.

Indication: Both fields are coequal which means that if a numeric value is entered the corresponding percentage value is entered automatically in the dedicated field and vice versa.
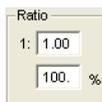
Fig. 3.3-7: Field for the entry of the size proportion

Examples for the indications of proportion with the corresponding percentages:

Proportion 1 : 1 corresponds to 100.00 %
Proportion 1 : 2 corresponds to 50.00 %
Proportion 1 : 3 corresponds to 33.33 %
Proportion 1 : 4 corresponds to 25.00 %

Centered

If this option is activated all objects on the working surface are centered.

Tiling

If this option is chosen the **print** -dialog appears in the **tile** mode.

Number of copies

In this field the number (max. 9999) of the exemplars to be printed can be defined. The buttons **adapt** and **tile** enable switching between the two modi with the same name.

1:1

If this button is activated all objects on the working surface are displayed in their *original size* in the preview window and output.

Adapt

If this button is activated all objects on the working surface are downsized so that they can be shown completely in the preview window.

Also print colored worksheet

When selecting this option the background color defined for the working surface is also printed.

Print subsidiary lines

If the job to be printed contains subsidiary lines they are also printed.

Always print black

This option becomes automatically active if in the first list **all objects** and in the second list **color separated printing** (after the layer order) or **print single colors** (after single layers) was selected.

*Indication: If you want to print the objects on the working surface in color the option **always print black** must be deactivated.*

Gauge-pins-/Cutting-markers

This option becomes automatically active if in the first list **all objects** and in the second list **color separated printing** (after layer order) or **print single colors** (after single layers) was selected.

*Indication: If you do not want to also print gauge-pins- / cutting-markers the option **gauge-pins- / cutting-markers** must be deactivated.*

3.3.1 The tile-mode

If you switch from the **adapt-mode** to the **tile-mode** the preview window appears as follows:
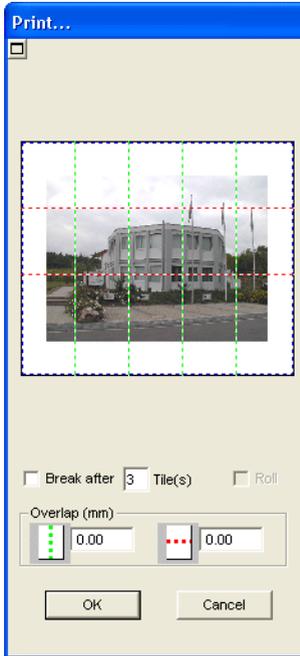
Fig. 3.3-8: The preview window in tile-mode

In the **tile** -mode all tiles are shown. A tile is that part of the object that can be output on the device to be accessed.

The option **pause after** indicates after which tile (enter amount of tile) the output shall be interrupted. The fields **overlapping (mm)** serve for the entry of the desired *horizontal* and *vertical overlapping* of the objects to be printed.

When printing via **roll** whole lanes can be printed without having spaces between the single tiles.

Indication: Only the print of a whole lane can be interrupted and not the printing of a single tile. The entry of an overlapping in feed direction (print direction) has no influence on the roll which can also be seen at the display of the size of the tile.

After the tiling the dialog is not closed automatically as it is an advantage to directly compare the print and the preview. In addition, thus you can directly repeat the print of a specific tile.

Mouse function in the preview window (*tile*-mode)

One click with the right mouse button on the tile preview window increases the tile display. This can also be done by clicking on the ▦-button in the upper left area of the window. Clicking once again with the right mouse button resets the original status.

If you *double click* with the left mouse button on a tile this one will be deactivated which means it will not be printed.

Double clicking with the left mouse button while pressing the SHIFT button leads to the inversion of the tiles which means that the tiles that have been deactivated before become now active (printed) and the tiles that have been active become deactivated (not printed).

The objects within the preview window can be shifted by means of the mouse. The window edges are magnetic which means that when the object is approaching the edge of the sheet the object remains clinged. When pressing the SHIFT button the magnetization is released.

Example for the printing in the *tile*-mode

The following example explains the single functions, shortcuts,... in the *tile* -mode in detail.

The *tile* -mode offers the possibility to print in any size which means each graphic, independent of the size can be printed on the connected output device. For the print of your graphic you *do not* need a printer with which DIN A2-, A1-, A0- or even large size can be output.

How?

The graphic to be printed is divided in so many segments (tiles) that are necessary to be able to output the graphic on the connected output device. The amount of necessary tiles depends on the size of the graphic to be output and the pre-defined output format (DIN A3, A2, ...). The setting of the output format is done via the *set* button GreatCut *print* dialog and depends on the connected output device.

Load any graphic in GreatCut and open the *print* dialog, either via the *file* -menu by selecting the menu item *print...,* via the keyboard with the key combination CTRL+P or via the button in the *standard* toolbar.

The GreatCut *print* dialog is opened in the *adapt* mode. Activate the *tile* -mode by activating the thus named button.

The *print* dialog appears as follows:
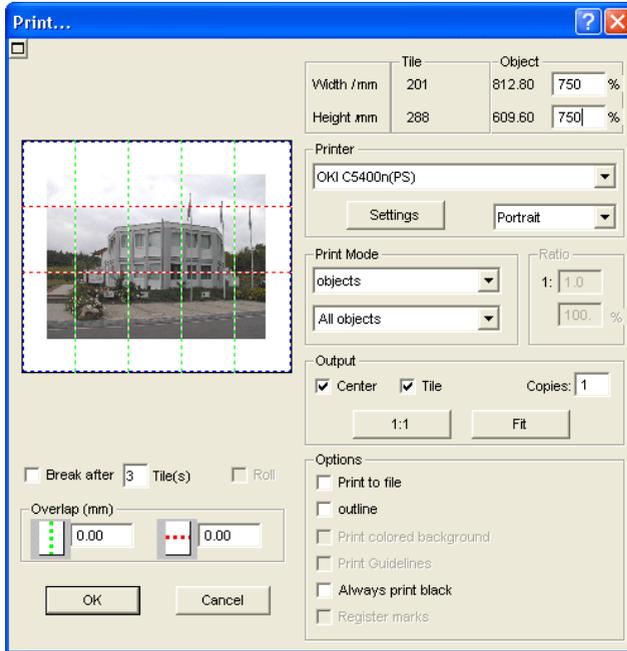
Fig. 3.3-9: The print dialog in the tile-mode

In the upper right corner of the dialog you find the two fields **tile** and **object**.

The field **tile** corresponds to the field **print area** in the **adapt**-mode. The other fields in the right part of the print dialog are the same as in the **adapt**-mode.
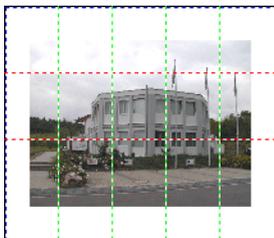
Fig. 3.3-10: Preview with settings in the tile mode

Activated and deactivated tiles

An active tile is a tile that is **not** marked with a red „**X**". Deactivated tiles on the other hand are marked with a red „**X**".
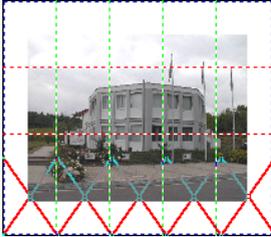
Fig. 3.3-11: Lower row of tiles deactivated

The deactivation or activation of a tile is done by **double clicking** with the left mouse button which means when double clicking on an active tile it becomes deactivated. Another double click on the same tile activates it again.

In the previous figure you can see that the lower row of tiles is marked with a red „**X**". These tiles were deactivated and will not be printed.

In the *tile* -mode you do not only have the possibility to activate / deactivate single tiles.

Tip: Keep the CTRL button pressed while double clicking with the left mouse button on the desired tile and all tiles where the mouse cursor is are deactivated.

With Pjannto RIP software

Fig. 3.3-12: The Pjannto RIP button in the s*tandard-toolbar*

Indication: Pjannto RIP is a professional PostScript-RIP that is <u>not</u> a part of GreatCut. If a license was purchased from Pjannto RIP and the software is installed on the same computer the Pjannto RIP-button is automatically embedded in the standard-toolbar of GreatCut and the file-menu enlarged with the entry Pjannto RIP… .

3.4 Cutting - Milling - Creasing - Drawing …

3.4.1 Device setting - Interface setup (local device)

The GreatCut-output

With this command you activate the module for *cutting, milling, creasing* and *drawing* of your data.

You activate this function via the -button in the ***tools***-toolbar or via the **S** *file*-menu, menu entry ***output…***

Fig. 3.4-1: **The output -button**

When *first* opening this dialog another dialog will be opened before in which the *driver of the device* as well as the *connection* has to be defined.
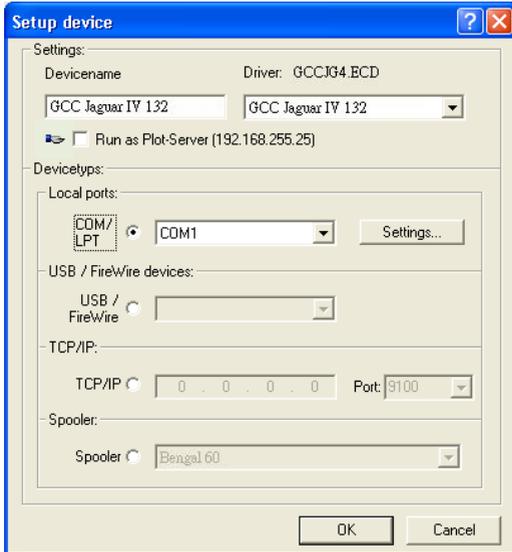
Fig. 3.4-2: Driver and selection of the connection

General

Under the part of the dialog named **General** you select the **driver of the device**.

In the right list all device **drivers** are listed that are available in GreatCut. In the left list an individual name for the driver can be distributed. This name will be used in the output dialogs of GreatCut.

Enable as server

Requirements are at least 2 licenses of GreatCut.

If the option **enable as server** is activated the output device will be marked as **plot server** and can be used by another **Plot-Manager** for the output.

The characteristic features of an output device are that a driver for the processing of the data has to be distributed to this output device. On the computer on which the Plot-Manager is running the job data for the output are transformed into device-data by means of a driver. The output of the device data can be done in several ways:

Types of connection

Local interfaces

Local interfaces are the interfaces (COM1, COM2, ..., LPT1, LPT2, ...) that are directly on your computer.

The activation of the ***settings***-button opens a dialog for the configuration of the interface. These settings that are done here apply for the whole system.
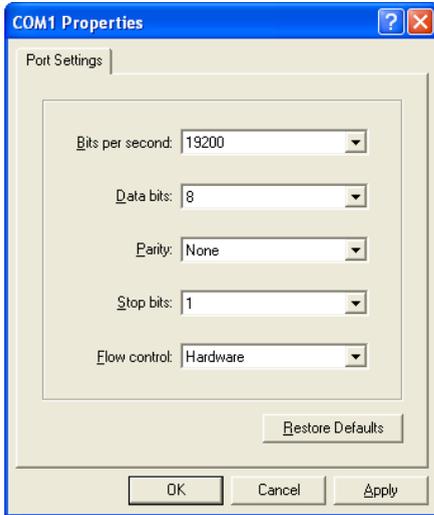
Fig. 3.4-3: Dialog for the setting of the interface parameters

Indication: When steering serially you have to pay attention that all settings on the side of the computer as well as on the side of the output device correspond. Otherwise there is no or faulty communication between them.

USB devices

Here, all momentarily connected ***USB-devices*** are listed.

TCP/IP

Here, you have to enter the TCP/IP-address and port-number to which shall be output.

Spooler

Here, you can select a Windows printer driver.

When opening the ***output*** dialog again it will be opened *directly* with the previously set device driver.

3.4.2 Device setting (network device)

When selecting the menu item **create network device …** following dialog will be opened:
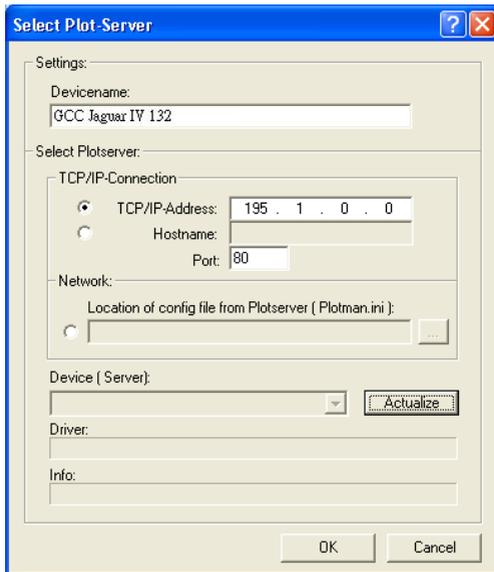
Fig. 3.4-4: Dialog for the configuration of a plot server

A **network device** enables the output of GreatCut-jobs on a Plot-Manager that runs on *another* computer. Contrary to a "normal device" the data are not locally transformed into device-data but transferred unchanged to the plot server for the further processing.

Device name

In the entry line enter the name of the device.

Server selection

In the area named **server selection** enter the **TCP/IP address** if you use a TCP/IP-connection or the **name of the computer** that is used.

Network

If a connection shall be done via a **network** the configuration file of the plot server, the **plotman.ini**, must be selected.

Devices (of server)

If the **actualization**-button is pressed the **devices** of the server are read.

Indication: The device of the server can only be read if the server was selected as only then, the devices of the server are available.

Driver

In the field **driver** the device driver is entered that the server uses for *this* device.

Indication: This driver must also be created locally, which means as local device.

3.4.3 Start of the output of the GreatCut-working surface

Fig. 3.4-5: Pre-processing line weight and color gradient

If a GreatCut-job contains objects with the attributes *contour/line weight* or *color gradient* the previous dialog appears. Here, the object attributes can be transformed into vectors so that they are taken into consideration at the output. After clicking on the **OK**-button the object attributes are transformed into curves.

3.4.4 Output to device

There are 2 displays of the output to the device dialog: The **min.**(imized) and the **max.**(imized) display that can be activated with the so named button.

< Min. display (Standard)

3.4 Cutting - Milling - Creasing - Drawing …
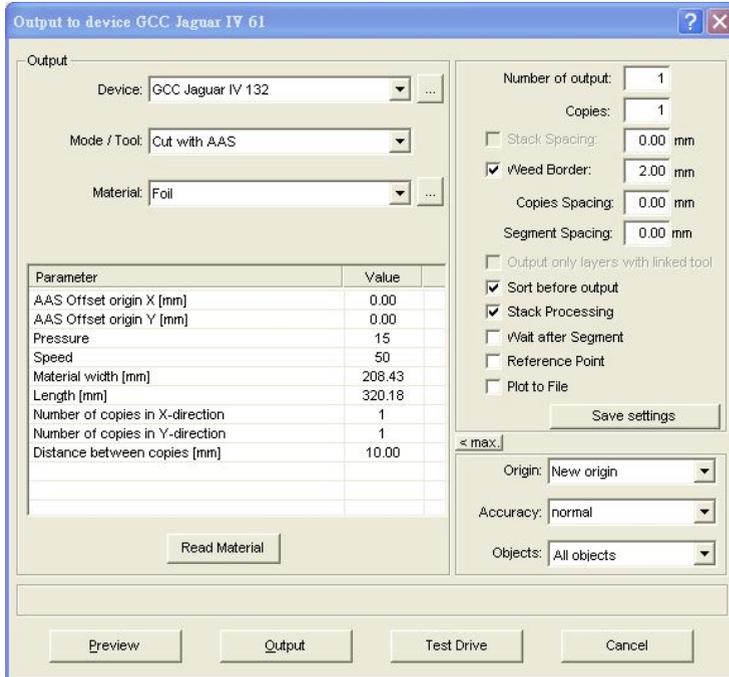
Fig. 3.4-6: Output dialog in < Min-display

< Max. display

Fig. 3.4-7: Output dialog in < Max-display

Output

In the area named output of the *output* dialog are all selection fields or parameters that are directly in contact with the output device.

Device

In the field *device* the previously defined output device is shown.

If the   -button is pressed further menu entries are available:

Fig. 3.4-8: Device-pop up-menu

Create local device

With this option further *local devices* for the output can be defined.

Create network device

With this option devices for the output and that are in the network can be defined.

Modify

With this option modifications as for example another interface can be defined.

Delete

With this option a device connection can be cancelled or deleted.

Mode /tool

In the field **mode-/tool** you select if you want to cut, mill, crease, draw with your device. The functions that are available here depend on the active driver.

Material

In the field **material** you select the material that shall be cut. This field is linked to a database that has to be filled which means that the different data for different foils are entered. For example the settings of print, speed and width on normal foil can be different to flock- or metal foil. These values can be defined individually as they depend on the material and the device that are used.

Pressing the   -button opens the following pop up-menu:
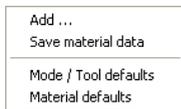
Fig. 3.4-9: Pop up-menu of the material …-button

Add

Activating the **add**-menu item writes a new data record to the material database.

Save material data

If the menu item **save material data** is selected the previously entered or changed values are written in the database.

Mode/tool default

If the menu item **mode/tool-default** is selected the values from the database for this tool are taken over.

Material default

If the menu item **material-default** is selected the values from the database for this material are taken over.

Read out

The **read out**-button delivers back to all connected devices the height of the area to be plotted if an accordant command is intended in the firmware for the device. Devices that do not offer this option no value respective zero is delivered back.

3.4.5 General settings

The area **General settings** allows the access to the parameters of the device and driver. The area is divided in **parameter** and **value**. The width of the display can be changed by moving the vertical line between the areas with the mouse. Whenever value is written under „**edit"** a double-click opens the corresponding window for the setup of the group parameter.
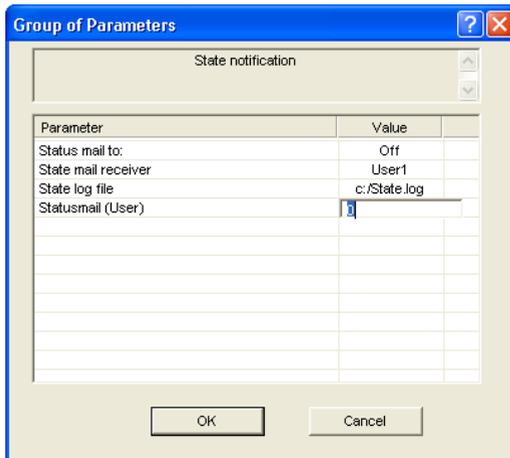
Fig. 3.4-10: Example for an opened parameter group

Number output

The value in the field **number** indicates how often the repetition of the job-output with all set device-parameters shall be carried out.

Number copies

In the field **number copies** you define how often the *selected* objects shall be cut. After the cutting this value is automatically set back to 1.

Stacking space

The value in the field *stacking space* defines if the copies shall be stacked vertically and which space has to be kept between the copies. Pre-condition for the activation of this option is that the selected object can be cut more than one time on top of each other!

Indication: In the stacking preview the first object is shown „normally". Each further object of the stack is shown dashed in blue.

Weeding frame

With the option *weeding frame* it is defined if and with which space a rectangle is cut around the plot that facilitates the weeding of the foil. In the *output preview* the frame - if activated - is shown *dashed in blue*.

Space copies

The value in the field *space copies* defines the space between the copies that were entered in the field *number copies*.

Segment space

The *segment space* defines the horizontal space between the single segments. Segments always occur if the job has to be sectioned which means divided.

Sort before output

If the option *sort before output* is activated all objects in the working surface are sorted 1. in head-direction and 2. in transport direction. If the command *sort with simulation…*-is used, its last sort-setting is used.

Stacking-processing

If the option *stacking-processing* is activated all jobs in the queue are processed one after the other without interruption.

Wait after segment

Sectioning/segmentation: If a job is too big for the output GreatCut segments the job automatically in so many parts **(segments)** that are necessary for the complete output of the job.

If the option *wait after segment* is active the output is interrupted after each segment and the material can be newly adjusted if necessary.

Keep paper origin

Via the option *keep paper origin* the zero point (0/0) of the cutter can be moved. If this option is not active GreatCut selects automatically the physical zero point as starting point for the cutting.

If the option *keep paper origin* is active the physical zero point is moved about the offset coordinate of the reference point. The coordinates of the reference point correspond to the

position of the down left corner of the object to be cut on the GreatCut-working surface.

Output to file

If the option **output to file** is active all output data are directed to a file you have to define and written on the hard drive.

Save settings

By activating the **save settings**-button all values that have previously been entered in the **output** dialog are taken over and assigned to the currently active output device.

Feed/origin

Depending on the selected driver the name of the field is either **feed** or **origin.**

Friction feed cutter

With **origin** the options are **new origin** or **do not set.** If the option **new origin** is selected the device goes into X-direction at a fix set value behind the last cut object and this position is then the new origin. If **do not set** is activated the physical zero point is the new origin after the output.

Flatbed cutter

With **feed** the options are **feed** or **no feed.** If the option **feed** is activated the material feed is carried out with the sectioning and with the output from the roll if the flatbed cutter has an automatic material feed.

Accuracy

The field **accuracy** offers the following parameters: **very low, low, normal**, **high** and **very high**. As default, the value **normal** is pre-defined.

The accuracy defines of how many vector parts an object should consist. This is only relevant with objects whose size range in the 10th millimeter. Other object sizes are calculated *automatically* by GreatCut and the optimum of nodal points for the later output defined.

Objects

The field **objects** allows the selection of the objects to be output. Besides the modi **all objects** and **selected objects** GreatCut also allows the cutting of **color sequences** or of **single color layers**. The two last named are explained more in detail in the chapter „**color separation when cutting**".
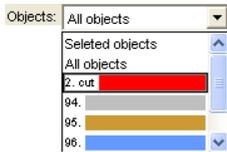
Fig. 3.4-11: List field objects with selection-modi.

Preview

The **preview**-button opens the **output**-preview.

Output

The **output**-button transfers the data directly to the **Plot-Manager** and to the connected device.

Test run

If the **test run** -button is activated the connected devices drives along the Weeding frame with the tool head lifted. This also happens if the option "weeding frame" was not activated.

3.4.6 Color separation when cutting

Each layer color used in the draft appears again in the **objects** -list with the number that clearly defines each layer color. In addition, in this list field *two horizontal color bars* appear. After having transferred the data of a color layer, in the info-area of the Windows status bar the **Plot-Manager-**icon ( ) appears.

Double clicking on this icon activates the Plot-Manager **job-control**. If the mouse cursor is positioned on the icon and the right mouse button is pressed, a pop up-menu appears in which the Plot-Manager can be closed or the program-**version** can be shown. In the **layer selection** the color layers that have not been processed yet occur in the order in which they had been selected. The order in the stack can be changed at any time.
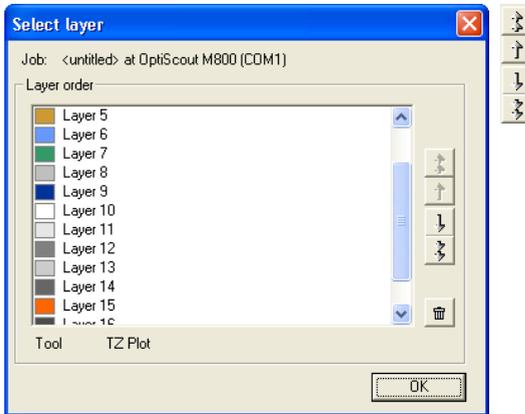
Fig. 3.4-12: Definition of the order in which the single layers shall be processed by up/down-buttons

The order is defined via the **up/down**-buttons. Layer colors that are not necessary are deleted from the list with the 🗑-button.

Tip: For the *color separated cutting* use the **passer-marker** from the draw-tool. *Passer-markers are cut at the same place on the foil independent from the color used.*

3.5 The output-preview

The **output-preview** is automatically started if you press the **preview**-button in the **output** dialog.

Closing the **output**-preview and returning to the working surface of GreatCut   **ESC**
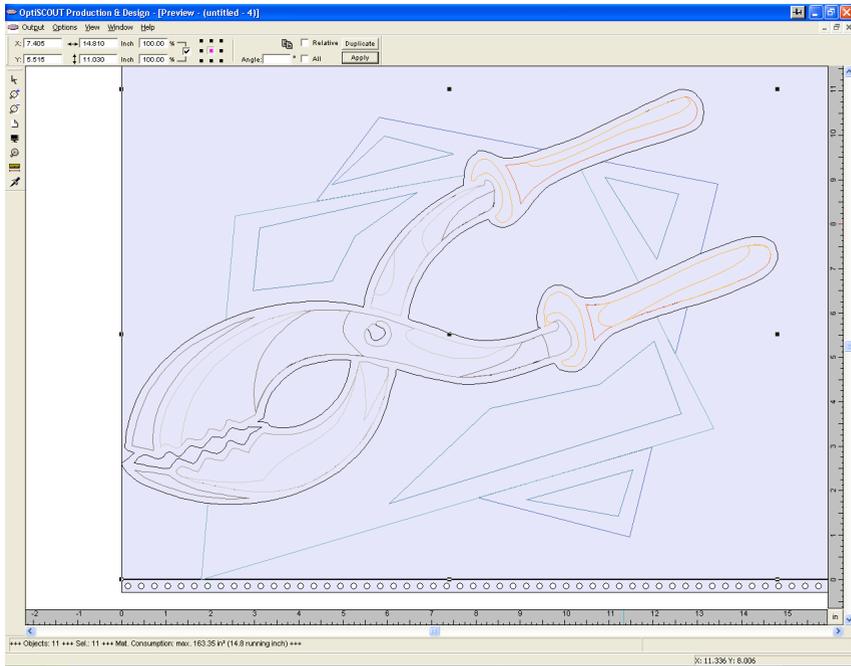
Fig. 3.5-1: Output-preview with toolbars, status line and output-objects

In the status line of the cutting-preview the following information is shown: **contour**, **filling**, **width** and **height**, **group** or **combination**, the **max. foil consumption** in square meters and running meter (rnm) as well as selected **object features**. If the **output**-menu is activated the data are transferred to the output device.

*Indication: If the job to be cut is left, underneath or above the material- or table preview and the **output** -menu is activated you will automatically be reminded that the objects to be cut are out of range of the output.*

A detailed description of the **preview-tools**-toolbar is here: ▶ **please refer to 6.6: The preview tools-toolbar**. A detailed description of the **preview-object-parameter**-toolbar is here: ▶ **please refer to 6.7: The *preview object parameter*-toolbar**

Foil optimization

The material consumption can be reduced by using the module **foil optimization**.

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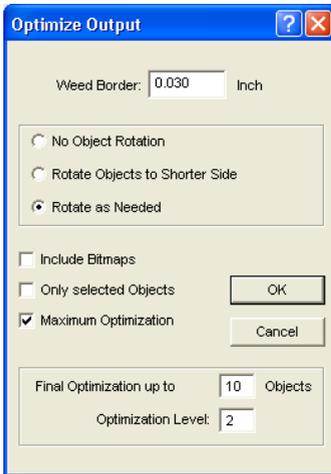
Fig. 3.5-2: Parameter dialog for the material optimization

The **foil optimization** takes care that all objects are arranged in a way that they take the least space on the material.

Indication: Groups and combinations are each regarded as an optimization object. If this is not desired the grouping must be interrupted and the combination cancelled.

Following options are available:

Weed border distance

In this field the desired distance between the optimization objects, the so called **weed border distance** can be set.

Rotate all objects to the shorter side

All objects are rotated so that the shorter side is downwards.

Rotate if required

During the optimization all objects are rotated so that they can be arranged saving the most space.

Also consider bitmaps

If this option is activated, bitmaps and groups that contain bitmaps are also optimized.

Only selected objects

Only the selected objects are considered. With this option you can for example optimize according to layers (colors).

Maximum optimization

If this option is activated two more fields are shown in the foil-optimization dialog. The option *maximum optimization* calculates all possible combinations the can arise from the fields *end-optimization up to maximum ... objects* and *permutation-depth*. The calculation can take much time depending on the size of the here set values as all possible combinations that arise from the two values are calculated and compared. Therefore, you should usually not set more than 20-30 objects with a permutation-depth of max. 5.

Indication: An optimization always leads to the rotation of one or several objects.

3.5.1 Weeding lines

Weeding lines serve for the better procession of large jobs. Material length or width of several meters are difficult to handle, therefore, you can insert weeding lines during the foil cutting that divide the job into smaller parts that are more easy to handle.
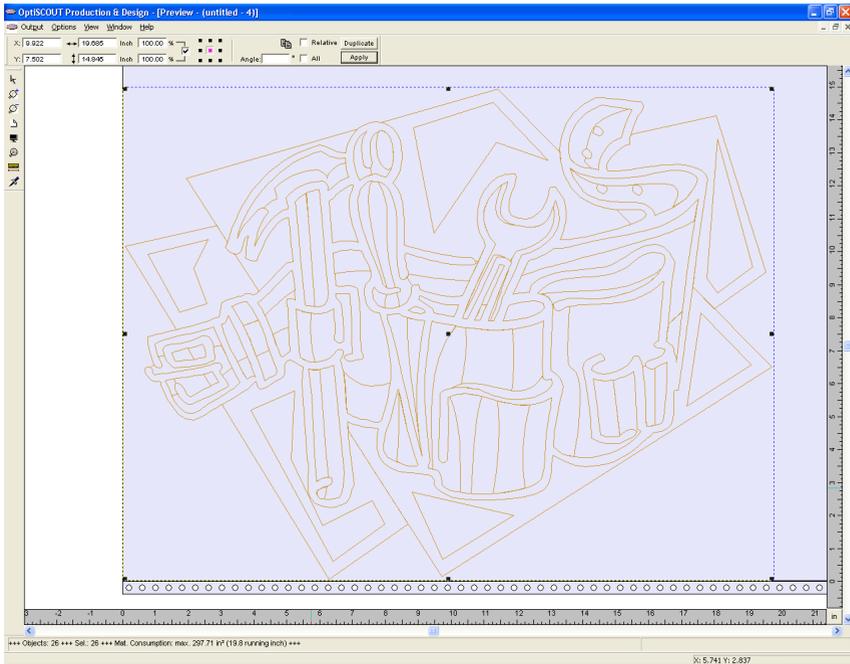
Fig. 3.5-3: Output-job with weeding frame (dashed in blue) without weeding lines
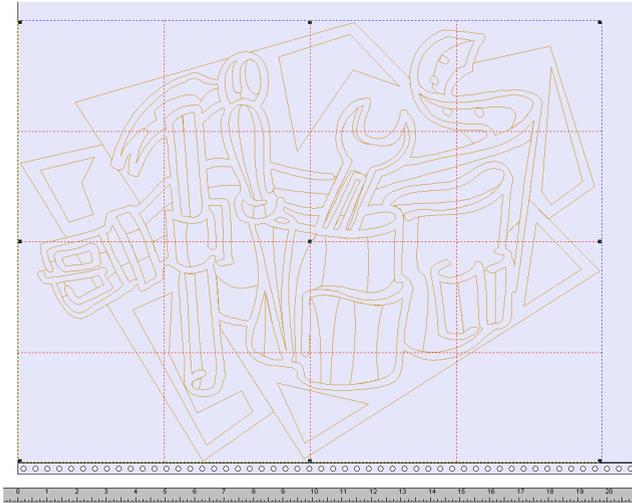
Fig. 3.5-4: Example with 3 horizontal and 3 vertical weeding lines (dashed in red)

Fig. 3.5-5: Result of the output with weeding lines - objects not! cut

In the **output**-preview there are 3 possibilities to insert horizontal and vertical weeding lines.

*Indication: Weeding lines can only be inserted if the option **weeding frame** has been activated in the **output** dialog.*

1. Manually

Position the mouse cursor on the weeding frame *dashed in blue* around the objects. The mouse cursor changes into a double-headed arrow. Now draw a horizontal or vertical

weeding line to the position where it should be segmented. Repeat the process until all necessary weeding lines are inserted.

2. Via the menu *options*

Open the menu **options** and activate the menu item **horizontal weeding line** or **vertical weeding line**.

The first weeding line is inserted in the middle of the objects to be cut. The second call up of the function bisects the two halves in two more halves and so on.

3. Via the shortcuts h or v

An „**h**" or „**v**" directly entered via the keyboard generates the respective weeding lines - as described in 2.

Tip: Single objects can be provided additionally with a separate weeding frame via the right mouse menu.

3.5.2 Job-sectioning

Sectioning is the division of a job in so many parts (sections) that are necessary for the complete output of the job.

If the job to be output is bigger than the set or the available output-width (**output** dialog, field **width of material**) of the output device in the information area of the **output** dialog the indication „**job will be sectioned**" is shown.

*Indication: The terms **sectioning** and **segmentation** are used as synonyms.*

The activation of the **output**-menu then opens the following dialog **before** the transfer to the device:
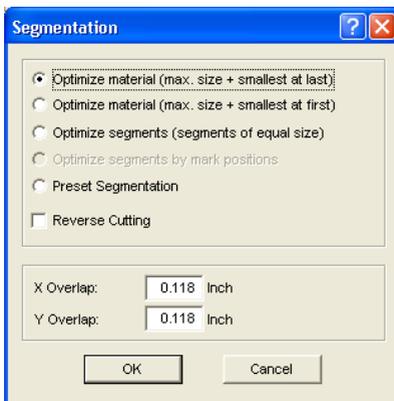
Fig. 3.5-6: Sectioning dialog with overlapping of 3 mm

Foil-optimization (max. size + remainder as last)

Foil-optimization … causes GreatCut to create segments in the maximum permitted size. The size of the last segment usually differs from the others

Plate-optimization (max. size + remainder as first)

Only active with flatbed cutters. If the last segment was also cut as last the plate could not be processed until the end. Therefore, the remainder is cut as first so that the plate lies on the table until the end.

Segment-optimization (segments of same size)

If the option **segment-optimization** is activated always segments *of the same size* are created.

Marker-optimization (dynamic segment size)

This option is activated as default with GreatCut if *video markers* exist in the Job. The above dialog is skipped and the preview of the dynamic segments is shown. The reason of this optimization is that always at least 3 video markers are necessary. Depending on the location of the video markers GreatCut "searches" up to 30% next to the segment line if there is a video marker. If yes, the respective segment is adjusted *dynamically*.

Saved sectioning

The last used setting is automatically saved. When loading the job again this sectioning can be accessed.

Reverse cutting

The option *reverse cutting* indicates that the objects are cut as „negative" for example for the use as template for the screen printing.

X-overlapping and Y-overlapping

In the fields *X- and Y-overlapping* you can define how much the segments shall overlap. The vectors are enlarged accordingly at the cutting points.
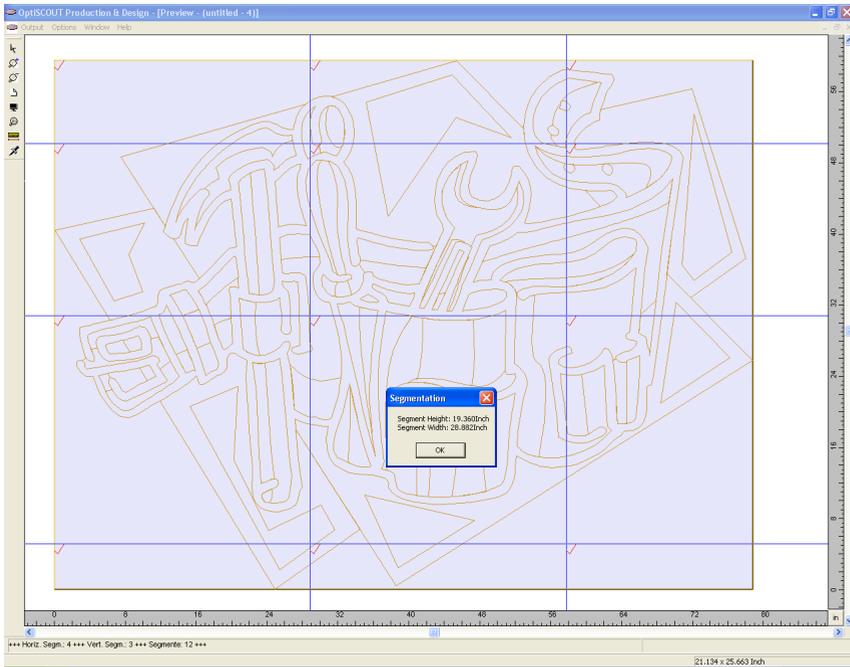
Fig. 3.5-7: Foil-optimization in the sectioning-preview with 8 segments and information on segment sizes

Selection and deselection of the segments

Selection and deselection of the segments is done by clicking into the segment. The red checkmark ✓ indicates which segment is active and being output.

Changing the suggested sectioning

You can change the sectioning by clicking on the blue section lines and move them to the desired position with the mouse. If necessary GreatCut inserts automatically new sections.

In the status line of the segmentation-preview the size of the job to be cut in X- and Y-direction and the number of segments are shown.

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4 Reference part

The menu items in chronological order:

4.1 The *file-menu*

4.1.1 The *new…*-command

With the *new*-command a new job is opened.

CTRL+N

4.1.2 The *open…*-command

With this command the files that were stored on your hard drive or another data carrier in the GreatCut JOB-format are brought onto the current screen/desktop. You can further edit this file. Jobs can be deleted after a safety query.

CTRL+L

4.1.3 The *save*-command

With this command you save the current job. If the respective job has already been stored before the given file name and the directory is kept. The older version of the job is overwritten so that the old form can not be restored any more.
If you have created a new job that has not been saved before, the program, if you have clicked the *save* -command in the *file* -menu, goes automatically to the command *save as…* .
First, the *job-info* dialog is opened where you can enter more information about the job. Then, the real dialog for saving your job is opened and you are asked to enter the file name and directory.

CTRL+S

4.1.4 The *save as…*-command

With this command you save a new job under a file name chosen by you in a directory to be selected. This command is also for changing the file name and / or directory of already existing files. If for example you want to save a job that is build up on an older one without losing the old version then you select the command *save as ...* and you can save the new job under another name in a new directory if you wish to.

SHIFT+
CTRL+S

The command *save as...* is also to be selected if you want to save the current job on a disk. To do so, select the appropriate disk drive.

4.1.5 The *send by email…*-command

This command opens the standard email-client and links the current job as attachment to the email. The job must be saved before.

4.1.6 The *import*-command

With this command graphics that have not been saved in the GreatCut JOB-format are imported.

CTRL+I

4.1.7 The *export*-command

If you want to use a job also in another program the job-file must be converted to a suitable format which means exported.

CTRL+E

4.1.8 The *Pjannto RIP*-command

With this command the PostScript-RIP of GreatCut is started if it had been installed and activated (licensed) before.

4.1.9 The *print*-command

With this command you print the current file in any size (tiles) on the standard printer.

CTRL+P

4.1.10 The *output*-command

With this command you call the output-module for cutting, drawing or milling.

S

4.1.11 The quit-command

With this you terminate GreatCut and return to the Windows-desktop. If you have not saved the job that is currently being edited, you will be asked if you want to do so.

CTRL+Q

4.1.12 The *job*-history

The **job-history** function facilitates the loading of the 4 last jobs without having to pass via the directory tree. At the end of the menu list of the **file**-menu the names of the 4 last edited jobs appear. Click with the mouse button on the desired job-name.
Then, the selected file will be loaded on the working surface.

4.2 The *edit*-menu

4.2.1 The *undo*-command

With this command it is possible to undo the last done operations and functions. The default setting is 5 steps. This default value can be changed via the **settings-** menu, menu entry **basic settings/diverse** and here **number undo**. The maximum value is 100 steps.

F5

*Indication: This setting can only be changed with a new file (**file**-menu, menu item **new)**!*

4.2.2 The *undo stack*-command

This command opens a window with the last used commands. Most intermediate states are previewed. By clicking on the respective command this state is restored.

SHIFT+F5

Note: This menu entry is only displayed, if restorable commands are used.

4.2.3 The *restore*-command

This command is the reverse command to undo. It restores the status that was there **before** the undoing.

F6

4.2.4 The *redo stack*-command

This command opens a window with the last commands, which were made undone. Most intermediate states are previewed. By clicking on the respective command this state is restored.

SHIFT+F6

Note: This menu entry is only displayed, if commands were undone.

4.2.5 The *cut*-command

With this command objects are copied to the Windows clipboard and deleted from the working surface. Via the clipboard objects can be inserted at another place or in another program.

CTRL+X

*Indication: For the transport of your data you can also use the **export** -command. This is always necessary if your data shall be transferred to another computer.*

4.2.6 The *copy*-command

With this command marked objects are copied to the clipboard without
deleting them from the working surface.

CTRL+C

4.2.7 The *paste*-command

This command inserts graphics and objects from the clipboard to your job.
The mouse cursor changes to a right angle in which *insert* is written.

CTRL+V

Now point the tip of the right angle to the point on your working surface
where the graphic or the object shall be inserted.

4.2.8 The *paste special-command*

Via this menu item "pictures" can be imported from the clipboard to
GreatCut.

Indication: If in GreatCut objects are copied this menu item is not active.

4.2.9 The *select all*-command

With this command all objects of the active job which means all objects on
the working surface and also outside the working surface are marked. The
selected objects can then be grouped, combined or moved.

CTRL+A

4.2.10 The *reverse selection*-command

With this command all non-selected objects are selected. Already selected
objects will be unselected.

SHIFT+E

4.2.11 The *job-info…*-command

With the job-info you have the possibility to save additional information with
every job. You can print this information and use them for invoicing or as
accompanying working sheet.

Next to this information as for example **order number** and **company
address** the job-info also gives information about the used material. In the
memo-field additional comments in note form can be stored.

4.2.12 The *color layer…*-command

This command starts the **layer settings** dialog in which objects are colored,
foil colors are defined, device tools are assigned, objects of the same color
are selected and layers can be made invisible or blocked.

L

4.2.13 The *prepare to cut…*-command

With this command an object with defined line weight or filling can be made ready-to-cut.
Outline
The line weight defined before is contoured.
Color graduation
The color graduation defined before is divided into the defined number of steps and each step is provided with an outline.
Both
The defined line weight and the defined color gradient (number of steps) are outlined.

4.3 The *design*-menu

4.3.1 The *rotate axis*-command

This command rotates the marked objects at 90° counter-clockwise. **A**
This option is always necessary if you want to adjust your objects fast to the rolling direction of the foil without having to go via the *rotate* -function.

4.3.2 The *rotate axis with page*-command

This command rotates the marked objects with page at 90° **SHIFT+A**
counter-clockwise.

4.3.3 The *horizontal mirror*-command

The selected object is mirrored at its horizontal through its center point. If **X**
several objects are marked, the center point of the virtual checkbox whose edges are limited by the 8 black dots with the corresponding horizontal is taken as axis of reflection. If no objects are marked all objects are mirrored.

4.3.4 The *vertical mirror*-command

The selected object is mirrored at the vertical through its center point. If **Y**
several objects are selected the center point of the checkbox with its corresponding vertical is used as axis of reflection. If no objects are marked all objects are mirrored.

4.3.5 The *delete*-command

On your keyboard you find a key that - if it is a German keyboard - is named **Del**
ENTF or if it is an English keyboard DEL. It executes the *delete* command. In order to delete objects from your graphic they must be marked.

4.3.6 The *duplicate*-command

In order to use this command the object to be duplicated must be marked
before. Now click with your left mouse button on the **duplicate** -command or
activate it via the hotkey. The marked objects are now doubled.

CTRL+D

The positioning is done according to the values that you have entered in the
settings -menu, menu item **basic settings / diverse**.

*Indication: You can also duplicate an object by first marking it, moving it with
the left mouse button kept pressed and then press the right mouse button
once at the position where the duplicate shall be created. The displacing
values are entered automatically with this procedure.*

4.3.7 The *clone*-command

If you clone an object you create a copy linked to the object. Modifications at
the original (the initial object) are automatically done at the clone (the copy).

If a clone is modified in its size or form, an other "original" is created.

4.3.8 The *group*-command

This command allows combining several objects to a group in order to edit
them together. This can be wise if for example you want to move several
objects without changing their position to each other. To do this, first mark
all objects that you want to move together, select the **group** -command and
then move the newly created group to the desired place. Now, it is not
possible any more to change the single objects that form the group
independently from each other.

CTRL+G

In order to make this possible again the grouping must be broken with the
break group -command.

*Indication: grouped objects cannot be treated with the node editing tool. The
grouping must be broken before. In order to differentiate between the
grouped and ungrouped objects they are shown dashed in blue.*

4.3.9 The *break group*-command

This command is used to divide a group of objects again into single object.
Each object can then be edited individually.

CTRL+B

4.3.10 The *combine*-command

This command combines like the grouping several objects to one. The
difference to the **group**-command is that the selected objects are not
regarded as single isolated objects lying next to another anymore.

SHIFT+K

Let us explain this fact with an example.
You have created two squares with different sizes, the smaller one lying completely within the bigger one. In order to obtain that in the full-color-mode the area of the smaller square is transparent you combine the two squares after having marked them before. The size of the bigger square is now interpreted as outer edge and the smaller one as inner edge. The area between the two edges is filled with the color selected in the layer box. In the middle, a hole with the size of the smaller square remains.

4.3.11 The *break apart*-command

With this command you cancel a combination. Now, the program treats the combination objects as single objects again.   **SHIFT+L**

4.3.12 The *draw-command*

In this menu the tools with which you can create graphic objects are summarized. All tools can be activated via the toolbox or the menu item draw in the **object**-menu.

The line-mode
This command activates the mode for the drawing of lines. The mouse cursor has now the shape of a cross with a line shown on the down right.

For the drawing of lines two modi are available:

1. „closed" lines
You can create closed lines by keeping pressed the left mouse button when drawing the line. You terminate a line by letting go the left mouse button. If the mouse cursor is beyond an ending point of a line it will be highlighted and the mouse cursor changes its form. If you click now once with the left mouse button on this point, this point will be initialized.
Now you can continue to draw with one of the following four modi: ***draw, curve, digi-mode, freehand.***

2. „open" lines
You can create open lines by clicking once with the left mouse button before drawing. Then, you create the line according to your wishes. If you now click once again with the left mouse button the sub-line is finished and a new one can be attached. This mode is terminated by *double-clicking* with the left mouse button.

Indication: If you keep pressed the SHIFT-button while moving the mouse cursor the drawing of the straight line is limited horizontally and vertically. If while drawing you keep pressed the CTRL-button the angle of the drawn straight line is limited to 15° steps. The straight line now moves at 15°, 30°, 45°, ... to the edges of your working surface.

The circular arc-mode
You activate the circular arc-mode by pressing the right mouse button in the

line-mode and select there the respective menu item.
When drawing in the circular measure after placing the second curve
-point the curve calculated from the first, second and current cursor point is
drawn. One click with the left mouse button places the curve.
If the mouse cursor is above an endpoint of a circular arc it will be
highlighted and the mouse cursor changes its form. If you click now once
with the left mouse button on this point, this point will be initialized.
Now you can continue to draw with one of the following four modi: ***draw,
curve, digi-mode, freehand.***

The rectangle-mode

You have switched to the rectangle-mode and move the mouse cursor on
the desktop to any corner of the desired rectangle.
Press the left mouse button and keep it pressed while moving the mouse
cursor to the diagonally opposite corner. If you let got the mouse button the
rectangle appears.

*Indication: If you keep pressed the SHIFT-button while drawing a rectangle
the first selected point is the center point of the rectangle. If you keep
pressed the CTRL-button while drawing the rectangle the movement of the
mouse automatically draws a **square**. Pressing simultaneously the SHIFT
and CTRL-button draws a centered square. For drawing the object the
status of the keys (pressed or not pressed) is important when letting go the
mouse button.*

The circle-mode

With this command you activate the mode for drawing the ellipses and
circles. In this mode you open up a box in which the ellipse is adapted. So,
first select a corner point of the box to be opened up with the mouse.

*Indication: The first drawn point is no point of the ellipse. Only if you press
the SHIFT-button the starting point becomes the center point of the ellipse.
Pressing the CTRL-button only allows the drawing of a **circle**. Pressing
simultaneously both buttons results in the drawing of a centered circle.*

The digitize-mode

With this command you activate the mode for post-digitizing
bitmap-templates.
Switching between the modi **line, curves, digi-mode or freehand** via the
right mouse menu, the arrow keys of your keyboard or the toolbox facilitates
the post-processing enormously.

Assignment of the arrow keys:

Left   --> **Line**-mode
Right --> **Circular
       arc**-mode
Up   --> **Freehand**-mode
Down --> **Digitize**-mode

If open objects have been drawn they can be closed via the right mouse menu and there the menu item **close.**

Indication: with this option all marked objects can be closed independent of the distance between the starting point of the first drawn and the endpoint of the last drawn object.

Another possibility to close open objects that have been drawn is the following:

Draw an open object. Move the endpoint of the last drawn object with the mouse near the starting point of the first drawn object. You can see that the mouse cursor changed its appearance. If you let got the mouse at that point the object will be closed.
If the mouse cursor is above an endpoint of a digi-curve/line it will be highlighted and the mouse cursor changes its form. If you click now once with the left mouse button on this point, this point will be initialized.
Now you can continue to draw with one of the following four modi: ***draw, curve, digi-mode, freehand***.

The draw freehand-mode
With this command you activate the mode for the drawing of arbitrary lines, curves or objects. Keep pressed the left mouse button and create the object of your choice. Let go the left mouse button to terminate the object. If the mouse cursor is above an endpoint of a digi-curve/line it will be highlighted and the mouse cursor changes its form. If you click now once with the left mouse button on this point, this point will be initialized.
Now you can continue to draw with one of the following four modi: ***draw, curve, digi-mode, freehand.***

Symmetric object…
With this command you activate the mode for the drawing of polygons and symmetric objects as for example stars.

Registration marks
With this option you can place registration marks as administer help in your graphic. This function enables the accurate mounting of the color separated cutting job. To do so, activate this command and click the registration marks to the desired positions. Registration marks are cut along layer neutral (color neutral).

Drill holes
This command allows to insert pre-defined drill holes to the graphic.

Indication: This function is only important if you have a flatbed cutter with milling set-up or a milling device.

4.3.13 The *align*-command

With this function marked objects are aligned. You can align the objects
horizontally or vertically. The objects are arranged in that way that they are
either centered or aligned at the desired side.
In addition, the objects can be aligned with the same distance so that a
steady appearance is obtained. It is also possible to center all objects
horizontally or vertically on the working surface.

*Indication: This option can only be activated if you have marked at least 2
objects.*

R

4.3.14 The *sort with simulation…*-command

This command opens the object sort-function with which the output-order
and direction of rotation of the objects can be defined. The sort can be
done dependent or independent of layers. Also, the preferential direction
of the sort can be defined.
In a preview the output of the object is simulated graphically; here, the
traverse path of the tool head can be sketched. The simulation can be
repeated unlimited without changing the original objects.

CTRL+F10

4.3.15 The *sort manually…*-command

This command enables a manual object-sortation. For every single
output-object the order and direction of rotation can be defined. This can
be done for every layer. In the preview window the objects are clicked to
the desired order with the mouse cursor. Alternatively, the objects can
also be sorted by clicking in the object list. The sorted objects are shown
dashed in blue.

CTRL+F11

4.3.16 The *clockwise*-command

This command sets the direction of rotation of the marked objects to
clockwise.

*Indication: This function is only relevant in connection with a connected
milling or engraving device.*

>

4.3.17 The *counter-clockwise*-command

This command sets the direction of rotation of the marked objects to
counter-clockwise.

*Indication: This command is like the previous only relevant in combination
with milling applications.*

<

4.3.18 The *close contour*-command

With this command open objects can be closed. You can see in the status line if an object represents an open track or not. To close it you mark the object and use that command.

SHIFT+S

4.3.19 The *open contour*-command

With this command closed objects can be opened.

SHIFT+O

Indication: The menu item open corresponds to the separate-function in the node-tool.

4.3.20 The *round corners*-command

The **round corners**-command rounds down nodal points with a freely defined radius.
The rounding can be done inwards or outwards. The rounding can also affect the whole object or just single nodes.

SHIFT+ CTRL+R

Indication: This function can also be used for the rounding of writings.

4.3.21 The *properties…*-command

When activating this command a dialog opens in which the object properties of a marked object are shown. If more than one object is marked the coordinates of the bounding box of these objects are given as well as their center point. With the **selection**-button the object-function is activated. The **statistic**-button opens the object-statistic that gives information about the number and kind of the used objects.

SHIFT+F10

4.4 The *view*-menu

4.4.1 The *zoom in*-command

If you select this function the mouse cursor changes into a lens with a plus inside. You can now select an area that shall be zoomed by keeping pressed the left mouse button. The selected area will then be shown increased to the maximum in the program window.

+(No) or F2

Indication: A beep of the computer loudspeaker informs you that the maximum zoom is reached.

4.4.2 The *zoom out*-command

This function decreases the working surface gradually. If it had been zoomed repeatedly before, the single zoom steps are carried out backwards.

-(No) or F3

4.4.3 The *full page*-command

Select the function so that the whole available working surface is shown.

B

4.4.4 The *show all*-command

This function changes the display of the vector drawing in this way that all objects can be seen in the program window. The section is chosen in that way that it is the biggest possible display of the graphic showing all objects.

F4

Indication: If you keep pressed the SHIFT-button while doing this command only the marked objects are zoomed to maximum.

4.4.5 The *show selected objects*-command

If this command is activated only the objects marked on the working surface are displayed as big as possible.

SHIFT+F4

4.4.6 The *to front*-command

If you have arranged several objects on top of each other the following commands enable you to modify the location of the objects to each other. With the *to front*-command the marked object is set on the top place above the others.

CTRL+O

4.4.7 The *to back*-command

With this command you set the marked object underneath respective behind all other objects.

CTRL+U

4.4.8 The *forward one*-command

This command sets the marked objects further front in the display.

PgUp

4.4.9 The *back one*-command

With this command you set the marked object further down and thus further back in the display.

PgDn

4.4.10 The *reverse order*-command

The order of the objects in the stack is reversed. What was lying on top then lies at the bottom and vice versa. This also applies for all objects in-between.

U

4.4.11 The *change order*-command

With this command you can change the order of the objects in the display interactively by clicking the objects one after the other in the desired order.

SHIFT+R

4.4.12 The *contour-mode*-command

This command switches the display of the working surface to the contour-mode which means that only the contours of the objects are shown.

F9

4.4.13 The *extended view*-command

With this command you can obtain the best possible display of the objects (smoothened contours).

SHIFT+F9

Indication: It slows down the speed of processing and should therefore only be used for the last check or presentation.

4.4.14 The *always on top*-command

The GreatCut-window remains always in the foreground.

CTRL+Y

Indication: This menu item is only active if the GreatCut-window is in the chart-mode.

4.4.15 The *refresh screen*-command

With this function the content of the visible window is build up again without changing the size or the selected section.

CTRL+W

Indication: Use this command if objects on the screen are visible that cannot be accessed by the display-function or if display errors of another kind occur.

4.5 The *tools*-menu

4.5.1 The *contour…*-function

With the **contour** -function the outer edge of arbitrary many objects is calculated and provided with a contour. Contrary to the outline with this tool also bitmaps can be contoured. In addition, not every single object is contoured but it is tried to find only one contour that comprises all selected objects. Therefore, this function is especially suitable for the creation of intersection lines around labels. The objects of the label can be arranged arbitrarily. Afterwards, with the tool described here the contour of the label in the desired distance is calculated. The thus created contour can be used later for cutting the printed label.

K

4.5.2 The *PhotoCut…*-function

The function creates vectors from bitmaps. PhotoCUT calculates from Windows Bitmap-files (*.BMP, *.PCX, *.TIF) grids or patterns that can be output with a cutting plotter or a similar device. The picture is divided into logical pixels and the average gray value calculated for each of these logical pixels. So, a pictures is created that has less pixels than the original. Out of this picture horizontal or vertical stripes, circles, squares... are created whose width is proportional to the gray value at the respective position.

▶ please refer to 7.12: The *PhotoCUT*-function

4.5.3 The *set jog marks*-command

This command automatically sets jog marks around the selected objects. Type, size and position relative to the selected objects are pre-set in **settings/basic settings/register / jog marks** -menu.

SHIFT+J

Indication: The markers do not lie in a layer, are always displayed in black, keep their scaling and size and are grouped when being created.

▶ please refer to 4.7.1.5: The *register / jog marks…*-setup

4.5.4 The *measure*-command

With the function measure an arbitrary track can be measured, scaled, rotated and dimensioned. If you have activated this command the mouse cursor changes into a reticle. It is then set at the starting point of the track to be measured and the mouse button pressed and kept pressed. Then, the mouse cursor is moved to the end of the track to be measured and the left mouse button let go. With the SHIFT-button pressed you only measure horizontal and vertical distances. Now, the result of the measurement is shown in a dialog field and can be modified.

M

Indication: The modification of the size is applied proportionally to all
selected objects. When rotating bitmaps the area of the bitmap increases
but not the objects displayed in the bitmap.

4.5.5 The *optimize material…*-function

The foil optimization takes care that all objects are arranged in a way that
they take the least space on the foil. By rotation or no rotation of objects it is
taken care of that the waste of material can be reduced.

4.5.6 The *outline*-function

This function creates a contour with a distance around a vector object to be
freely selected and is mostly used for contouring text objects. The color of
the target layer can be pre-selected. *Inline*, the reverse function creates a
contour lying inwards. *„Outline & Inline"* combined creates a closed
contour in the pre-selected strength.

Indication: Contrary to the contour with combined objects simultaneously an
inner contour is created. This function is not to be confused with a contour
pen that only is a drawing attribute and no vector object.

4.5.7 The *welding*-command

The merge functions **manually, automatically, trim, open trimming,**
fill, by color, full area and **screen printing** take care that overlaying object
parts what would cut the foil are eliminated and connected.

4.6 The *image*-menu

This menu contains functions for editing and retouching pictures and photos.

4.6.1 The *relief…*-command

This filter creates a relief-like, three-dimensional effect. You can compare
this effect with an embossed metal plate. Picture areas are increased or
drawn deepened.

Variations of this effect occur when selecting different "cardinal points".

4.6.2 The *properties…*-command

Shown are the memory requirements of the bitmaps in the main memory as
well as the used color depth.

Indication: With this command also the number of pixels can be
increased. Increasing the number of pixels causes that the resulting picture

size increases according to the increasing number of pixels.

4.7 The *settings…*-menu

4.7.1 The *standard settings*-menu

4.7.1.1 The *miscellaneous…*-setup

Following defaults can be set:

 CTRL+J

Duplicate distance in X-orientation

Indicates the value that remains between the original and the duplicate (in X-orientation) after the creation of a duplicate.

Duplicate distance in Y-orientation

Indicates the value that remains between the original and the duplicate (in Y-orientation) after the creation of a duplicate.

With dyn(amic) adaptation

This option takes care of the switching on or off of a function that automatically enters and uses the duplication values as X- or Y- orientation when duplicating with the right mouse button.

Displace objects in X-orientation

Indicates the value how much the marked objects are moved or displaced when pressing the arrow keys on the keyboard.

Displace objects in Y-orientation

Indicates the value in Y-orientation how much the marked objects are moved or displaced when pressing the arrow keys on the keyboard.

Indication: If you keep pressed the SHIFT-button during the movement, the value of the displacement is reduced to a tenth part. If you keep pressed the SHIFT + CTRL-button the displacement is a hundredth of the set step size.

Dimensioning

Autosave interval

The *autosave interval* indicates the duration when your job data are automatically saved on the hard drive. This backup file is always in the GreatCut-main directory. Its name is always **autosave.job**.

Max. number of last used files

The value indicates how many last opened jobs are listed at the end of the *file*-menu.

Query „overwrite file?" when saving

This option takes care that it is checked before saving if the current file shall be overwritten.

Query „change line weight/color gradient?" before output

This option switches on or off the query that checks before the transfer to the Plot-Manager if the line weight and/or color gradient shall be changed.

Max. number undo-steps

Refers to the undo-function in the *edit*-menu.

Indication: This option can only be set if no job is loaded.

No undo/redo for bitmaps bigger than ...

For bitmaps that are bigger than the value set in this field the undo/redo-function is automatically **switched off** which means that the operations on this bitmap cannot be made undone. Advantage: saving of time.

Reason: The expenditure of time (computational expenditure) for bitmaps from a specific size onwards becomes too big as for every undo/redo-step a copy of the original (initial state) must be created.
The value that is entered in this field should be between 5-10% of the RAM available in the computer.

Delete undos before printing(max. memory utilization)

The *delete undos before printing -*option deletes all undos done so far.

Here, the font size of the writing can be entered that shall be used at the dimensioning.

4.7.1.2 The job-info…-setup

In this dialog, optional to the fields that are available for the user in the job-info, **further** user-defined fields can be created that are shown in the dialog-boxes for loading and deleting files as long as they contain information.

The *automatically inquire job-info* -button indicates if, when saving a new job, the job-info-form is called-up automatically.

4.7.1.3 The *mouse…*-setup

CTRL+right mouse button assigned with

Here, you can define the assignment of the right mouse button. To do this, open the selection list and select the command that shall be carried out when clicking once with the right mouse button.

Delay at mouse click

This option increases the marksmanship when selecting objects. The default value is 100; the unit is millisecond. The higher this selected value the longer it takes until the object follows the mouse cursor. An accidental displacement of the objects is thus decreased.

Indication: users that are not so sure with the handling of the mouse should increase this value.

Scroll window automatically

This option is switched on by default and takes care that whenever an object is moved above the edge of the working surface with the mouse, the working surface automatically is moved, scrolled.

4.7.1.4 The *output devices…*-setup

This category of the basic settings allows the definition of important parameters for the output on the output device. The default settings correlate with the information in the output dialog before the output of the job data to the connected device.

Current output device

Here, the momentarily connected *output devices* are listed, the *driver* name and the *connection* -interface as well as the *mode* and the *material* from the material database are shown.

The …-button enables the new creation, modification and deletion of the respective pre-setting.

Connection

Indicates with which computer interface the output device is connected.

Default-settings

Maintain sheet origin

This option takes care that no new origin is set after the output of a job. The successional output is done at the same coordinates as the previous.

Stack processing

This option enables an uninterruptible output without an interaction of the Plot-Manager.

Wait after segment

Waiting after segment indicates if the cutter shall remain at this position after the output of a cut segment. This option is typically needed with flatbed devices without integrated automatic foil transportation.

Segment thus indicates the maximum addressable area that can be processed in one piece.

After the segment the foil is forwarded by hand to the correct position.

Sort before output

Sort means that all inner objects are processed before the outer objects and that a sortation is done in x-axis-orientation. This switch takes care that the foil is moved as little as possible in order to maintain the repeat accuracy as high as possible. This option is especially necessary with cutters with friction roll drive or when milling.
The output speed is slightly reduced with this setting.

Output to file

This option does not lead the output of the data to the connected device but opens a dialog in which the path and the name of an output file can be given that will be saved to the hard disk.

Readout automatically

This option can be activated if a device is connected and "online" and a readout-command for this device exists in the driver.

Only output layer with tool

This option takes care that only objects are output where a tool assignment to a layer was done.

▶ please refer to 6.2: The *layer*-toolbar

Weeding frame

This option defines if and with which distance a weeding frame is cut around the output objects. This option facilitates the weeding of foil.

Overlapping

It defines the overlapping of two segments. This value takes for example care of the compensation for the shrinking that occurs with foils.

Copy distance

Copy distance defines the distance of copies on the output medium.

Segment distance

Segment distance defines the distance between single segments of a job.

Stack distance

Stack distance defines if copies shall be stacked vertically. Requirement for the activation of this option is that the selected object can be output more than once on top of each other.

Indication: In the output-preview the first object is shown "normally". Each further object of the stack is shown with a black square filled with a X.

Show no tooltips

This option takes care that no tooltips that were entered in the device driver are shown in the output dialog.

4.7.1.5 The *register / jog marks…*-setup

Via this menu item the size, the position with regard to the selected object and the kind of register / jog and video marks can be determined.

Indication: The register / jog marks function serves for the determination of marks that are needed for the contour cutting.

4.7.1.6 The *filter*-setup

Selection for Autoimport

This setup allows to define the search paths for the import as well as to select the file name for the automatic import of files (F12) and if the file is to be deleted after the import.

The Autoimport works as follows:

If GreatCut is loaded and an EPS-file is saved in one of the given search paths under the defined name (for example GreatCut), then it activates automatically GreatCut and this file will then be loaded directly to the working surface.

For the import of data from CorelDRAW, Illustrator, Freehand and AutoCAD an automatic export named CoRUN is implemented.

▶ please refer to 2.2: [[P]] Scripts

Switch off import-preview for

Here, the size that the bitmap-files (TIF, JPG, BMP, PCX, …) and/or EPS-files may have so that they are shown in the import-preview can be defined.

Reason: When unintentionally selecting a huge file, unnecessary waiting times can occur.

When importing DXF-, HPGL

Close objects automatically

If activated, the vector objects whose distance from start and end point are within the closing tolerance are closed respective connected automatically when importing.

Closing tolerance

In an entry field the value for the maximum distance from the start and endpoint up to where the objects are closed respective connected is to be entered.

All layers

If this option is activated all layers are considered when automatically closing otherwise only the ones in the adjoining list.

Combine objects in same layers

If this option is activated all closed objects in the same layer are combined during the DXF-/HPGL-import.

When export via clipboard and drag'n drop

Create additional EPS-format

If this option is activated an additional EPS-format of the selected objects is created when exporting via clipboard or drag'n drop.

When importing

Adjust paper size to objects with following distances to leaf edge

If this option is activated the working area is adjusted to the imported objects when importing.
When working with GreatCut all distances between copies are calculated by means of the paper size.

Assign fixed object size

If this option is activated all imported objects are provided with the object attribute "fixed size". Thus the size modification is deactivated.

Fixed size at output

If this option is activated all imported objects are provided with the object attribute "fixed size at output". If this option is active no size compensation takes place during the output. The objects are only positioned and rotated after the reading of the marks.

Separate layers according to names

If this option is activated, for each color that has a not yet existing layer name a new layer is created. Thereby, same layer names are put in one layer.

4.7.1.6.1 OptiSCOUT…-button

Carry out following actions when importing files for GreatCut-processing

Create new job

If this option is activated a new GreatCut-job is created when importing.

Rotate objects at an angle of °

If this option is activated the imported objects are rotated at the entered angle value.

Load palette

Here, you enter the palette with the whole path that shall be loaded when importing a file. You can also search for and enter it via the adjoining button.

Search for / replace video marks

If this option is activated circles with the size defined in the **registration/ jog marks**-setup are searched for at the import and replaced by video marks.

Take over video marks from layer ...

Enter here the name of the layer in which the video marks for an imported file are lying. All circles in this layer will then be converted to video marks at the import.

Combine objects in same layers

If this option is activated all objects of the same layer are combined to "combinations" after the import.

Group all objects

If this option is activated all objects are combined to a "group" after the import.

4.7.2 The *color palette*-command

With this command new color palettes can be created, loaded or saved.

Layer numbers

If this option is active layer numbers are shown in the layer-toolbar.

Layer-Info…

Opens the dialog for the setup of the layer-toolbar. Here, you can define which information is shown if the mouse cursor is positioned above a layer color.

Possible information is: color-number*, RGB-"values, CMYK-values, material name, mode/tool, material* and *amount objects.* In addition, the *amount of visible layers* and the *width of the window* can be set.

An „I"-button opens a window with shortcuts of the **layer**-toolbar.

Layer-order…

This option opens a dialog for the modification of the layer-order respective the output order.

Only sel. layer visible

If this option is activated only the objects lying in the selected layer are shown on the working surface.

Delete sel. layer

Deletes the selected layer from the layer list.

Delete unused layer

This option removes all unused layers, all layers without objects and without device connection.

New
All color layers that have layer numbers bigger than 6 are removed.
You use this command if you want to define a new color palette individually.

The selection of the layer color is done by just selecting the desired color with your mouse cursor and then activating the **OK**-button.

Load…
The previously defined palettes can be loaded.

Save
With this command you save a newly defined or a modified standard palette on your hard disk. If this new or modified palette is saved as default palette it will be used at every new start of GreatCut.

Save as…
This command allows the new allocation of a palette name.

Default
This command loads the color palette that is delivered as standard with GreatCut. It is a Mactac foil color chart that was defined as default palette by means of the color fan.

Palette-history
This function facilitates the loading of the last 4 color palettes without the detour via the file directory tree. At the end of the menu list of the color palette menu the names of the last 4 edited color palettes appear. Click with the mouse cursor on the desired palette name and thus open the selected palette.

4.7.3 The *working area…*-instruction

Here, you can newly define the size and color of your working area. The working area is displayed as a paper frame with a gray shade on the right and down next to the frame. Pre-defined are for example DIN-A-sizes. Besides the fix defined measures you can define any number of user-defined working area. One can be defined as *standard*. It will then be pre-set at every "file new".
This option is a very helpful function for everybody who has a milling or an engraving device as the new entry in each case of the usable area can be omitted.
The color of the working area can be freely defined; this grants an optimal layout control on the screen.

Indication: A double click on the shade right next and below the working area also opens this dialog.

4.7.4 The *rulers…*-function

With this function you define the positions where the rulers shall be placed. Due to lack of space the display of the rulers can be abandoned. With diametric display each 5th step is drawn longer and with non-diametric each 2nd and each 4th once again.

 SHIFT+I

4.7.5 The *unit of measurement*-function

This instruction switches the measuring unit to the preferred unit (mm, cm or inch).

Indication: The metric can also be changed directly via a button that is in the angle of both rulers.

4.7.6 The *undo/redo*-instruction

With this instruction the **undo/redo**-function can be switched on or off.　　**SHIFT+F7**

Advantages when undo/redo switched off:
With big or many objects the node processing is faster. The testing phase (initial state -> edition -> temporary final state) with several processing steps can be made undone as follows:
1. Switch off undo/redo, 2. edit objects and 3. switch on undo/redo

The selection of the **undo**-function in the **edit-**menu reestablishes the state before point 1.

4.7.7 The *snap mode*-function

The snap mode facilitates the creation of objects at the subsidiary lines. This option activates the "magnetic" effect on graphic objects and text blocks.　　**P**

4.7.8 The *choose language…*-instruction

This instruction opens a dialog with which the display language of GreatCut can be selected.

4.8 The *window*-menu

4.8.1 The *standard*-instruction

This command switches the **tool**-toolbar on the desktop or makes it disappear.　　**CTRL+1**

4.8.2 The *layerbox*-instruction

This instruction switches the **layer**-toolbar on the desktop or makes it disappear.　　**CTRL+2**

4.8.3 The *tools*-instruction

This instruction switches the *tools*-toolbar on the desktop or makes it disappear.

CTRL+4

4.8.4 The *object*-instruction

This instruction switches the *object*-toolbar on the desktop or makes it disappear.

CTRL+7

4.8.5 The *status bar object-info*-instruction

This instruction switches the *status bar object-info*-toolbar on the desktop or makes it disappear.

CTRL+8

4.8.6 The *status bar element-info*-instruction

This instruction switches the *status bar element-info* on the desktop or makes it disappear.

CTRL+9

4.9 The *help*-menu

4.9.1 The *about…*-instruction

The selection of this menu entry opens an info-window in which various information is shown. On the left part of the dialog among others the *serial number*, *version number, free disk space, co-processor,* or *type of processor* are shown. On the right down part of the dialog is a scroll-window in which all the application-files of the respective application-version are listed. This file list can be printed via the *print*-button.

Indication: If there should be problems with your GreatCut-version you can fix them the fastest if this list is made available to our support staff.

4.9.2 The *help*-instruction

This option starts the GreatCut-help.

F1

4.9.3 The *object-info…*-instruction

The activation of this instruction opens an info-window that contains information about the objects on the desktop. These are among others the number of objects, number of selections, vector objects, text blocks, all groups and combinations or all bitmaps.

F10

The *selection*-button opens the *objects-manager*.

4.9.4 The *online support*-instruction

The activation of this menu item establishes a direct internet connection to the support-page of the EUROSYSTEMS S.à.r.l. - www.eurosystems.lu.

4.10 Reference part context menus

4.10.1 Reference list of all context menu instructions

Context menus are called context menus as its structure adapts and changes depending on number and type of the selected objects (context). Context menus are always activated via the *right* mouse button. They serve for the fast access to important functions and tools, also to those that cannot be activated via the main menus.

Following menu entries displayed **bold** can appear in a context menu by clicking with the right mouse button.

draw modes "line, curve, digitize mode, freehand"

- in the mode "line": **arc, digi mode, freehand**

- in the mode "curve": **line, digi mode, freehand**

- in the mode "freehand drawing": **line, arc, digi mode**

- in the mode „digitize": **line, arc, freehand**

In addition, if the object has more than 3 nodes: - **close**

Clones

- Select Clone Original

- Select Clone Objects

In the output-preview:

- **Material optimization** (if no demo and more than 1 object)

- **Change axis,** - **hor. mirror,** - **vert. mirror,** - **recalculate** (when segmenting), - **segment size** (when segmenting), - **horizontal weeding lines** (if weeding frame), - **vertical weeding lines** (if weeding frame), - **weed border** (if no copies)

If objects are not locked: - **ungroup** (if selection contains group), - **group** (if more than 1 object selected and no clone is selected)

Node editing if no locked objects are selected:

- **Insert** (if node selected), - **delete** (if node selected) - **break** (if 1 node selected and

another one is behind), - **join** (if 2 nodes selected (start/start or start/end or end/end)) - **line** (if curve node selected), **curve** (if line node selected), - **new starting point** (if 1 node selected and object closed)

If more than 1 node selected: - **sharpen edge,** - **round,** - **join with line,** - **join with curve**

If 2 nodes are selected within an object or a combination: - **hor. object alignment**, - **vert. object alignment,** - **reduce nodes**

If less than 2 nodes selected: - **reduce nodes,** - **round...**

Hatch module is installed:

If it was clicked within a closed object on selected or between 2 selected nodes: - **start tool path inside,** - **start tool path outside**

Il 1 node selected & another is behind: - **insert bridge (xy mm)**

If more than 1 node selected: - **create regmark at sel. nodes**

If properties exist (job not protected by password):- **properties**

If plugin-version: - **contour line**

At application versions with text editor:

If not clicked on object, PhraseWriter exists and no node editing mode: - **text components**

If text object selected or text in selected group or combination: and if sel. text can be edited (no attribute „not edible"):- **edit text,** - t**extbox,** - **circular text...**

If sel. text not locked: - **cancel circular text** (if text with circle set), - **text to curves,** - **text to lines** (if text has several lines), - **remove text attributes** (if existing)

If ONE not locked bitmap is selected: - **reduce colors,** - **posterize,** - **vectorize,** - **revectorize** (if possible), - **contour**

If ONE not locked closed vector-, combination- or text-object with bitmap-filling is selected: - **remove mask**

or one of these object types lies *above* a bitmap: - **mask bitmap,** - **cut region**

If clone-original selected: - **select clone objects** otherwise if ONE clone selected: - **select clone original**

If no rulers, not clicked on an object and not in the output-preview: - **guidelines...**

If guidelines are fixed: - **release guidelines** otherwise - **fix guidelines**

If guidelines are hidden: - **show guidelines** otherwise - **hide guidelines,** - **delete all guidelines,** - **insert guidelines to center of page**, - **origin...,** - **move origin**, - **reset origin**, - **set origin to center of page**

If origin is displayed: - **origin** otherwise - **show origin**

If origin is fixed: - **release origin** otherwise - **fix origin**

If not clicked on object: - **refresh screen, - import, - insert,** - **job-info, - job-calculation, - dimensions on selection, - hor. dimension, - vert. dimension, - hor. and vert. dimensions, - left border distance, - bottom border distance, - left and bottom border distance**

If undo-buffer not empty: - **Undo:** <last action>

If redo-buffer not empty: - **Redo:** <last action>

If objects exist: - **copy,** - **cut,** - **reverse selection**

If export filter and exportable objects exist: - **export**

If Pjannto RIP is installed: - **Pjannto RIP...**

If PosterPrint is installed: - **Posterprint-RIP...**

If Posterjet is installed: - **Posterjet...**

If not locked objects exist: - **add print marks**

If nesting-DLL exists and sel. objects nested: - **Nesting…**

If group(s) selected: - **ungroup**

If more than one object and no clone-original selected: - **group**

If combination(s) were selected: - **break combination**

If combination has interior elements: - **delete inner parts of combination**

If more than one object and no bitmap or clone-original selected: - **combine**

If regmarks exist and if ONE mark and another object were selected: - **center regmark onto object**

If several objects were selected: - **search and replace regmarks**

If only ONE object was selected: - **search and replace regmarks due to sel. size**

If objects selected but no group and no locked and not only ONE bitmap: - **fill,** - **none,** - **color graduation...,** - **bitmap..., - layer color**

If Ini-entry „defaults" / „transparency" on 1: - **transparency...**

If more than one object or an object with filling was selected: - **outline,** - **none,** - **hairline**, - **attributes..., - layer color**

If more than one object or an object with wire frame was selected: - **layer color** or at least one not blocked object selected and Ini-entry „defaults" / „transparency" on 1:- **transparency...**

If exportable objects are selected and the clipart window is opened: - **add to clipart category**

4.10.2 Context menu empty working area

Fig. 4.10-1: This menu appears if no objects lie on the desktop

Text components

This instruction opens the ***Text components-****dialog.*

Refresh screen

This instruction refreshes the main window.

Import…

This menu entry opens the ***import*** dialog for the import of external file formats.

Insert

This menu entry inserts contents from the Windows clipboard to the GreatCut working area.

Working area

This menu entry opens the dialog for the pre-setting of the parameters of the working area.

5 Reference part output preview

5.1 The *output*-menu

5.1.1 The *output*-command

Starts the **output** on the connected device with the settings of the **output to device** dialog.

5.2 The *options*-menu

5.2.1 The *save as …*-command

The **save as…**-command in the **output**-preview ... saves the job with all changes that were done in the preview. When returning to the working surface all these settings would be lost, therefore, the job can here be saved under another name.

SHIFT+CTRL+S

Compare **save as…**-command in reference part ▶ please refer to 4.1.4: The *save as…*-command

5.2.2 The *rotate axis*-command

This command rotates the marked objects at 90° counter-clockwise.

compare **rotate axis**-command in the reference part ▶ **please refer to 4.3.1: The *rotate axis*-command**

A

5.2.3 The *horizontal mirror*-command

The selected object is mirrored at the horizontal through its center-point.

compare reference part **The horiz. mirror**-command -▶ **please refer to 4.3.3: The *horizontal mirror*-command**

X

5.2.4 The *vertical mirror*-command

The selected object is mirrored at the vertical through its center-point.

compare reference part **the vert. mirror** -command -▶ please refer to 4.3.4: The *vertical mirror*-command

Y

5.2.5 The *optimization…*-command

The foil optimization takes care that all objects are arranged in a way that they take the least space on the foil. By rotation or no rotation of objects it is taken care of that the material waste can be decreased.

compare reference part **tool**-menu, sub-menu the **foil optimization**-function
and **cutting - milling - grooving - drawing etc.** ▶ **please refer to 3.4:**
Cutting - Milling - Creasing - Drawing …

5.2.6 The *sort with simulation…*-command

This command opens the sort-objects-function with which the output-order 🔷 **CTRL+F10**
and the direction of rotation can be defined. The sortation can de done
dependent or independent on layer. Also, the preferred direction of the
sortation can be defined.
In a preview window the output of the objects is simulated graphically;
here, the traverse paths of the tool head can also be drafted. The
simulation can be done unlimited without changing the original objects.

compare **object**-menu, **sort with simulation**-command ▶ **please refer to 4.3.14: The**
sort with simulation…-command

In detail refer to: **the sortation with s*imulation*-tool** ▶ **please refer to 7.5: The *sort***
***with simulation…*-tool**

5.2.7 The *recalculate*-command

The **recalculate**-command enables the modification of the 🔷 **N**
output-parameters or of the driver settings without leaving the output routine.

This command switches back from the **output** preview to the **output** dialog.

5.2.8 The *initial display*-command

Puts back the output preview to the status before having pressed the 🔷 **SHIFT+N**
preview -button in the output- dialog. All changes are made undone.

5.2.9 The *horizontal weeding lines*-command

Weeding lines serve for the better processing of big jobs. Material lengths of 🔷 **H**
several meters in length or width are difficult to handle, therefore you can
insert weeding lines during the foil cutting that divide the job into smaller
parts that are easier to handle.

The **horizontal weeding lines** are set with the hot key "h" or drawn with the
arrow from the weeding frame dashed in blue.

Detailed description: ▶ please refer to 3.4: Cutting - Milling - Creasing - Drawing …

5.2.10 The *vertical weeding lines*-command

Weeding lines serve for the better processing of big jobs. Material lengths of several meters in length or width are difficult to handle, therefore you can insert weeding lines during the foil cutting that divide the job into smaller parts that are easier to handle.

V

The *vertical weeding lines* are set with the hot key "v" or drawn with the arrow from the weeding frame dashed in blue.

Detailed description : ▶ please refer to 3.4: Cutting - Milling - Creasing - Drawing …

5.2.11 The *test drive*-command

If the *test drive*-command is activated the connected device goes with lifted tool head along the weeding frame. This also happens if the option "weeding frame" was not activated.

Compare *test drive* -button in the *output* dialog ▶ **please refer to 3.4: Cutting - Milling - Creasing - Drawing …**

5.3 The *view*-menu

5.3.1 The *material width*-command

When activating this command the section is adjusted to the values for the *material width* defined in the driver or set in the *output*-dialog.

B

5.3.2 The *all objects*-command

This function changes the display in that way that all objects can be seen on the screen. The section is selected so that it is the biggest possible display showing all objects.

F4 and Shilft+F4

If while activating this command the SHIFT-button is pressed only the marked objects are zoomed to maximum.

5.3.3 The *selected objects*-command

If this command is activated only the *selected objects* from the *output*-preview are displayed as big as possible.

SHIFT+F4

5.3.4 The *total area*-command

If this menu item is activated the preview of the whole material surface is shown.

 SHIFT+B

The size of the shown surface depends on the so called frame size (foil height * foil width) of the output device to be accessed.

If in the **output** dialog a driver for a friction feed cutter was selected in the preview always a material length of 30m is shown.

If in the cutting dialog a driver for a flatbed cutter was selected the maximum width of the flatbed cutter is shown as material length.

5.4 Context menu of the right mouse button

5.4.1 Context menu output preview

Context menu of the output preview with weeding frame function

Weed border

This function creates a weeding frame around the *selected* objects in the output preview unlike the weed border option.

All other menu entries can be activated via the main menu.

6 Toolbars

6.1 The *standard*-toolbar

The **standard**-toolbar is switched on or off via the **window**-menu.

 CTRL+1
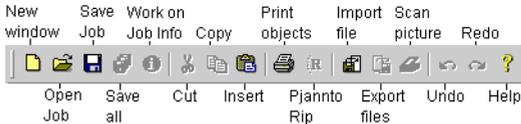
Fig. 6.1-1: Standard-toolbar with explanation

6.2 The *layer*-toolbar

The **layer**-toolbar is switched on or off via the **window**-menu.

 CTRL+2

The **layer-toolbar** serves for the coloring of objects, the definition of foil colors, the selection of objects that have a layer color, the locking and the hiding of color layers as well as the allocation of *output-tools*.

Positioning

In order to position the **layer-toolbar** please click with the left mouse button on the gray bar/area above **Pal >** or on the small gray area underneath the last layer. The gray frame around the toolbar changes to black and can be placed at any position on the GreatCut-desktop with the *left mouse button kept pressed*.

Indication: A double click on the „layer"-field moves the toolbar again to the standard position of the desktop.

6.2 The layer-toolbar

Fig. 6.2-1: The layer-toolbar in the mode free- floating
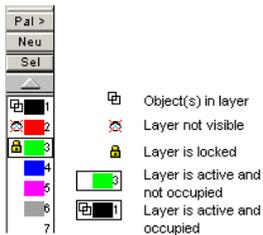
Fig. 6.2-2: Section layer-toolbar with explanation of the symbolism

*Indication: The width of the **layer**-toolbar can be set individually. Refer to Layer **setup** dialog/Layer-Info/Window width.*

Pal >

If the **Pal >**-button is pressed, following menu opens automatically.
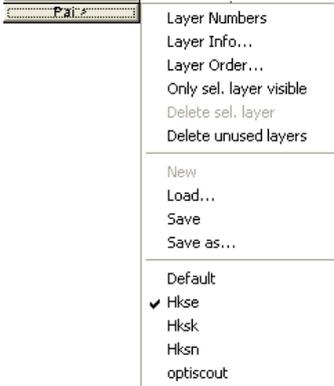
Fig. 6.2-3: Pal(lettes) context menu

Layer numbers

The activation of this option switches on or off the numbering next to the color bar.

Layer-info…

opens the following setup-layer dialog.
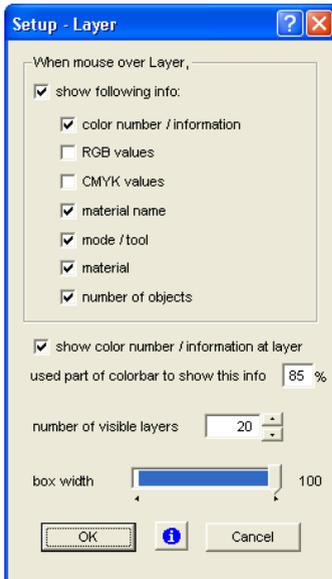
Fig. 6.2-4: Layer setup dialog with several parameters for the basic setting

When mouse over layer, show following info,

the activated information is shown in a so called tooltip.

In addition, the **used part of color bar to show this info %**, **number of visible layers** can be defined and the **box width** of the **layer**-toolbar can be changed interactively.

Layer order…
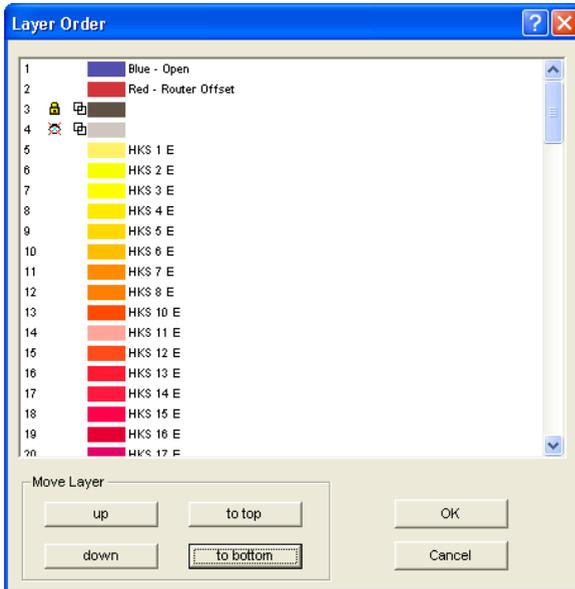
Fig. 6.2-5: **The change layer-sequence dialog**

The sequence of the layer can be changed arbitrarily. To do so, please use the **up -, down -, to top -, to bottom** -button.

Only sel. layer visible

Only shows the objects that lie in the selected layer.

Delete sel. layer

Deletes the selected layer.

Indication: This option can only be activated if no objects lie in this layer, if the layer is unused.

Delete unused layers

All layers that do not contain any objects (unused) are deleted.

New-button or right mouse button on color bar

Opens the layer settings dialog. This dialog has two views that can be activated via the *color…*- or *output…*-button.

1. Layer settings output-setup
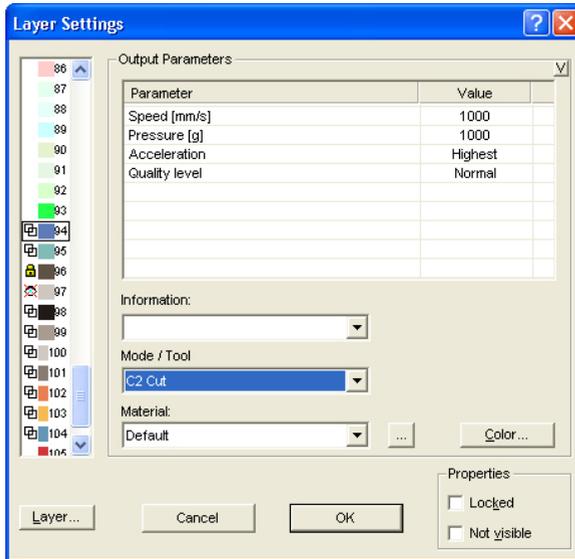
Fig. 6.2-6: Layer dialog with tool/mode-list -output setup

2. Layer settings color-setup

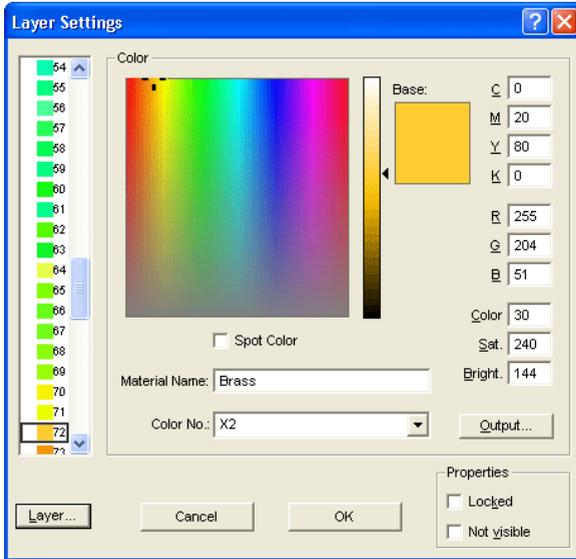This following dialog view appears after pressing the *color*-button.

Fig. 6.2-7: Define layer - color, media name, color number and properties -color setup

In the **layer settings** dialog the user can select between three color models:

1. **CMYK** - cyan, magenta, yellow, contrast
2. **RGB** - red, green, blue
3. **HSB** - hue, saturation, brightness

Layer-button

Save

Saves an additional layer with the individual settings.

Insert

Inserts a layer in the **layer**-toolbar.

Delete

Deletes a layer from the **layer**-toolbar.

Save palette

This option saves all done modifications in the corresponding palette-file in the Pal-sub directory.

Properties

Locked

Locked means that the objects that are in the color layer cannot be marked respectively selected any more. In front of the locked layer a symbolized lock appears.

Not visible

Not visible lets all objects that lie in this layer disappear from the desktop. In front of the invisible layer a symbolized slashed eye appears.

Indication: Both functions can be made undone at any time by activating in the marked color bar the layer settings dialog with the right mouse button and resetting the property.

Color

Material name

In the field ***material name*** you can assign an individual name to the color layer.

Color-number

In the field ***color-number*** you can enter the name or color number corresponding to the media type.

Indication: The advantage of the attribution of foil name and color-number is that you can assign individually, matching with your stock, color layers to all media. When designing, these media can be considered so that at the output the attribution becomes obvious. To each selection of foil or media types a palette can be saved that is used when designing.

Output-button

The activation of the ***output…***-button switches to the ***output***-setup.

Spot-color

The color name that is entered in this field is written with the EPS-export in the output-file.

Indication: Often, this option is used for the definition of cutting paths or the spot color is treated like an extra channel in Photoshop.

Load...

Previously defined palettes can be loaded.

Save

With this instruction you save a newly defined or a modified palette on your hard drive.

Indication: If this new or modified palette is saved as default palette it is used at every new start of GreatCut.

Save as...

This instruction allows the new allocation of a palette name.

Default

This instruction loads the color palette that is delivered as standard with GreatCut. It is a Mactac foil chart.

Palette-history

This function facilitates the loading of the last color palettes. At the end of the menu list *Pal >*-menus the names of the last edited color palettes appear. Click with the mouse pointer on the wanted palette name and the selected palette is read and shown in the toolbar.

Sel-button

Sel

Fig. 6.2-8: Sel(ected)-button

If the *sel*-button is pressed all objects on the desktop are marked that lie in the selected layer.

Up-down-button

Fig. 6.2-9: Up-down-button

Pressing the *up-down*-buttons scrolls the layers upwards respectively downwards.

6.2.1 Shortcuts in the layer editing

The following shortcuts are available in the layer editing:

Adjoining shortcut opens the *layer settings* dialog   **L**

Scroll in the toolbar

	SHIFT-key	Scroll 10-times
	CTRL-key	Scroll 100-times
	SHIFT CTRL-key	Scroll 1000-times

Jump in the toolbar

POS 1-key	Jump to the first layer
END-key	Jump to the last layer
PgUp/down-key	Jump to 1/10 of the total layer number
CURSOR up/down	Jump to the next layer

Color assignment via the toolbar

Double click	assigns the layer color to marked objects
Double click	assigns to marked objects a pen contour in the active
CTRL-key	layer color

Movement of single layers / modification of the sequence

1. Step: position mouse cursor on wanted layer
2. Step: press left mouse button and keep pressed
3. Step: move layer to the wanted position
4. Step: click once right mouse button
5. Result: the layer is at the new position

6.3 The *object-parameter*-toolbar

The **object-parameter**-toolbar consists of two parts, a *not variable* and a *variable* part. The vertical hyphen next to the *duplicate-* and *apply*-button separates the two parts.

Not variable part
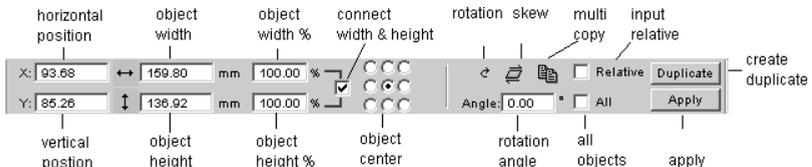
Fig. 6.3-1: Object-parameter toolbar with explanations

Variable part

Important functions that shall be fast accessed can be inserted as icon in the variable part right next to the vertical hyphen in the **object-parameter**-toolbar.
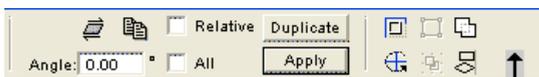
Fig. 6.3-2: The arrow marks the area for the integration of additional tool-icons

Please proceed as follows:

Position the mouse cursor in this area and click once with the *right* mouse button.
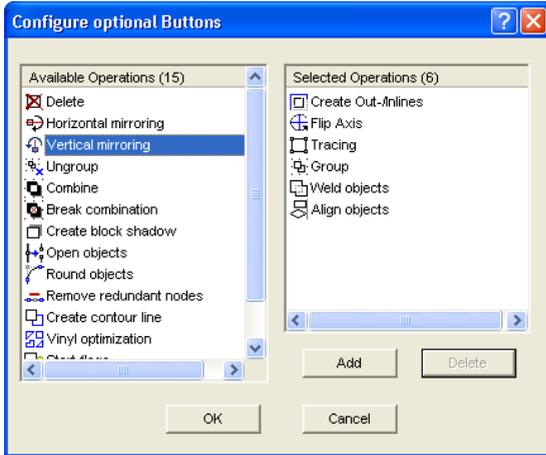Following dialog opens:

Fig. 6.3-3: Dialog for the integration of further tools in the variable part

On the left side are the available tools. On the right side of the dialog the selected tools
are shown. If you are in the left part of the dialog and a tool is activated (highlighted in
blue), it can be added. If you are in the right part of the dialog and a tool is marked
(highlighted in blue), it can be removed again.

6.4 The status line *object-info*

This status line informs about the properties and attributes of objects on the
GreatCut-desktop. This information comprises number, type of object, color model, color
value and many other data important for the evaluation.
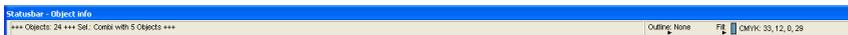
Fig. 6.4-1: Status line for the display of object properties, color spaces , etc. - free floating

Fig. 6.4-2: Status line for the display of object properties, color spaces, etc. - fixed

6.5 The status line element-info

This status line indicates the current mouse cursor position in x/y-coordinates. In addition,
in the left part next to the cursor coordinates subsidiary texts and additional texts from the
layer-info for example from the field *material name* are displayed. It is also possible to
show driver information as for example the set tool depth for a particular layer.

Cliparts can also be inserted and pulled out by Drag'n Drop (comment using right mouse button)   X: 431.09 Y: 61.57

Fig. 6.5-1: Status line element with subsidiary texts and element information, here coordinates

6.6 The *preview tools*-toolbar

The *arrow*-tool

This mode allows you to *mark, move, group temporarily* (marking function) and *modify the size* of objects in the output-preview.

The magnifying glass*+*

The button with the (+) plus sign increases parts of the output preview. Draw with the marking function a frame around the area that shall be increased.
This function can be carried out successively several times until a beep reminds acoustically of the last possible step.

Indication: The function key F2 and the (plus)-key of the numeric keyboard also carry out the increasing function.

The magnifying glass−

The button with the (-) minus sign decreases *gradually* parts of the desktop or of the working area.

Indication: The function key F3 and the (minus)-key of the numeric keyboard also carry out the decreasing function.

The sheet

The button with the symbolic sheet of paper shows the material area increased to the maximum.

The *screen*

The button that symbolizes a screen displays all objects on the material area as big as possible. The section is thus selected that is it the biggest possible display with all objects visible.

The *magnifying glass for selected objects*

The „dotted loupe"-button displays all selected objects as big as possible.

Indication: Keep pressed the SHIFT-button while doing the instruction. Then only the marked objects are increased to the optimum.

The *measure*-tool

This tool serves for the determination and the percental modification of object dimensions.
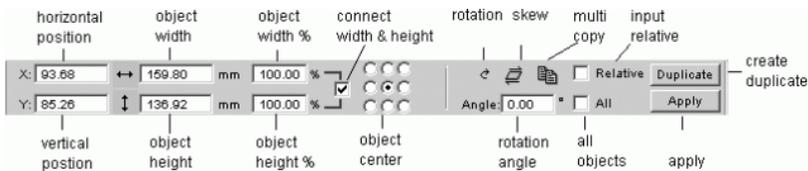
The *output*-instruction

The activation of this button gives the data to the Plot-Manager for the output to the connected device.

6.7 The *preview object parameter*-toolbar

is identical with the *not variable* part of the **object-parameter**-toolbar.

Fig. 6.7-1: Object-parameter toolbar with position, size, angle, multi-copy, …

The display of the object-parameter-toolbar varies depending on how the object-properties are set!

Examples for different object-properties:

Fig. 6.7-2: Object-properties dialog for object-type text block
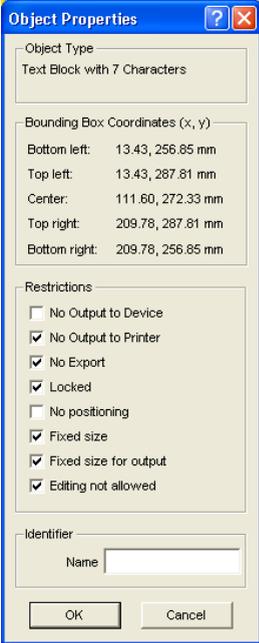
Fig. 6.7-3: Object-properties dialog for object-type text block active

6.7 The preview object parameter-toolbar

7 Tools

7.1 The desktop

After starting GreatCut the desktop with the working area appears as follows:
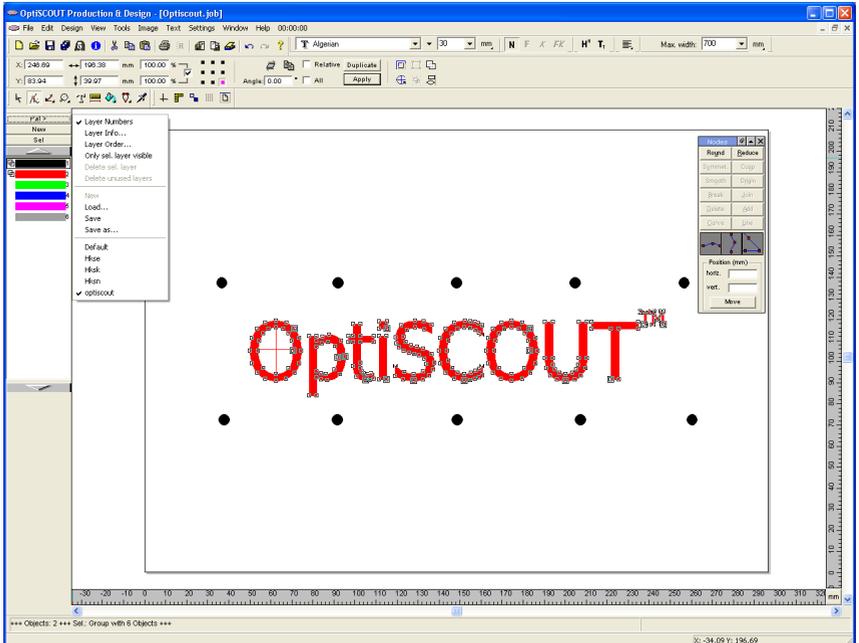
Fig. 7.1-1: GreatCut Desktop with working area and shown tool-toolbar, rulers, Clipart-Manager and status lines

The **working area** is marked by a black frame that has on the right and below a gray shade. The working area serves for the orientation and dimensioning.

The **rulers** can be freely positioned or completely switched off. The **layer**-toolbar can be positioned at any place of the working area. As default it is at the left border of the working area. The **metric** (cm, mm, inch) can be directly changed via a button that is within the angle of the two rulers.

In the **status line** you find much information about the objects on the working area. For example the **wire frame**, **filling**, **object dimensions**, **-number**, **combination** or **grouping** are displayed.

7.1.1 Cursor forms on the working area and their meaning

Cursor form **Meaning**

🖢 no object marked or selected

Indication: You mark objects by positioning the mouse cursor above the object and pressing the left mouse button.

Cursor form ***Meaning***

✛ *Move objects*

Indication: This cursor is only active if the cursor is within the range of the inner part of the object or in the range between the 8 black squares on the wire frame line. The object must be marked.

Cursor form ***Meaning***

↕ *Increase object vertically*

↔ *Increase object horizontally*

↘ ↗ *Increase object diagonally*

*Indication: The cursors for the modification of the object size are only active if the cursor is within the range of the 8 black squares on the wire frame line of the object. You switch to the **skewing-/rotation**-mode by clicking with the left mouse button with active cross cursor (see above move objects).*

Cursor form ***Meaning***

🖢↻ *Object in the **skew/rotate**-mode*

↗ ↖ ↘ ↙ *Rotate object*

↔ ↕ *Skew object (set tilted horizontally/vertically)*

7.2 The *outline*-function

This function is activated via the ⊡-button in the variable part of the *object-parameter*-toolbar or via the *tools*-menu, menu entry **outline…**

◈ O

The **outline**-function creates contours in a freely definable distance around graphical and text-objects.
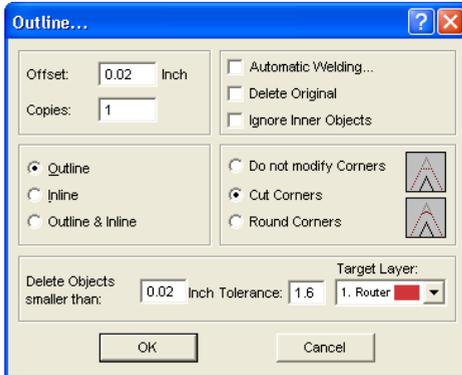
Fig. 7.2-1: Outline parameter-window

Offset

The value for the distance of the inline and outline from the original object are entered in the field **offset**.

Copies

The option **copies** indicates how many in- or outlines shall be created simultaneously at a function call.

Automatic welding

Automatic welding means that all overlappings of in- or outlines shall be removed so that a closed contour is created.

Delete original

If the button **delete original** is activated the original object is deleted after the creation of the contour.

The corner treatment can be influenced via three additional options.

Do not modify corners

The option **do not modify corners** creates the mathematical accurate dot on the outline to each corner dot. This leads to the fact that in pointed corners the outline is extended endlessly which often leads to unaesthetic results. Therefore the option **cut corners** is pre-defined as default. This option shortens the extension to the value that is entered in the field **tolerance**.

Round corners

Round corners transfers the corner dot in a rounded curve. The field **tolerance** indicates

in which offset from the corner dot is cut respectively rounded.

Delete objects smaller than

Delete objects smaller than defines the size of a filter that deletes automatically small and smallest "rejects" that might occur at the creation of an outline. The circuitous welding of smallest parts thus can be omitted.

7.3 The *undo-redo*-stack

The undo-redo-stack is activated via following key combination:

SHIFT+F5
or
SHIFT+F6

These functions can undo or redo all *object related* actions.

Indication: actions that refer for example to the working area, the desktop or the layer-toolbar are not taken into the stack.

The pre-settings in the *settings*-menu, submenu *miscellaneous*

The **Undo-Redo**-stack related settings as for example the number of stack-actions are carried out in the following setup dialog.

Indication: The maximum number of the undo-steps can only be modified with an empty working area.
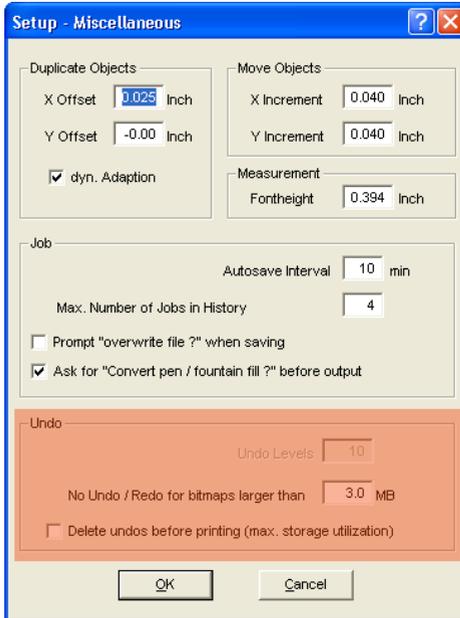
Fig. 7.3-1: The parameter of the undo-stack (here: marked in red)

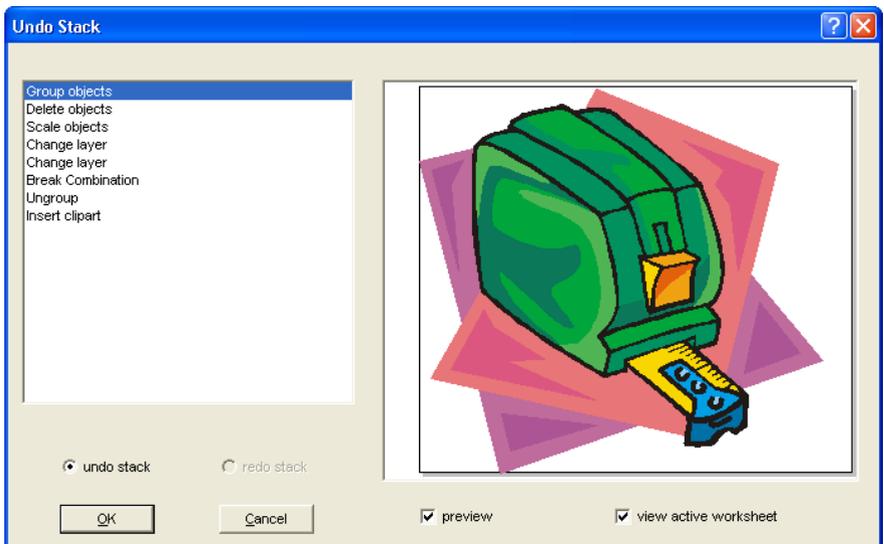The area **undo-function** comprises the settings that effect the undo-stack.

Fig. 7.3-2: Undo-stack with preview window and working area

In the left stack the action can be selected up to which you want to go back. The preview window shows the status of the working area and of the objects on the working area at the moment of the action.

The **redo**-stack operates in the same way.

7.4 The *alignment*-function

Fig. 7.4-1: The alignment -button

This function aligns two or more marked objects to each other or to the working area.
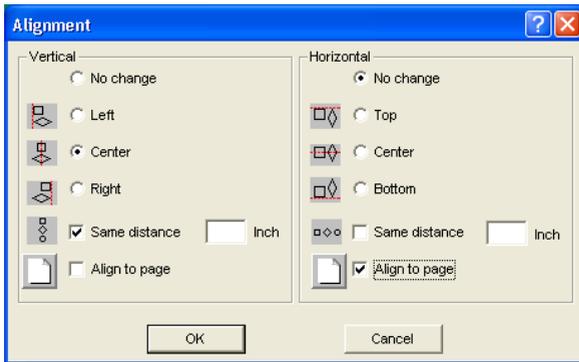
Fig. 7.4-2: The alignment- parameter dialog

Objects can be aligned horizontally or vertically. A centered alignment is also possible as the selection of the same distance between the marked objects. The type of alignment is illustrated by icons.

7.5 The *sort with simulation…*-tool

This tool serves for the **sortation of objects** and the **determination of sequences** before the output at the connected device. A simulation with or without complete path of the device tools facilitates the estimation of the results.
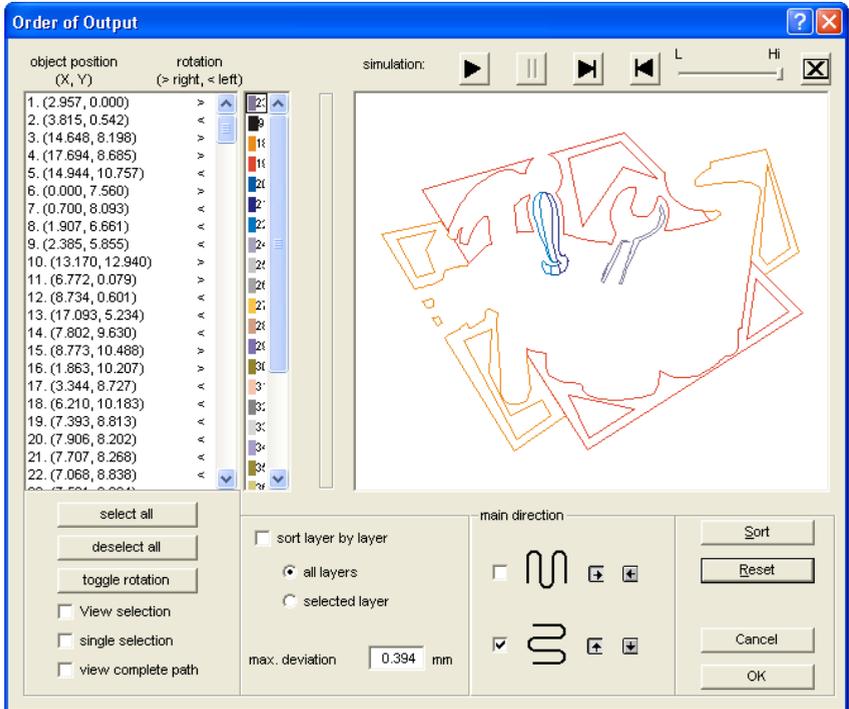
Fig. 7.5-1: Object-sortation with preview-window and simulation option

7.5.1 Simulation

The operation of the simulator is similar to a DVD-player.

Lo (low) up to *Hi* (high) regulates the speed of the simulation display

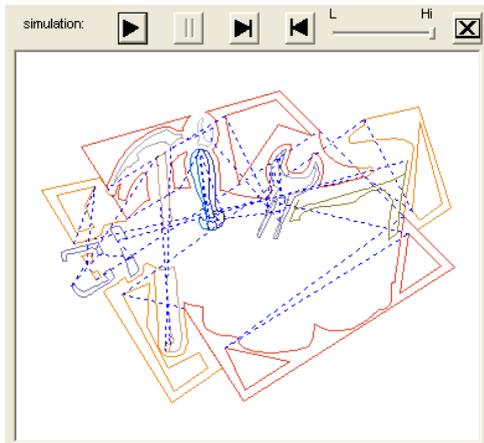7.5 The sort with simulation…-tool

Fig. 7.5-2: Option show traverse path (lines dashed in blue) activated

Color bar

A click on the wanted color bar selects the respective color layer.

Select all

Selects all objects of the list.

Deselect all

Deselects all objects of the list.

Toggle rotation

This option modifies the orientation from *clockwise* (right) to *counterclockwise (left)* and vice versa.

View selection

Shows the selected objects in the preview window.

Single selection

In the list only one object can be selected; the multi-selection (standard) is deactivated.

View complete path

A line dashed in blue shows the track that the tool head covers.

Sort layer by layer

All layers

This option comprises all layers to the sortation if ***sort layer by layer*** was activated.

Indication: This option is, depending on the driver setting, deactivated in the output preview

Selected layer

This option comprises only to the selected layer to the sortation if ***sort layer by layer*** was activated.

Max. deviation in … mm

In the input field the value for the maximum deviation of the thought vertical respective horizontal line that an object may have in order to be sorted can be entered.

Main direction

2 directions as main direction can be activated for the sortation, in orientation of the ***y-axis*** or in orientation of the ***x-axis***.

Y-axis

This option is shown graphically by a sinuous line in y-orientation.

In addition to the orientation you can indicate if it shall be sorted ***from left to right*** or ***from right to left***.

X-axis

This option is shown graphically by a sinuous line in x-orientation.

In addition to the orientation you can indicate if it shall be sorted ***from the bottom up*** or ***from the top to bottom***.

Sort

Only the ***sort***-button activates the object sortation. Then you can check in the simulation if the sortation meets the demands.

Reset

Resets the objects in the sort-list to the initial value.

7.6 The *welding*-tool

This function is activated via the ⬚-button in the variable part of the ***object-parameter***-toolbar or via the ***tools***-menu, menu entry ***welding…***

⬢ **W**

7.6 The welding-tool

This function welds two or more vector objects with each other to a combination. Depending on the number and the form of the selected objects you can choose between the following options: **manually**, **automatically, trim** cuts objects with lines or curves, **open trimming, fill**, **by color**, **full area** or **screen printing**.
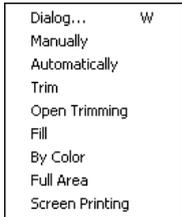
Dialog...   W
Manually
Automatically
Trim
Open Trimming
Fill
By Color
Full Area
Screen Printing

Fig. 7.6-1: Tools-menu -welding - submenu

Dialog…

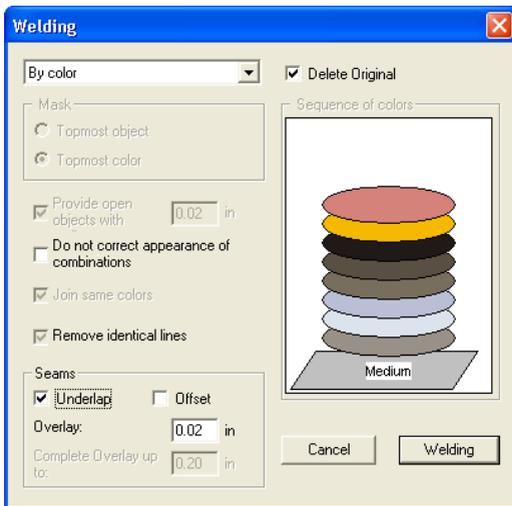The activation of this submenu opens the following dialog

Fig. 7.6-2: Welding dialog

Manually

Manually separates all intersections that occur because of the overlapping of outlines and creates object parts. With the **arrow**-function you mark the object parts that you want to remove. With the DEL-button the selected object parts are deleted. Overlapping-free object parts are kept and can later be further edited. The original color of the object parts are kept with the manual welding.

Automatically

Automatically calculates the common areas of the objects. All overlapping parts are combined, transparent interior elements are considered.

Indication: With this option, objects of different colors are welded to a combination object.

If the object colors shall be considered please select the options **by color**, **full area** or **screen printing**.

The option **automatically** is especially suitable for the welding of serifs with scripts. The serif of the previous letter overlaps often with the successive character. The material would be slit at these positions without welding. The automatic welding eliminates this overlapping and takes care of a cuttable transition in the serifs.

Tip: If single parts are missing after the automatic welding, then reduce the character spacing in the text editor from 100% to 99%. This causes that identical node dots that lie on top of each other are misplaced so that they are recognized also as single nodes and the welding routine is carried out properly.

Trim

Trim means that you cut through closed objects with lines or curve objects and that the object parts that are thus being created are automatically closed afterwards. Depending on your request you can lay one or more objects over the objects to be slit like a "knife". If you want to work with several "knives" these objects must be allocated to the same layer or be combined. Then, by means of the **trim**-option, the objects lying underneath are cut alongside the "knifes". Also cutting in several "tilings" is possible without problems as the knifes can overlap at discretion. The parts having thus being created are then sorted according to their position and combined to single groups.

Open trimming

The **open trimming** works like the trimming with the difference that cut-off points of the cut objects are not closed automatically but kept as open objects.

Fill

Fill provides objects that consist of arbitrary many other objects with a fill consisting of the other objects. Depending on your choice, the topmost object or objects of a layer are filled with the ones underneath.

Indication: Please pay attention that the objects to be filled must be closed. Only this way you limit an area that can be filled.

By color

By color removes all areas that are hidden by colors lying above. It does not matter how many objects and colors you select. If open objects are also selected they can be closed or provided with a line weight.

Full area

The option **full area** underfills objects of one color whose areas hide those of another. To do this, the partially hidden objects are modified so that they underlay completely the ones lying above. Here, you can also proceed with the open objects as described under **automatically**.

Tip: The mostly used field of application is the showcase labeling where the by color-option is often too laborious to be pasted over. With 2 maximum 3 foil colors you take the full surface option where the single foil colors are pasted above the other.

Screen printing

The welding option **screen printing** is an especially efficient tool for the screen printer. At first, the overlappings of the single coatings are removed. Then, the colors are layered according to the sequence in the field **color sequence**. At the end, a small bar is inserted at the **seams** between the single color layers as overlapping.

The color stack with the screen printing-welding

Modification of the color stack: With the screen printing, the printing sequence is from bright to dark. Brighter colors are printed before the darker colors. By mouse click a coating is grabbed and drawn to the wanted position. The color stack reflects the position of the layers above the medium. The output sequence considers the modifications of the color stack.

Delete original

With the checkbox **delete original** you set if the initial objects shall be deleted after the welding process or not.

Mask

Topmost object

If this option is activated the **topmost object** can be defined as welding object with the welding functions **trim, open trim** and **fill**.

Topmost color

If this option is activated all objects of the above lying color can be defined as welding object with the welding functions **trim, open trim** and **fill**.

Provide open objects with contour … mm

If open objects are amongst the selected you can indicate with the option **provide open objects with contour …** which thickness the created closed object shall have.

Do not correct appearance of combinations

With this option combinations are treated that they are welded as displayed in the full surface mode. Overlays in combinations remain transparent.

Join same colors

It can happen that the same color reappears in different group- or combination objects. Then, select the option *join same colors* so that those merge to one color layer.

Indication: This is especially important with the creation of screen printing templates as with the screen printing process the darkest color is always spread at last in order to prevent possible white gap that might occur while mounting the single colors.

Remove identical lines

With this option all vectors that are identical are removed but one.

Seams

Underlap - Offset

These options can only be activated with *by color*. In the field *overlay* you can enter the value for the *underlap* or the offset.

Overlay … mm

If the option *screen printing* is activated you can enter here the value for the *overlay* of the colors in mm.

Complete overlay up to:

Here, you can additionally enter the limit up to which width it shall be completely overlaid.

7.7 The *measure*-tool

Fig. 7.7-1: The measure-measurement-button

Activate the *measure*-button in the toolbox with the mouse pointer. Return to the working area; the mouse pointer appears as circular sight. Move the center point of the sight to the starting point of the track to be measured. Keep pressed the left mouse button while moving to the end point of the track and let go the mouse button when you have reached the end point. A subsidiary line marks the measured track.

Indication: Keep pressed the SHIFT-button during the measurement. Then the measurement is limited horizontally or vertically. This facilitates the exact measurement of straight lines.
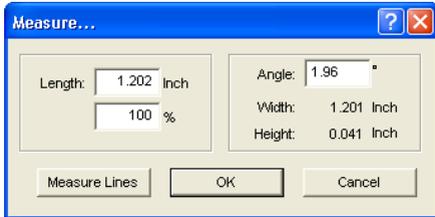
7.7 The measure-tool

Fig. 7.7-2: The measure/measurement dialog

In the text field name **length** the result of your measurement appears. In order to modify this value, first mark the text field and then enter the new value. In the text field underneath you can *percental increase* or *decrease* the objects.

In addition, you get information about the angle of the measure lines, the width of the measured object at the starting point of the measurement and the difference in height between the starting and the end point that is resulted from the measure angle.

Measurement

Fig. 7.7-3: Measurement tool /-track

The **measure lines**-button changes to the measurement tool (see illustration). This tool is attached to the mouse cursor and can be moved to the wanted position. After letting go the mouse button the detected track is entered above the measurement track.
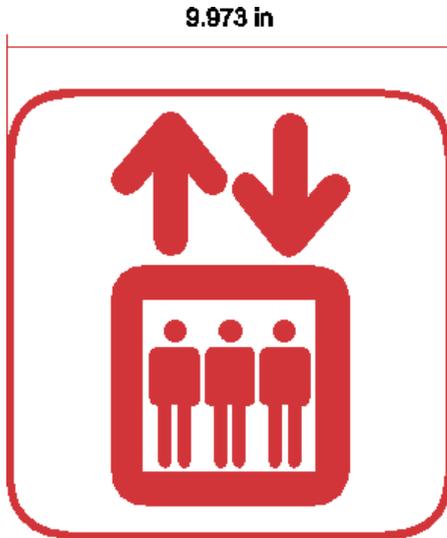
Fig. 7.7-4: Measurement track with the detected value in mm

7.8 The *objects-manager*

The **objects**-manager is called up *indirectly* via the **object-Info**-instruction. The **selection**-button that activates the objects-manager is in the **object-info**-window.

 F10
Selection…-button

The **object-info** dialog informs in detail about the **number** (sum objects), **type** (vector objects, text objects, bitmaps) and **structure** of the objects (groups and combinations) of a job.

7.8 The objects-manager
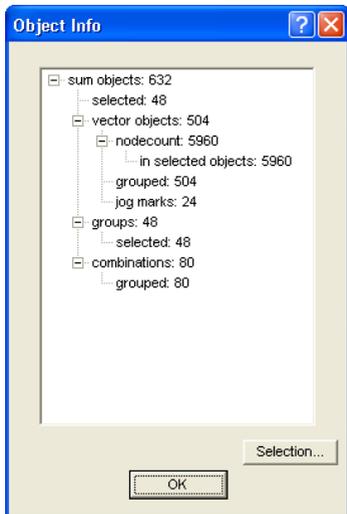
Fig. 7.8-1: Object-info-window with statistic-view

The　　　　　-button switches from the statistic-view to the selection-view.
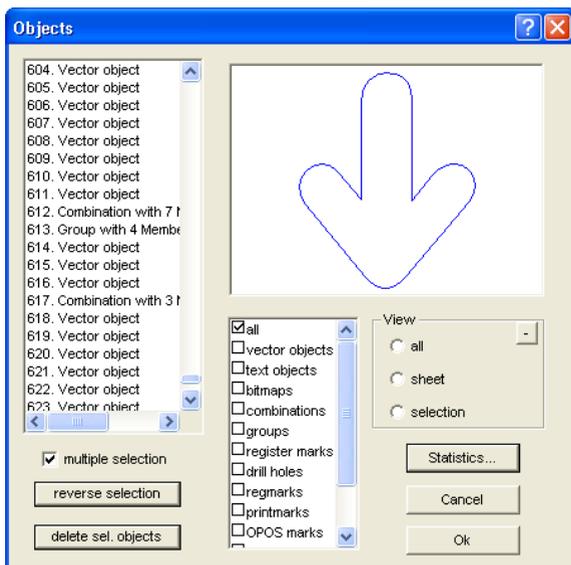

Fig. 7.8-2: Object-info with selection-view

List with scroll bar left

The list shows all objects on the working area. A click with the mouse button on an entry of the list shows in the preview window on the right the respective object unless it has been allocated with the attribute "invisible".

Right mouse button

A click with the *right mouse button* on an entry of the list opens the ***object properties-***dialog belonging to the selected object.
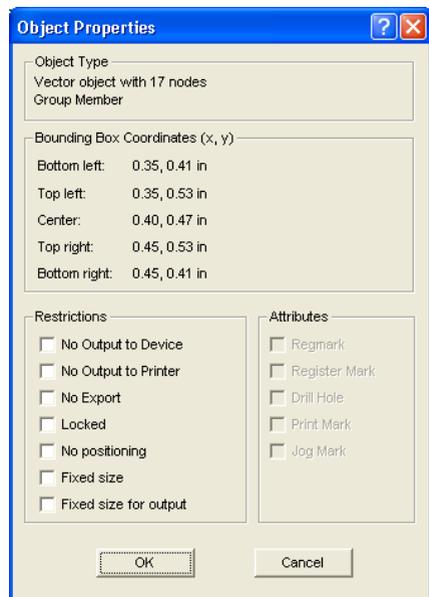
Fig. 7.8-3: Object-type text block

Fig. 7.8-4: Object-type vector object-group object

Multiple selection

If this option is activated multiple objects can be selected and shown.

Reverse selection

If this button is activated all objects *except* the selected object are selected and shown.

Delete sel. objects

This option deletes all selected objects from the job.

List with scroll bar middle

This list shows all object types available in GreatCut. Depending on the selection all respective objects are shown in the left list and in the preview unless the properties attribute was set to "invisible".

View

The options available under *view* refer to the GreatCut-desktop lying behind the window.

All

This option shows all objects on the GreatCut-desktop.

Sheet

This option shows all objects on the working area (*sheet*).

Selection

This option shows only the selected objects on the GreatCut-desktop.

The (minus)   -button decreases the view of the working area lying behind the window.
This way it is guaranteed that also objects lying behind the windows are visible.

7.9 The *contour*-function

With the *contour*-function the outer edge of arbitrary many objects is calculated and provided with a wire frame line. Contrary to the outline you can contour also bitmaps with this tool. In addition, not every single object is outlined. Instead, it is tried to possibly find one contour that comprises all selected objects. This function is therefore especially suited for the creation of cutting lines around labels. The objects of the label can be arranged arbitrarily.

Then the wire frame of the object is calculated in the wanted distance with the tool described here. The contour line thus created can be used later for cutting out the printed label.

First select the objects that you want to contour / outline. Then select *contour…* in the *tool-*menu.

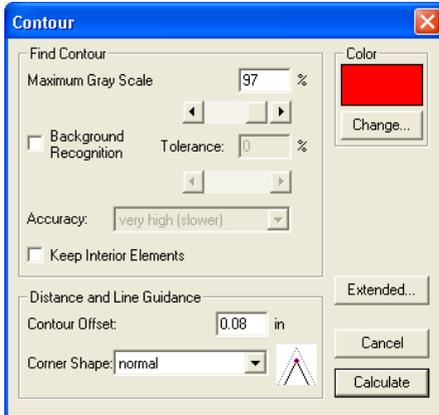The following dialog for the creation of the parameters appears:

Fig. 7.9-1: Parameter dialog for the creation of contour lines

Find contour

With the fields in the dialog group **find contour** you can influence the calculation of the wire frame line. Generally, all objects that are not white are considered with the contour finding. Ideally, the background of the graphic to be contoured should therefore be white. But especially bitmaps contain often light gray spots that can occur when scanning.

Maximum gray scale

With the option **maximum gray scale** you can determine that gray spots above the selected intensity are *not* contoured. You can enter values between 50 and 99% or set them with the roll bar. 50% correspond to a relatively dark gray and 99% to an almost white color.

Accuracy

In the field **accuracy** you can select between three options. The low accuracy works the fastest. If the result is not satisfying with this setting, select the middle or a higher accuracy. The calculation of the contour line then takes a little bit longer.

Indication: The field accuracy is not activated if only a single bitmap was selected.

Keep interior elements

If the option **keep interior elements** is activated, possibly created interior elements are not deleted. This way you have the possibility to cut out parts of the graphic by applying a brighter "plaster".

Look at the following illustration for this:

Fig. 7.9-2: Option: keep interior elements

On the left side you see the two initial objects. A smaller white circle is put onto the black circle. On the right, the calculated contour line is displayed. The option **keep interior elements** was active, also the inner circle was considered at the contour finding. With the dialog field switched off, only the outer contour would have been created.

Indication: As default, keep interior elements should be switched off.

Distance and line guidance

In the second dialog group **distance and line guidance** you can influence the appearance of the contour line.

Contour offset

With **contour offset** you determine how far away the wire frame line shall be from the graphic. If you enter here the value "0" a contour line is created that directly is attached to the edge of the selected objects. With values smaller than 0 the contour line goes into the contoured objects.

Corner shape

The option **corner shape** determines how the contour line acts at salient corners.

Normal creates the mathematical exact dot on the contour to every corner dot. The contour line can thus be extended very long at sharp corners which often leads to unaesthetic results. The options **cut off** and **round** lead to more satisfying results in such cases.

Cut-off

Cut-off shortens the contour at the indicated distance and cuts off the corner by a section.

Round

Round leads the corner dot to a rounded curve.

Color

On the right side of the dialog you can see a color selection field. A click on the **change**-*button* opens the **color selection-**dialog. With this dialog you can allocate colors to contours.

7.10 The *job-info*

The job-info can be opened in three ways:

1. Via the **edit**-menu / menu item **job info…**
2. Automatically when saving a new job
3. Via the so named menu item in the context sensitive menu
   (right mouse button)

Fig. 7.10-1: Job-info main window

With the job-info you have the possibility to save additional information to each job. This information can be printed and used for the invoicing or as accompanying ticket to jobs. If the job-info is printed, also the complete path in which the job was saved is printed.

Besides information as for example **order number** and **company** address the job-info gives information about the used **materials**, **duration of the production**, **number** of cut / printed jobs as well as the intended or calculated **price**. In the **memo**-field keyword comments can be saved.

In the **settings**-menu / menu item **standard settings** / menu item **job info…** the job-info can be extended by arbitrary many fields.

*Indication: The information under the field media are only inserted automatically, if you have given these information to the respective color layer in the **layer settings** dialog and*

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selected the adequate palettes at the design. Further information about this can be found here: ▶️ *please refer to 6.2: The layer-toolbar*

Tip: The switch between the single fields is done the fastest way with the TABULATOR-key.

Fig. 7.10-2: Job-restrictions

To each job following restrictions can be added:

No output

This job cannot be output.

No export

This job cannot be exported and thus cannot be converted to another format.

No printing

This job cannot be printed.

No saving

This job cannot be saved.

Password protection

In addition to the restrictions described above, a password can be given to each GreatCut-job. This way, the unauthorized access to these job data is not possible.
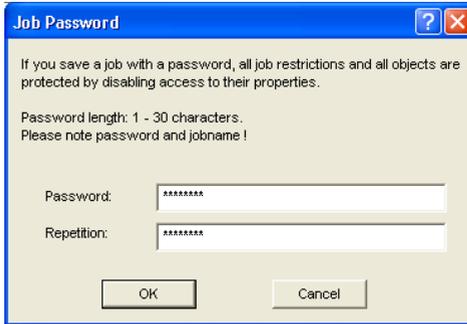
Fig. 7.10-3: Dialog for the determination of a job password

7.11 The Plot-Manager

The Plot-Manager has following tasks:

7.11.1 Creation and modification of device configurations

With the Plot-Manager it is possible to create a device configuration or short, to create an output device. In a **device** all information necessary for the output of the data as for example driver and ports are summarized.

In GreatCut, these devices then can be used for the output of the graphics. It is possible, to output simultaneously at several devices.

7.11.2 Monitoring the output processes of the jobs

The outputs to the respective devices can be monitored with the Plot-Manager, for example the output can be broken or aborted and the sequence of the jobs can be changed retroactively.

7.11.3 Output of data to local ports

The serial and parallel ports of the computer are identified and can be used for the file output.

7.11.4 Administration of Hotfolder

A function independent of GreatCut is the administration of Hotfolder. A Hotfolder is a directory monitored by the Plot-Manager. If a file is copied to this directory the Plot-Manager carries out automatically certain configurable functions.

7.11.5 Plot server function

The Plot-Manager can enable devices so that other Plot-Managers can use these enabled devices. This allows separating design and output working places.

You start the Plot-Manager with a double click on the 🖳-icon that is down right of the screen in the task bar.
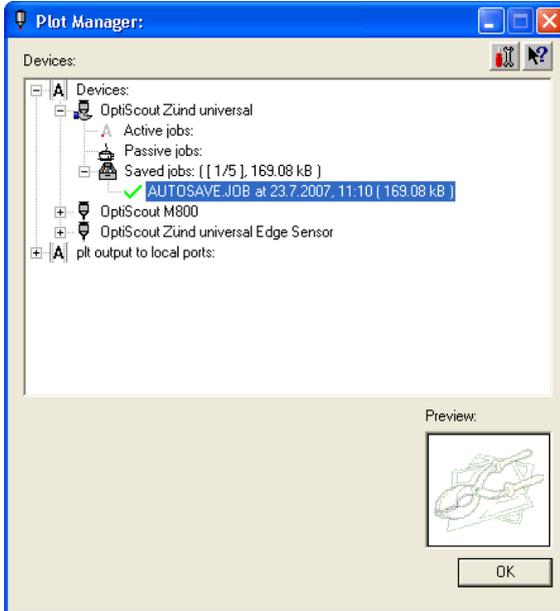

Fig. 7.11-1: Plot-Manager main window with hob-preview down left

7.11.6 Devices folder

Each device possesses three device folders in which the jobs are shown:

Indication: with jobs, also those output actions are meant that are carried out by Hotfolders or on local ports.

Devices folder 1

A *Active jobs*
All jobs that shall be output as soon as the device is ready are collected in this folder. If a job has been output completely, the next job is output. If the option „show message window before output of a job" is active, a notification dialog is shown before each output.

Devices folder 2

⌂ *Passive jobs*
If the output device is broken, all jobs to be output are moved to this folder.

Devices folder 3

⌂ *Saved jobs*
Here, all jobs that have been output are saved. The number of the saved jobs can be indicated in the options dialog of the device. If the number of the saved jobs is reached the next one to be saved replaces the oldest existing job.

Job functions

The functions differ according to device folder, device type and job status.

Indication: the functions can be carried out via a context menu.

Functions for jobs at local devices:

Active jobs
If the job is being output:

Pause
The output of the data is paused. The job is marked with the ⌂-symbol.

Paused jobs

Continue
The output is continued.

Set job to passive
The job is removed from the list of the active jobs and added to the folder of the passive jobs.

Delete job
The job is deleted.

Passive jobs

Activate job
The job is removed from the list of the passive jobs and added to the folder of the active jobs.

Delete job
The job is deleted.

User message: to this job, a notification text can be entered. This information is shown if the job shall be output respective if it is selected.

Saved jobs

Activate job
The job is removed from the list of the output jobs and added to the folders of the passive
or active jobs depending on the setup device.

Delete job
The job is deleted.

Plot to file
Here you can determine if the job shall be output to a file.

Save as
Save job data into file before cut data processing.

Functions for jobs at plot server:

Active jobs
No functions

Passive Jobs

Activate job
The job is removed from the list of the passive jobs and added to the folder of the active
jobs.

Delete job
The job is deleted.

User message: to this job, a notification text can be entered. This information is shown if
the job shall be output respective if it is selected.

Saved jobs

Activate job
The job is removed from the list of the output jobs and added to the folder of the passive or
active jobs depending to the setup device.

Delete job
The job is deleted.

Save as
Save job data into file before cut data processing.

Functions for jobs at Hotfolders:

Active jobs
No functions

Passive jobs

Activate job
The job is removed from the list of the passive jobs and added to the folder of the active

jobs.

Delete job
The job is deleted.

User message: to this job, a notification text can be entered. This information is shown if the job shall be output respective if it is selected.

Saved jobs

Activate job
The job is removed from the list of the output jobs and added to the folder of the passive or active jobs depending to the setup device.

Delete job
The job is deleted.

Plot to file
Here you can determine if the job shall be output to a file.

Save as
Save job data into file before cut data processing.

Functions for jobs at local ports:

Active jobs
If the job is being output:

Pause

The output of the data is broken. The job is marked with ▴-symbol.

Paused jobs

Continue
The output is continued.

Set job to passive
The job is removed from the list of the active jobs and added to the folder of the passive jobs.

Delete job
The job is deleted.

Passive jobs

Activate job
The job is removed from the list of the passive jobs and added to the folder of the active jobs.

Delete job
The job is deleted.

Notification: to this job, a notification text can be entered. This information is shown if the job shall be output respective if it is selected.

Saved jobs

Activate job
The job is removed from the list of the output jobs and added to the folder of the passive or active jobs depending to the setup device.

Delete job
The job is deleted.

Plot to file
Here you can determine if the job shall be output to a file.

Save as
Save job data into file before cut data processing.

7.11.7 Settings of the Plot-Managers

Fig. 7.11-2: Optional parameters for the Plot-Manager

If the option is activated **Plot-Manager always on top**, the Plot-Manager-window remains always in the foreground.

If the option **tooltips** is activated, a short description to a dialog element is shown if the mouse pointer remains above the dialog element.

If the option **view job preview** is activated a preview of the output data is shown.

Command line parameters

If the Plot-Manager is started without parameters it checks all devices if there are jobs for processing.
If a job was found it is carried out. It stops if no jobs were found or if all jobs have been processed.

If, when calling up the parameter **!SPOOL!** is given, the Plot-Manager remains active. It then has to be terminated manually with a right mouse click onto the symbol in the taskbar.

Hotfolder

With a Hotfolder a directory can be monitored. If a file is copied to the directory to be monitored one of the following actions is carried out automatically depending on the settings:
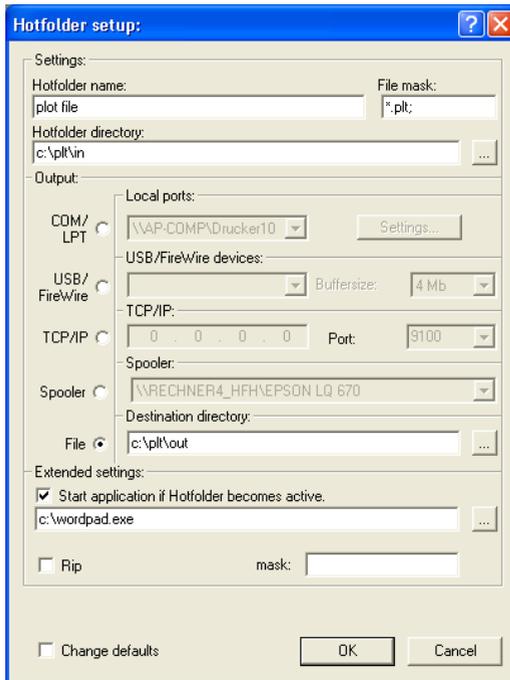

Fig. 7.11-3: Example for setup devices of a Hotfolder

Settings

Hotfolder name: here you have to enter the name of the Hotfolder

File mask: here, the file name ending are given, that shall be considered, for example *.plt.

Hotfolder directory: here, it is determined which directory the Hotfolder shall monitor.

Output

COM/LPT: the file is output to a local serial respective parallel port.

USB: the file is output to a USB-device. A USB-device is only shown if it is connected with the computer.

TCP/IP: the file is send to a TCP/IP-address. With some addresses, you additionally have to enter the right port number.

Spooler: the file is output via a printer driver.

File: the file is copied to the output directory. An existing file with the same name is overwritten.

After having carried out the action, the input file is deleted.

Indication: if "file" is set as output, the application is started **after** *the copy. In all other cases, the application is started* **before** *the output.*

Extended settings

Start application if Hotfolder becomes active: in addition, another application can be started that shall further process the input file to be processed. The file name is marked with %s.

RIP: only necessary if Pjannto RIP uses this Hotfolder as RIP-Hotfolder.

*Mask: f*ormatting of the output file name: %File file name; date/time: %Y - %d_%H-%M-%S year/month/day: hour/second/minute

Change defaults: prevents that the user modifies the output parameters accidentally.

7.12 The *PhotoCUT*-function

PhotoCUT creates vectors out of bitmaps. PhotoCUT calculates from Windows bitmap-files (*.BMP, *.PCX, *.TIF) raster strips or patterns that can be output with a cutting plotter. The picture is divided in logical pixel and the average gray value detected for each of these logical pixel. A picture is created that has fewer pixels than the original. Then, horizontal or vertical strips, circles, squares, ... are created from this picture whose width is proportional to the gray value at the respective position.

7.12.1 The PhotoCUT dialog

Open the **PhotoCUT** dialog by selecting the so named menu item in the **tools**-menu.
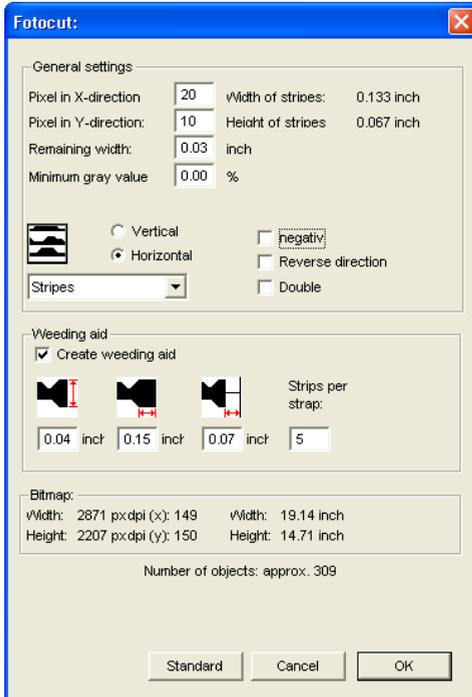
Fig. 7.12-1: Dialog with parameter-setup

General settings

Pixel in X-direction

In this field, enter the number of **pixel** that shall be combined to a *logical* pixel **in X-direction**. The smaller the value in this field, the better the output quality of the "picture".

Pixel in Y-direction

In this field, enter the number of **pixel** that shall be combined to a logical pixel **in Y-orientation**. The smaller the value in this field, the better the output quality of the "picture".

Remaining width

This value determines the **remaining width** of a strip (only with strips) in mm of the line respective column size.

Excursion: contrast (adjust via *Image* menu *contrast*)

Because of the division of the bitmaps into logical pixel the line respective column size is determined. The width of a strip depends on the set gray value and the contrast. The

maximum width is line respective column size minus the value of the remaining width.

Corresponding to the contrast value the width of the strip is identified by the average shade of gray. The contrast is the proportion between white and black in %, which means with 100% contrast the 100% black is mapped on the maximum and 100% white on the minimum width of the stripe. If the contrast is reduced, the 100% black is only calculated with for example 50% of the maximum width of the stripe.

Minimum gray value

The **Minimum gray value** is a limit for the shade of gray. You can for example remove a constant gray bitmap background.

Indication: This value is only relevant if a graphic is darker than its background.

For all examples the following picture serves as template: (standard-path: C:Program FilesEUROSYSTEMSGreatCutBitmapsphoto.bmp)

Fig. 7.12-2: Template for all following result examples

Negative

The range of value of the shades of gray is reversed which means that 100% black become 0% white and vice versa.
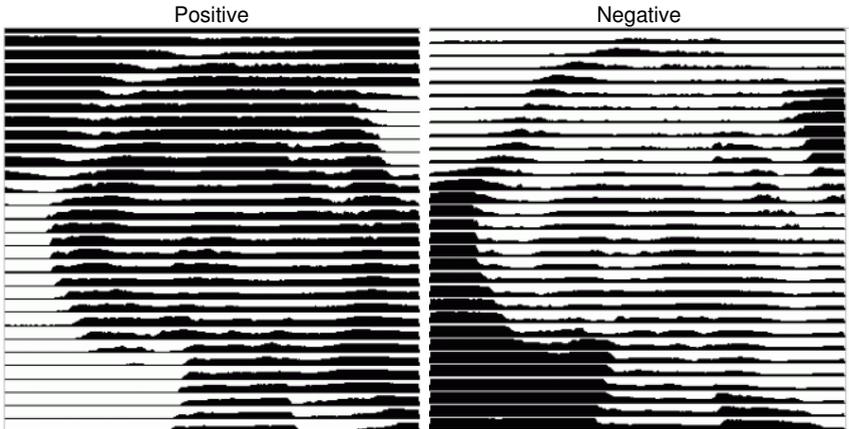
Positive   Negative

Fig. 7.12-3: Example for the reversion of the range of value

Reverse direction (only with stripes)

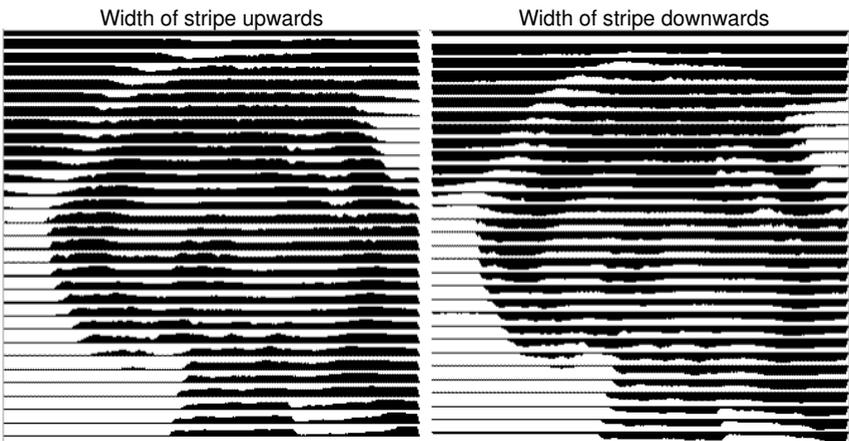If this option is activated, the width of the stripe is aligned downwards.

Width of stripe upwards   Width of stripe downwards

Fig. 7.12-4: Example for the reversion of the width of stripe

Cut out

Width of stripe upwards   Width of stripe downwards

Double (only with stripes)

If this option is activated, the width of stripe is created up *and* down.

Width of stripe up and down
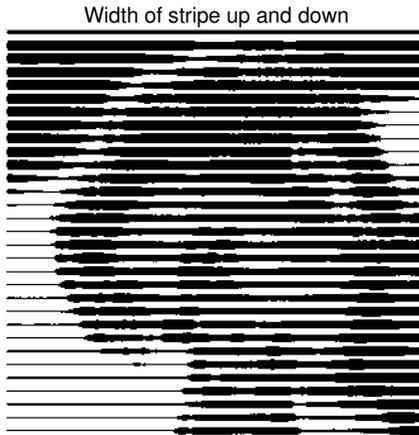
Fig. 7.12-5: Example for „double"

Horizontal or vertical

With the options **horizontal** or **vertical** the direction of the stripe is determined.

Bitmap

In the area named **bitmap** the file data of the template (of the picture) are shown. In the upper area the **width** and **height** of the picture in pixel are indicated and the *resolution* in dpi. Underneath, the width and height of the picture is shown in millimeters.

Depending on the functions in the area **general settings** different effects are created.

Example 1

Following values have been set:

Pixel in X-direction = 1
Pixel in Y-direction = 10
Remaining width = 0
Contrast = 80
Minimum gray value = 0
Orientation = horizontal
Negative = not active
Reverse direction = no active
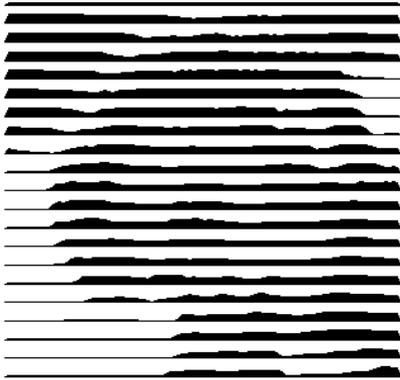Double = not active

Result

Fig. 7.12-6: Result from the value of example 1

Example 2

Following values have been set:

Pixel in X-direction = 3
Pixel in Y-direction = 15
Remaining width = 5
Contrast = 60
Minimum gray value = 0
Orientation = horizontal
Negative = not active
Reverse direction = not active
Double = not active

Result

Fig. 7.12-7: Result from the value of example 2

With the 2 examples you can see that already small modifications of the values lead to big discrepancies with the result.

Weeding aid

Create weeding aid

The stripes at the ends are automatically thickened so that the result can be wed faster.

Stripes per strap

In this field the number of stripes that shall contain a strap can be set.

Width of strap

In this field you define the width of a strap.

For information, underneath these fields the estimated **number of objects** is shown. This is important to decide beforehand if the expenditure of time for the weeding is in a responsible relation to the complexity.
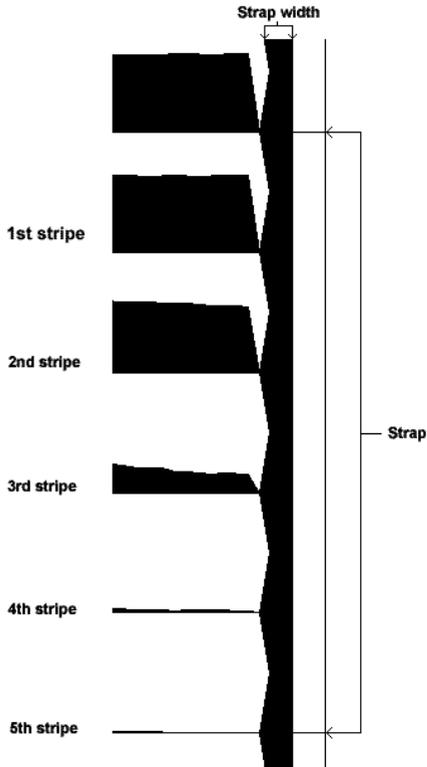
Fig. 7.12-8: Example for stripes per strap, width of strap and stripes

The different modi

In the PhotoCUT dialog you can select between following **modi: stripes, rhombuses**, **circles**, **rectangles**, **single rhombuses**, **single circles**, **single rectangles**.

With which mode you obtain the best and most attractive result depends strongly of the used template. Templates rich in contrast are usually better suited for optically interesting results.

Tip: The screen display does not always show a display that enables a reliable evaluation of the results. Therefore, print the result on your printer. Now you can judge the result of the procedure relatively exactly and do not risk to waste expensive material!

7.12 The PhotoCUT-function

8 Add Ons

8.1 The *PhraseWriter*

The PhraseWriter is an application that creates and administers text modules - also independent from GreatCut. These text modules can be inserted in active applications.

8.1.1 How are text modules being created?

Step 1: In the left category field activate the context menu with the right mouse button and create a "new entry" with the *new*-instruction and name the new text module.

Step 1a: If step 1 is repeated before a text was entered in the text module-edit field, a folder, a so-called **category,** is created in the tree structure!

Step 2: Enter a text in the text module-edit field via the keyboard or insert a text from Windows clipboard.

Step 3: Allocate a name for the XML-file with the menu entry *file, save as*.

8.1.1.1 Category selection in minimized status:

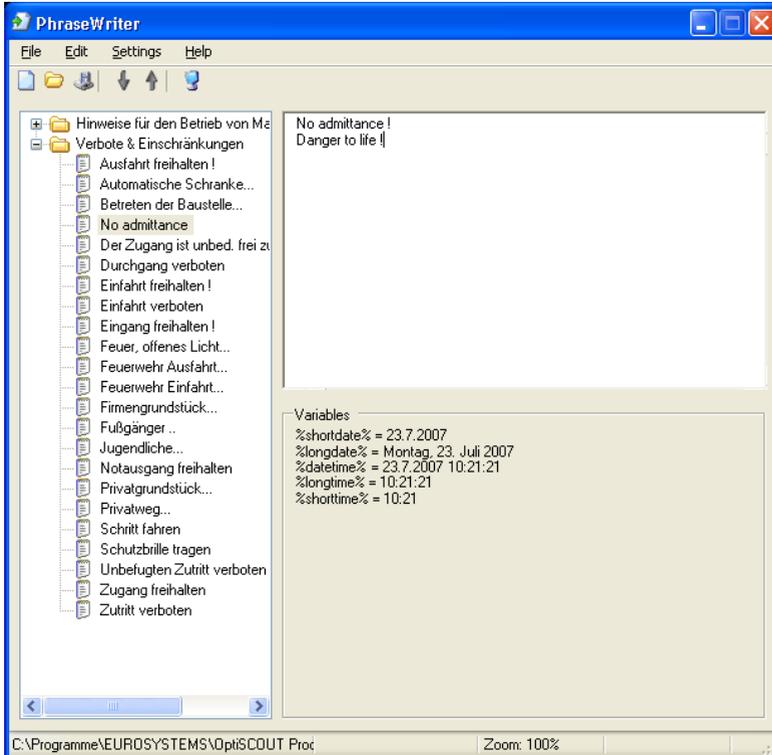The selection is done via the context menu (right mouse button) in the Windows info-bar.

Fig. 8.1-1: Main dialog with tree structure of the categories, text module-entries (left), text module-edit field and list of variables (right)

8.1.2 The icon in the Windows-info bar

Fig. 8.1-2: Icon in the Windows-info bar

The icon above is the central control element if the main dialog of the PhraseWriters was minimized. A double click on the icon reactivates the main dialog and shows the window in the foreground. A click with the right mouse button on the icon activates the context menu in the info-bar.

8.1.3 The context menu in the info-bar

Via the option **add entry** all categories (folders) with text modules are shown.

Add feed
Categories   ▶
Settings
Quit

Fig. 8.1-3: Context menu of the icon in the info-bar (right mouse button)

8.1.3.1 Add entry

This option creates a new category with text modules.

Categories

This option lists all available text module files (*.xml).

Settings

This option opens the main dialog and moves the cursor into the right input-window - ready for entering a new text module.

Quit

This option ends the application.
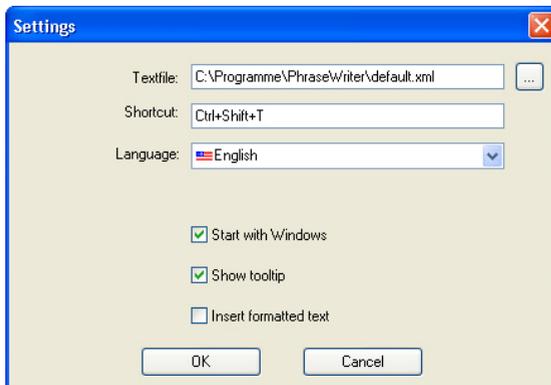

8.1.4 The settings-window

Fig. 8.1-4: Setup dialog with shortcuts

Textfile

By means of the …-button the path of a text module-file (*.xml) can be set.

Shortcut

Via the keyboard a shortcut for the PhraseWriter can be defined.

Language

This option allows the change of the language if translations are available for the PhraseWriter.

Start with Windows

If this option is activated, the PhraseWriter is started automatically at every new start of Windows. The icon is - down right -in the info-bar of the Windows desktop.

Show tooltip

If this option is activated, an explaining info-text is shown when moving the mouse cursor above the buttons.

Insert formatted text

If this option is activated, also formatted texts from the Windows clipboard are inserted.

Fig. 8.1-5: Toolbar

The sequence of the buttons from left to right: *new, open, save, move upwards, move downwards, settings*
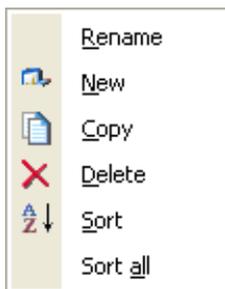
8.1.4.1 The context menu left

Fig. 8.1-6: The context menu of the category and text modules-entries

Rename

This option allows renaming categories or text module-entries.

New

This option creates a new text module-entry. Repeating this instruction immediately creates a folder, a category in the tree.

Copy

This option creates a copy with the same name of a category or a text module-entry.

Delete

This option deletes a category or a selected text module-entry.

Attention: when deleting no direct safety inquiry is done. Only when quitting you are asked if the carried out modifications shall be saved. If this question is answered with "yes" the deletion cannot be made undone.

Sort

This instruction sorts all entries of a selected category ascending, from A to Z.

Sort all

This instruction sorts all entries of all categories ascending, from A to Z.
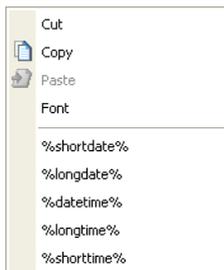
8.1.4.2 The context menu right

Fig. 8.1-7: The context menu in the text module-edit field

Cut

This instruction cuts a marked text part and puts it into the Windows clipboard.

Copy

This instruction copies a marked text part and copies it into the Windows clipboard.

Paste

This instruction pastes a text part from the Windows clipboard to the edit field.

Font

This instruction opens the font dialog and modifies the font of a marked text.

List of variables

The selection of a variable is done with a mouse click. After clicking they are inserted in the text module-entry field.

Variables

In this field all available variables are listed. Right next to the name of the variable an example with the respective formatting are shown.

8.1.5 Reference part PhraseWriter

8.1.5.1 The *file*-menu

8.1.5.1.1 The *new*-instruction

With the *new*-instruction a new XML-file is being created. **CTRL+N**

8.1.5.1.2 The *open*-instruction

With the *open*-instruction a new XML-file is loaded. **CTRL+O**

8.1.5.1.3 The *import*-instruction

With the *import*-instruction a XML-file is imported into an already loaded file. **CTRL+I**

8.1.5.1.4 The *save*-instruction

With the *save*-instruction a XML-file is saved on a data carrier. **CTRL+S**

8.1.5.1.5 The *save as*-instruction

With the *save as*-instruction a XML-file is saved under a new name.

8.1.5.1.6 The *quit*-instruction

With the *quit*-instruction the PhraseWriter is terminated.

ALT+F4

8.1.5.2 The *edit*-menu

8.1.5.2.1 The *rename*-instruction

With the *rename*-instruction text module-categories and text modules can be renamed.

8.1.5.2.2 The *new*-instruction

With the *new*-instruction a new entry in a text module-category is created.

8.1.5.2.3 The *copy*-instruction

With the *copy*-instruction a new entry with the same name is created in the activated text module-category.

8.1.5.2.4 The *delete*-instruction

With the *delete*-instruction an entry is deleted from a text module-category.

8.1.5.2.5 The *sort*-instruction

With the *sort*-instruction the entries of a text module-category are sorted ascending from A to Z.

8.1.5.2.6 The *sort all*-instruction

With the *sort all*-instruction all entries of all text module-categories are sorted ascending from A to Z.

8.1.5.3 The *settings*-menu

8.1.5.3.1 The *standard settings*-instruction

With the *standard settings*-instruction the dialog for setting the PhraseWriter-parameters is opened.

In detail ▶ please refer to 8.1.1: How are text modules being created?

8.1.5.3.2 The *default font*-instruction

The *default font*-instruction opens a dialog in which the display font for the PhraseWriter can be determined.

8.1.5.3.3 The *window list*-instruction

The ***window list***-instruction opens a dialog in which all currently opened application windows are listed. All selected windows are *ignored* by the PhraseWriter.

8.1.5.4 The *help*-menu

8.1.5.4.1 The *help*-instruction

With the ***help***-instruction the PhraseWriter help is loaded.   **F1**

8.1.5.4.2 The *about…*-instruction

With the ***about***-instruction a window is opened in which the version and a link to the EUROSYSTEMS-website is shown.

8.2 Job-Manager

The Job-Manager is a powerful tool for the file administration. To quickly know where which file is located and which job belongs to which customer is no problem with the Job-Manager!

8.2.1 Introduction

The most important functions of the Job-Manager are available via the context sensitive menu of the right mouse button or via shortcuts. This guarantees a fast and comfortable operation.

The Job-Manager allows the search for files in selected folders and with editable enquiry screens. If a new job is created or an existing job is edited and saved in the previously set search paths, the Job-Manager shows this job after the next start. The Job-Manager can create backups of picture data which can be burned on CD-ROM or DVD for archiving. With a backup, a complete version of the Job-Manager is also stored automatically, so that the picture data can be used on any computer or network.

8.2.2 The Job-Manager desktop with working area

After starting the Job-Manager the desktop with working area appears as follows:
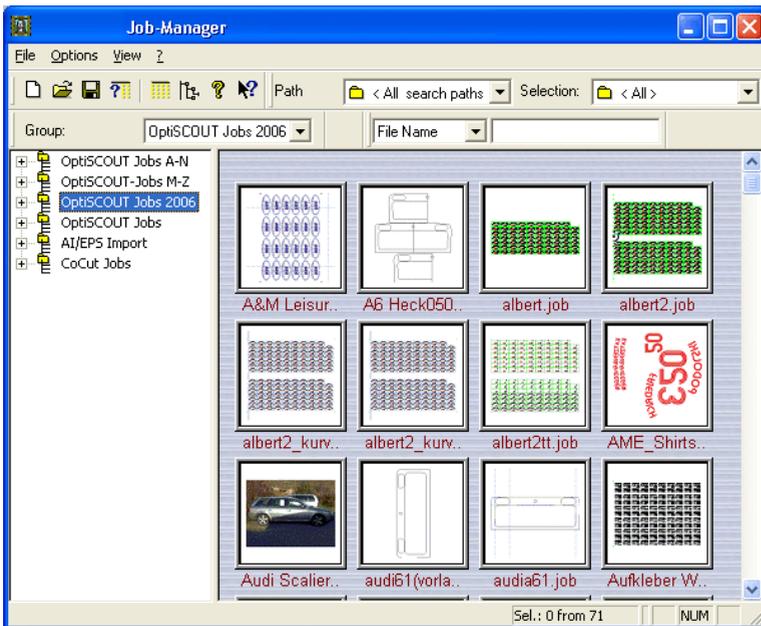

Fig. 8.2-1: The Job-Manager desktop with work surface

The **Job-Manager**-toolbar which is shown in Fig. 8.2-2 can be switched on or off via the **view**-menu and the **toolbar**-menu item.
In the front part of the bar are the most important functions for the file edition. Behind it the **scanner** dialog can be opened, the tree view and structure can be switched on or off.
Info-about… opens a dialog in which the Job-Manager version, the number of pictures and the required storage capacity are indicated. Pressing the last button opens the Job-Manager help.

Indication: if more preview windows shall be shown in the preview window, the tree view can be switched off or the preview pictures can be downsized with the „-"-key (minus on the numeric block) respectively upsized with the „ +"-key.

Fig. 8.2-2: Job-Manager toolbar

In the **directory group**-window all available directory groups are shown together with their search paths. When first starting the Job-Manager in this selection field only the directory group GreatCut jobs. The selection window is shown or hidden with the menu item **directory groups** in the **view**-menu.

Indication: The most important menu items can also be called up via the context sensitive menu of the right mouse button (in the tree view).

Next to it is another selection field:

Fig. 8.2-3: Selection search field

Here, you have two possibilities:

1. If **file name** is selected and in the input field on the right for example the letter a is entered, the Job-Manager marking jumps to the first job that starts with an a.
2. If **file date** is selected and in the input field on the right for example the 4th of January 2007 in entered as starting date, the Job-Manager marking jumps to the first job that was created at this date.

This selection window is shown or hidden via the **view**-menu and there the **search mask-**menu item.

In the left part underneath the directory group display is the directory group window. Here, all directory groups whose search paths as well as the searches are shown.

Right next to it is the Job-Manager preview window in which the found preview pictures of the files, the selected directory groups or search paths are shown.

The Job-Manager **search mask**.

Fig. 8.2-4: Example for an inquiry via the search mask

Here, you can define and edit some search masks.

*Indication: when first starting the Job-Manager the search mask is not shown. You can show or hide this search mask via the **view**-menu and there the menu item **mask editor**.*

Two search masks are available to the user after the first start of the Job-Manager.

Search mask 1: search for **company**
Search mask 2: search for **order no.**

Company and **order no.** are field from the GreatCut **job-info**. ▶ please refer to 7.10: The *job-info*

The **search path view** shows all existing as well as all newly created search paths.

Fig. 8.2-5: Search path selection lists

In the field **selection** you can set with which inquiry option the selected search path shall be searched.

The **path selection** is shown or hidden via the **view**-menu and there the menu item **path selection**.

Mark single or several thumbnails

A preview window is marked by positioning the mouse cursor on the respective preview picture and then pressing the left mouse button. **The context sensitive menu of the right mouse button in the Job-Manager-preview window**

Several jobs can be marked in two ways

1. Mark several jobs individually

Keep pressed the CTRL-key and mark the respective preview pictures successively with the left mouse button.

2. Mark several consecutive jobs

Keep pressed the SHIFT-key and mark the first and the last preview window of the preview windows that shall be selected.

Finding a specific preview picture in the Job-Manager window

When having many preview pictures it is often difficult to quickly find a specific preview picture.

In the preview window you have two possibilities to do so:

1. Pressing the keys a-z:

If for example the key „a" is pressed, automatically the first preview window whose name starts with an "a" is shown.

2. Intelligent scroll-bar

Position the mouse cursor on the scroll-button and keep pressed the left mouse button. If you drag the scroll-button up or down, the job name of the momentarily active job is shown.

If you have found the wanted job let go the mouse button. In the preview window the selected job is shown first in the upper left corner of the preview window.

8.2.3 The context sensitive menu of the right mouse button in the Job-Manager review window

Indication: The mouse cursor is on the blue background!

The context menu allows the fast access on several functions in the preview window. The context menu of the preview window can be opened by positioning the mouse cursor in the colored part of the preview window and then pressing the right mouse button.
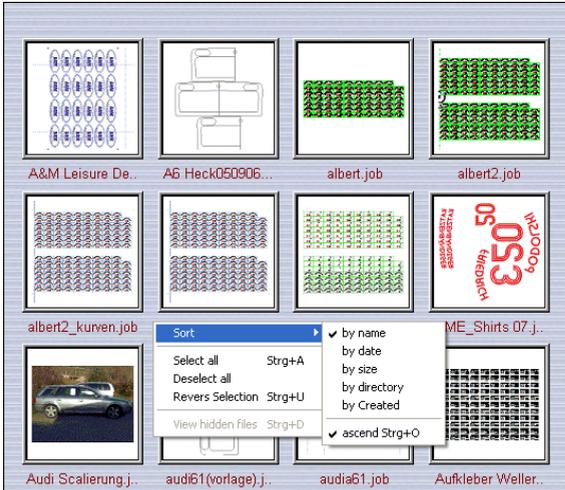
Fig. 8.2-6: Context menu of the right mouse button activated on the blue background

Sort

In the *sort*-menu following functions are available

Select:

By name

If you activate the menu item **by name**, all preview pictures are sorted according to their name.
The file whose name starts with an „**A"** is at first place and if *no* file starts with an „**A**", the next letter of the alphabet.

Example: In a directory there are four files that shall be sorted by name.

meyer.job, müller.job, wagner.job, weller.job

As no file name starts with an „**A**" , the next letter of the alphabet is shown, in our case Meyer, then Müller would follow, Wagner and Weller come at last.

By date

If you activate the menu item **by date**, all preview pictures are sorted by their creation date or, if they had been modified, by the date of the last modification.

By size

If you activate the menu item **by size**, all preview pictures are sorted by their size.

By directory

If you activate the menu item **by directory**, all preview pictures are sorted according to the sequence they are found in the directories of the selected search path.

Example: the files lying in the following search path shall by searched for by the directory sequence.

Z:one wo hree…

In the example above, first the preview pictures of the files that would be shown are those from the directory *one*, then the ones from *two*, ...

By created

If you activate the menu item **by created**, all preview pictures are sorted by their date of creation.

Ascend can be used for all menu items mentioned above. If for example *by size* is selected as sorting and **ascend** is activated, all preview pictures of the jobs lying in this search path starting with the smallest are shown.

Select all

If this menu item is selected, all files that are in the selected directory group are selected.

Deselect all

If this menu item is selected, all files that have been selected before, are now deselected.

Reverse selection

If this menu item is selected, all files that have been selected before, are deselected and vice versa.

View hidden files

This menu item is only active if in a directory group files are searched for that did not meet the search criterion and are not shown.

Example: a directory group contains 30 files. Ten of these files start with the letter „**A**". The remaining 20 files start with any other letters. Now, a search is defined that looks for all files whose name start with an „**A**". As *result* of this search the 10 files are shown whose name starts with an "**A**". The remaining 20 files are *not* shown in the preview window.

If the menu item **view hidden files** is selected, all files are shown that lie in this directory group.

8.2.4 The context sensitive menu of the right mouse button in the Job-Manager preview window

*Indication: the mouse cursor is **on** a preview picture!*

This context menu allows the fast access on several functions of the file edition. This context menu can be opened by positioning the mouse cursor on a preview picture and then pressing the right mouse button.
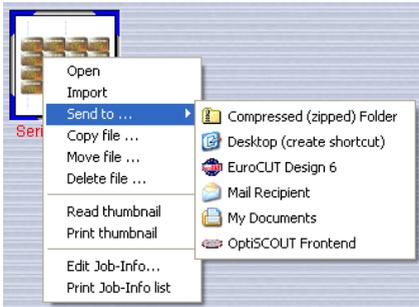

Fig. 8.2-7: Context menus with marked file preview

Open

Opens the file with the application registered for the file format.

Import

Imports the file with the application registered for the file format.

Send to …

Compressed (zipped) folder

Indication: only shown if for example WinZIP is installed.

Desktop (create shortcut)

Creates a shortcut on the Windows desktop with the selected file.

Mail recipient

Starts the standard email-application (if existing) and prepares an email with the file as attachment.

My documents

Copies the selected files to the Windows folder "my documents"

*The **send to**-menu can be extended arbitrarily and could also have a Hotfolder as target!*

Copy file…

Copies the selected files(s) to the wanted directory.

Move file…

Moves the selected file(s) to the wanted directory.

Delete file…

Deletes the selected file(s) and puts those to the recycle bin.

Indication: if the files are deleted from the recycle bin, they cannot be restored anymore.

Read thumbnail

The preview pictures are newly read.

Print thumbnail

The preview picture(s) is (are) printed.

Menu instructions only for GreatCut-jobs:

Edit job info and **print job info list**

8.2.5 Reference part Job-Manager

8.2.5.1 The JM *file*-menu

8.2.5.1.1 The new…-instruction

With the **new…**-instruction you open a new Job-Manager view. The Job-Manager desktop and the working surface are opened with the standard settings.

Indication: search paths, masks and settings must be newly defined.

8.2.5.1.2 The open…-instruction

With this instruction all files that have been saved in the Job-Manager format (*.jmn) on your hard disk or on a mobile data carrier are loaded on the Job-Manager working surface.

8.2.5.1.3 The save-instruction

With this instruction you save the current job. If the respective job has been saved before, the given file name and the directory are kept and no dialog for the target directory selection is opened but the job is saved directly in the previous directory.

Indication: the old version of the job is overwritten so that this file cannot be restored anymore.

When first saving a job, a dialog for the target directory selection is always opened. Here, you can enter the wanted **target directory** in which the job shall be saved as well as the **file name** of the job.

8.2.5.1.4 The save as…-instruction

With this instruction you save a new file under a file name and in a target directory selected by you. This instruction also serves for the modification of the file name and / or a directory of already existing files.

*Tip: if for example you want to save a job that is built from parts of an already existing job without loosing the old version, you select the instruction **save as...** and you can save the new file under another name in a new directory.*

*Indication: the **save as…**-instruction is also to be selected if you want to save the current file on a mobile data carrier.*

8.2.5.1.5 The scan...-instruction

The **scan…**-instruction opens the Job-Manager **search files** dialog. This dialog allows finding all graphics, texts or other files on your computer or in the network. As default, you can search for the formats under **search for:**

*Indication: if you want to search for further formats you enter them in the Job-Manager in the **options-**menu and there in the menu item **file formats**.*
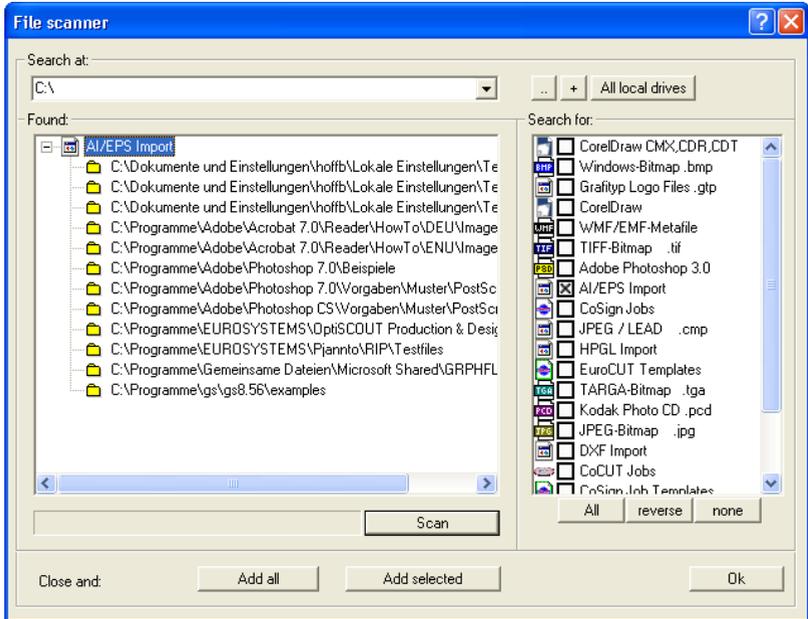
Fig. 8.2-8: The search files dialog with format selection (right column)

In the upper part of the dialog is the input line named **search at**. Here, you can enter the wanted directory, the hard disk or the net drive, that shall be searched.

Pressing the **all local devices**-button automatically enters all local devices of your system in the input line.

The selection window which is named **search for** serves for the selection of specific file formats. Pre-entered here are all formats that the Job-Manager makes available as default after a new installation. If new file formats are created in the Job-Manager, these are also shown here and can be selected.
A double click with the left mouse button on a specific format activates it. Another double click with the left mouse button on it deactivates the previously activated format.

The **three buttons underneath the window** serve for the faster selection or deactivation of file formats.

Thus, with the **all**-button all existing formats can be included in the search.

The **none**-button deactivates all previously marked formats and the **reverse**-button reverses the selection.

The search is started by pressing the **search**-button.

Found

In the field named *found* directories all paths found after the search are shown.

The found files are sorted by format which means that all found TIFF-files with their corresponding paths are stored under **TIFF-bitmap .tif**. All found JPEG-files with their corresponding path are stored under **AI/EPS Import**. If you now click with the left mouse button on the „+" (PLUS)-character in front of **AI/EPS Import**, all directories in which AI- or EPS-files were found are displayed.
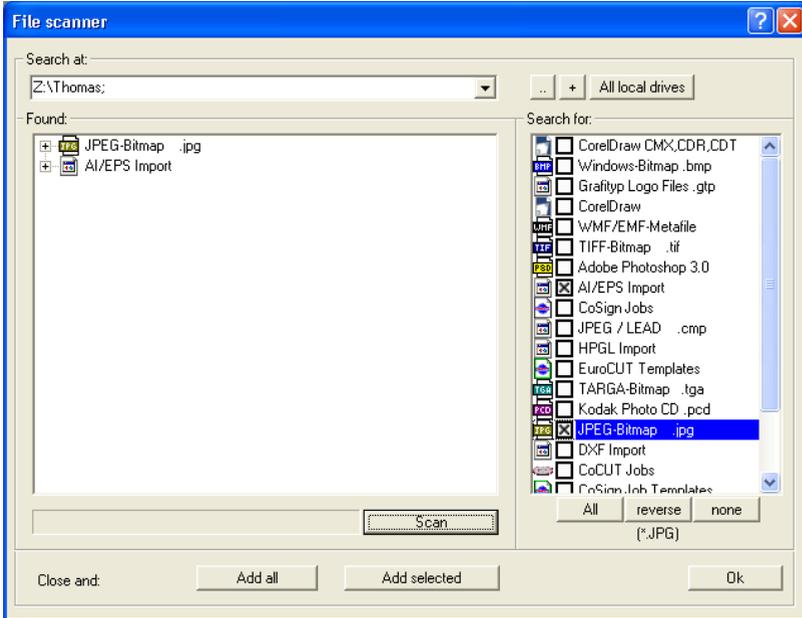

Fig. 8.2-9: Search files-window during search

In the above picture the *file scanner* dialog is shown during a search. The *scan*-button is replaced by the *cancel (ESC)*-button during the search. Left of the button is the status bar of the search.

Indication: if the search is cancelled only the directory groups and paths which have been found until the cancellation are displayed.

In the picture you can see in the section named *found* directories that after successful search two groups are shown. Groups can be recognized by the „+" (PLUS)-character in front of the group name.
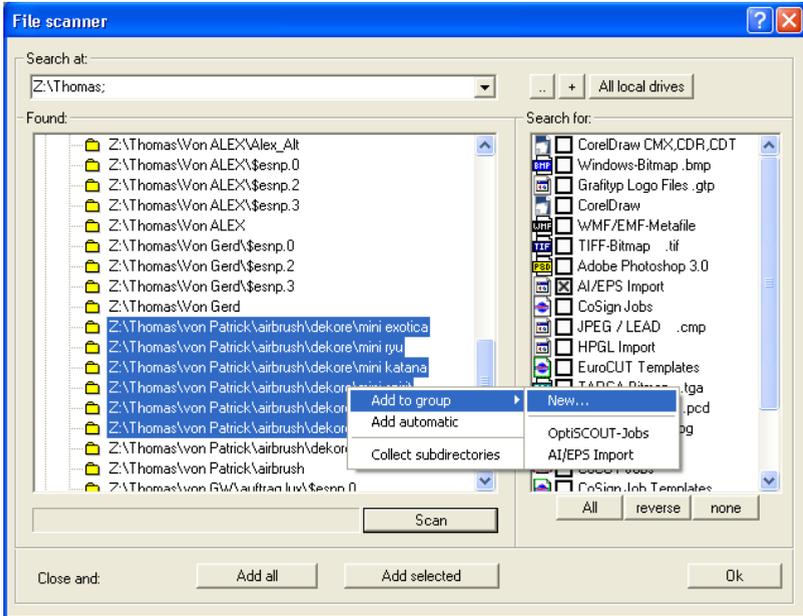
Fig. 8.2-10: Group dialog with the file-search

To mark several directories *individually* in this dialog, you select the wanted directories with a click of the left mouse button while the CTRL-button is kept pressed.

To mark several directories *below each other*, you move the mouse cursor to the first directory of the group to be marked and once press the left mouse button. Then you press the SHIFT-button and keep it pressed. Now mark with the left mouse button the last directory and the whole group is marked.

If now the right mouse button is pressed, the so called context sensitive menu is opened.

If the first menu item **add to group** is selected another popup menu is opened and the marked directories can be added to an existing group or saved in a new group. Already existing groups are shown in the below part of this popup menu, here for example GreatCut jobs.
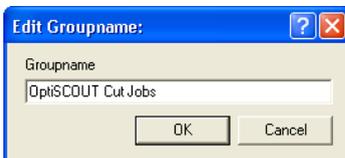

Fig. 8.2-11: Allocation of name for directory groups

A new name is allocated to a group by entering the wanted name into the input field and by confirming the dialog with OK.
The directories are then taken over under this name in the window of the directory groups of the Job-Manager.

Add automatic

If the menu item ***add automatic*** is selected, automatically a new directory group is added that contains the same directory, for example one or several directories from the group AI/EPS Import are marked and ***add automatic*** is selected, then a new directory group with the name AI/EPS Import is created and the selected directories are written into this directory group.

Indication: the menu item combine is only active if at least two directories are selected. Only directories can be combined that lie in the same group.

Using this menu item is especially useful if several directories have the same structure.

Indication: all combined directories are considered as one directory, which means that if later in the main window of the Job-Manager for example search queries for the directory are created they apply for all combined directories. These combined directories cannot be treated individually anymore.

Add all

If the ***add all***-button is pressed, all found directories are added to the Job-Manager window.

Add selected

If the ***add selected*** -button is pressed, all marked directories are added to the Job-Manager window.

8.2.5.1.6 Printer setup

If this menu item is activated, the ***printer setup*** dialog is opened. Here, you will have a list of all printers that are installed on your system. Select the wanted printer. For further settings for the printer output, activate the ***properties***-button.

Indication: the print dialog that is opened by pressing the setup-button depends on the loaded printer driver.

8.2.5.1.7 Quit

If this menu item is selected the Job-Manager is closed and the last modifications are saved.

8.2.5.2 The JM *options*-menu

8.2.5.2.1 Add group

If this menu item is activated, following dialog opens:
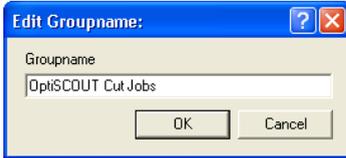

Fig. 8.2-12: Dialog for the allocation of name for a new group

In the input line **name for the directory group** you enter the name for the new directory group and confirm the input with OK. Pressing the **cancel**-button discards the input without creating a new directory group.

Indication: this menu item is also available in the context menu of the right mouse button.

8.2.5.2.2 Add path

If this menu item is activated, the **add search path** dialog is opened.
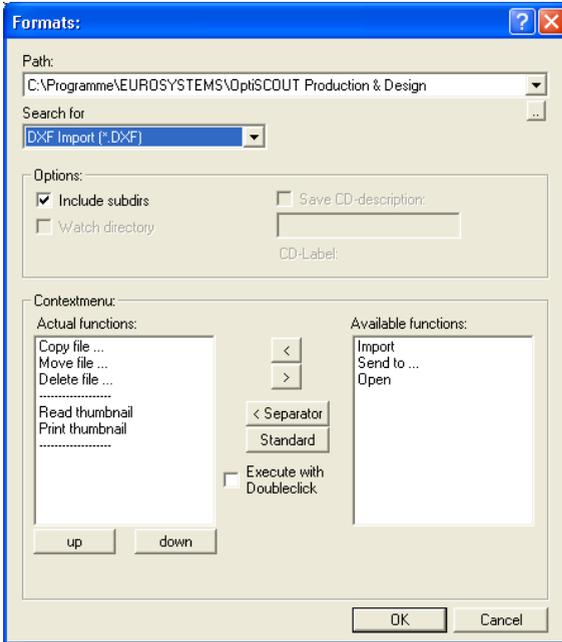
Fig. 8.2-13: Dialog for adding new search paths

In the upper part of the dialog the search path is entered. Right next to it is a triangle whose apex shows downwards. If you click on this triangle with the right mouse button, all existing search paths are shown.

Search for

Under "**search for"** you select the format for which the previously set directory shall be searched for.

In the area named **options** the following settings can be done:

If **include subdirs** is activated, all subdirectories of the previously set directory are also searched.

*Indication: the function **watch directory** is not active here as only single directories can be watched.*

Watch directory

If the function **watch directory** is selected, the respective directory is watched which means that if a new file is saved in this directory the Job-Manager recognizes this automatically and shows the new file as well.

*Indication: the functions **save CD-description** and **CD-label** are only active if files from a CD are searched for.*

In the bottom part of the dialog the context sensitive menu of the right mouse button can be equipped with different functions.
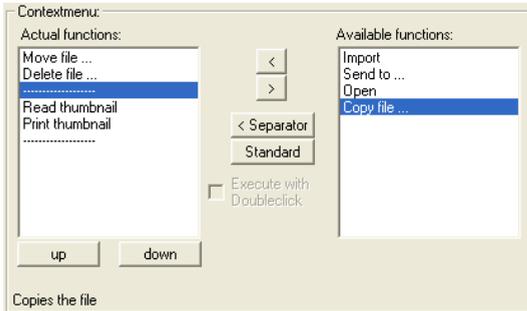

Fig. 8.2-14: Sections from the file format dialog

Under **actual functions** the functions that are available in the context menu are listed. Each search path can be provided with its own context menu.

Example: a search path contains only files that shall be sent via email. Here, two functions as context menu would be sufficient. As first function, you would select **open** in order to check the file to be sent once again. As second function you would select **send to…** . The other functions are not needed here.

The button with the arrow to the left *moves* functions to the „actual functions". **Actual functions** are those functions that are later available in the context menu.

The button with the arrow to the right moves functions to the side „available functions". **Available functions** are functions that are not available in the context menu.

The **separator**-button serves for inserting separators between single functions. This way, a clearer composition of the context menu can be obtained.

If the standard context menu was modified - several functions have been removed -, the initial state of the context menu can be restored by pressing the **standard**-button.

If the option **execute with double click** is activated, the function of the context menu is only executed by a double click of the right mouse button.

With the buttons **up** or **down** menu items or separators can be moved to any position.

8.2.5.2.3 File formats

Via the **file formats…**-menu item new formats can be added to the list file formats of the Job-Manager and deleted again.

*Indication: newly added formats are displayed in the preview window **without** preview, only with their file name.*
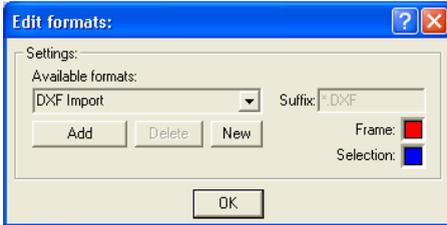

Fig. 8.2-15: Add or delete file formats

In the left part of the dialog, available formats are shown and new formats entered. Right next to it the ending, the suffix of the respective format is indicated. Underneath, the frame color of the preview pictures and the selection color can be defined by a double click onto the color field.

Indication: only newly defined formats can also be deleted again.

Font Setup...

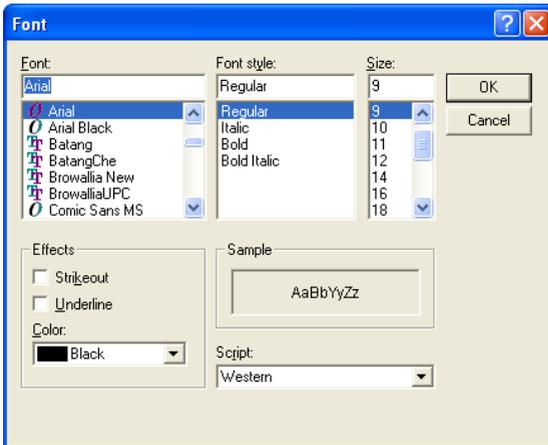If this menu item is activated, following dialog opens:

Fig. 8.2-16: Font selection for the preview window

In the upper part of the dialog the **font**, the **font style** and the **size** of the legend of the preview pictures in the preview window can be set.

In the bottom part of the dialog, additional settings can be done. The legend can be **struck out** or **underlined** or the font **color** can be freely selected. All this is for a better optical

recognition respective distinction of the preview pictures.

Under script you can select which presentation of the signature is preferred. Thus, someone from Great Britain would select western and an Arab arabic.

8.2.5.2.4 Select language…

Here, you can select in which language the menus and dialogs the Job-Manager shall appear. Just click on the downwards arrow and select the wanted language.

Indication: a selection is only possible if more than one application language is available.

8.2.5.2.5 Create backup...

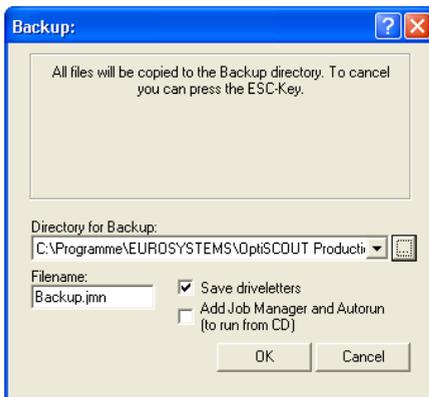If this menu item is activated, the backup dialog is opened:

Fig. 8.2-17: Parameter setup in the backup dialog

In the input field named ***directory for backup*** select the directory or data carrier into which the data shall be saved.

In the field underneath ***filename*** for backup the filename for the backup is entered.

*Indication: backup-files always end on *.jmn.*

Right next to it you can select if the names of the drive (i.e.: C:) shall also be saved or not. If the option ***save driveletters*** is active the drive name is saved, too.

Indication: as default, this option is deactivated. You should activate this option only if two paths with the same search directories but different driveletters are available, so that they can be distinguished by the backup-module.

If the option ***add Job-Manager and Autorun (to run from CD)*** is activated, the files and the Job-Manager itself are also copied to the data carrier.

Indication: the backup can be interrupted at any time with the ESC-button.

8.2.5.2.6 Delete all groups

This option deletes all search groups.

8.2.5.2.7 Clear thumbnail cache

The preview pictures that the Job-Manager creates can be saved in a cache to have a faster access to them.

When shall the thumbnail cache be deleted?

The **thumbnail cache** should be deleted if a *.jmn-file was deleted. The search paths and directories of the preview pictures do not exist anymore but the picture information is still in the cache but not needed anymore.

Indication: if the thumbnail cache is deleted, the preview pictures of the single search paths in the preview window must be newly read which will take some time depending on the number of preview pictures.

8.2.5.3 The JM *view*-menu

In the Job-Manager **view-**menu the presentation of the Job-Managers can be adapted. Here, the **toolbar**, the **status bar**, the **selection path**, the **groups**, the **mask** and the **maskeditor** view can be switched on or off.

If the menu item **Job-Manager always on top** is activated, the Job-Manager always remains in the foreground. This function is especially suitable for the collaboration with GreatCut.

The Job-Manager window then can be positioned in the chart mode so that the working area of GreatCut is completely available to the user but also the Job-Manager remains visible.

Advantage: Jobs to be edited can be quickly found, opened or dragged to GreatCut.

8.2.5.4 The JM *?*-menu

A click on the **?-**menu opens the **info about Job-Manager** dialog. Here, the status of your Job-Manager version is indicated as well as the number of the saved files and the needed disk space.

8.2.5.5 Keyboard shortcuts Job-Manager

Key	Function
Right mouse button (mouse cursor on the preview picture)	Context sensitive menu of thumbnails

Right mouse button (mouse cursor in the preview window)	Context sensitive menu of the preview window
SHIFT	
ENTER-key	Load in GreatCut
Left mouse button	mark jobs from - to
CTRL	
N	New file
O	Open file
S	Save file
F	Search drives
Left mouse button	Mark pictures individually

8.2.6 Overview keyboard shortcuts Job-Manager

Menus

Key	+ (Num-Lock)	- (Num-Lock)	Del	right mouse button	ESC	PgUp	PgDn
Function	increase thumbnails	decrease thumbnails	delete job(s)	activate context menu	cancel search	previous page	next page
Key	F5	A-Z					
Function	refresh search paths	jump to first job starting with this letter					
Key	Input	left mouse button					
SHIFT	Load in GreatCut	mark jobs from - to					
Key	B	F	H	I	J	K	L
CTRL	print thumbnails	set font attributes	do not show job(s)	call up job-info	search standard paths	copy job(s)	print list
Key	M	O	Q	R	U	V	left mouse button
CTRL	move job(s)	Job-Manager settings	quit Job-Manager	show jobs in standard-paths	show job(s) again	window always on top	mark jobs individually

8.2 Job-Manager

9 Tips & tricks - Troubleshooting

Often, it is just a bagatelle that makes the "implementation" of new software difficult. Similar to a new machine, there are questions and problems with new software that often can be explained and solved easily. Therefore, we have explained a selection of questions that occur daily at our hotline- and support routine more closely.

9.1 Buffer overflow serial

The cutter cuts the first characters neatly and then starts to draw indefinable curves. **Tip 1**

With serial activation of the cutter, this is a typical buffer overflow problem and occurs if the protocol for the serial transfer is not set correctly. Most cutters are activated with the following parameters with a serial data transfer: *bits per second: 9600, data bits: 8, parity: none, stop bits: 1, protocol resp. flow control: hardware*

9.2 Cutter does not respond!

a. First check if you have selected the correct cutter driver and the correct port: for example GCC Ultra GRC-61 at COM2 in the GreatCut-cutting dialog **Tip 2**

b. COM-connection: check if the parameters of the port are set correctly. To do so, call up the system control of Windows. In the device manager, select the corresponding connection, for example: COM.

Popular standard parameter are: *Baud: 9600, data bits: 8, parity: none, stop bit: 1, protocol/flow control: hardware*

The settings in the system control and at the cutter must be identical otherwise no or only faulty data transfer will take place.

c. USB-connection: check if the correct USB-driver is installed for the device. The settings are in the Windows device manager under USB-controller. The USB-driver for the cutting cutter must be entered in this list otherwise no activation is possible.
If the USB-driver does not appear there, install it from the delivered data carrier of your device.

d. Original cable: check if you use the original cable recommended by the manufacturer. If this is not the case, there might be bigger problems during the data transfer. GreatCut „communicates" during the data transfer with the cutter so that missing or faulty connected data cable with the cutter lead to input or output errors.

9.3 Buffer overflow

The cutter reports „buffer overflow" or does not cut the whole job   **Tip 3**

This is often because of an incorrect setting of the used protocol of the serial (COM) port. In most cases it is sufficient to set the protocol respective the flow control of the port to *hardware*.

9.4 Script welding

The automatic welding of scripts does not work as expected   **Tip 4**

The success rate with the automatic welding increases clearly if the letter spacing is reduced from 100% to 99.9% or even 99%. This results in the fact that two nodes that lie mathematically exactly on top of the other can be slightly moved so that they can be "identified" as two dots.

Indication: another possibility is the modification of the kerning in the Font-Manager for Adobe fonts with which problematic kerning pairs can be edited.

9.5 Data import from Apple computers

Data import from Apple-computers in GreatCut   **Tip 5**

When exporting Apple-data you have to pay attention to some settings to have a perfect data export. All popular Apple compatible illustration- and graphic applications can export EPS-data. (Illustrator, Freehand, …)

1. For the contours, as line width only hairline (0.01 mm) must be entered.
2. No fillings should be transferred.
3. All texts must be converted to graphical objects. (text in curves)
4. Grouped or combined objects must not be available. (break up before)
5. Especially with the Freehand-export the export filter for the Illustrator-format must be selected.
6. As file name extension .eps should be used and you should not use umlauts as ü, ä, ü.

9.6 Typical sources of errors when cutting

a) The foil is clamped too loose   **Tip 6**

Consequence: the graver moves the foil during the cutting and the contour is not closed completely.

Remedy: when inserting the foil pay attention that the foil is clamped evenly and does not undulate.

b) The speed is too high

Consequence: small foil parts especially serifs and counters are unscrewed.

Remedy: reduce speed and lower the pressure.

c) The infeed pressure is too high

Consequence: the release paper is also carved, character parts are unscrewed and parts of the release material get stuck at the characters. The weeding border of the foil gets more difficult.

Remedy: reduce pressure and correct the depth of the cutting graver if necessary.

d) The infeed pressure is too low

Consequence: foil and gluten were only partly cut through. The weeding border is possible only with difficulty or not at all.

Remedy: increase the pressure and correct the depth of the cutting graver if necessary.

e) The graver is set too deep

Consequence: foil, gluten and release material were cut. Foil cannot be used any more.

Remedy: correct the setting of the depth of your **cutting graver**.

f) The graver is used up

Consequence: only the foil and not the gluten is cut through.

Indication: when using standard foil the using up of the graver is little. When using reflection or sandblast foil the using up is much higher.

Remedy: use new original graver.

g) The characters were unscrewed

Consequence: The weeding border is possible only with difficulty. The unscrewed parts stick to the foil and cannot be detached any more.

Generally is presumed: the smaller the font size the thinner the foil must be; the adhesive force of the gluten is higher.

Remedy: reduce the speed and if necessary the infeed pressure until this effect does not occur any more.

h) The release paper is also cut

Consequence: the release material sticks to the foil. The weeding border is possible only with difficulty or not at all.

Remedy: correct the setting of the depths of the cutting graver and also reduce if necessary the infeed pressure.

Annex

A Glossary

Additive color system The ~ is based on mixing the additive, luminous spectral colors red, green and blue (RGB), for example in color TVs or color monitors

Adjustment Modification of the distance between two adjacent characters so that a harmonic type face is being created. This is reached by correcting the character - or word distance. With distances below 100% you speak of kerning and with values above 100% of spacing out.

Adjustment handles ~ are the 9 black quadrates that are drawn around the object and in the middle when marking objects.

Antialiasing Edge smoothing with bitmaps

Application tape Foil that is used to apply the cut foil after the weeding on the lettering area. The adhesive force must be strong enough so that the text - even the tiniest letters - can be released from the substrate without problems. After application, the ~ must also be released without problems.

Ascender Term for the part of a character that extends above the middle length.

Backup Data backup

Bit-depth also shade ~ is the mathematically possible number of colors with a specific number of bits, for example:
1 bit color depth = 2^1 = 2 possible colors (black/white)
8 bit color depth = 2^8 = 256 possible colors/shades of gray
24 bit color depth = 2^{24} = 16.8 Mio. possible colors

Bitmap Pixel-graphic

Bold Font that a bit thicker than the standard typeface.

Byte Smallest addressable unit in the computer memory, consisting of 8 bits.

Calibration Adaptation of printer, monitor, cutter or adaptation to desired values.

Cap height This is the height of the capital letters, the majuscules. As measurement usually the height of the letter „H" from the font line to the top edge of the character is used.

Center justification   A break justification where the text block is justified at the same time on the left and on the right side. To do this, the word space within a text line is varied (usually extended) so that on the left and right side a clean text edge is created. This is not only applied for the the last line of a break.
compare also: forced block

Clipart(s)   ~ are jobs or job parts that were added to the Clipart-toolbar. They are saved in a separate directory. (C:Program FilesEUROSYSTEMSGreatCutCLIP)

Clipboard   ~ is used for temporary storage in Windows.
The ~ is used to exchange data fast between applications.

CMYK   Cyan, magenta, yellow, contrast (key, black) Standard colors for the four-color printing.

CMYK-color area   ~ is the total number of colors that can be displayed by the colors used when printing (CMYK).

Color depth   ~ is the number of possible color tones that can be recognized by a scanner or reproduced on a color monitor.

Context menu   Context menus are called so because the structure adapts and changes depending on the number and type of the selected objects (context). Context menus are always activated with the right mouse button. They serve for the faster access to important functions and tools and also to those functions that cannot be activated via the main menu.

Contrast   Contrast; range of brightness between bright and dark parts of a picture.

Cursor   ~ is the blinking, vertical line in an editable field.

Decoration   Accentuation of text parts by modification of the text attributes, for example **bold**, *italic*.

Descender   This is the part of a character that protrudes below the font line.

Desktop   The area besides the working surface that can be used for the draft. It is comparable to a desk on which are the tools.

Digitalization   Conversion of a picture template into a digital form. The capture is done pointwise or linewise by means of a digitalization-tableau or by reading the template with a scanner.

Dongle   Means the copyright that is part of the scope of delivery of GreatCut. It is inserted in the USB-interface of your computer. Without ~ the software cannot be started.

Download	Downloading applications or files from the internet to your computer.
DPI	Acronym for **D**ots **P**er **I**nch; resolution fineness (1 inch = 2.54 cm)
EPS	Acronym for „**E**ncapsulated **P**ostscript **F**ormat". In this file format the text and picture information is saved in the page description language postscript. This format also contains besides text and raster data also a preview bitmap which allows displaying a copy of the data on the screen.
Foil	Two production processes are common: calendaring and casting. Cast foil is created without drawing frame and thus has a lesser shrinking tendency. The costs are usually higher than with calendared foil. Calendared is cheaper, has a shorter period of usage und shrinks more. Cutting foils are built in three layers: 1. Substrate; the lowest layer 2. Gluten layer; is between the foil and the substrate 3. the foil itself.
Font	Type cut within a type face in digital form. Most type faces have the fonts normal, bold, italic and bold-italic. Often, the font is used for the same type face. Correct would be that each cut is a separate font.
Font line	~ is a thought line on which the characters of a row are standing. Even if different font types and font sizes are used in a row, all characters must stand on a common font line.
Font size	~ is the size of a font. It corresponds to the block height, which means it also comprises the ascender and descender as well as a certain space above and below the characters.
Forced justification	Justification where all text lines - also the last- are adapted to the width of the column or the working area. In GreatCut this justification is called „force justification".
Gamma correction	The ~ is a method for the correction of color graduation considering the perception of the human eye if there are two adjoining areas of different color.
Group	Combination of arbitrarily many objects to a group. The position of the objects itself does not change any more within the group.
Halftone image(s)	~ are pictures which contain shades of gray or hues. The tonal value between pure white and pure black is called halftone.
Hotfolder	

	A Hotfolder is a directory monitored by the Plot-Manager. If a file is copied into this directory, the Plot-Manager carries out automatically specific configurable functions.
Inch	Measurement unit for the length 1 Inch = 2.54 cm
Job	File-ending of GreatCut; name for a GreatCut-file
Justification	Alignment of a text block on the working area. GreatCut offers justification left-aligned, right-aligned, centered, center justification, forced center justification and adjust cap height.
Kerning	If two characters stand closer together than it would correspond to their standard thickness, you speak of ~. With character combinations as for example „Te" you have a balanced type face.
Laminating	Covering with transparent plastic films.
Live-Update	Updating of software via the internet.
Marking function	~ means marking objects by keeping pressed the left mouse button, then drawing a frame around the objects to be marked and letting go the mouse button only if all objects to be marked are completely within the frame.
Process colors	Printing scale of colors for four-color-printing with cyan, yellow, magenta and black (key). By mixing these colors, it is possible to print all colors.
Raster Image Processor	short: RIP - Software that rasterizes vector data and controls the printing on a large format printer.
Resolution	Number of pixels per track unit. It is indicated in dpi (dots per inch). Laser printers have a resolution from 600 to 1200 dpi.
Scan resolution	Fineness of the resolution when scanning analogue images **Formula:** Resolution (in DPI) = printing length (L/cm) x 2 (quality factor) x enlargement factor x 2.54 (when converting from cm into inch)
Subsidiary line	These are lines for the virtual alignment of objects on the working area or the desktop. Subsidiary lines are only visible on the monitor are neither plotted nor output on the printer.
Superscript	The characters are set higher than the characters standing on the baseline. They usually have a bit smaller font size than the basic font.
Toolbar	

can be freely moved and positioned on the working area of an application. Often, also the composition of the tools can be defined.

Trapping   A small overlapping zone at the limit of superposed colored elements. This ~ guaranteed that no white gaps occur at the color borders. The overlapping can happen through overfilling or underfilling.

Upload   Upload is the sending of files or applications to a networked server

Weeding   means the removal of unnecessary foil parts after the cutting with a cutting plotter.

White gaps   ~ are the gaps on the edges of overlapping or abutting color or foil areas. Disadvantageous especially with silk-screens or when printing.

x-height   Height of the lower case/character „x" respective the lower case without the ascender of a font.

A Glossary

A Glossary

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