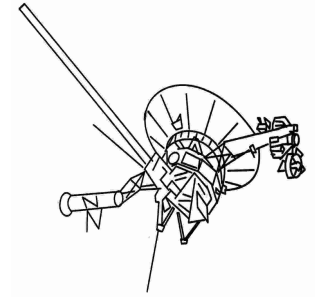


CadSoft EAGLE Scripting



Blunk electronic

Owner: Dipl. Ing. Mario Blunk

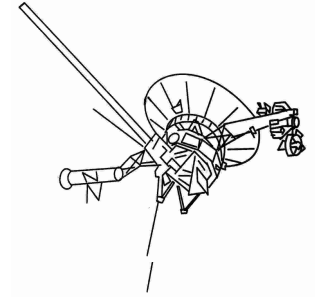
Buchfinkenweg 3
99097 Erfurt / Germany

Phone 0176 2904 5855 / 0361 6022 5184

Email mario.blunk@blunk-electronic.de

Internet www.blunk-electronic.de

EAGLE Scripting



The slides you will see in the following give an overview of topics addressed. You will get details and practicing in my course.

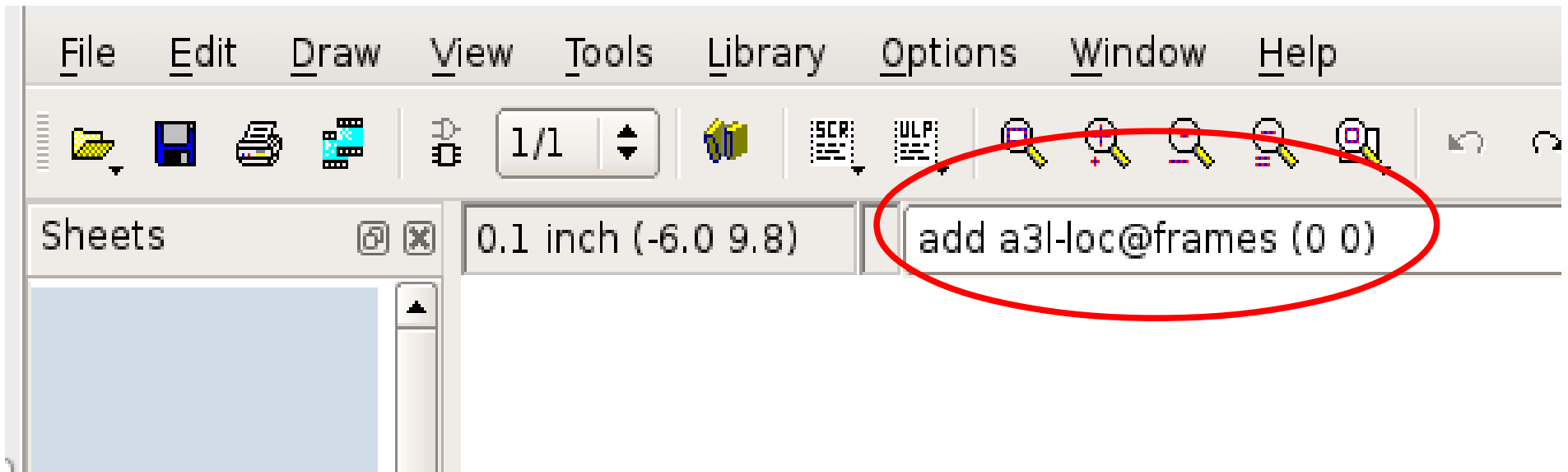
Please find more on booking and pricing here:

http://www.blunk-electronic.de/pdf/topics_EAGLE_training.pdf

Why Scripting ?

1. Comfortable EAGLE Usage
2. **Save Time**
3. Routine Jobs
4. Less Error Prone
5. Bases on Commandline
6. Linear Execution

Commandline #1



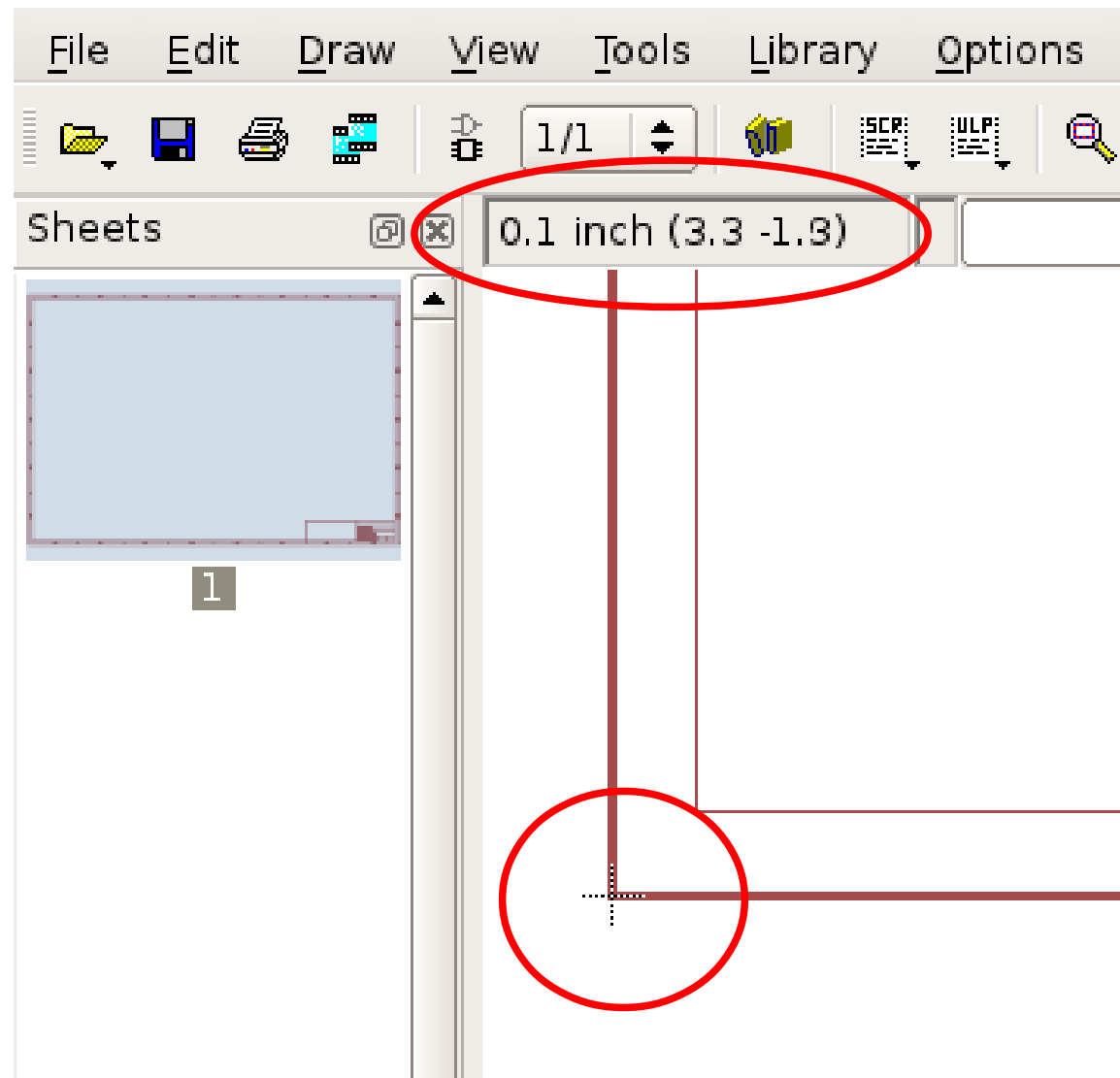
```
add *@/home/luno/eagle/lbr/abc.lbr;  
add a3l-loc@frames (0 0);
```

Device

LBR

Position

Commandline #2



Commandline #3

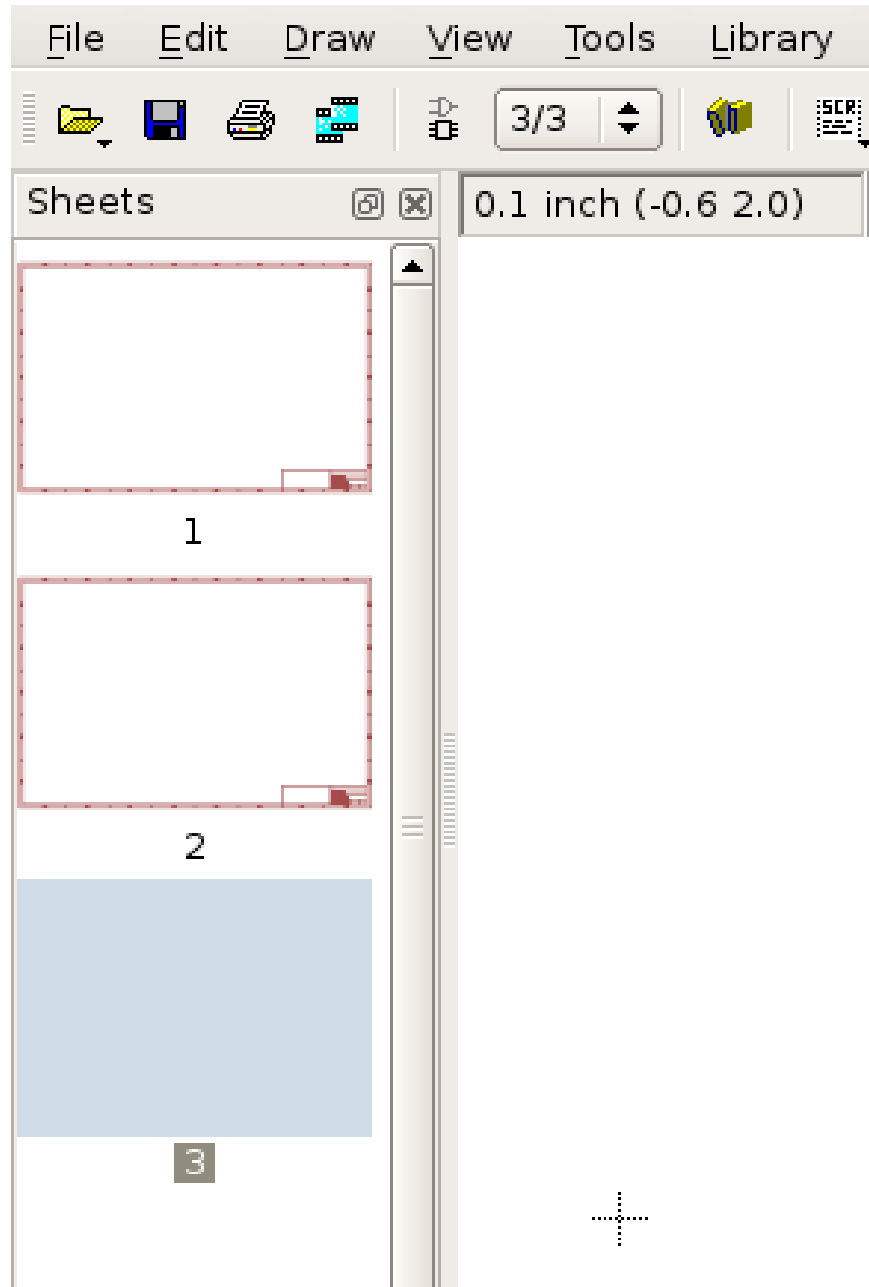
edit page : **edit .s2**

new page : **edit .s1000**

add drawing frame:

add a3l-loc@frames (0 0);

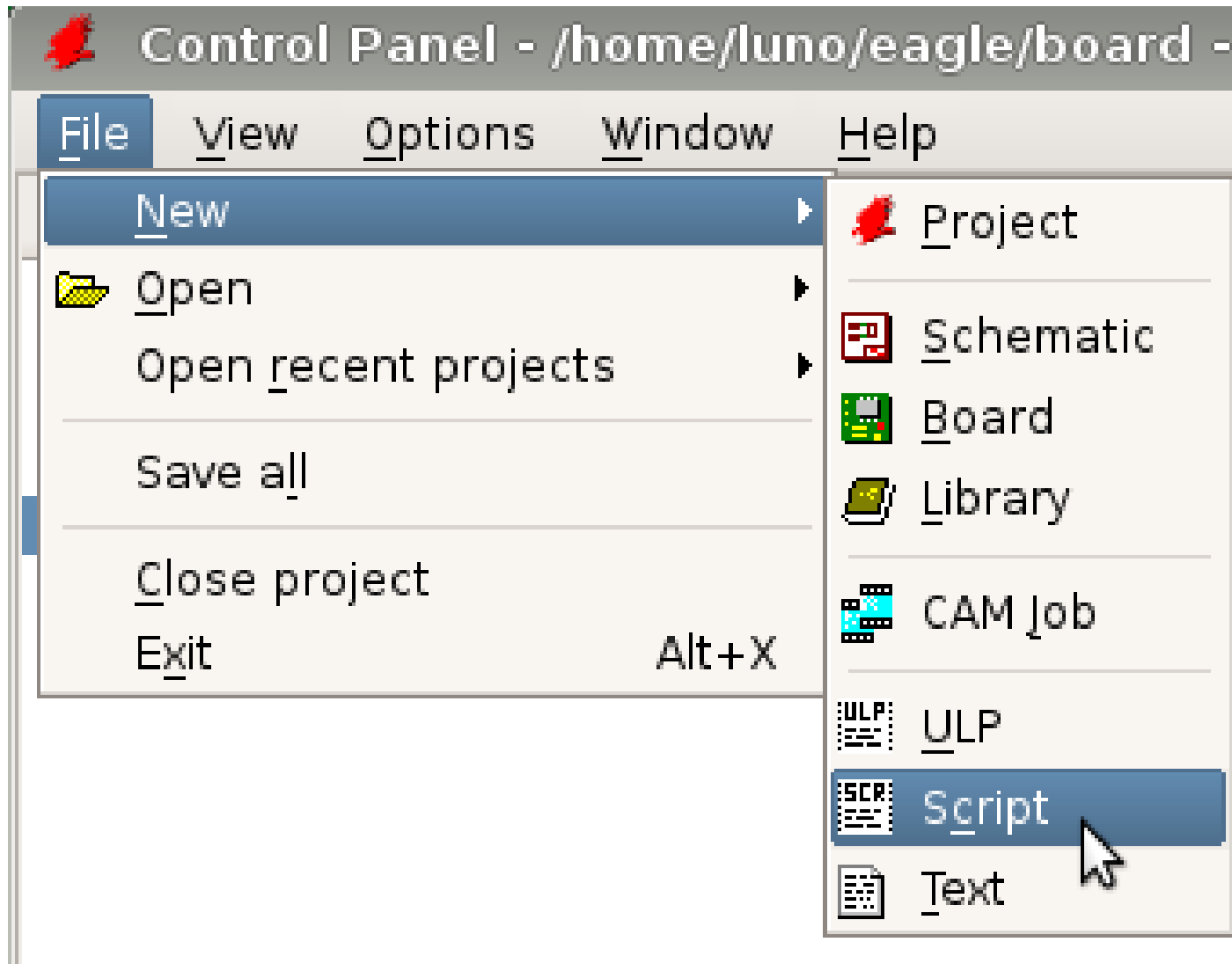
Commandline #4




delete page : **remove .s2**



New Script



Example 1: Schematic Pages



The screenshot shows a text editor window titled "1 Text Editor - /home/luno/eagle/scr/new_page.scr - EAGLE 6.3.0 Professional". The menu bar includes "File", "Edit", "Window", and "Help". The main text area contains the following commands:

```
# create new sheet  
edit .s1000  
  
# add frame "a31-loc" from library "frames" to page at pos 0,0  
add a31-loc@frames (0 0);
```

A green arrow points to the "edit .s1000" line, and a yellow arrow points to the "add a31-loc@frames (0 0);" line. The status bar at the bottom indicates "4 : 53 Ins Saved '/home/luno/eagle/scr/new_page.scr'".

run script : [scr new_page](#)

Example 2: Milling Outlines

1 Text Editor - /home/luno/eagle/scr/euro_2.scr - EAGLE 6.3.0 Professional

File Edit Window Help

Draws the dimension lines of a euro format board (100mm x 160mm).

Change to board editor.

board;

Set grid to 1mm but do not display grid.

Grid mm 1 off;

Change to layer Dimension (#20).

Layer Dimension;

delete default outline

del (30 0) (0 20) (160 10) (30 100);

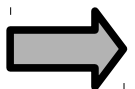
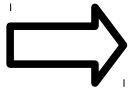
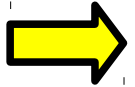
Draw wires first horizontal then vertical toward endpoint.

Set Wire_Bend 0;

Draw wire of width 0 from 0,0 to 160,100 and back.

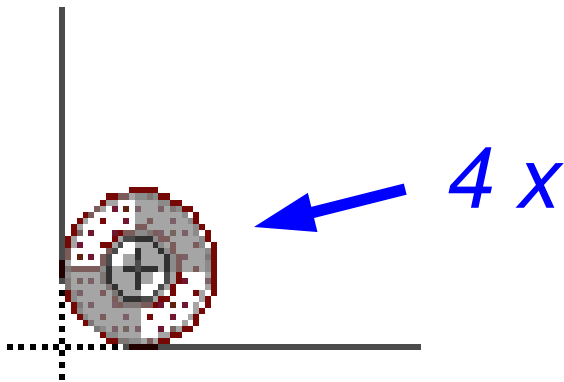
Wire 0 (0 0) (160 100) (0 0);

34:1 Ins



Example 3: Mounting Holes

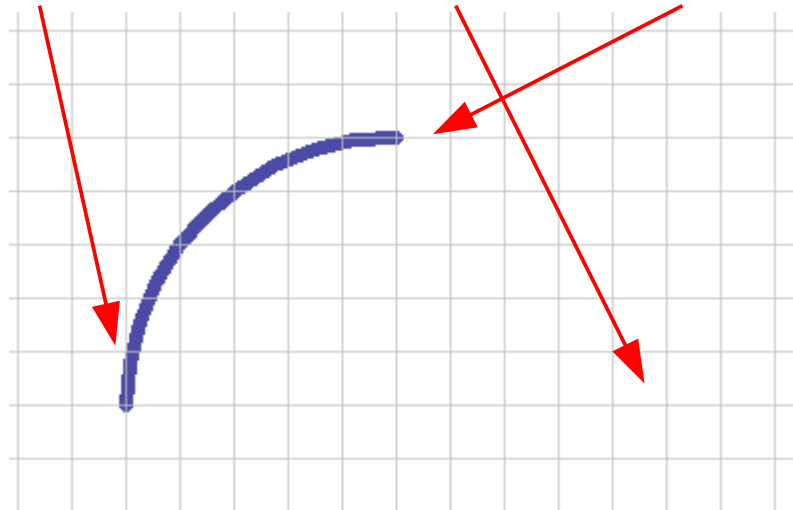
add 4,1@holes (5 5) (155 5) (155 95) (5 95);



- *reference marks*
- *non-plated drills*

Example 4: Arcs

arc cw (40 30) (50 30) (45 35);

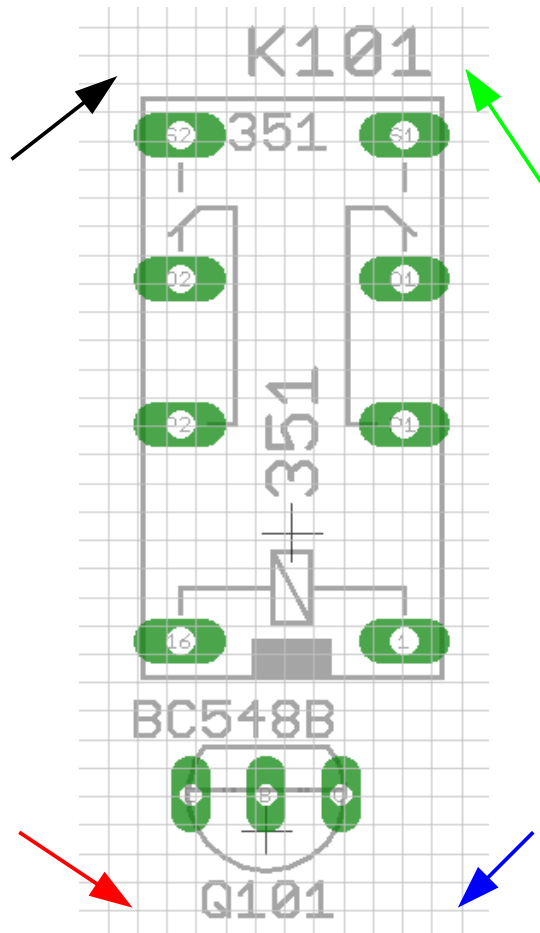


arc cw (40 20) (50 20) (50 20);



Copy a Group

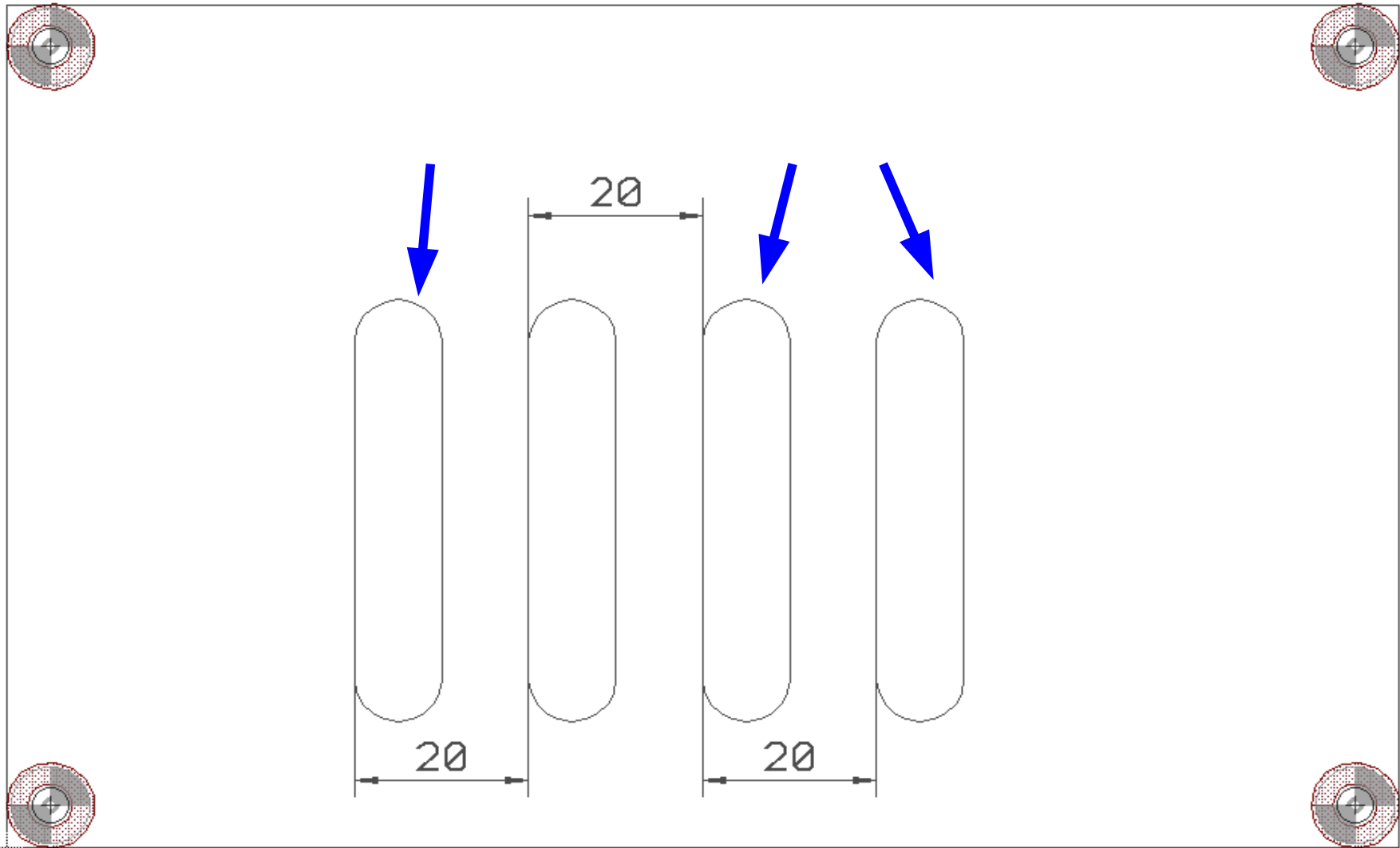
gro (39 14) (53 14) (53 67) (39 67) (39 14);
cut (39 14) (53 14) (53 67) (39 67) (39 14);



pas (59 14);
pas (79 14);
pas (99 14);

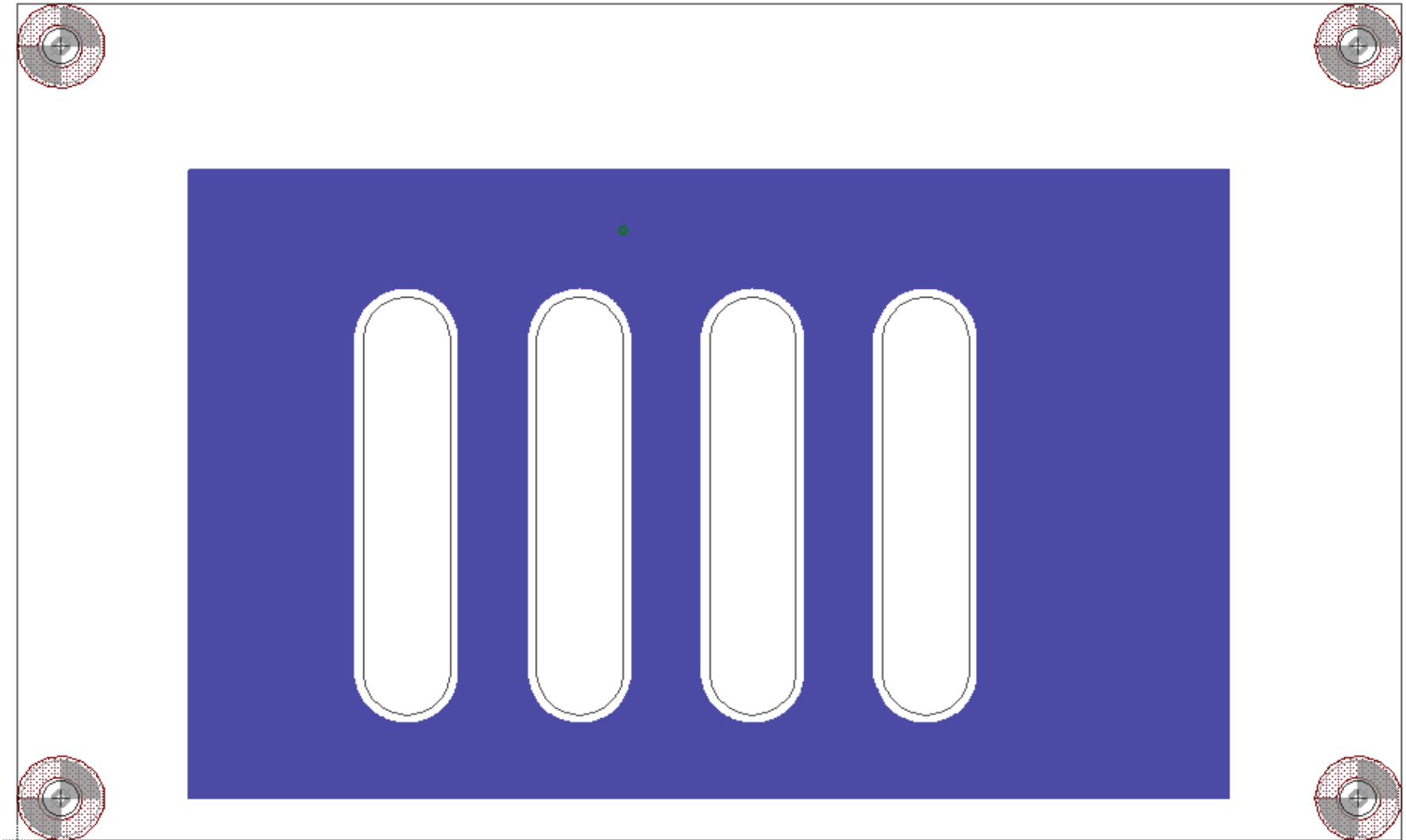
Origins matter !

Example 5: Convection Holes



run script: [scr euro 2](#)

Example 6: Polygons



```
poly gnd (20 20) (50 20) (50 80) (20 80) (20 20);
```


eagle.scr #1



```
SCH:

Grid Default;
Grid alt 0.025;
Change Width 0.006;
change size 0.050;
change ratio 8;
#Menu Add Bus Change Copy Delete Display Gateswap Grid Group Invoke Junction \
# Label Move Name Net Pinswap Quit Script Show Split Value Window ';' \
# Wire Write Edit;
change font vector;

1 : 1 Ins Loaded '/home/luno/eagle/scr/eagle.scr'
```

Executed on EAGLE start up automatically !

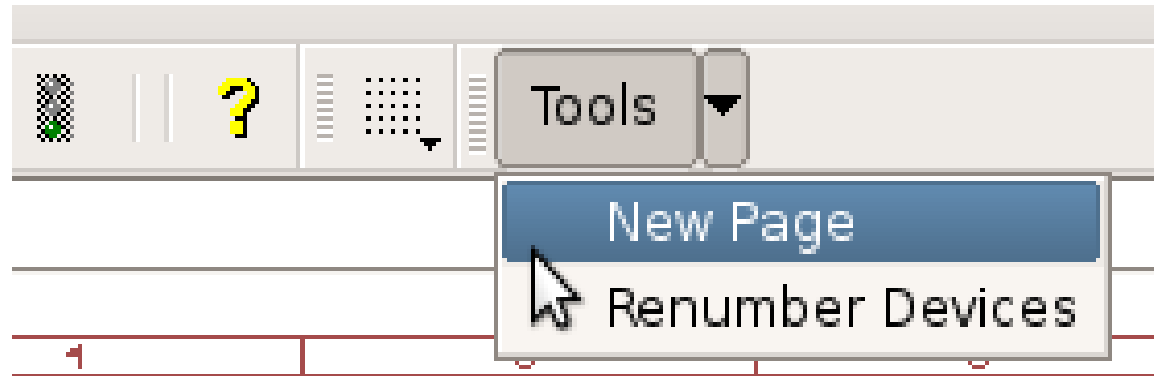
run script manually: [scr eagle.scr](#)

eagle.scr #2



```
MENU 'new_page : SCR /home/luno/eagle/scr/new_page';
```

eagle.scr #3



```
MENU 'Tools {\n  New Page : SCR /home/luno/eagle/scr/new_page; | \n  Renumber Devices : RUN renumber-sheet.ulp; | \n};
```

Boundary Scan System M-1

Testing Boards
without Adaptor ?


System M-1

[click here !](#)

[What is Boundary Scan ?](#)

JTAG/Boundary Scan System M-1
according to Std. IEEE 1149.1

- Minimal UUT access via 5 wire IEEE1149.1 test bus
- Fault diagnosis down to pin level
- Interconnect Test (short/open detection)
- Memory-Connect Test (RAM/ROM/FLASH)
- Oscillator Test / Clock Test
- LED, Display Test, Logic Test ...



- UUT Power Switch and Monitoring up to 6A / 48 V DC
- full galvanic separation of UUT from Scan Master in Non-Test Mode
- Operator Activity reduced by pushing START / STOP Button
- PASS / FAIL display by just two front panel LEDs

Contact: Mario Blunk / Blunk electronic / Buchfinkenweg 5 / 99097 Erfurt / Germany
info@blunk-electronic.de www.blunk-2.de Phone +49 361 518 9618 / +49 176 290 45 855

Links #1

German PCB Houses:

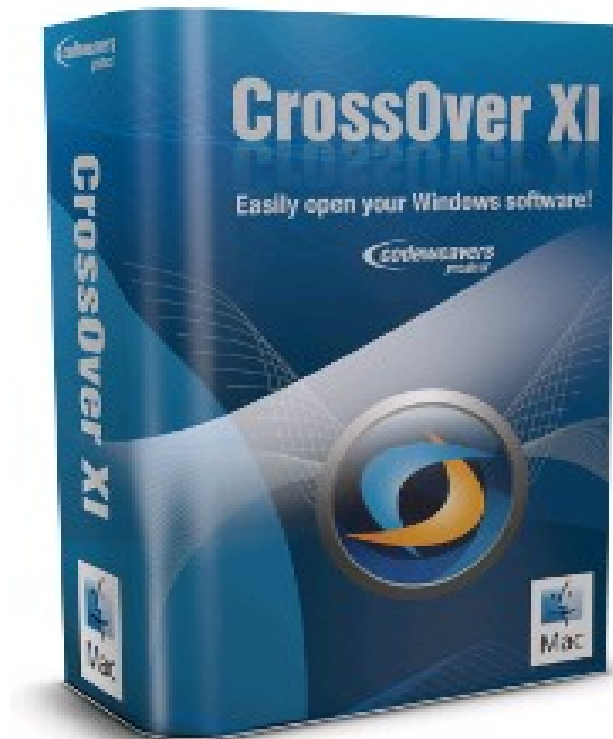
www.q-print.de (prototypes)
www.jlp.de (mass production)

PCB Assembly in Germany:

www.epsa.de
www.hasec.de
www.ertron.de

Links #2

Run Windows Software on your Linux PC !



easily open your Windows software
codeweavers

700 Raymond Ave.
Suite 120
Saint Paul, MN 55114
USA

Tel. +1 651.523.9300
Fax +1 651.523.9399

<http://www.codeweavers.com>

Thanks for your Attention !