

**COBISS<sup>®</sup>**

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Co-operative Online Bibliographic System & Services

SPO – Systems support

***Zebra GC420t User Guide***

**SPO-NA-BG-125, V4.0**

Institute of Information Science, Maribor, Slovenia

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# 1 Introduction

This document presents the use of the printer (connecting to power supply, changing paper, etc.) when working in the COBISS system.

## 2 Using the GC420t printer

### 2.1 Description

A detailed description of the GC420t printer can be found in the English manual at: <http://www.zebra.com/content/dam/zebra/manuals/en-us/printer/gc420t-ug-en.pdf>.

Within the COBISS system, the Zebra GC420t printer can be installed on the VT510 terminal or a personal computer (see Figures 1 and 2).



**Figure 1: VT510 terminal and printer**



**Figure 2: Personal computer and printer**

Three printer communication interfaces are installed in the printer by default:

- parallel,
- serial,
- USB.

Use the correct power cord to connect the printer to the power source. (see Figure 3).

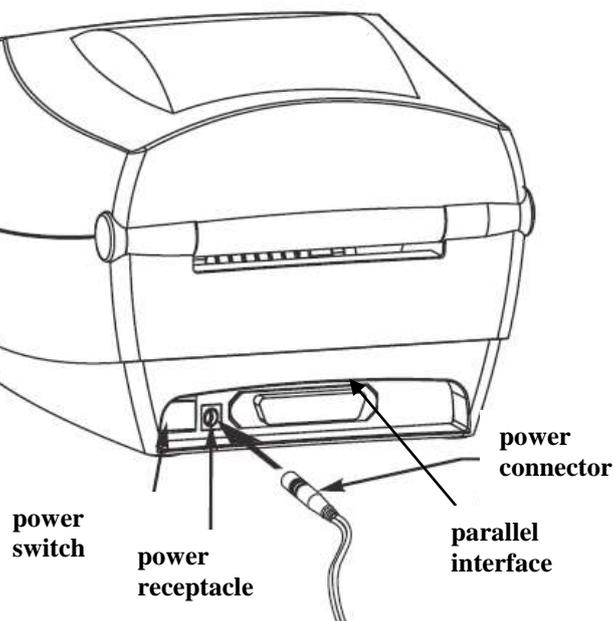


Figure 3: Interfaces – serial, parallel and USB

Figure 4 provides a technical description:

- **Power switch** – The power switch is used to turn the printer on and off.
- **FEED button** – In normal operating mode, the label ribbon (media roll) advances to the next label.
- **Status light** – In normal operating mode, the status light is green. If it turns red in normal operating mode, it means that:
  - the printer is performing its power on self-test;
  - it ran out of label ribbon (media roll),
  - it ran out of transfer ribbon;
  - it encountered a more complex error (service is required).

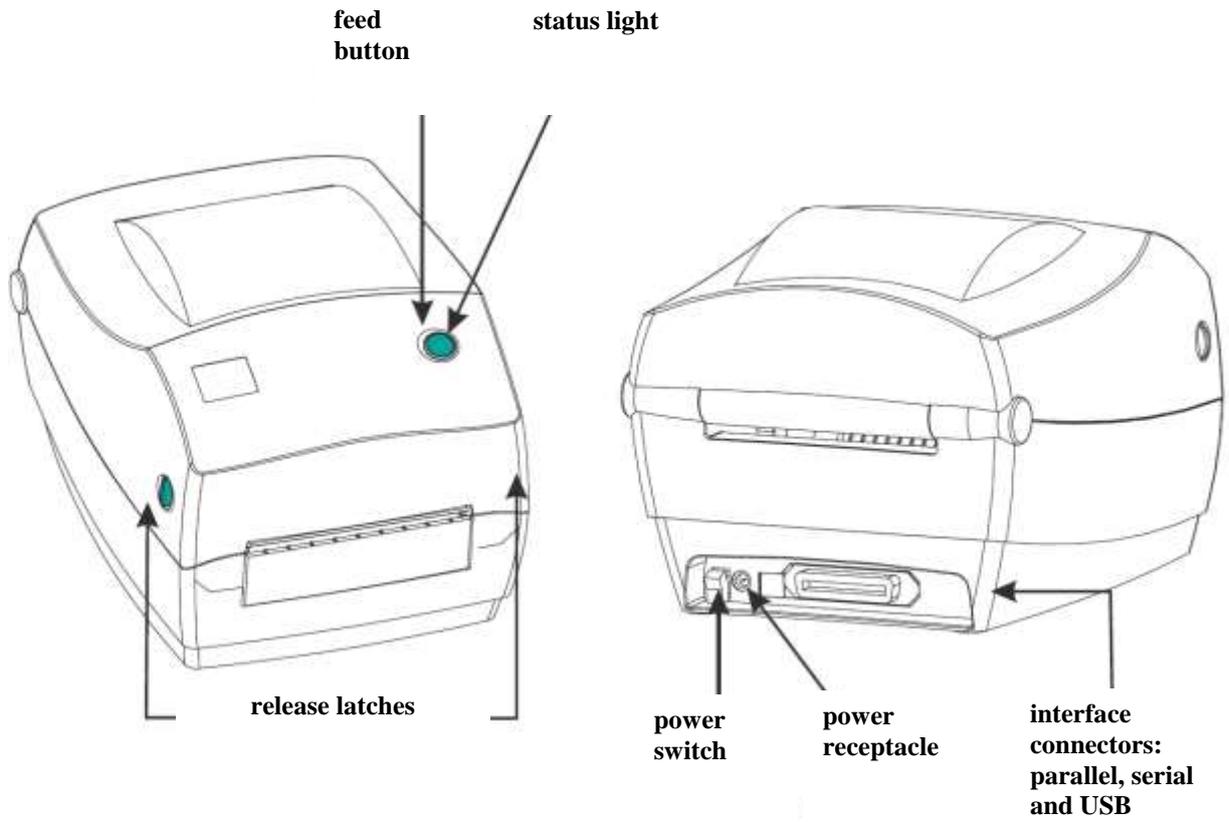


Figure 4: GC420t printer

Opening and closing the printer

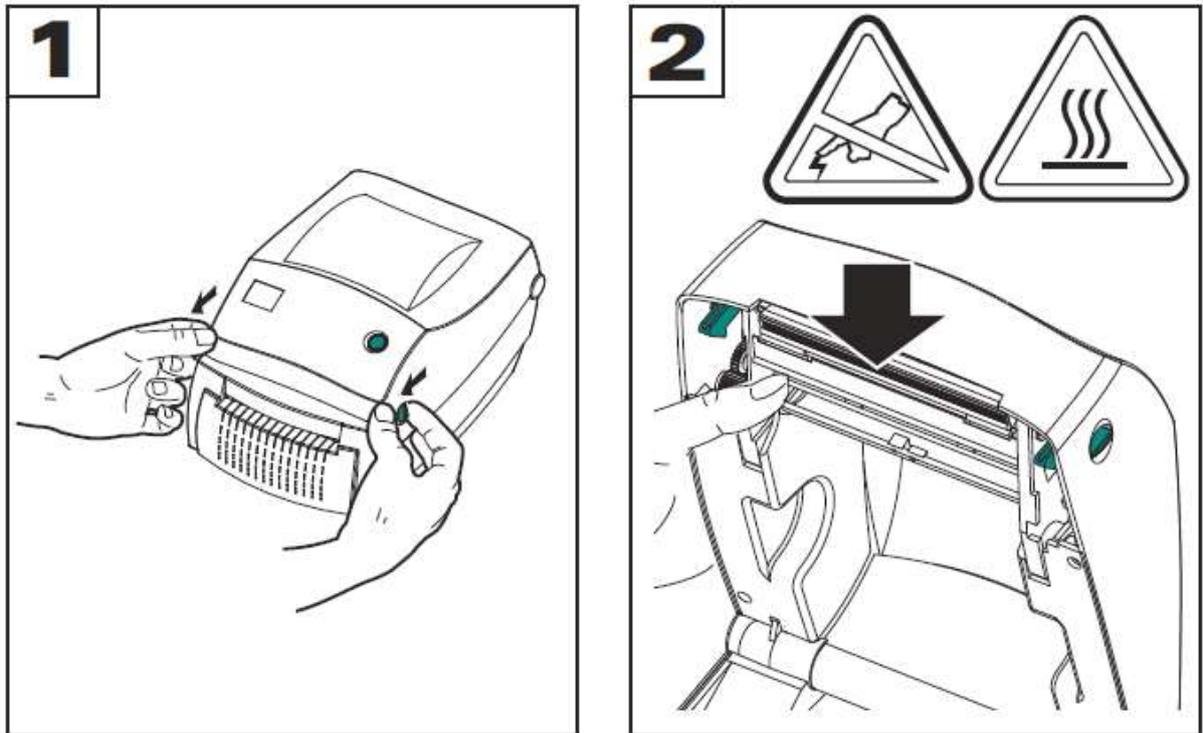


Figure 5: Opening the printer

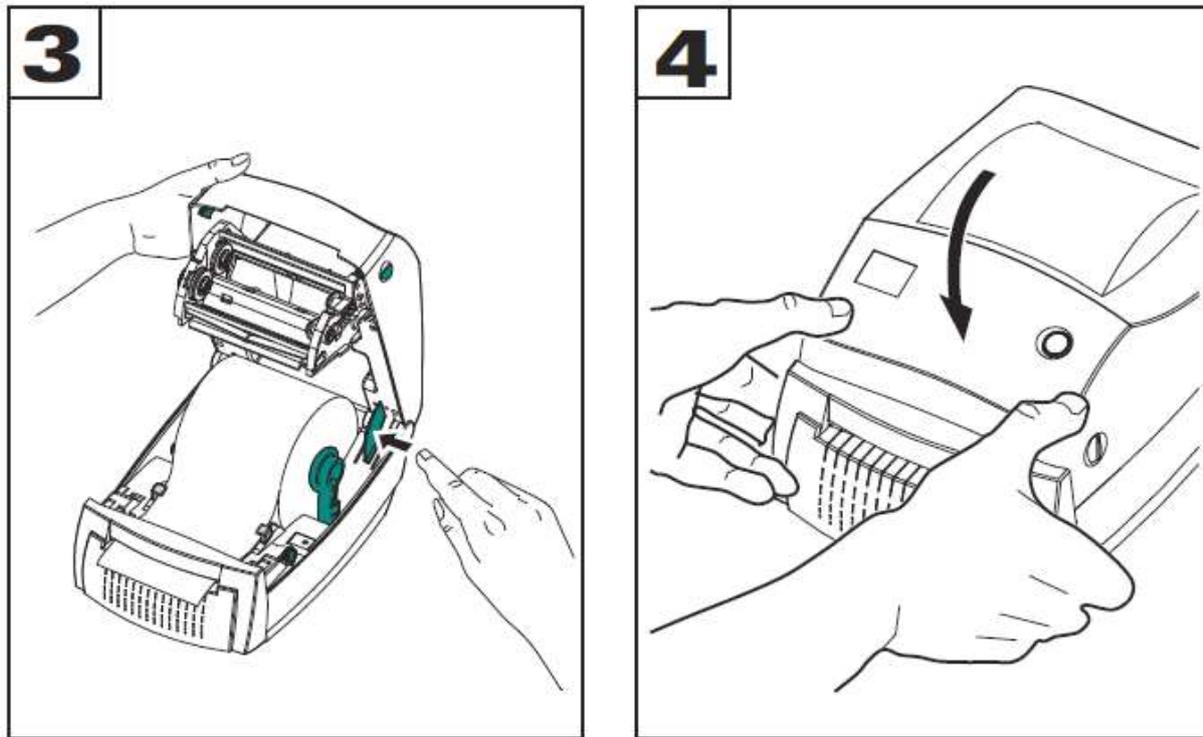


Figure 6: Closing the printer with a “snap”

## 2.2 Connecting to power supply and installing printer

The printer has an inbuilt serial or USB interface.

To connect the GC420t printer to a computer use the USB cable, serial cable or parallel cable supplied with the printer.

To connect your printer to the mains, use the appropriate power cord and the supplied AC/DC converter (see Figure 7).

### 2.2.1 Connecting the printer to power supply

**NOTE:** Ensure that the appropriate power cord with a three (3) prong plug and an IEC 60320-C5 connector are used at all times. These power cords must bear the relevant certification mark of the country in which the product is being used.

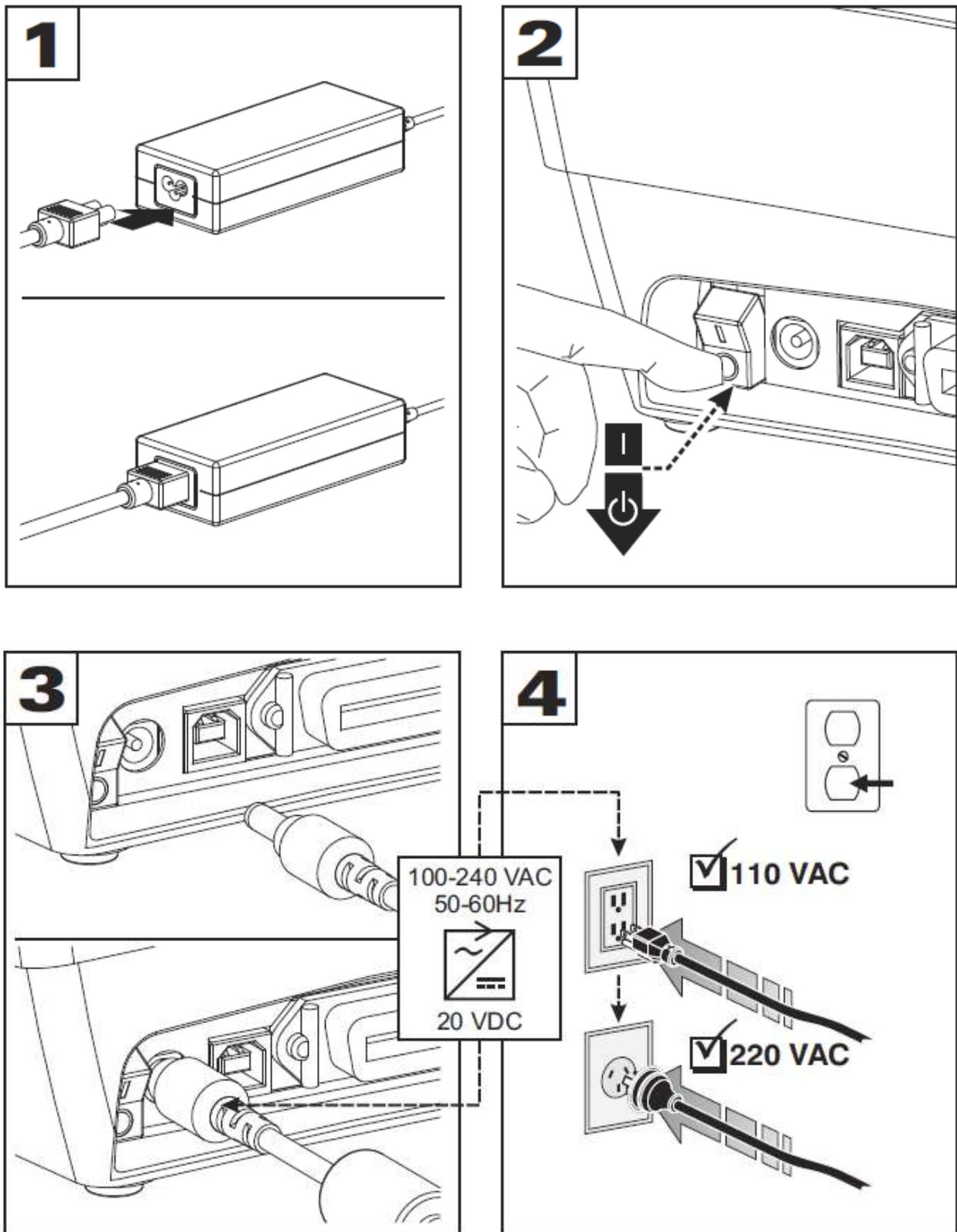


Figure 7: Connecting to power supply

## 2.2.2 USB installation

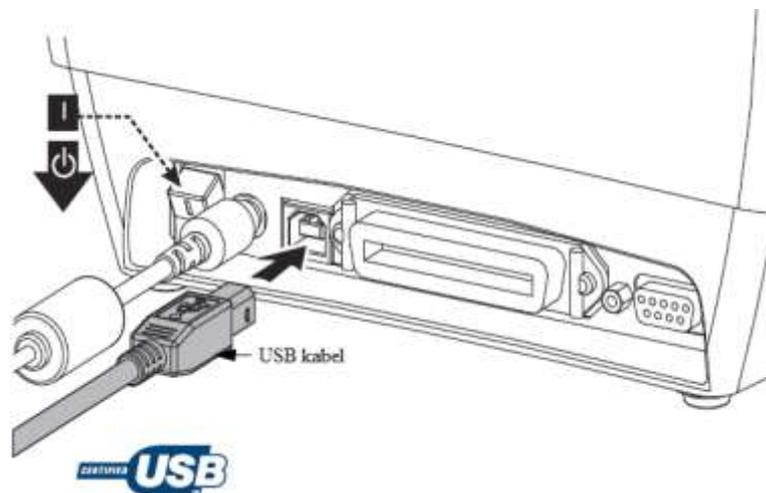


Figure 8: USB installation

## 2.2.3 Serial communications installation

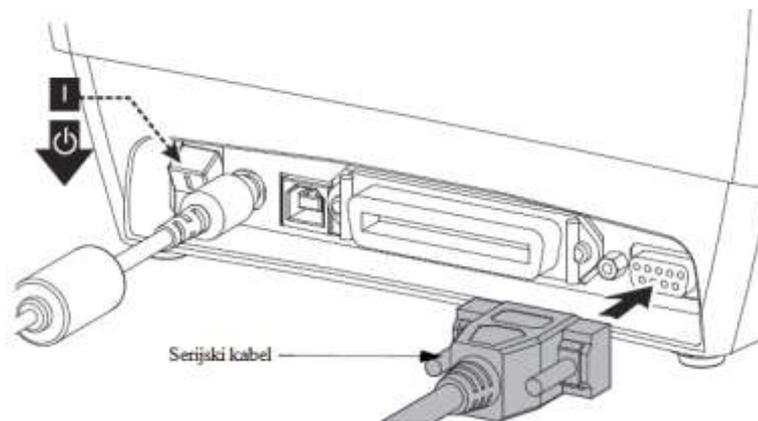


Figure 9: Serial installation

## 2.2.4 Drivers and computer network connection

The drivers are available on the accompanying CD or online at:

- <http://www.zebra.com/us/en/products-services/printers/printer-type/desktop/g-series-gc.html>

If you wish to use the printer with several workstations, it is recommended to attach it to one workstation, and then share the printer for the other workstations. For help, call +386 2 2520 333 (Call Centre) or send an e-mail to: [podpora@izum.si](mailto:podpora@izum.si).

## 3 Installing the printer

### 3.1 Windows environment

To install the GC420t printer in the Windows environment, use the **ZDesigner GC420t** driver.

**NOTE:** Do not use the **ZDesigner GC420t (EPL)** driver.

### 3.2 VT510 terminal

Use the **F3** key to get to *Set up* and then set the printer parameter values with regards to the output used. The printer can be attached to comm1, comm2 or Parallel:

```
Set Up Terminal  
Printer - Port select -(S1= Comm2 print= Comm1) or  
(S1= comm1 print= comm2) or  
(S1= commX print= parallel); X=1,2
```

## 4 Loading media roll and transfer ribbon

To load media roll and to place ribbon, follow the steps below:

1. Open the printer. Place the media roll as indicated in *Figures 10, 11* and *12*. Place the entire roll in the holders and pull the media under the media guides.

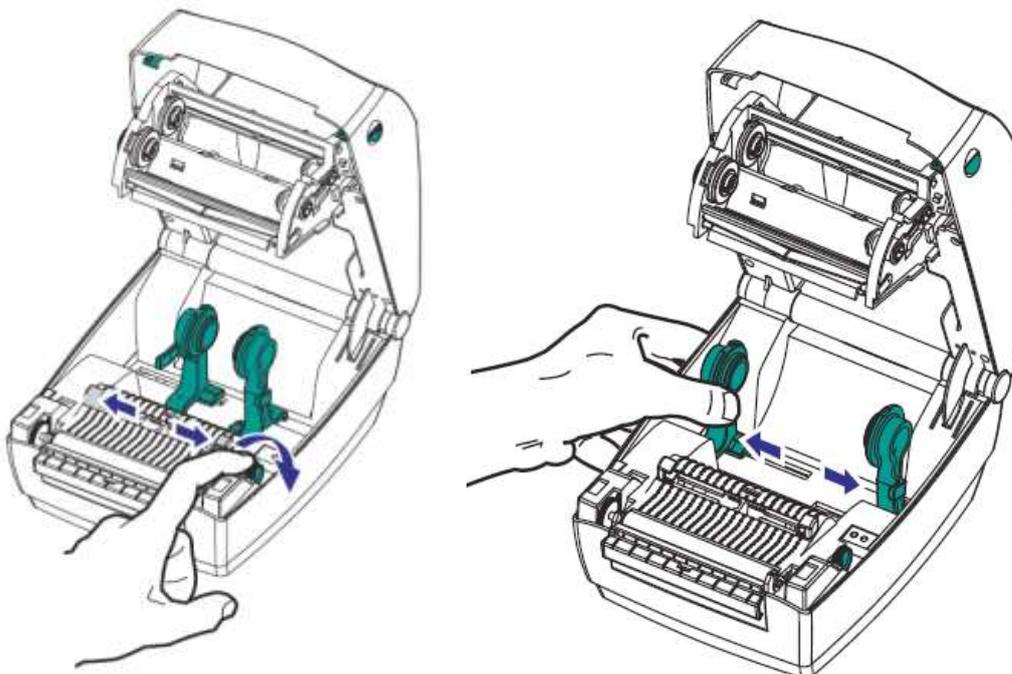
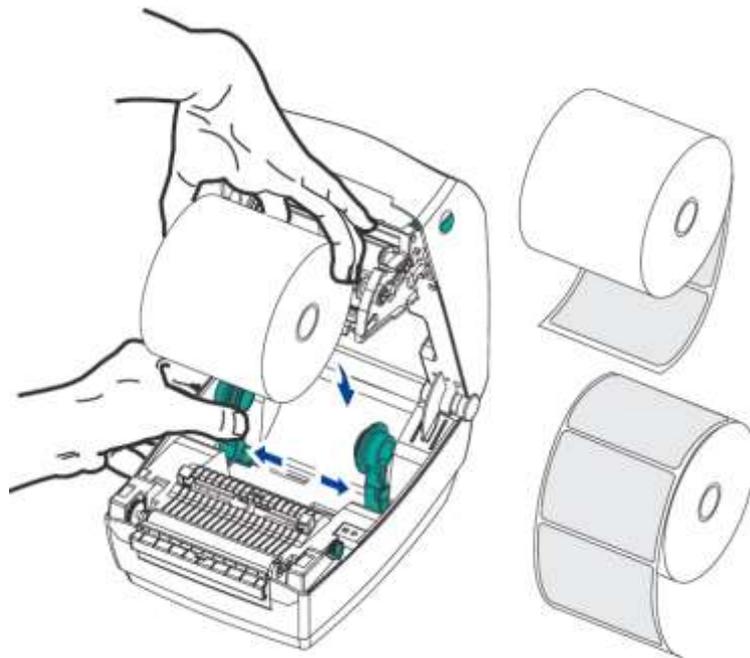
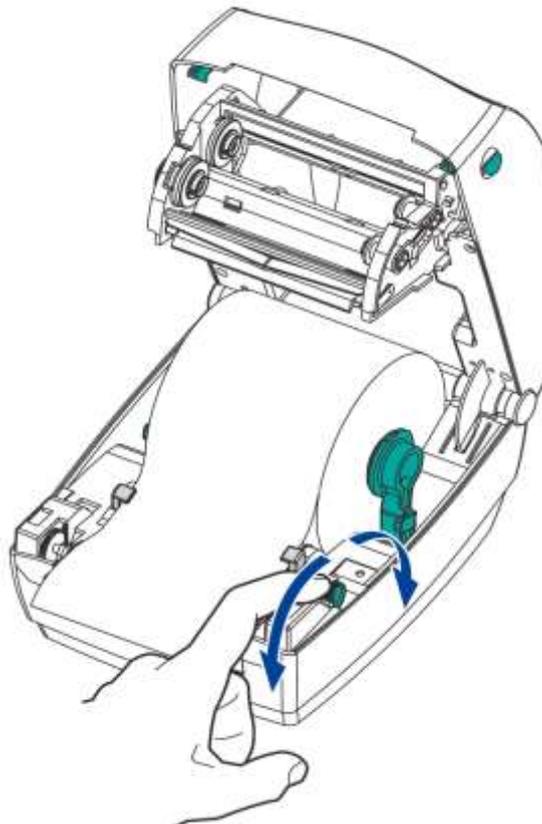


Figure 10: Adjusting the media guides when inserting the media roll

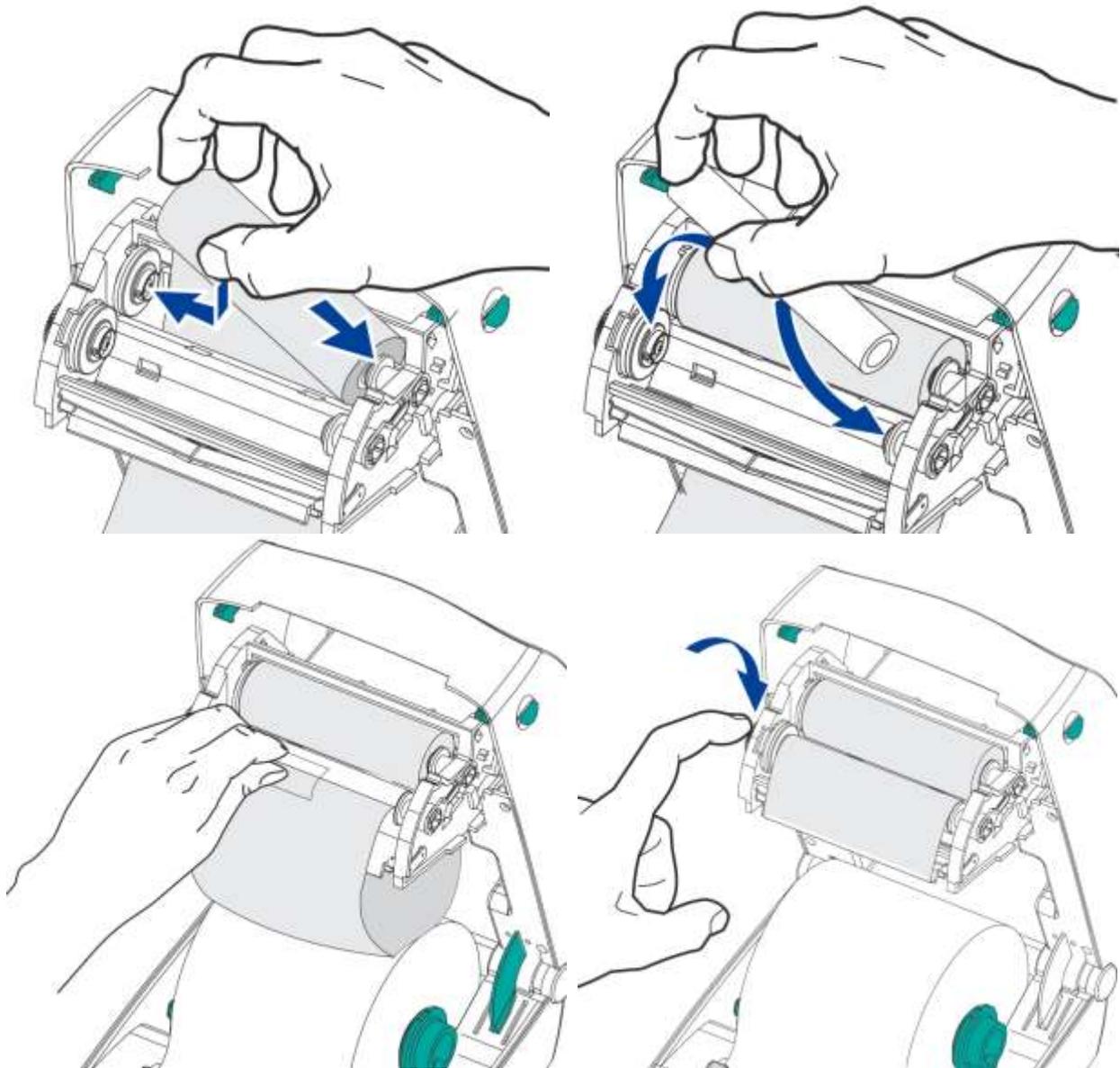


**Figure 11: Placing the media roll**



**Figure 12: Pulling the media through the media guides**

2. When inserting a new transfer ribbon, place the new ribbon roll on the inner holder. Then, place the empty ribbon core, left over from the old ribbon, on the front holder. Make sure that the notches of the ribbon core are properly locked. Attach the adhesive part of the transfer ribbon to the empty ribbon core. Before use, turn the ribbon take-up gear to remove slack from the ribbon.



**Figure 13: Loading transfer ribbon**

## 5 Maintenance procedures

### 5.1 Calibrating label length

Once the media roll is placed and the transfer ribbon is loaded, go through the following steps. Make sure that the printer's cover is closed and the status light is green (see Figure 14 and Table 1).

1. Turn off the printer.
2. Press and hold the FEED button.
3. Turn on the printer.
4. The status light flashes red. Wait for the light to turn green and release the FEED button.
5. The printer starts calibrating. The text *Now in DUMP...* is printed on the label, and the media roll starts moving forward. Once the process is finished, the text *Out of DUMP* is printed on the label.

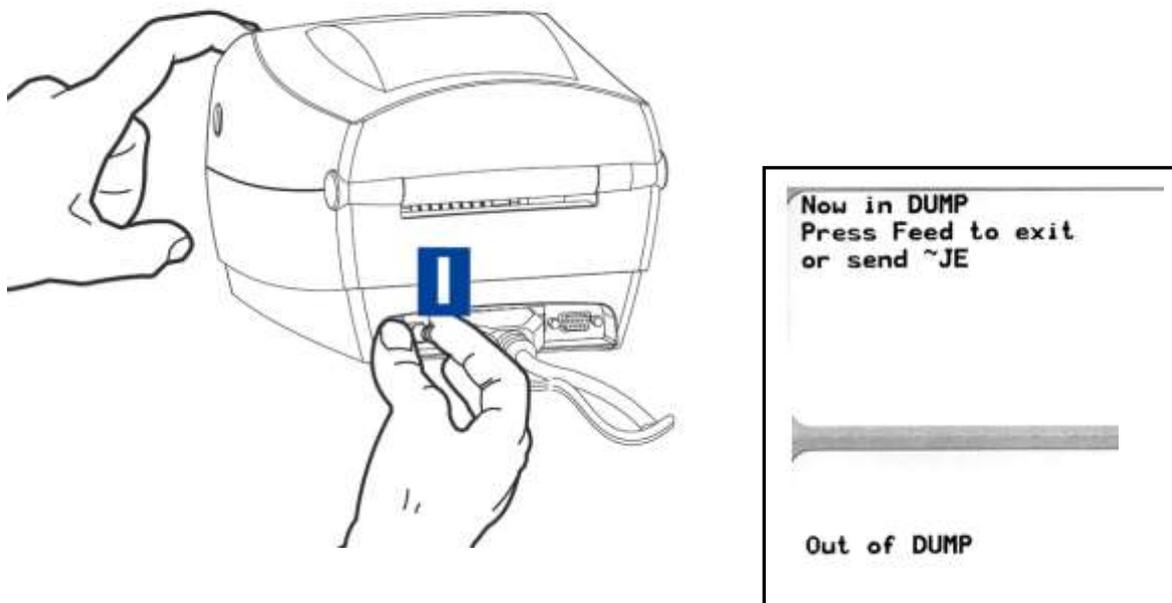


Figure 14: Calibrating label length

## 5.2 Status light descriptions

Table 1: Status light

LED colour	What is it doing?	Meaning
off	off	1. The printer is not receiving power. Check power supply.
green	solid	2. The printer is on and in idle state.
amber	solid	3. The printer has failed its power on self-test. Contact supplier or service. <ul style="list-style-type: none"> <li>There is a memory error. Press the on/off button and resume printing.</li> <li>When operating normally, the status light will be amber for about 10 seconds before turning green (solid or flashing).</li> <li>The printer needs to cool down. Turn it off for a few minutes.</li> </ul>
green	flashing	4. Operating normally. The printer is receiving data
red	flashing	5. Error in printer operation. Fix the problem, press the FEED button and resume printing <ul style="list-style-type: none"> <li>The media is out. Replace media roll.</li> <li>The ribbon is out. Replace transfer ribbon.</li> <li>The printhead is open. Close the top cover.</li> </ul>
green	double flash	6. The printer is paused. Press the FEED button to resume printing.
amber	flashing	7. The printer overheated. <ul style="list-style-type: none"> <li>Printing will stop. When the printer cools down, it will automatically resume operation.</li> </ul>
green / red	alternately flashing	8. Flash memory failure. <b>Return the printer to the supplier.</b>
red/red/green	alternately flashing	9. Critical failure. <b>The printhead or motor has had a critical failure.</b>
red/amber /green	alternately flashing	<b>10. Memory defragmentation. NOTE:</b> <ul style="list-style-type: none"> <li><b>DO NOT restart or turn off the printer power.</b></li> </ul>

## 5.3 Cleaning the thermal printhead

To clean the printhead, use the cleaning pen supplied with your printer containing cleaning solution. Use the cleaning pen tip to remove debris and dust that has built up on the heater element of the thermal printhead. Clean from the middle to the outside.

Only use the cleaning pen to clean the printhead once. An old pen may damage the printhead. Use a soft cloth and alcohol instead of an old cleaning pen.

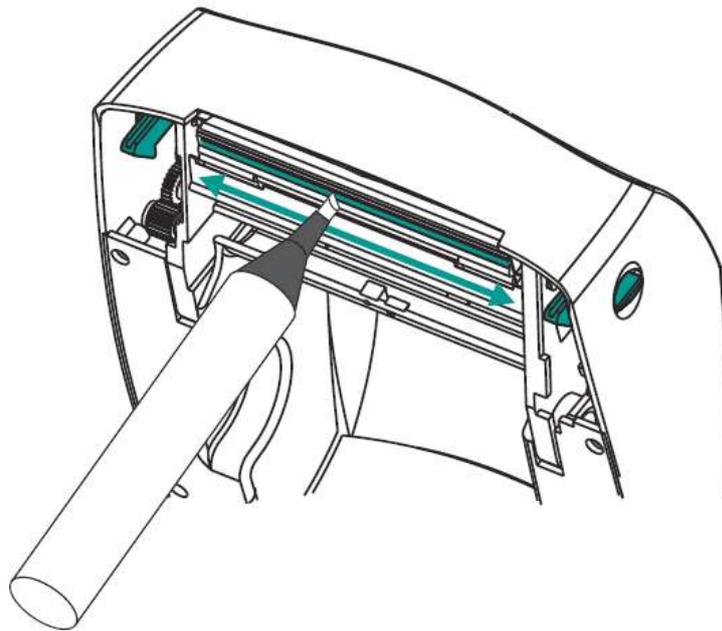


Figure 15: Cleaning the printhead

## 6 Downloading the library logo

**NOTE:** *Applicable when you print labels in the COBISS2 or COBISS3 system when the printer is set to **text mode**.*

### Technical requirements:

1. The printer must be installed on the personal computer and connected to it.
2. The **EiTOOLS** software package must be installed.
3. A file must be prepared in **.PCX** format (a few kB in size).

### Downloading the logo:

1. Run the **Eltron TOOLS** program.

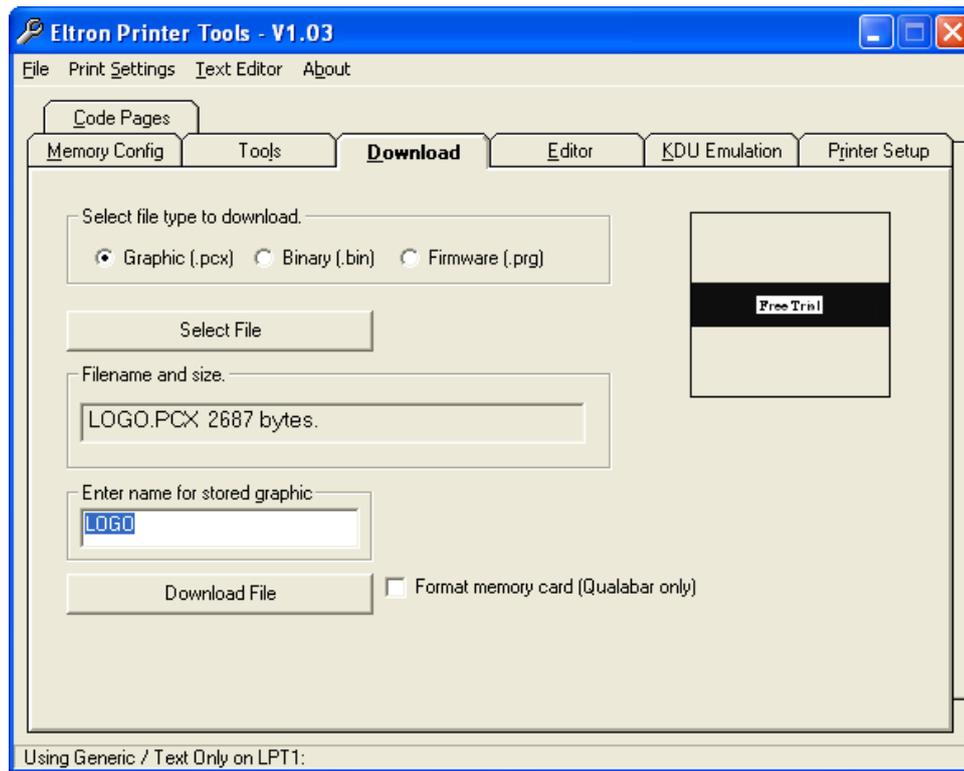


Figure 16: Downloading

2. On the **Download** tab, select graphic download and use the **Select File** button to select a file in the .PCX format. The name of the graphic is **LOGO**. Click the **Download File** button. When the download is complete, the message *Download complete* is displayed (Figure 17).

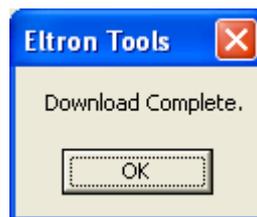


Figure 17: Final message when downloading the logo

## 7 Installing the driver

If the original or the latest version of the driver for Zebra GC420t is not installed on your local computer, which is connected to the printer, install the driver or upgrade it. Drivers are available on the CD supplied with your printer or on Zebra's official web page: <http://www.zebra.com/us/en/support-downloads/desktop/gc420t.html>.

When the web page (**Support for the GC420t Desktop Printer**) opens, follow the instructions below:

1. Select the **Drivers** tab.
2. Select the appropriate driver for your computer's operating system.
3. Click the **Download** tab to download the driver (see Figure 18).

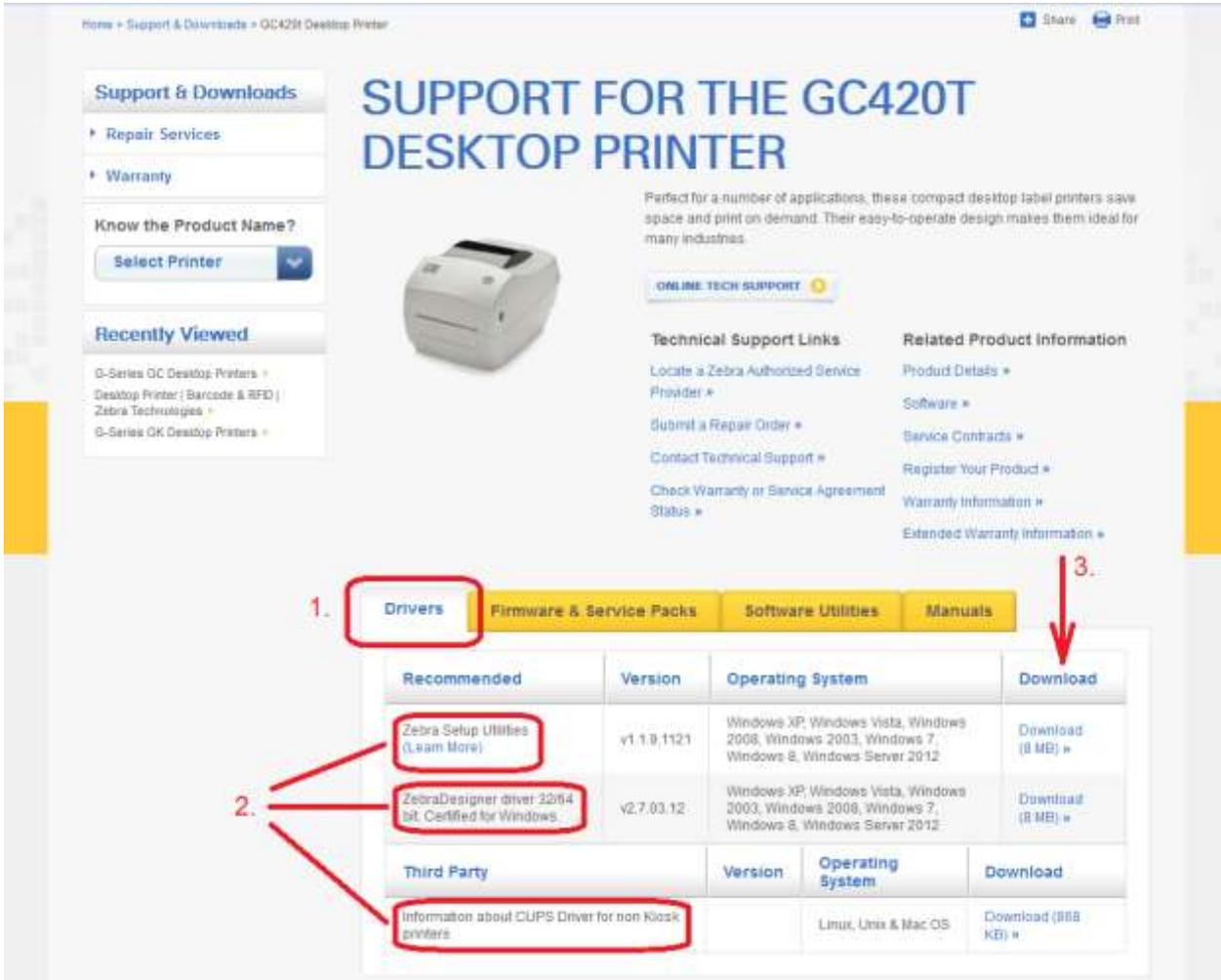


Figure 18: Selecting the right software and driver pack for the GC420t model

Before downloading the driver pack, a confirmation window will open and ask if you agree to the specified terms. Click the field to start the download:

**ACCEPT AND BEGIN DOWNLOAD NOW**

After the package has been downloaded (administrator rights are required to install drivers), run it and follow the instructions (select *ZDesigner GC420t* if asked for which printer model you wish to install the driver).

## 8 Printer settings (for COBISS)

### 8.1 Settings in the MS Windows environment

Once you have installed the drivers, update Zebra GC420t printer settings before you start printing labels. Go to **Control Panel** and select **Devices and Printers**. All available printers are displayed. Select *ZDesigner GC420t* and right-click on it. Select **Printing Preferences** from the options list (see Figure 19).

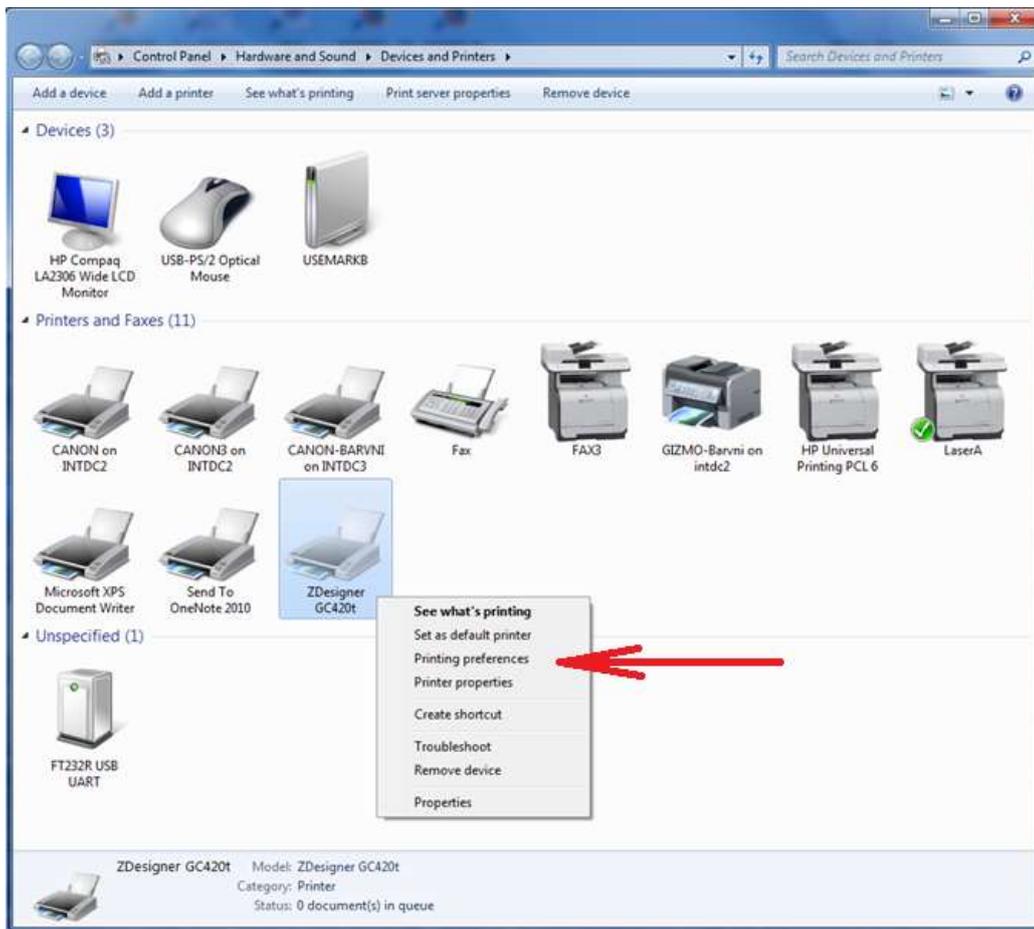


Figure 19: Control Panel with Devices and Printers

When you click **Printing preferences**, a new window will appear, in which you can set up parameters (as illustrated in Figure 20). In the **Options** tab, pay particular attention to fields in the red boxes.

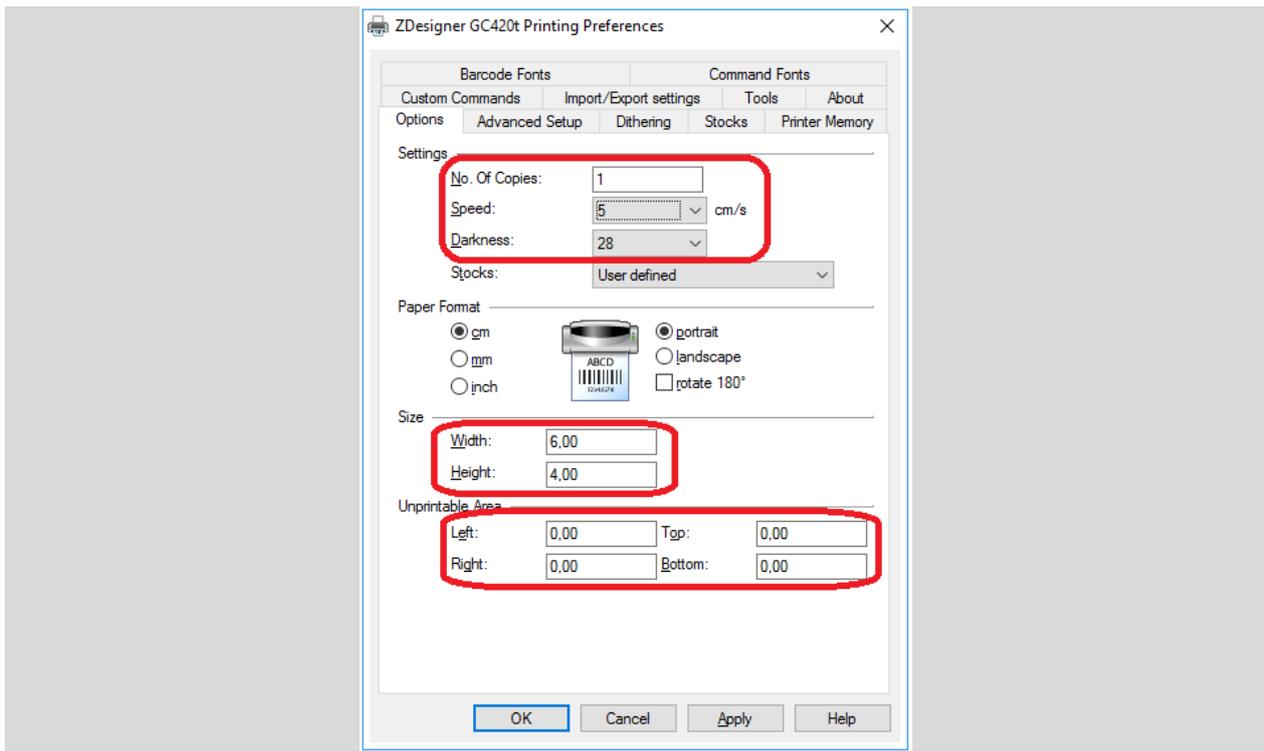


Figure 20: Printing Preferences

Once you set up the parameters under the **Options** tab, click the **Advanced Setup** tab and make sure that *Thermal Transfer* is selected under “Media Type” (see Figure 21).

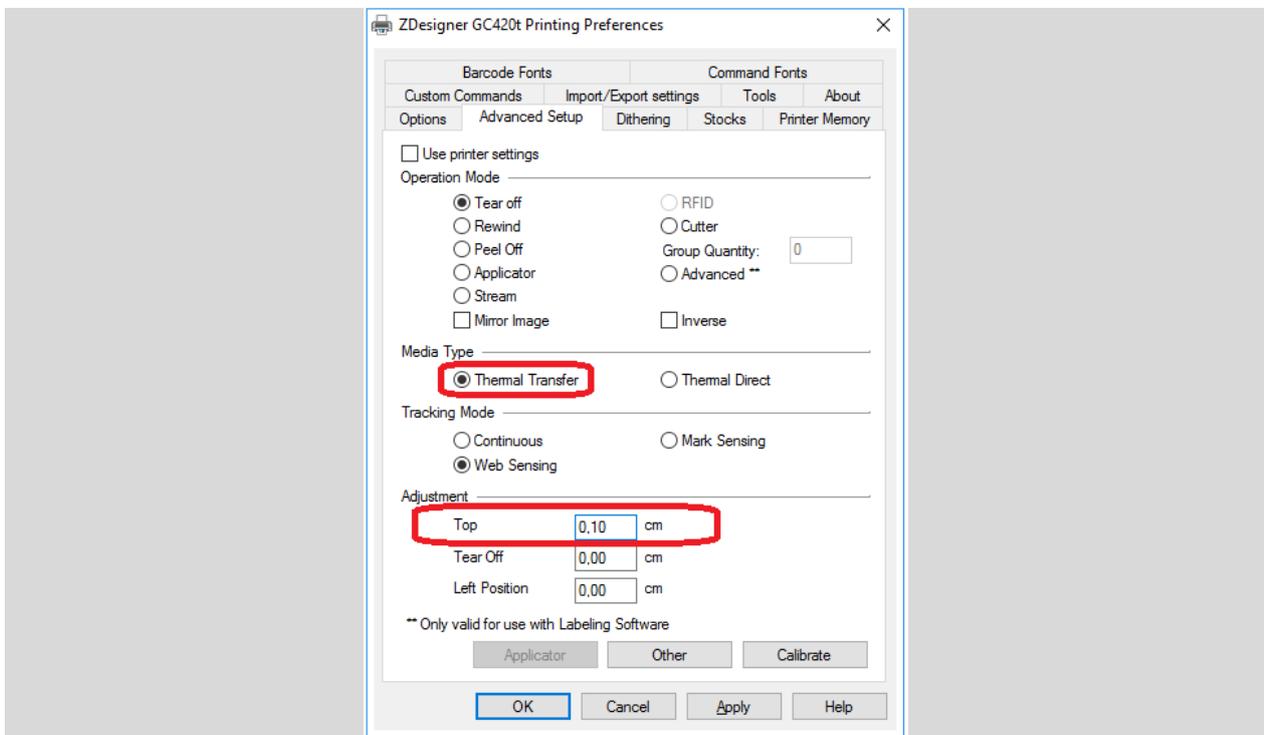


Figure 21: Advanced Setup

Lastly, check if *Smooth* is selected under **Dithering type** (see Figure 22).

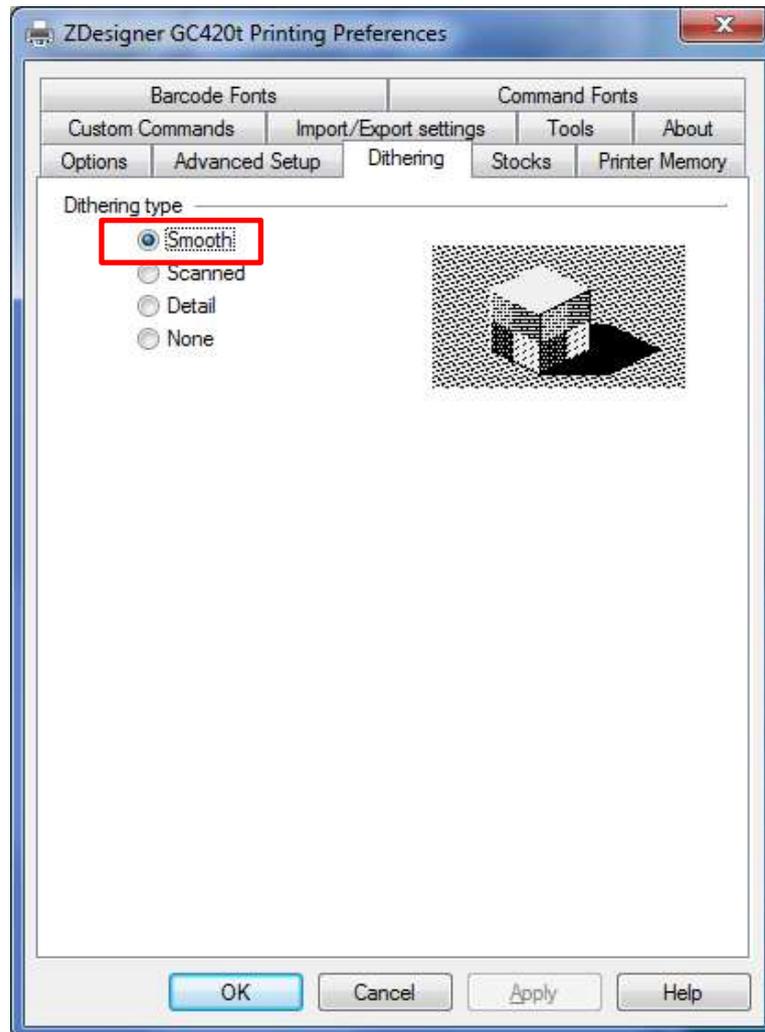


Figure 1: Dithering type

## 8.2 Settings in COBISS/Connect for COBISS2

In COBISS/Connect, there are three options to set up the selected GC420t printer for printing from the COBISS2 system.

The **first** option is to set up the printer in the **Editing connection** window, which you open from a list of connections in the **Connection, Editing connection** menu (see Figure 22). In this case, the GC420t printer will always be set up for this connection. For every connection you can select a printer you will use when the connection is active. For the selected tab, you will be able to print on a previously defined printer. This setting is intended for application printing in the COBISS2 system.

The **second** option is to set up the printer for all active tabs – connections. In the **Settings, Printer settings** menu, open the window and in the **Application printing** tab select *GC420t* from the **Printer** drop-down menu (see Figure 23).

The **third** option is to set up the printer for the selected tab – connection only. In this case, it will only be possible to use this printer in the selected tab while the connection is established. Right-click the tab – connection to open the shortcut menu, where you select **Printer settings**, and then select *GC420t* from the **Printer** drop-down menu (see Figure 24).

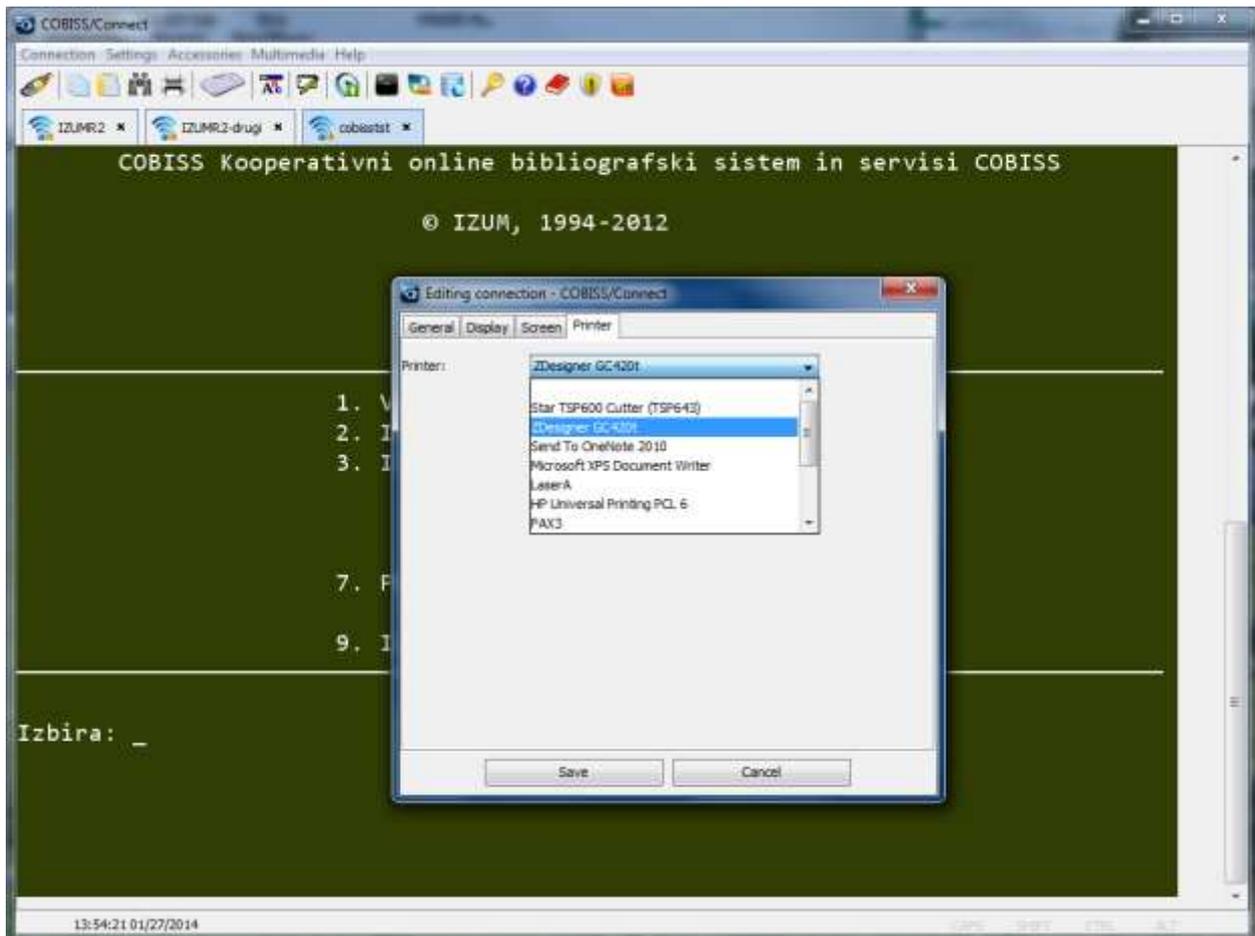


Figure 22: First option, setting up printer in the connection

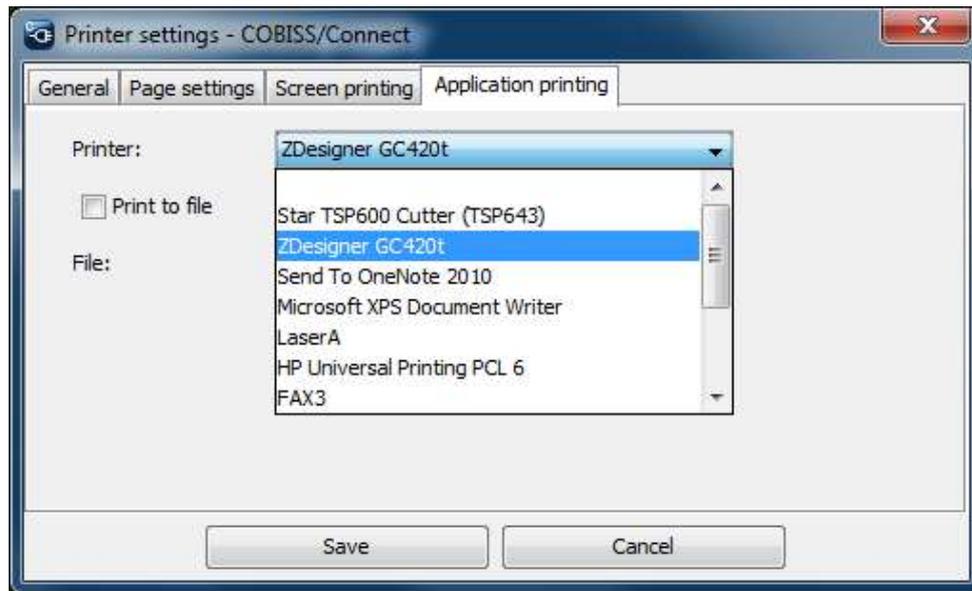


Figure 23: Second option, setting up application printing



Figure 24: Third option, setting up under tab – connection

### 8.3 Setting logical destinations in COBISS3

In COBISS3, select a printer for printing labels for the material in logical destinations. Select **System / Settings / Logical destinations** (see Figure 25).

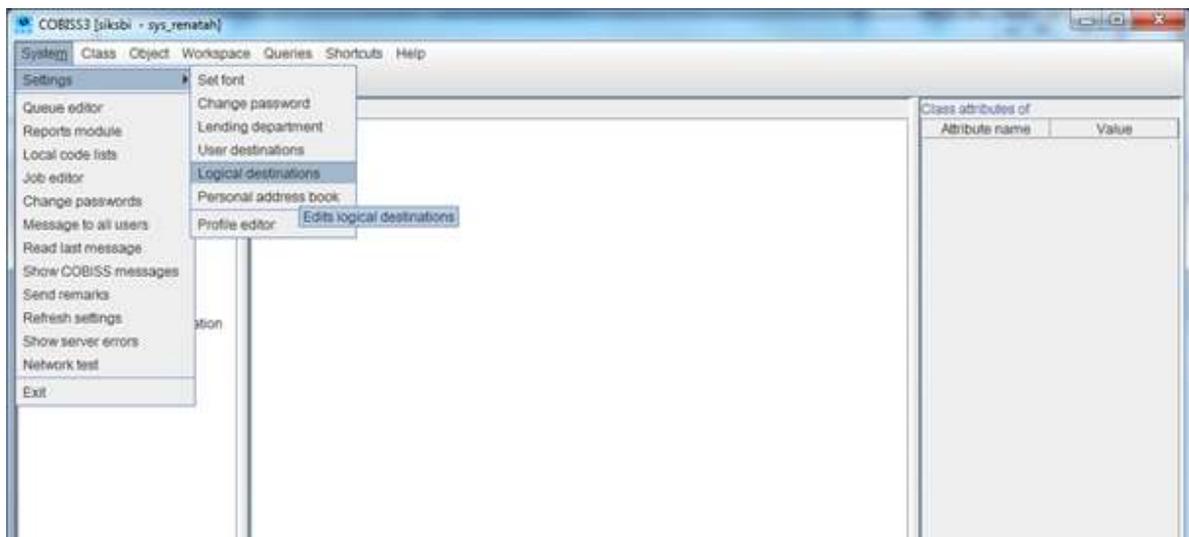
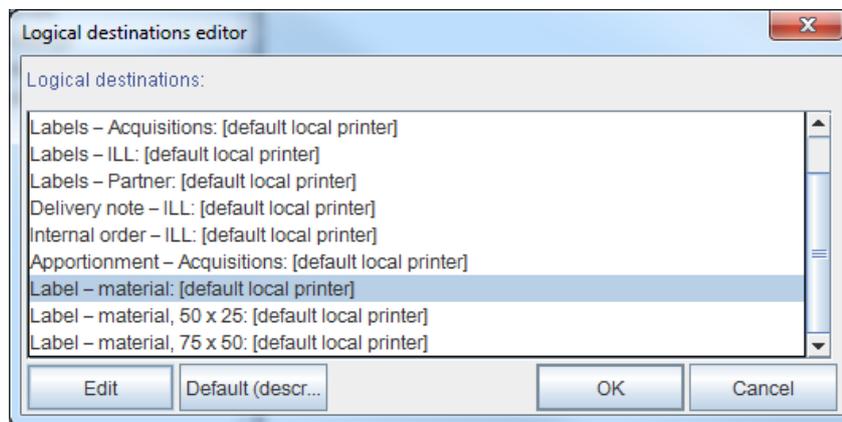


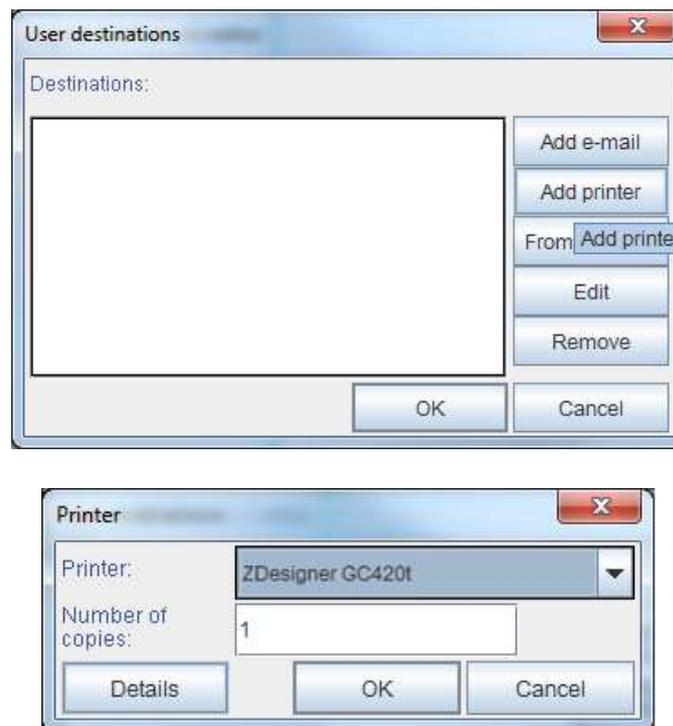
Figure 25: COBISS3 user interface

A new **Logical destinations editor** window will open, in which you will select the option *Label – material: [default local printer]*, and click **Edit** (see Figure 26).



**Figure 26: Logical destinations editor**

The **User destinations** window will open, where you click the **Add printer** button. In the new window select the *ZDesigner GC420t* printer from the drop-down menu which you intend to use to print labels for the material (see Figure 27).



**Figure 27: Setting logical destinations**

Once you select the printer, click the **Details** button to check if the detailed settings are correct for this type of printer (as shown in Figure 28).

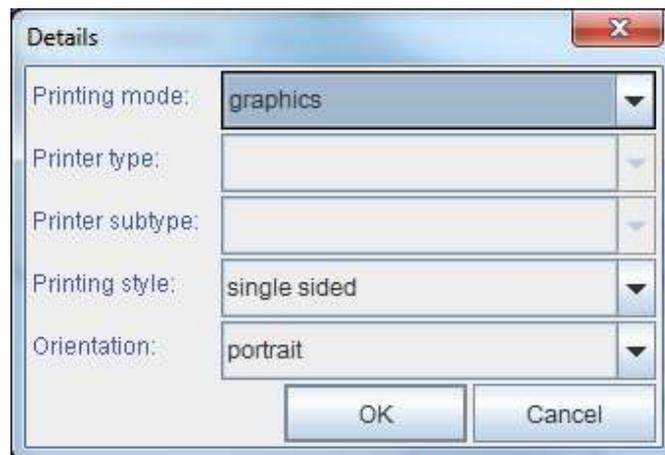


Figure 28: Detailed settings

When all settings are set, click the **OK** button to confirm each choice. Finally, in the **System** menu, select **Refresh settings** (see Figure 29). If this option is not available, refresh the newly configured settings by first logging out and then logging in to the COBISS3 software.

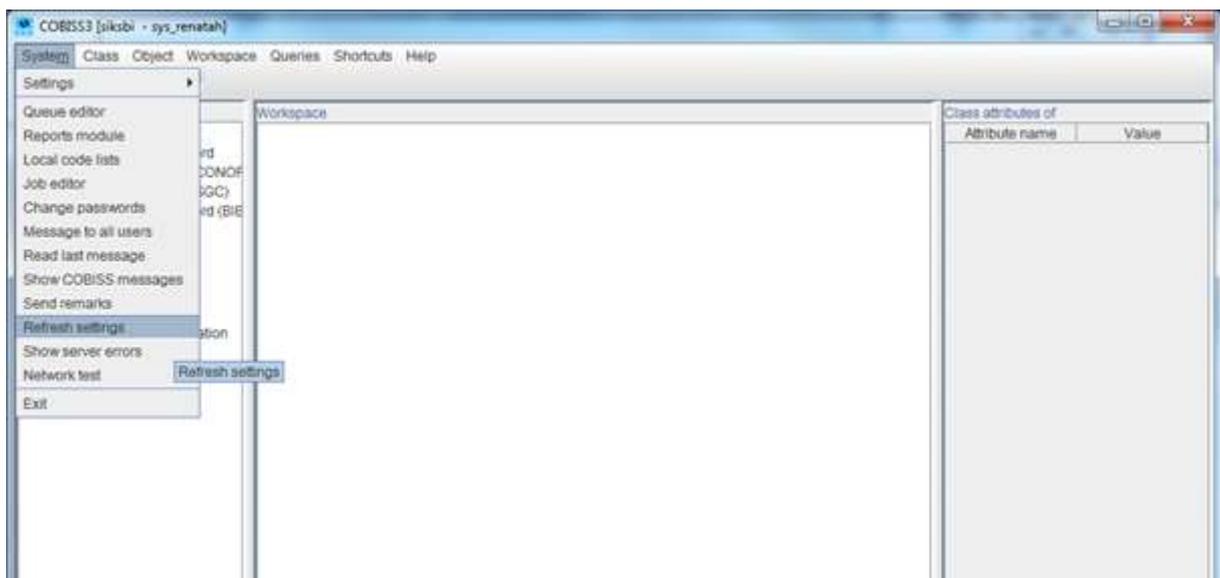


Figure 29: Refreshing settings in the COBISS3 user interface

Now, you can start printing labels for the material.

## 9 Potential printing problems

### 9.1 Label misalignment

If labels cannot be printed properly after installing the drivers and setting the logical destinations (e.g. labels are misaligned), the factory default settings should be sent to the printer via the original drivers.

The procedure is as follows: Go to **Control Panel** and click the **Devices and Printers** icon. Find the ZDesigner GC420t printer and right-click on it.

Select *Printing preferences* from the list of options. The **ZDesigner GC420t Printing preferences** window will open, in which you select the **Tools** tab (see Figure 30).

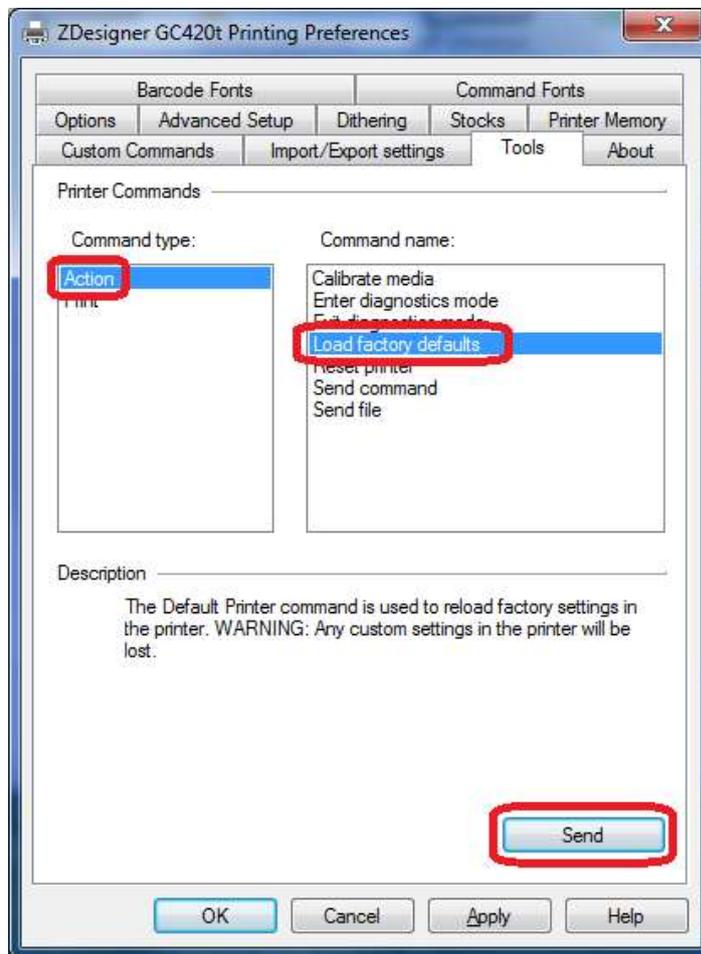


Figure 30: Loading factory defaults

Select *Action* under **Command type**, and select *Load factory defaults* under **Command name**, then click the **Send** button. This command sends the default factory settings to the printer. After that, retry printing the label.

## 9.2 Skipping a label

If the settings do not resolve the problems with label misalignment, you can try with label calibration. You can also use this method if the printer prints one extra blank label in addition to the label for material.

The procedure is as follows: Go to the **Control Panel** and click the **Devices and Printers** icon. Find the ZDesigner GC420t printer and right-click on it. Select *Printing preferences* from the list of options. The **ZDesigner GC420t Printing preferences** window will open, in which you select the **Tools** tab (see Figure 31).

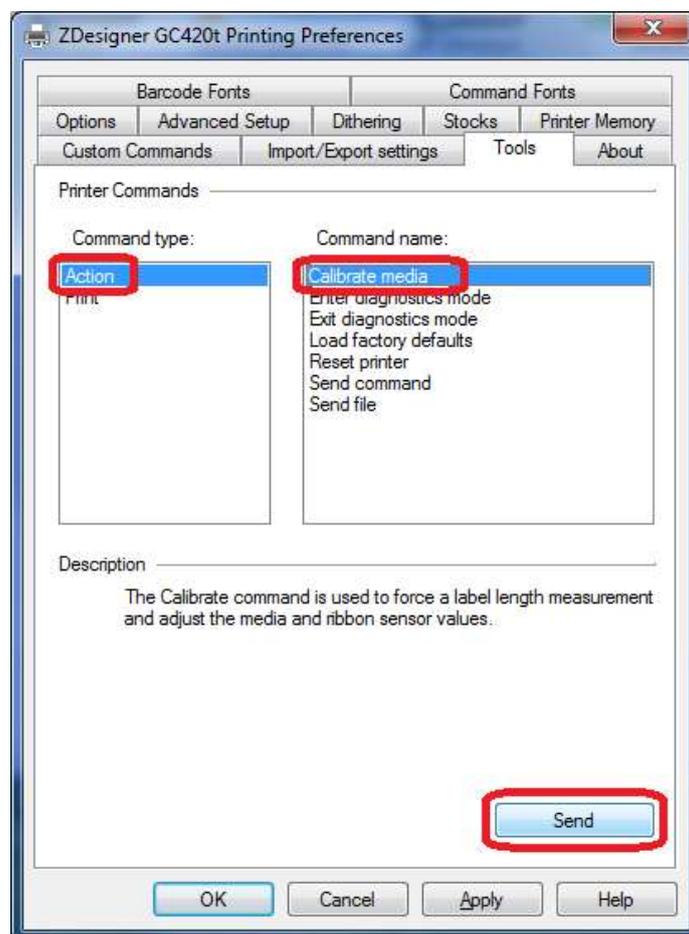


Figure 31: Calibrating medium

Select *Action* under **Command type**, and select *Calibrate media* under **Command name**, and then click the **Send** button. This command sends the parameters for re-calibration to the printer.

After that, retry printing the label.