

Using Markem Printers with NiceLabel and NiceDrivers

White Paper

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Table of Contents

1.	Introduction	3
2.	NiceLabel Software	3
3.	NiceDrivers	3
4.	Markem Corporation.....	3
	4.1. Composer.....	3
	4.2. Markem Printers.....	4
5.	Installation of NiceDrivers Printer Drivers	4
	5.1. NiceDrivers and Composer together?.....	4
6.	Usage of Markem Printers.....	5
	6.1. Communication requirements	5
	6.2. Printer operation.....	6
	6.3. Offline Printing.....	6
	6.4. Online Printing.....	7

1. Introduction

This document contains the important information about usage of **NiceLabel** labeling software and Windows thermal transfer drivers **NiceDrivers** with Markem thermal transfer printers.

2. NiceLabel Software

NiceLabel is a family of professional labeling software products that brings a complete barcode printing solution to desktop, mobile and enterprise users. NiceLabel offers you intuitive user interface, wide range of functionality, and numerous ways of integration and customization.

NiceLabel has been providing efficient label printing solutions to users in retail, logistics, chemical, automotive and other industries for over ten years, and is the logical choice to meet any label design and printing requirements.

For more information visit:
<http://www.nicelabel.com>

3. NiceDrivers

NiceDrivers present full-featured Windows drivers developed for all major thermal transfer printer brands. NiceDrivers can be used on any 32-bit Windows platform; currently they are Windows 95/98, Windows NT 4.0, Windows Me, Windows 2000 and Windows XP. Because they are true Windows thermal transfer printer drivers, they can be used for label printing from any Windows application (word processing applications, spreadsheets, database applications, graphics applications, text editors). Virtually any Windows program can be used to print labels as long as you have NiceDriver for Markem driver installed on the computer.

Although any Windows program can be used to print labels using NiceDrivers for Markem printer, their true power is shown only in combination with the NiceLabel labeling products. NiceLabel software uses a direct communication mode to gain complete control over all printer settings, internal capabilities and enable high-speed optimized printing.

For more information and latest updates visit:
<http://www.nicelabel.com/drivers/drivers.html>

4. Markem Corporation

Markem Corporation is one of the world's leading providers of marking and coding systems designed to meet all the product identification needs of industrial and distribution companies from individual products to primary packages, cases and pallets.

4.1. Composer

Composer is a labeling software package provided by Markem Corporation. Refer to the MARKEM website (www.MARKEM.com) and follow the links 'Products / Networking and Software / Composer' for more details on this product.

4.2. Markem Printers

Markem printers are used in production processes where arises a need to apply text and bar codes to different packages and materials. Markem Corporation has a wide range of printer models to suit different labeling needs.

For more information visit:
<http://www.markem.com>

5. Installation of NiceDrivers Printer Drivers

The installation method of NiceDrivers for Markem printers is the same as for any other Windows-based NiceDrivers printer driver. You can install printer driver using Windows provided Add Printer Wizard or using Printer Installation Wizard from Drivers folder on the NiceLabel CD-ROM.

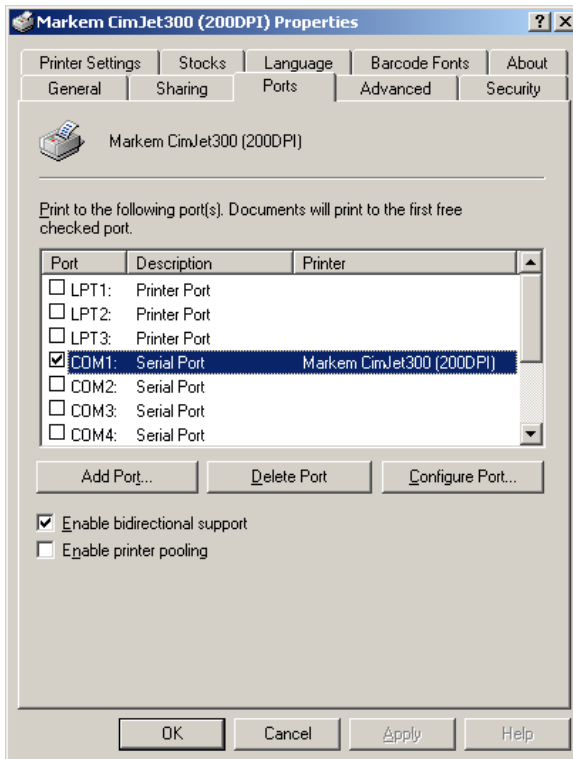
NiceLabel CD-ROM contains the printer drivers from a time, when CD-ROM was released. To be sure that you are using the latest NiceDrivers for Markem printers, you can download installation executable from NiceLabel website. Just double-click the downloaded file to start the Printer Installation Wizard that will help you install a driver for your Markem printer model.

5.1. NiceDrivers and Composer together?

NiceDrivers and Composer might not work properly together. The reason for it is because of the fact that Composer labeling software communicates directly with serial port without any Windows printer driver involved. If NiceDriver for Markem printer is also installed on the system it occupies the serial port. The port is locked for all other applications that try to access it directly.

The only solution for this issue is that you temporarily change the port where NiceDriver is installed. If you have NiceDriver installed on COM1: change it to COM2: or some entirely different port. This action can be performed in Printer driver's properties, Ports tab. Please note; the action will render NiceDriver for Markem printer unusable. Make sure to change the port back to the original setting prior using NiceDriver some other time.

When you will change the printer port, NiceDriver will release its connection to the original port. Composer will be able to connect directly to the specified serial port. When you will want to use NiceDriver again, you must change the printer port back to the serial port where Markem printer is attached. Composer software will have to be closed as well.



Printer port changing

6. Usage of Markem Printers

6.1. Communication requirements

To ensure proper Markem printer functionality on your computer some communication prerequisites will have to be verified.

- Markem Printer has to be connected to RS 232 (serial) communication interface.
- Computer serial port and printer serial port must have the same communication properties.

Bits per second	The same as on the Markem printer
Data Bits	8
Parity	None
Stop Bits	1
Flow Control	None

The above serial port settings required by the Markem printers are not the default Windows settings on the computer. They have to be set manually on every computer that has connected Markem printer.

Serial port settings can be changed in Device Manager (System icon from Control Panel). Select the proper serial port and open its Communications Port Properties dialog box. Settings for the port should be the same as specified above. Remember, **bits per second** option has to be set the same as on the Markem printer.

Also make sure to set the **Database option** on the printer to local, not host. Change this setup directly on the printer. The usual location for it is the following: Restricted Setup, Set Parameters, Machine Options, Database Mode.

6.2. Printer operation

Markem printers can operate in two different methods. They can be set to **Offline** or **Online** mode. The choice is entirely yours and it depends on where and what you are printing. The default setting of the printer and the printer driver is **Offline Printing**. Depending on the deployment of the printer, you have to verify certain settings in the printer driver and the on the printer as well.

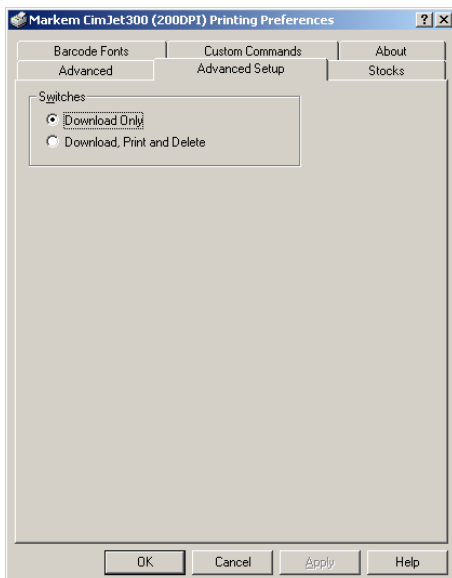
Online or Offline printing can be achieved from any Windows application, but NiceLabel software is recommended for fastest printout as only it can communicate with NiceDrivers in the optimal mode.

6.3. Offline Printing

Offline printing is the mode where you can achieve stand-alone label printing without connection to the computer. You can download several labels to the printer and then disconnect the computer. The labels are stored in printer's memory and from now on the printer functions in stand-alone mode.

The process of label printing can be started manually on the printer or external hardware signals can trigger it. Offline printing mode is mainly used in situations where the printer is on a production line and has no constant connection to the PC computer.

To make sure the NiceDriver is set up to support offline printing, there is only one parameter that needs to be verified. It is located in the Advanced Setup tab of the printer driver properties dialog box. If the driver is set to **Download Only** then Offline mode is enabled.



Printer driver is set to **Offline mode**

When you are using Offline Printing and above-mentioned setting, the NiceDriver printer driver is used only to download the labels (and associated graphics files) to the printer's memory. The labels (and graphics files) remain stored in the printer's memory after the download process completes. If the printer is turned off and after some time period back on, the labels are still stored in the memory and are available for printing.

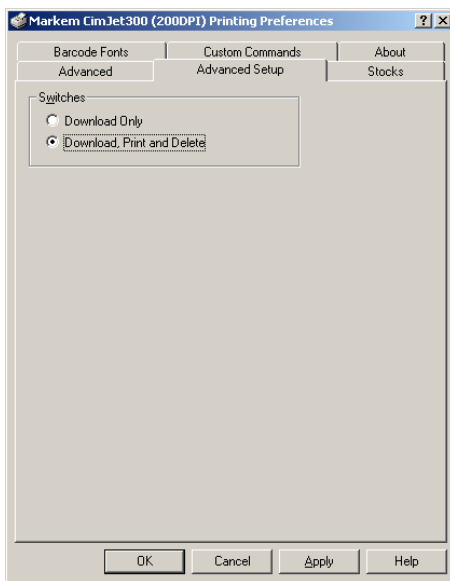
If you want to remove the labels from printer memory, you will have to manually reset printer's memory. This action can be performed directly on the printer. Please refer to Printer Manual for more information.

6.4. Online Printing

Online mode can be enabled in the same dialog box as offline mode. It is located in the Advanced Setup tab of the printer driver properties dialog box. If the driver is set to **Download, Print and Delete** then Online mode is enabled.

For Online Printing one additional condition has to be fulfilled: printer has to be set into the **Slave Mode** (consult the Printer Manual how it is done).

Once the printer is set up correctly for Online mode then any label sent to the printer gets printed immediately after the download. The label is printed as many times as the user specified in the **Print** dialog in NiceLabel labeling software or any other software that is used for label printing.



Printer driver is set to **Online mode**

When the printing is completed in requested number of copies the label and all associated data are deleted from printer's memory and the label is not available for further printing. If you want to print the same label again, printer driver will have to download it to the printer one more time. Online printing is similar to label printing to ordinary printers that are connected to the computer all the time.

Please note; NiceDriver in Online mode will delete only the label (and associated data) that has been sent to the printer in this printing process. If there are some other labels already stored in the printer, they will remain unmodified.

When printer's memory is already occupied to the level that there is not enough room to download and print new label an error will occur. NiceDriver will let you know that there was **Error sending data to the printer**. You will have to delete unnecessary labels and data from the printer.