# **murrSystems** mp-IM1 Inkjet system

• Original operating instructions As of: April 2022 – V2.0







mp-IM 1 Original operating instructions

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# 1 Copyright and Trademarks

Windows<sup>®</sup> is a registered trademark of Microsoft Corporation. mp-IM 1, mp-UniversalMarkingSoftware and ACS Gold Studio are trademarks of Murrplastik Systemtechnik GmbH.

All other product names used in this documentation are trademarks of their respective companies and are used for identification purposes only.

Murrplastik explicitly disclaims any and all rights to these trademarks.

# 2 Important Notice

These operating instructions must be read and understood. It must be kept for further use and always passed on together with the device.

If you have any questions or problems, do not hesitate to contact the ACS Helpdesk at acs.helpdesk@murrplastik.de.

To operate the mp-IM 1 the **mp-UniversalMarkingSoftware** or **ACS Gold Studio version 2.3.0.95** is required. In addition, Windows<sup>®</sup> 10 with the current service pack or a higher Windows<sup>®</sup> version.

Read the safety instructions in chapter 3 before operating the device!



# **3** Safety instructions

When using the mp-IM 1, please observe the following basic safety precautions to protect against electric shock, injury and fire.

Read and follow all the instructions outlined before putting the electrical device into operation.

Keep these safety instructions in a safe place.



Operate the electrical device only according to directions and in compliance with the general safety and accident prevention regulations.

## 3.1 Intended use

- The device is primarily an inkjet-based labeling device for polycarbonate (PC) labels.
- The possibility of labeling, as well as the respective durability and quality of the labeling, can only be guaranteed for the labeling material approved by Murrplastik for the mp-IM 1, together with the approved special ink.
- Only the approved special ink can be used.
- The labeling is to be carried out using the software approved for the mp-IM 1 and the approved operating systems.
- Labeling is possible in black only.
- If you have any questions, contact the ACS Helpdesk.
- Murrplastik rejects service and claims if the intended use is violated.



## 3.2 Non-intended use

The possibility of labeling, as well as the durability and quality of the labeling cannot be guaranteed in the following cases. There is no guarantee, no warranty and no right to support.

- Printing on materials not approved by Murrplastik is not intended.
- The use of ink not approved by Murrplastik is not intended.
- Printing using software not approved by Murrplastik or operating systems not approved by Murrplastik is not intended.
- It is not intended to print on paper.

## 3.3 Selection of the installation site

- Only operate the device in well-ventilated environments.
- Position the device on a flat, stable surface that is larger than the device. The device does not work properly when tilted or sloped.
- Avoid locations where the printer is exposed to large fluctuations in temperature and humidity. Constant room temperature is recommended. Protect the device from direct sunlight, excessive light and heat sources.
- Avoid locations where shocks or vibrations may occur.
- Keep the device away from dusty or humid areas.
- Place the device near a power outlet so that, if possible, an extension cable does not have to be used.
- When transporting or storing the printer, make sure that it is not tilted, placed on its side, or turned upside down. Failure to do so may result in ink leakage and/or a short circuit.



## 3.4 Using the device



Do not reach into or onto the device during the printing process. Do not touch the ink cartridge. There is a risk of injury!

- Do not move the ink cartridge carriage by hand; otherwise the device may be damaged!
- Keep the openings of the housing clear.
- Do not cover the housing openings.
- Do not insert any objects through the housing slots.
- Do not spill liquid on the device.
- Always use the power cable supplied with this device. Using a different power cable may cause fire or electric shock.
- Connect all parts of the system to properly grounded outlets. Do not use an outlet that already has devices such as copiers or fans plugged into it that are regularly turned on and off.
- Do not connect the printer to switchable or timer-controlled outlets.
- Do not connect power strips or extension cables in series.
- Do not use the computer equipment near potential electromagnetic interference fields such as speakers or cordless telephone base stations.
- Make sure that the type of power source corresponds to the information on the label of the device.
- Do not use a damaged power cable.



- When using a power strip with this device, make sure that the total power consumption of the connected devices does not exceed the allowable power consumption of the power strip.
- Also, make sure that the total power consumption of the devices connected to a wall outlet does not exceed the permissible power consumption of the relevant wall outlet.
- Do not attempt to service the device yourself. Contact the ACS helpdesk.
- Immediately disconnect the device from the mains and request maintenance by qualified service personnel if the following occurs:
  - Power cable or power plug is damaged
  - Liquid has leaked into the device
  - Device has fallen down or housing is damaged
  - Device does not operate properly or with altered performance
- If the printer is operated within Germany, please observe the following:
  - The electrical installation of the building must be protected using a circuit breaker (10 A or 16 A) to ensure adequate protection against short circuit and overvoltage.
  - If the plug is damaged, replace the cable set or contact a qualified technician. Any fuses installed may only be replaced with fuses of the same size and nominal value.
  - When connecting this printer to a computer or other device with a cable, make sure that the connectors are aligned correctly. Each connector can be plugged in only when aligned in a certain way. If a connector is inserted incorrectly aligned, both devices connected via the cable may be damaged.



Always switch off the device using the power button next to the display. When you press this key, the display goes off. The power plug may only be pulled out (or the power supply may be disconnected) when the display has gone off.

## 3.5 Ink cartridge handling

- Keep the ink cartridge out of reach of children. The contents of the cartridge are not suitable for consumption.
- If ink gets on your skin, clean it off with soap and water. If ink gets into your eyes, rinse immediately with plenty of water.
- Keep the black locking clip, which protects the cartridge contacts and ink channels, for future use.
- Use the ink cartridge before the date printed on the package.
- Do not attempt to disassemble or refill the ink cartridge. This can damage the built-in print head and render the cartridge unusable.
- Do not touch the ink outlet or the adjacent area.
- You must not remove or pull the green adhesive tapes



- Avoid contact with ink on textiles.
- When removing the ink cartridge for future use, protect the contacts and ink outlet with the black locking clip. However, ink can leak and leave stains when the cartridge comes into contact with an object.



#### Note on the ink used:

The ink used is a specially developed ink for labeling polycarbonate (PC). This does not produce harmful volatile organic compounds (VOCs) in the work area. Special air purification systems are not required.

## 3.6 Repair of the device

- Do NOT attempt to repair the device yourself. Opening or removing covers may result in contact with dangerous live parts and other hazards, as well as loss of warranty. Contact the supplier or a service center authorized by the supplier.
- Unplug the device if it has fallen down or the housing is damaged and contact the supplier or an authorized service center. Otherwise, there is a risk of electric shock.
- Immediately unplug the device if it becomes unusually hot, smoke is emitted, unusual odors are emitted, or if you accidentally spill liquids on it.

Contact the supplier or a service center authorized by the supplier.

- Only proceed with the settings described in the operating instructions if the device no longer works properly even though you have used it in accordance with the operating instructions.
- Interventions on the device by unauthorized persons may result in serious damage.

## In chapter 18 you will find detailed instructions for returning a defective device for repair.



## 3.7 Radio interference suppression

This product complies with EN55022 (CISPR Publication 22) /Class B. When connecting the device to a computer, make sure to use only a USB cable which is not longer than three meters.



#### **Important Notice**

Administrator rights are required to install the USB printer driver.

Any installation on the network must be carried out by the user's administrator. Since this is a specific installation, NO support is offered by Murrplastik for this!



# 4 Scope of delivery

After receiving the labeling device, check if the delivery is complete. Keep and store the packaging so that the device can be transported safely (in case of a service issue)!

The following components are part of the scope of delivery:

- mp-IM 1 Printer
- Ink cartridge PC 4.0
- mp-IM 1 Carrier plate
- Power cable with power supply unit
- USB data cable
- Service Station
- mp-IM 1 fleece box
- Driver CD
- Operating instructions
- Shipping box



# Device overview



\* Press the On/Off button to turn off the device.



## Front view





# 6 Interactive touch display

The interactive touch display allows you to operate and control the device. To do this, use the menu guide options on the left side of the screen.

#### Note

This chapter describes the menu guide options of the device firmware 1.0.10.



Press **Home** to return to the Home menu. The Home menu is the menu option that is displayed after booting the device.

Press **Info** to receive information about network, cartridge and the printer.

Press **Settings** to make changes related to the network, language, print job settings, and printer control (table control).

Press **Cancel** to cancel the current process.



The following table shows the structure of the table in menu items and sub-menu items:

lcon	Lead point	Subitem 1	Subitem 2
$\bigcirc$	Home		
		Network	
1	Info	Ink cartridge	
		Printer	
			DHCP
			IP address
	Settings	Network	Netmask
			Gateway
			Hostname
			German
		Language	English
$O_{O}$			Spanish
			French
			Italian
			Portuguese
			Russian
			Eject tray
		Drint ich	Insert tray
		Print job	Clean cartridge
			Print test page



The following table shows which options you can make in the individual menu items.

Menu item	Image	Description	
Home	i Device ready 111	The home screen. The pending print jobs are also displayed here.	
Info	Network:	Navigation to "Network", "Ink cartridge" and "Printer" possible.	
Info →Network	Use DHCP We Pradress vo cable connected General Analysis of the connected General Microsoft (Connected General Microsoft (Connected Microsoft (Connected Mic	The network-settings for the present device are dis- played: DHCP active IP address Netmask Gateway Hostname MAC address	
Info →Ink cartridge	Serial Number     01.02:03.04:05:06:07       Ink     PC 4.0       Last Usage     1.00       Ink level (%)     1.00	The information for the ink cartridge in use is displayed: Serial number Ink ID Last usage Ink level (%)	
Info →Printer	Shield Hamber JMDND0132002 Shield printed 0	Information about the printer is displayed: Serial number Pages printed	



Menu item	Image	Description
Settings	Network Language Print (b) Settings Print (b) Settings Print (b) Settings Print (c) Settings	You will get access to the settings of the device.
Settings →Network	CHCP I Address Netmask Coco , cateway	You will get access to the following network settings: DHCP IP address Netmask Gateway Hostname
Settings →Network →DHCP	Image: Enable DHCP   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i   i	If you want to activate DHCP, the check box must be filled in. Then save with the floppy disk icon.
Settings →Network →IP address	P Addres: 102166	If DHCP is not requested you can enter a static IP address. Then save with the floppy disk icon.
Settings →Network →Netmask	Netmask:       255.255.255.0       0       2     2       2     2       2     2       2     2       2     2       2     2       2     2	Here you can enter the sub- net mask. Then save with the floppy disk icon.
Settings →Network →Gateway	Calmeyy 102 - 140 - 3 - 1 2 5 4 5 = 4 6 2 5 6 7	You can enter the gate- way-address here. Then save with the floppy disk icon.
Settings →Network →Hostname	Hoddama: mp.M1	Select the name of the host. Then save with the floppy disk icon.



Menu item Image		Description	
Settings →Language	seect language	Select one of these seven languages and save with the disk icon:	
Settings →Print job set- tings	Skip Yhre again' dialog	Here you have the option to deactivate the reprinting of individual outputs.	
Settings →Printer con- trol	Eject Tray Insert Tray   Clean Cartridge Print test page	Here you have the following options: Extend table Retract table Flush cartridge Print test page	



# 7 Unpacking the mp-IM 1

First read the safety instructions for this printer at the beginning of this manual before operating the device.

Remove the mp-IM 1 from its packaging and place it on a flat, stable and vibration-free surface.

Make sure that there is enough space so that the table can extend.

Remove the transport locks from the device:

Remove the foam cover on the outside of the device by peeling off the adhesive tapes



Open the service flap, loosen the adhesive tape and remove the foam insert.





# 8 Mounting the carrier plate

Snap the carrier plate into the two pins of the drawer.





Then snap the two pins located on the bottom side of the base plate into the free holes of the carrier plate.

The upper head part of the base plate faces towards the outside of the printer.







Insert the service station of the conversion kit into your device.

The tension springs must point forward.









# 9 Important notes on handling the ink cartridge

Please keep the locking clip



The green adhesive tapes must NOT be removed!



## 9.1 Inserting the ink cartridge



Be absolutely sure to insert the cartridge straight, right-angled to the cartridge carriage, at a slight downward angle at the front, completely into the holder and then push it down.

Be sure to avoid the electrical contacts of the ink cartridge grinding against the electrical contacts in the cartridge holder.



- 1. First lift the blue holder.
- 2. Insert the cartridge as shown in the picture.
- 3. Then lock the cartridge with the blue holder.







## 9.2 Cleaning the ink cartridge

Clean the ink cartridge in the following conditions to prevent the printhead nozzles from drying:

If the print image has deteriorated

At the end of the working day or after completion of the print jobs

Please use the following part 86625206 mp-IM 1 Cleaning set.

Use as described in the document

2020-I-76 ACS Recommended action about the mp-IM 1 cartridge\_Recommended action about the mp-IM 1 cartridge.pdf

Please make absolutely sure that the electrical contacts are not touched by you or the cloth. The nozzles are only clear when only one line of ink is drawn on the cloth.

# 9.3 Storing the ink cartridge



Always close the removed ink cartridge with the locking clip to prevent the printhead nozzles from drying out.



# **10 Driver installation**

#### Important information on the installation carried out by the administrator!

For the printer, the installation file is available as a self-executable EXE file. Windows<sup>®</sup> 32 bit and 64 bit operating systems from Windows<sup>®</sup> 10 with the current service pack and higher are supported.

You can find the driver installation file on the enclosed CD. If required, you can also download it via the Internet from the Murrplastik homepage.



It is not necessary that you connect the mp-IM 1 to the PC during the driver installation.

## **Please note**

The driver installation is shown as an example under Windows<sup>®</sup>10 64bit. With other Windows<sup>®</sup> versions, there may be variations in the process or in the descriptions.

## **Driver installation**

1) Start from the driver CD:

Insert the driver CD into your CD drive and run the installation file from the CD.

2) Download from the Murrplastik homepage:

Unzip the downloaded zip archive to a folder of your choice and start the installation file.



**Note:** The file name of the driver installation file shown here may differ from the actual name.

Then start the installation routine by double-clicking the file.









Click on [Next].







# 11 Connection via network cable



The driver installation in chapter 9 must be completed to get a connection of the mp-IM 1 via the network with the computer.

As an example, the direct connection of a Windows<sup>®</sup> 10 PC with an mp-IM 1 is described below. The procedure may differ for other Windows<sup>®</sup> operating systems.

The listed IP address and subnet mask is exemplary. There must be rudimentary network knowledge. The IP address must be provided by the customer's network administrator.

It is also possible to integrate the mp-IM 1 into an existing company network. Due to the complexity and potential risks, this setup is the sole responsibility of the customer's network administrator.

# 11.1 Configuring network settings on the PC

Connect the mp-IM 1 to the PC using a network cable.

In Windows<sup>®</sup>, open the Control Panel and go to [Control Panel] - [Net-work and Internet] - [Network Connections].





Click the Ethernet network with the right mouse button.





	General	
		igned automatically if your network supports you need to ask your network administrator ngs.
Enter the IP address	Obtain an IP address	automatically
and the subnet mask.	Use the following IP a	ddress:
	IP address:	192.168.54.1
Then close both open	Subnet mask:	255.255.255.0
windows with <b>[OK]</b> .	Default gateway:	
	Obtain DNS server ad	dress automatically
	• Use the following DNS	server addresses:
	Preferred DNS server:	
	Alternate DNS server:	
	Validate settings upo	n exit Advanced

## 11.2 Configuring network settings on the mp-IM 1

Make the network settings on the mp-IM 1 via the touch display in **[Settings] - [Network]**.

Enter an IP address from the same network area where the PC is located, e.g. 192.168.54.50.

Enter the same subnet mask as on the PC, e.g. 255.255.255.0.

#### Restart the mp-IM 1.

Add the new printer in Windows<sup>®</sup> "Devices and Printers" as described in chapter 11.



# 12 Set up connection to the mp-IM 1

In Windows<sup>®</sup>, open the Control Panel and go to **[Control Panel] - [De-vices and Printers]**.

Click on [Add Printer].



💕 Add a device

A window opens in which the mp-IM 1 is listed after a short time.

Select the mp-IM 1 and click **[Next]**.



- 🗆 🗙



	$\leftarrow$	🖶 Add Printer	×
		You've successfully added mp-IM1	
Confirm the successful			
addition of the printer		To check if your printer is working properly, or to see troubleshooting information for the printer, print a test page.	
by clicking on [Finish].		Print a test page	



Now the newly connected mp-IM 1 printer is displayed in **[Devices and Printers]**.





# 13 Perform settings in of the mp-UniversalMarkingSoftware

In the mp-UniversalMarkingSoftware the mp-IM 1 is added and the calibration points are entered.

The settings must be made separately for each Windows® user.







In the fourth column [Printer] , select the mp-IM 1 from the drop-down menu.







Please fill in the remaining columns as follows:

- Type = select the red label icon
- Alias name = you can name this field freely
- Type = Inkjet
- Alignment = 0
- Base plate rows = 1
- Base plate columns = 1
- Distance-X = 0
- Distance-Y = 0
- Offset-X = 18
- Offset-Y = -4.2

	Printers					
	Default	Kind 👻	Alias	Printer	Type	Orientation
•	0	<b>4</b>	mp-IM1	mp-IM1	inkjet	0

Layout						
Basepl	ates		Distance		Offset	
Rows	Columns		Γx	ŢΥ	TX	ΥT <sup>ν</sup>
1		1	0	0	18	-4.2

🖳 Outpu	ut Devic	e Setup		
: 😰			<b>P</b>	· ×

Finally, save the settings.

Please note that the offset values may differ slightly depending on the device.


# 14 Perfom settings in ACS Gold Studio

In the ACS Gold Studio software, the mp-IM 1 is added and the calibration points are entered.

The settings must be made separately for each Windows® user.

📕 ACS G	iold Studio
	Settings Utilities Toolbars Help
:DØ(	Output Device Setup Alt+O Plotter Manager
	System Setup Alt+S Project Setup
	✓ Ioolbar ✓ Status <u>B</u> ar

To do this, start the software (without opening a project) and click on [Settings] -[Output device setup].

If the mp-IM 1 in the upper half of the window *tags - output* is not already preselected, open the drop-down menu and select the **mp-IM 1**.

Output Setup		×
Tags - output		Rotation:
Output device (plotter)		
mp-IM1,PRINTER,LPT1:	Setup	0 🔽
Rows/Page: 2 Total frames/page Frames/Row: 4 8 Distance between frames 184.0 Distance between frames 1139.2	Calibration point X(mm) 0.0 Y(mm) 0.0	
List of output devices:	Add Del	
Sheet Labels - output		
Output device (plotter/pinner) mp-LM3.PLOTTER.C.\PROGRAMDATA\MURRPI Rows/Page: 1 Tatal rames/page Frames/Page: 1 1 Distance between frames honzontalimm) Distance between frames vertical (mm) 139.2 List of output devices: mp-LM3.PLOTTER.C.\PROGRAMDATA\MURRPL	Setup Calibration point X(mm) 2.3 • Y(mm) 119.0 • Add Del • As default	Rotation: 180
	Done	Cancel



Tags - output Output device (plotter)		Rotation:
mp-IM1,PRINTER,LPT1:	Setup	0 -
Rows/Page: 2 Total Frames/Page Frames/Row: 4 8 Distance between frames horizonta/mm) 84.0 Distance between frames Distance between frames	Calbration point X(mm) 0.0 Y(mm) 0.0	
List of output devices:	Add Del	

Click [Add]to add the mp-IM 1 to the "List of output devices".

Put a check mark next to "As default".





Enter the calibration points.

X = 18.8 Y = -28.0

Rotation = 0

#### Note

These values are default values and may vary slightly depending on the device.

Check your settings in the "Output setup" window and close it with [OK].





Now open the system parameters by clicking on [Settings] -[System setup].

Make the following settings in the [Character Properties] tab:





# **15** Cleaning and maintenance

To keep the mp-IM 1 printer in good condition and functional, it must be cleaned and serviced regularly, or more often if necessary.

## 15.1 Cleaning the mp-IM 1 printer

- Turn off the printer.
- Disconnect the power cord.
- Remove dust and other foreign particles with a dry, soft cloth.

Carefully remove stubborn dirt with a cloth moistened with water or neutral detergent. Then dry off thoroughly!



Do not use aggressive or abrasive cleaning agents! These can cause discoloration or deformation of the housing.



Never use compressed air, to clean the device or parts of it!



## 15.2 Replacing the fleece box

Change the fleece box as soon as it is apparently full.



Grip the fleece box with your hand and pull it out.



Insert the new fleece box in reverse order and press it down until it audibly clicks into place.







When inserting the fleece box, make sure to push it down deep enough. Otherwise, there is a risk that the print carriage will run against it and be damaged.

Dispose of the fleece box at the local disposal according to the legal regulations.



### **15.3** Used ink cartridges and fleece boxes

Dispose of empty ink cartridges and full fleece boxes in accordance with legal requirements at a local disposal site.

## 16 Contact us

#### **Technical support**

- +49 7191 482-2222
- □ acs.helpdesk@murrplastik.de



# 17 Technical data

Printing method inkjet			
Print resolution	300 x 300 dpi		
Ink	Special ink PC 4.0		
Print cartridges	1x Murrplastik - Black		
Print volume <sup>1)</sup>	approx. 1,000,000 characters / cartridge		
Print area	approx. 120 x 120 mm		
Print speed	approx. 16 seconds / frame		
Input voltage	110 – 240 V AC		
Frequency	50 – 60 Hz		
Power consumption	20 W while printing / 0.3 W switched off		
Temperature (operation)	10 °C - 30 °C		
Humidity (operation)	20% - 80% (without condensation)		
Device dimensions	W x H x D (31 x 18 x 38) cm		
Installation space	W x H x D (31 x 18) cm		
Weight <sup>2)</sup>	approx. 6 kg		
Interface USB 2.0			
Network connection	Ethernet		
Software	mp-UniversalMarkingSoftware or		
	ACS Gold Studio 2.3.0.95		
Windows® operating system (versions, 9, 9, 1, 10)			

Windows<sup>®</sup> operating system (versions: 8, 8.1, 10)

- 1) Depending on selected font, font size and print quality. Determined by printing with PDF-Creator, font Arial, font size 9, quality normal.
- 2) Weight including accessories supplied.



# 18 Shipping instructions for return shipment

In case of a necessary shipment (e.g. maintenance, repair) of the mp-IM 1 you must observe the following:

Always switch off the device by pressing the power switch so that the ink cartridge carriage moves to its parking position and is fixed.

**Under no circumstances** take the device out of operation only by pulling power plug!

- Remove the base plate (GP) from the carrier plate. The base plate remains with you.
- Remove the ink cartridge from the device. The ink cartridge remains with you.
- Fix the carrier plate in the device with adhesive tape.
- Secure the service flap and all moving parts with adhesive tape.
- Enclose the USB connection cable, the power cable and the power supply unit in the shipment.
- If possible, ship the device only in the original box with appropriate styrofoam moldings or in suitable other packaging.
- The device may only be transported in a horizontal position. A legible notice must be affixed to the box prior to shipment.
- Contact the ACS Helpdesk if you have any questions.

We reject any liability or assumption of costs for damage and/or soiling caused by non-compliance with the points listed here.



## **EG Declaration of Conformity**

Murrplastik Systemtechnik GmbH Dieselstraße 10 71570 Oppenweiler, Germany

hereby certifies that the test of the printer

#### mp-IM 1

has been carried out in accordance with the Low Voltage Directive 2014/35/EU and the EMC-Directive 2014/30/EU.

The mp-IM 1 printer complies with the following standards in detail:

Device safety	EN 60950-1.2006 + A11: 2009 +				
	A1:2010 + A12:2011				
Information technology equipment - Functional disturbance characteristics					
Limits and measurement methods	EN 55022 B:2011-12				
Information technology equipment - Immunity characteristics					
Limit values of test methods	EN 55024: 2016-05				
Electrostatic discharge (ESD)	EN 61000-4-2: 2009-12				
Interference radiation	EN 61000-4-3: 2011-04				
Burst	EN 61000-4-4: 2013-04				
Surge	EN 61000-4-5: 2015-03				
Conducted interference	EN 61000-4-6: 2014-08				
Test of immunity to magnetic fields					
with energy frequencies	EN 61000-4-8: 11.2010				
Voltage interruption/voltage drop	EN 61000-4-8: 11.2010				
Harmonic currents	EN 61000-3-2: 2015-03				
Voltage changes and					
fluctuations, flicker	EN 61000-3-3: 2014-03				

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Notes



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