

Litho NOTES

A newsletter for Navy Lithographers.

RISOGRAPH

Hey, Master Chief what is a RISO? In my dealings with the fleet LI, this question seems to be the one most often asked. So, this is a good time to address this question especially since the Riso has been added to the proposed AEL.

Background

The Riso is a digital duplicator—The Risograph—this is the result of several years of development. The Riso has been in use for nearly 10 years in Japan, and introduced in the United States in July 1987. According to the manufacturer the Risograph has gained popularity in the U.S. school system, religious and government markets as well as in the health care field, non-profit organizations, and the business environment.

A major benefit of the Risograph is its obvious technological advantages. It has been designed with flexibility, an exclusive line of attachments and supplies, state-of-the-art computer interface capabilities, which make the Risograph one of the industry's most advanced, cost-efficient, electronic (digital) duplicator.

Based on the Riso's ability to be versatile, reliable, tough, and having accessibility, it was designed to be adaptable, so that new features and capabilities can be added with ease.

Digital Duplicating

An alternative to the copier, for mid- to high-volume copying, the digital duplicator is the recommended replacement. A convenience of the copier, and the economy of a duplicator, the digital duplicator will print at speeds of 130 copies per minute. It is inexpensive, fast, and reliable.

A master is used to produce the printing impressions. But, unlike other technologies, the method used to produce the master is self-contained in the system and totally self-operating. The master wraps around the ink cylinder automatically.

By simply placing the original in the automatic document feeder, selecting the required number of copies, and pressing a

button, is all that is involved in the process. So, how is the image put on the master? The original is scanned by a digitizer and transforms the image into small perforations in the master. The master is then rolled around the ink cylinder, prepared for printing. On initiating the printing process, the ink passes from the center of the ink cylinder through the perforations and onto the paper. When the press run is completed the used master is automatically removed and disposed of in a receptacle before the next master is put into place.

When you are producing copies of 20 or more, consider the digital duplicator. It may prove to be more economical than a photocopier. RISO estimates that the cost of the master, ink and paper, per copy is as low as \$.003 (less than half a penny). Copy

quality is considered good because the same original is used to make each copy.

In considering the costs involved with the various printing technologies, it is important that you conduct a cost analysis or even have the vendor do one for you. Insure that you examine all the trade-offs, such as cost versus copy quality, convenience and job turnaround time. An example of this would be using a copier that may produce a slightly higher quality product, when the digital duplicator maybe less expensive, faster, and provide of choice of colors to fit that once in awhile technical requirement to print in color.

The digital duplicator does not use a heat-fusing system, which fabricates less down time and less service than the copier would.

Have you misused your copier? It is possible that you have, copiers, with their ease of use—one touch of the print button generating copies—had a decided convenience advantage. Digital duplicating is now being considered again as the alternative to the copier. Today's digital duplicator offers new high-tech applications, the ability to interface directly with a personal computer

RISO RC5600 SPECIFICATIONS	
Process	Automatic digital scanning, thermal screen ink printing system.
First Copy Time	21 Seconds.
Printing Speed	Variable from 60 to 130 copies per minute.
Scanning Resolution	400 dots per inch; 256 halftone gradations.
Automatic Document Feeder (ADF)	15 originals, Programmable
Original Size	4" by 6" to 11" by 17".
Image Area	8.2" by 13.7".
Paper Size	4" by 6" to 11" by 17"
Paper Weight	14 to 110 lbs.
Paper Capacity	1000 sheets (Feed and Receiving Trays).
Print Colors	Red, blue, green, brown, yellow, and black. (See note 1.)
Reduction Modes	64%, 74%, 77%, and 96%.
Enlargement Modes	121%, 127%, and 141%.
Features	Speed Control, Confidential Mode, Job Programmability, Automatic idle, Photo Enhancement, Sharpen Image, Two-up Copy, Graphic LCD Display, and electronic Print Density Control.
Options	Sorter, Job Separator, Computer Interface, Editing Board, Key/Card Counter, and Stand.
Power Source	110 volt AC, 50/60 hz
Power Consumption	360 VA
Weight	Approximately 200 lbs.
Dimensions	23.2" (H) by 53.6" (W) by 24.9" (D) ready for use (40.2" height with optional stand.
Note 1: Specifications are subject to change, check with your vendor, ink colors have been updated, to date I do not have the latest colors.	

adds a new dimension to the desktop publishing field. You can now print directly to the duplicator from your PC or scan images from the duplicator to the computer for further work.

The RISO RC5600 duplicator along with the computer interface has been proposed by the Defense Printing Service to be added to the AEL.

DIGITAL DUPLICATOR

The Riso RC5600 reproduces copies at 130 copies per minute in a choice of 6 different colors. A graphic digital display and simple controls. Cartridge ink and plain English displays. Prints on paper, envelopes, NCR paper, and card stock in sizes from 4" by 6" to 11" by 17".

COMPUTER INTERFACE

The RC Computer Interface can be used with the Riso RC5600 digital duplicator or as a standalone duplicator or as a printer or scanner controlled by a computer. This interface device not only expands the capability of a Risograph but provides the latest electronic and software technology for printing and scanning.

How does it work?

The RC Computer Interface contains the electronics and software that allow a computer to control certain Risograph models in the Interface Mode. The interface mode is selected by pressing the "Interface" button on the panel to the upper left of the controls of the Risograph. When Interface is not selected, the Risograph operates as a standalone duplicator.

When operating in Interface Mode, the Risograph accepts commands from a computer via the RC Computer Interface. Under computer control, the Risograph can print files or application output from a computer, scan documents, and return the scanned images to the computer.

The electronics in the interface enclosure include an Intel 1960 Processor, Control Logic, and several types of memory devices. The amount of memory and standard printer languages vary among models. The software includes PeerlessPage, Printer Operating System, which controls the electronics and computer and Risograph interfaces.

The printing and scanning software present depends on the model of the RC Computer Interface. The available software includes PeerlessPrint5, an interpreter for the printer control language of the Hewlett Packard LaserJet II Printer; Microsoft TrueImage, and Interpreter for the Postscript language; and a scanner control program.

PROBLEM COPY

Most of us have received a photograph with dark highlights, darker-than-average middletone, and shadows with detail; but

lacks normal contrast. These photographs are sometimes referred to as "muddy".

What to do.

You need to produce a halftone that lightens the highlights and middletones, and increases the contrast so that the reproduction will be more like the reproduction of an average photograph.

How to do it.

Using a densitometer determine the density of the highlight area. For instance, the highlight area has a density of 0.30. The halftone calculator data showed the highlight as 0.20 during calibration. Exposure time was 20 seconds. Based on this data the computer dial indicates that the new exposure should be increased to 26 seconds.

Next determine the amount of flash that is required. This flash exposure will more than likely have to be reduced. Your calculations may even show that the flash exposure will not be required with some photographs.

If you used a gray scale and placed it alongside the photograph, check to see what the first two or three steps closed up in the halftone negative when the highlight area is still open.

WINDOWS 3.1

For those of you who have Windows 3.1 installed on your desktop publishing system, you may find the following information helpful.

Customize a program group name.

To change a program group name follow these steps.

1. Point to the "Windows Applications" icon and click the left mouse button.

What you have done is selected the Windows Application program group and the control menu for this widow appeared.

When you installed Microsoft Windows, there were five program groups created: Accessories, Main, Games, Windows Applications and Non-Windows Applications. You probably noticed that the default names for each group overlap when the icons are arranged along the bottom of the screen. You can move the icons (refer to your manual). To prevent the names of the program group from overlapping, shorten the names.

2. Point to the "File" in the bar and click the left mouse button.

This step opens the File menu.

3. Point to the "Properties" and click the left mouse button.

This selects the properties command. What you see here is the Program Group Properties dialog box. In this box are two text boxes: Description and Group File. The Description text box shows the current program group name. (The mouse pointer is positioned inside this box.)

4. Type "Windows Aps".

Windows Aps is a shortened version of Windows Applications. Of course, you can name the program group a different name if you like.

5. Press "Enter".

By pressing enter you have confirmed the new name. The new name will appear below the icon in the Program Manager window.

You can follow this procedure to change the names of your icons.

"C" School

I received a letter from a graduate of the LI "C" school a couple of months ago and this young petty officer asked if I would publish it for her, so here it is.

Master Chief Carr:

While stationed at Ft. Belvoir, Virginia, for four years, home of the Defense Mapping School, which is where the LI "A" and "C" schools are, I only saw two females attend and graduate from the press repair course ("C" school). Although a little intimidated by the rumors that it is next to impossible to graduate without being a basket case, I requested the school before returning to sea duty.

The reason that I'm writing this is to encourage my fellow LI's, particularly females, to apply for the "C" school. It is a very challenging course with the instructors being nothing but helpful. Students do not need to know every tool in the craftsman catalog, but knowing the difference between a ball peen hammer and an allen wrench is necessary. A good attitude and printing experience will help as the course progresses.

Successful completion of this outstanding repair course offers the opportunity to receive the only NEC LI's can receive. A few prerequisites are necessary such as being on or returning to sea duty.

Needless to say, the rumors are just that and the education is priceless, not to mention all the manuals (and procedure sheets) that you cannot find elsewhere. My new command greatly appreciates both, and I have plenty of opportunity to use my new found skills.

LI2(SW) Cheryl Palmer
USS Sierra (AD 18)

LICM Note:

Contact the LI Detailer for "C" school quotas.

LITHO NOTES
Point of Contact
LICM Robert D. Carr, USN
Lithographer, SME
NETPMSA (Code 0316)
Sauley Field
Pensacola, FL 32509-5000
(C) (904) 452-1700
(DSN) 922-1700