# Working with Your MFP

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**Remark Office OMR Overview**

Optical Mark Recognition (OMR) is a technology that has been used for many years in schools, universities, businesses, government agencies and many other institutions. OMR is the process of reading data from "fill in the bubble" types of forms. Typical uses for OMR forms include standardized tests, course evaluations, surveys and many other types of forms. Traditionally, OMR forms have been processed using special scanners, special forms printed using high-end printing presses and number two pencils for filling in these forms. Traditional OMR solutions tend to be expensive and inflexible and are only practical in situations where large volumes of the same form are processed over and over. Gravic set out to change this, and since 1991 has been developing and perfecting our software to bring this useful technology to the desktop. Over the years, Remark Office OMR has become the world's leading package for collecting data from OMR forms.

**Scanners/Peripheral Options Directly Supported**

Remark Office OMR works in two ways:

1) The software works with scanners that support the TWAIN scanning protocol. These scanners are connected to the same computer running Remark Office OMR. The scanner is controlled from the software, meaning that when you are ready to scan, you click a button in the Remark software to start the process.

2) Remark Office OMR can also read pre-scanned image files, which can be created by network multi-function peripherals (MFP) from companies such as Lexmark, Xerox, Konica Minolta, Hewlett-Packard, Samsung, Muratec, Sharp, Ricoh and Toshiba. In this scenario, forms are scanned typically to a network folder, where Remark Office OMR picks them up and processes them. This scenario is the focus of this white paper.

**How does Remark Office OMR Work?**

Customers create forms using any word processor that are compatible with Remark Office OMR. Once those forms are created, a template file is created in Remark Office OMR, which tells the software how to interpret a particular form. Once the template is created, users are ready to scan filled in forms. This is where the multi-function peripheral, or MFP, comes into play.

Many MFPs are network devices that are not connected to any one computer. Instead, users utilize the MFP from a central location to do their printing, scanning, copying and faxing. MFPs may be set up with logins so that what is displayed to the user is controlled by the login. MFPs are becoming increasingly popular because of the multitude of functionality available from a single device. Organizations can consolidate desktop printers for MFPs and gain functionality at the same time. Users can leverage this functionality by using it to print and scan OMR forms for use with Remark Office OMR.

When using a network MFP with Remark Office OMR, users typically walk up to the device and scan their completed tests and surveys to a network folder. They then launch Remark Office OMR, open the template appropriate for their form and point Remark to the folder containing their form images. Remark Office OMR then processes the forms and the user can then run the built-in analysis program, Remark Quick Stats® to grade a test or tabulate a survey.

Here's how it works:

## Step 1: Create the Form.

The first step, creating a scannable form, happens outside of the Remark Office OMR software. Users can choose any word processing or form design program (Microsoft® Word® is commonly used). Gravic has [form design guidelines](#) available to assist users so that the form they design is optimal for the software. In a K-12 education setting, when Remark Office OMR is used for testing purposes, users often choose to create several standard test answer sheets containing varying numbers of questions. Having consistent forms available for anyone's use streamlines the process of test answer sheet creation and distribution.

Once users have created a form, they need to create a form template that tells Remark Office OMR how to interpret the form. They are then ready to start collecting data from filled in forms.

## Step 2: Scan Forms.

After the Remark Office OMR form template is created and the forms are filled out, the user scans the filled in forms at the MFP. We recommend scanning to the TIF (Tagged Image File) format. You may utilize the multi-page TIF format if desired. This format stores the entire batch of scanned forms as one TIF file as opposed to several individual files (one per sheet). This option can make it easier to keep files together and locate them later. Users typically scan the files to a folder on their network. This folder must also be accessible by Remark Office OMR (i.e., the computer on which it runs). We recommend creating a file structure for users so that each user has their own folder on the network. This makes it easy to save and locate the scanned images.

## Step 3: Process Forms with Remark Office OMR.

Once the forms are scanned, the user opens the Remark Office OMR software and the form template file that matches his or her form. This copy of Remark Office OMR can be on the user's desktop or on a shared computer. This computer needs to be able to connect to the storage location of the scanned filled in form images. The user initiates a reading process whereby they read in the TIF file they scanned in Step 2. Remark Office OMR reads all of the images into the active data grid, providing the user with data to analyze.
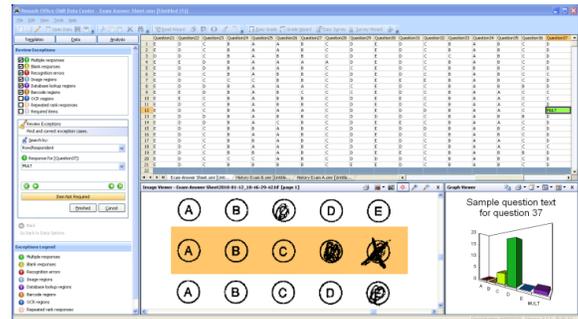
## Step 4: Save and Clean the Data.

Once the forms are processed, the user is ready to save and clean the data. They launch a review process to clean up the data and save the data to one of 35 different file formats.

## Step 5: Analyze the Data.

Once the data is cleaned, the user can choose one of the analysis options. This launches the built in Remark Quick Stats®, which grades tests and tabulates surveys. Detailed information about data analysis is included in our Remark Quick Stats User's Guide PDF installed with the software.

**How can I optimize the process?**

If you are an integrator or a member of the IT staff, there are several ways to make the process of using Remark Office OMR with MFPs more streamlined for the user.

*Optimization 1:* Most MFP's include the ability to customize the front panel with which the user interacts. If possible, program the front panel so that every time the user logs into the MFP, default settings are used. These settings should include their own folder on the network for routing images and saving images to multi-page TIFs for processing. Create a file structure on the network so that each user has his or her own folder. The login on the MFP then directs the scanned images to that folder for them. These steps eliminate the user from having to do anything outside of logging in, placing the forms in the scanner and pressing a scan button.

*Optimization 2:* Make the forms that are available for use with Remark Office OMR accessible from the MFP front panel. You may be able to present the user with options for printing specific blank forms based on their login. For example, if you are in a test grading environment and have created several standard test answer sheets, present the possible answer sheets in PDF format on the front panel. Users simply select which answer sheet they want based on the number of questions on the test, and print the number desired for the class.

*Optimization 3:* For test grading, create a process where the answer key is scanned first. When the user has the completed tests ready for scanning, fill out an answer key and place it on top (making it the first scanned form). Scan that form along with the filled in forms. When the user is ready to run Remark Office OMR, he or she can use the software's one click Easy Grade option that grades the test using the first record in the data as the answer key.

*Optimization 4:* Think about licensing. In an MFP environment, licensing is particularly important. How will the forms be processed once they are scanned at the MFP? Some options include:

1) Every user has Remark Office OMR on his or her desktop. The user starts the software, processes his or her form images and then runs reports.
2) Processing with Remark Office OMR is accomplished in a centralized location. An operator runs Remark Office OMR, processing each user's images and producing reports. The computer running Remark Office OMR can be the operator's or a shared computer.
3) Processing with Remark Office OMR is accomplished at a centralized location; however, reports are run at each user's desktop. In this scenario, a full copy of Remark Office OMR is purchased for form processing and Remark Quick Stats only licenses are purchased for individual users' desktops. Users can open the data file from central processing and run their own reports.

For more information about licensing or using MFPs with Remark Office OMR in general, please feel free to contact us. We want to do everything we can to make your Remark Office OMR experience the best it can be.

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## About Gravic, Inc.

Gravic, Inc. is a privately-held corporation located in Malvern, PA, about ten miles (16km) west of Philadelphia, PA USA. We make a number of computer software products for data collection, transformation and distribution uses. Customers for our products include schools (Primary and Higher Education), hospitals, large and small businesses, health care, government agencies, market researchers, trainers, meeting planners, brokerages, travel agencies, stock exchanges, electric utilities and telcos.

The Remark Products Group of Gravic, Inc. was founded as Principia Products in 1991. We have worked in the area of image processing and pattern recognition since the early 1980's. Our early work in OCR and ICR sold thousands of licenses. In 1991, we began to focus on OMR (optical mark recognition) with image scanners (Remark Office OMR® 1.0 release). Our strength is in our ability to innovate and develop solutions for common problems, while maintaining easy-to-use and affordable software.

In 2001, we renamed Principia Products, Inc. to Gravic, Inc. and began a merger of our other entities (ITI and Compucon Services). We completed the merger in 2003 and now all product groups are run by common management.

Please visit our web site at http://www.gravic.com/about.html to learn more about our company, values, and purpose.