

Whitepaper

For Windows®

The world's most popular data collection software!

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Try it out! Free Trial Version

RemarkSoftware.com

Remark Office OMR Overview

Since 1991, the Remark Team at Gravic, Inc. has been dedicated to the continuous development and enhancement of our acclaimed Remark Office OMR software. Our award-winning technology has been trusted by over 100,000 customers, including leading universities, schools, businesses, government agencies, and other institutions across more than 130 countries. Remark Office OMR is the world's most popular software for collecting data from OMR forms, successfully processing billions of forms globally.

What is OMR? Optical Mark Recognition (OMR) is a technology used to read data from "fill-in-the-bubble" forms, such as educational tests, surveys, assessments, evaluations, ballots, and other types of forms. Traditionally, OMR forms required special scanners and forms filled with a number two pencil. The Remark Team revolutionized OMR scanning by bringing this technology to the desktop. Over the years, we have continuously refined our software based on customer feedback, adding features like barcode recognition, image clipping, speech recognition for transcribing handwritten responses, and the ability to recognize machine-printed text (OCR) and hand-printed text (ICR). Remark Office OMR maintains ease of use for common applications while offering powerful features for more complex needs. With our latest release, the Remark Al Assistant helps you get up and running quickly. Remark Office OMR seamlessly integrates into your office environment, working with the latest Windows operating systems, common scanners and printers, and can export data to any spreadsheet, database, or analysis tool.

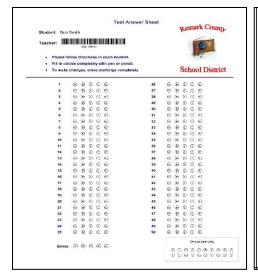
Remark Office OMR Forms

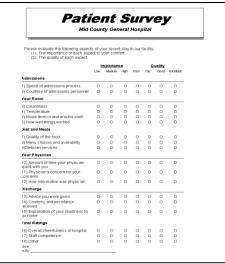
With Remark Office OMR, you have the freedom to create and print your own forms. There's no need to purchase forms from us, and we won't dictate how your forms should look or what they must include. They are entirely your forms! However, it's important to design your forms to be as scannable as possible. The key to achieving great success with our software lies in creating well-designed, scannable forms. We provide basic form design guidelines that, if followed, will ensure optimal recognition results. These guidelines are flexible, allowing you to personalize your forms according to your imagination and creativity. You can even include anchor marks to help achieve optimal recognition results.

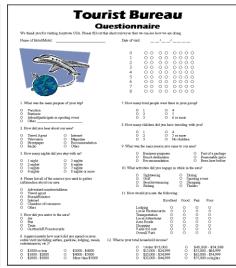
Remark Office OMR is a "trainable" software package, meaning you don't need to adhere to a specific form design. Instead, you teach the software what your form looks like, and it will read those forms accordingly. You can create forms using any word processor, form design software, or art program, including Microsoft Word, Microsoft Excel, Google Docs, Adobe InDesign, and many more. Since the design of your forms is crucial to achieving success with our software, the Remark Team offers free form reviews for all registered users, providing feedback to ensure optimal results.

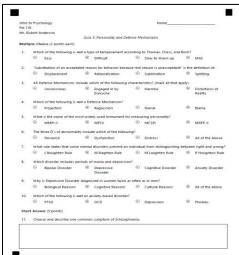
Remark Office OMR is perfect for a wide range of applications, such as compiling survey results, summarizing personnel evaluations, processing behavioral-based observations, reading safety checklists, grading tests, and tabulating ballots. You can find sample application forms on our website.

The following are a few representative forms that were created in Microsoft Word.

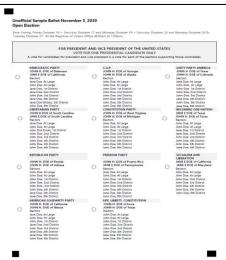












Scanner/Copier Options

Remark Office OMR is compatible with most scanners available on the market today. Specifically, the software works seamlessly with desktop scanners that include the industry-standard TWAIN driver. Most desktop scanners support TWAIN, including models from manufacturers such as Xerox, Kodak, Canon, Epson, Ricoh, and others.

While some scanners and many networked multi-function printers do not include a TWAIN driver, these devices can still create PDF, TIFF, JPG, or other types of image files that Remark Office OMR can read. Copiers from brands like Lexmark, Xerox, Ricoh, Sharp, Epson, Canon, HP, Samsung, and Brother can generate image files compatible with Remark Office OMR. Click here for more information on scanners.

Using Remark Office OMR

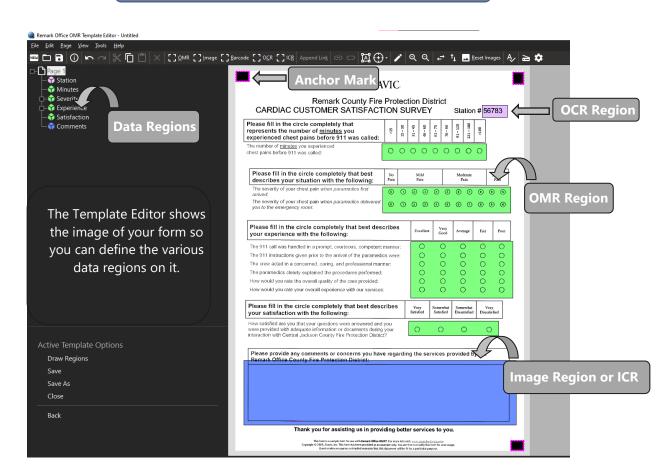
There are three basic parts of the Remark Office OMR software. The Data Center is where you scan forms and convert the images to data. Before you can scan forms, you use the Template Editor to "teach" Remark about your form. Finally Remark Quick Stats is where you can analyze your data with a variety of reports.

The Template Editor

The template instructs the software about where the data areas are located on the form and how to read and interpret them. To create a template, scan or open an image file of an unfilled copy of your form in the Remark Office OMR Template Editor. The form's image will appear on the screen. Using your mouse, highlight the areas you want to process (e.g., groups of questions), and then provide basic information about your form in the Region Definition window. Regions can be OMR (marks), OCR (machine-printed text), barcode, image regions, or ICR (handwritten text) for processing through your linked Microsoft Computer Vision account (obtained separately).

Forms can include any number of regions and can be up to ninety-nine pages long. Beyond the various recognition technologies we support, forms can be configured with advanced functionalities such as database lookup and validation, adding data from external sources, setting up advanced "skip-patterns" to ignore certain questions based on previous answers, and data transformation to format data according to specific patterns, like dates or specific numbers such as a student ID number.

Remark Office OMR's Template Editor



The Data Center

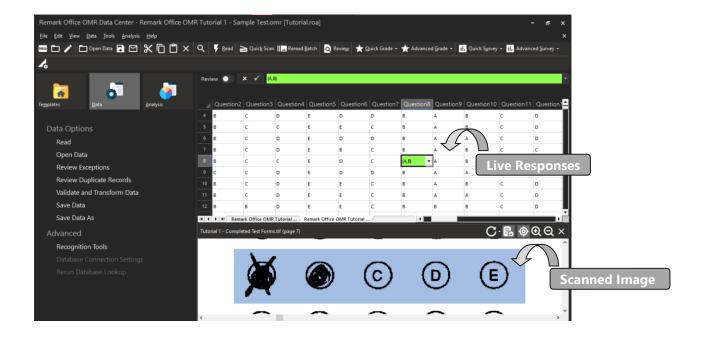
Once you have defined a template, Remark Office OMR can read your completed forms. The software reads forms as they are scanned using a TWAIN-compliant scanner or from pre-scanned image files (TIFF, PDF, JPG, BMP, PNG, and PCX/DCX formats are supported). During form processing, the software can add descriptive data on the fly or use a database lookup feature to incorporate external information into your data set for more detailed reporting. Data reading is fast, typically taking only a fraction of a second per page (excluding physical scanning time, which depends on the scanner type). As data is scanned and processed, it is displayed in a spreadsheet-style grid, with each row representing a form.

As data is processed and your spreadsheet grid expands, you may notice some cells with a different background color. These indicate exceptions encountered during processing. There are several categories of exceptions, flagged to alert you to potential issues and allow for review and correction if needed. Exceptions often result from improperly filled forms, such as unanswered questions (blank responses) or multiple responses marked where only one is allowed.

The software includes a Review Exceptions feature, enabling you to scroll through and correct exceptions one at a time. During review, an image of the exception is displayed on screen, allowing you to make corrections as needed. Additionally, the Review Exceptions function supports the use of the Windows speech-to-text engine, enabling you to enter qualitative data, such as handwritten comments, using your microphone or headset.

If security is a concern, Remark Office OMR includes features to limit changes to the data. When changes are allowed, they can be logged for review. Remark Office OMR also uses cell indicators to indicate changes were made. Simply hover over a cell to see the exact change. And remember, this is your data, and you control where data is saved and who has access.

Remark Office OMR utilizes Gravic's powerful, patented OMR read engine to process your OMR regions. You can include anchor marks on your form to assist with densely packed forms. Additionally, our recognition engine features advanced capabilities for recognizing imperfect or degraded forms. The software can ignore large marks, such as an X character used to cross out an incorrectly marked response, instead of using an eraser. Gravic's patented dynamic brightness compensation tool automatically adjusts for brightness changes on forms, whether due to scanner settings or photocopying across multiple devices. The software can also detect blank pages that are accidentally scanned and offers numerous other optimizations to enhance your results.



Export and Saving Data

The processed data can be saved to a variety of <u>output file formats</u>, where it can be shared with any number of third party applications for further analysis including the following:

Formats	Applications Supported
Spreadsheet Formats	Excel, CSV, and Text
SAV	SPSS statistical software
Database Formats	Access, SQL Server, Oracle, dBase, and Paradox
ExamSoft	ExamSoft testing application
HTML and XML	Internet or Intranet applications
Cloud Storage	Google Drive, Dropbox
ODBC	Various relational databases, such as Oracle, SQL Server, or MariaDB
Statpac	StatPac analysis package
Custom	Customized text file for virtually any analysis application
Remark	Format for use within the Remark software

Remark Quick Stats

Remark Quick Stats is an integrated analysis package designed for tabulating surveys and grading tests. The software offers a variety of standard reports, which can be customized with user-specified titles, headers, colors, fonts, and graphics.

For both surveys and tests, there are two options: "Quick" and "Advanced." The Quick option uses default settings to generate reports swiftly, providing all the essential details needed for data analysis. The Advanced option allows you to create, save, and reuse highly customizable criteria for generating and running reports, offering greater flexibility and detail in your analysis.

Survey Tabulation Highlights:

- Quick and easy tabulation: Generate standard reports with a single click using Quick Survey.
- **Customizable reporting:** Use Advanced Survey to tailor the survey analysis process, including grouping similar questions to compare means, measure against benchmarks, and assign weight to questions.
- Data comparisons: Compare survey responses across different subsets of data.
- **Batch** reporting: Automatically filter data based on specific criteria and produce reports accordingly (e.g., breaking down conference evaluations by session).
- **Excluding NA responses:** If your answer choices include a non-applicable option (e.g. Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree, NA), you can exclude NA responses from the statistics while still tracking how many respondents chose NA.
- Handwritten comments: A Response Report consolidates all handwritten comments into one easy-to-read report.

• Statistics Calculated:

- o For each item Remark Quick Stats calculates: Mean, Variance, Standard Deviation, Standard Error, Min, Max, Range, Median, Skewness, Kurtosis, T-Value, Percentiles, Confidence Intervals
- For each answer choice Remark Quick Stats calculates: Frequencies, Percentages, Valid Percent
- Crosstabs

Survey Reports Include:

<u>Item Analysis Report</u> - Provides answer choice frequency information on a question-by-question basis. (There are four different versions of this report to meet your needs.)

<u>Item Statistics Report</u> - Displays descriptive statistical information for each question. The statistics are displayed in groups, allowing you to show or hide the groups you need.

<u>Crosstabulation Report</u> - Provides information about two questions within one chart, allowing you to understand the relationship between two or more categorical variables.

<u>Comparative Item Report</u> - Analyzes performance across different demographic groups surveyed. Provides detailed insights into individual questions, such as evaluating instructors or courses in a course evaluation survey.

Question Mean Report - Provides the mean for every question tabulated, allowing you to quickly see individual question performance.

<u>Analysis Group Report</u> - Delivers comprehensive analysis for each question, including grouped questions for related insights. For example, in a course evaluation survey, you can analyze all questions pertaining to the instructor as a cohesive group.

<u>Response Report</u> - Provides responses to open-ended questions.

<u>Integrated Item Analysis Report</u> - Provides easy distribution and viewing of both quantitative data and handwritten responses in one streamlined report.

<u>Ballot Results Report</u> - Simplifies the tabulation of ballot-style responses, displaying choices ranked from highest to lowest selection.

Test Grading Highlights:

- **Modify your answer key at will:** You can adjust your answer key and regrade as often as needed. Since the answer key is separate from your data, there's no need to rescan your test sheets to regrade.
- **Quick and easy test grading:** With Quick Grade, simply scan the answer key along with the test answer sheets, click a button, and generate reports instantly.
- Sophisticated test grading: Use Advanced Grade to create or reuse an answer key for your test.
- **Question options:** Questions can have multiple correct answers. You can assign different point values, discard questions, add extra credit, and establish complex partial credit options for any question.
- **Grade scales:** Create and specify a grade scale for your tests, and modify it as needed.
- **Learning objectives:** Break down a test to measure learning on various concepts and against mandated standards. Individual grade scales can be added to each learning objective.
- Multiple test versions: Grade multiple versions of a test with different answer keys.
- **Scaled scores:** Advanced Grade supports "scaling" scores by looking up grades in an external table (based on total score, percent score, or percentile) and applying the scaled score from the external file, allowing for customizable grading.
- **Support for rubrics:** A rubric question type allows for the collection and reporting of rubric-style grades alongside multiple-choice questions.
- **Grade export:** Supports various gradebooks, including a custom gradebook for exporting into virtually any gradebook or learning management system.
- Achievement by group: Generate reports to compare achievement across different groups of students.

• Statistics Calculated:

- o For each item Remark Quick Stats calculates: Mean, Variance, Standard Deviation, Standard Error, Min, Max, Range, Median, Skewness, Kurtosis, T-Value, Percentiles,
- o Confidence Intervals, Percent Correct, Point Biserial Correlation
- o For each answer choice Remark Quick Stats calculates: Frequencies, Percentages, Point Biserial
- o For each student Remark Quick Stats calculates: Total score, Raw score, Grade, Dev. IQ, Number correct, incorrect, and unanswered

 For the test Remark Quick Stats calculates: Number of graded tests and items, Max, Min, Median, Range, Percentile scores, Mean, Variance, Standard Deviation, Confidence Intervals (1,5,95,99%), KR 20, KR21, Coefficient (Cronbach) Alpha.

Test Grading Reports Include:

<u>Test Analysis Report</u> - Provides overall summary information and points out red flags on a test, such as questions where a distractor is chosen more than the correct answer, students showing very strong comparisons of correct/incorrect answers, and test questions with a poor correlation.

<u>Student Statistics Report</u> - Used to view class performance for tests. Optionally shows detailed information about learning objectives, objective questions, and subjective questions. Great report for quickly seeing how students are performing and whether they are meeting standards.

Comparative Grade Report - Enables comparison of various data points, such as schools, instructors, classes, and gender.

<u>Class Frequency Distribution Report</u> - Provides a distribution of the grades for an entire class and test. This report is useful for gaining a quick grasp on class performance.

<u>Test Statistics Report</u> - Provides basic statistics on the test as a whole and is useful for gaining a quick look at performance and basic statistical analysis.

<u>Student Response Report</u> - Provides a graphical view of each student on the test and each question on the test in a matrix style. This report allows you to quickly see performance on both a student and question level.

<u>Condensed Test Report</u> - Provides answer choice frequency information on a question by question basis, including distractor and class score information. This report is a great way to see question and class performance at a glance.

Demographic Grade Report - Provides a breakdown of student performance based on demographic information. This report is particularly effective when trying to ensure that all subgroups of students are making adequate progress.

<u>Item Analysis Reports</u> - Provides answer choice frequency information on a question-by-question basis, which for test grading is useful for question validity. Using the Item Analysis reports, you can see how students responded to the question. If problems are found (e.g. the question was poorly worded), you can throw out the question or allow additional responses to be considered correct without rescanning. (There are four types of this report.)

<u>Changed Answer Reports</u> - Provides a breakdown of questions with answers that have been changed by crossing out responses or making changes to the data grid. This report can be generated by students or by questions.

<u>Student Response Similarities Report</u> - Provides a display of students who have similar responses on the test. This report is useful when concerned that students might be cheating.

<u>Student Achievement Report</u> - Provides the ability to evaluate students' grades in terms of whether they achieved the overall test benchmark or learning objectives benchmarks defined for the test. This report allows you to quickly see who has and has not mastered the information.

<u>Incorrect Response Report</u> - Provides the ability to quickly see which questions were answered incorrectly by which students, along with the distribution of selected answers.

<u>Student Grade Reports</u> - Provides individualized student reports that are annotated with grade information and include the original scanned test. (There are three types of this report.)

Remark Office OMR Main Features:

Form Design and Recognition

- **Flexible form design**: Create Remark Office OMR forms using any word processor or survey design package and print them on any laser-quality printer. No need to purchase expensive, pre-printed forms.
- **Patented optical mark recognition technology**: Seamlessly reads imperfect, real world forms. Supports anchor marks for optimal recognition, though they are not required for great results.
- Optical Character Recognition (OCR): Automatically recognizes machine-printed text.
- Barcode recognition: Recognizes a wide variety of barcodes.
- Intelligent Character Recognition (ICR): Automatically recognizes handwritten text using your Microsoft Azure Computer Vision account (Note: Microsoft Azure Computer Vision is purchased separately from Remark Office OMR).
- **Advanced data formatting**: Robust formatting options allow you to make your data look exactly as desired. Establish patterns for commonly used formats such as dates, phone numbers, ID numbers, and more.
- **Fillable PDFs**: Save your templates as fillable PDF files for electronic distribution. These can be easily emailed to respondents or posted on a website for quick processing.
- **Question association**: Link questions to previous ones to determine whether they should be read, which is useful for skip patterns, ballots, and questions with write-in responses.

Scanning and Reading Features

- TWAIN scanner protocol: Works directly with most desktop scanners using the TWAIN protocol.
- **Image file compatibility**: Reads image files (TIFF, PDF, JPG, BMP, PNG, PCX) created by copiers, other scanners, and various mobile scanning apps.
- **Exception correction**: Allows for the correction of exceptions (blank responses, multiple responses, etc.) while scanning pages or as an automated post-scanning task. View forms on-screen, eliminating the need to return to the paper form.
- **Multiple-page and double-sided forms**: Processes multiple-page forms and double-sided forms, supporting any page size your scanner can handle.
- **On-the-fly data addition**: Effortlessly add data to your dataset while reading forms (e.g. course identifier, session identifier, location, etc.).
- **Scanned image capture**: Saves scanned images for response verification, archival, or use by other software programs. Images can be saved and archived using advanced naming conventions for easy filing and retrieval.
- **Data validation**: Validates data against an external database to confirm recognized data from a field and bring in external data for detailed reporting.
- **Automatic form sorting**: Easily sorts forms by allowing users to mix different types of forms in the same batch. Forms can have identifiers to eliminate pre-sorting.
- **Capture handwriting**: Saves handwriting, such as signature blocks or comments sections, as image snapshots. View handwriting on-screen for easy data entry or use speech recognition to enter comments in the Remark Office OMR software. Respondent reports are available to view handwritten comments.
- **Data validation and transformation**: Facilitates data validation and transformation, allowing you to validate data, toggle exception flags, input new data, or clear data for specific queries. This versatile tool helps you tailor your data to meet specific needs.
- **Qualitative coding**: Supports qualitative coding, where users review qualitative responses on-screen and enter descriptive codes or themes.
- **Data security**: Puts the control of data in your hands, allowing you to decide where your data resides. Use the data restriction features to limit who can change data, and view any changes made easily on-screen or export them to a file.

Analysis and Data Export

- **Versatile output**: Produces output compatible with most popular spreadsheet, database, survey design, and statistical programs.
- Built-in analysis: Includes Remark Quick Stats, an integrated analysis component for grading tests and tabulating surveys.
- **Powerful test grading**: Allows you to completely control your answer key by choosing point values, extra credit, partial credit, learning objectives, multiple test versions and more.
- **Report variety**: Allows you to view data in a multitude of ways, whether by respondent, question, or overall, and includes standard and advanced statistics.
- Automatic filtering: Filters data automatically and generates distinct reports based on selected criteria.
- **Flexible saving options**: Analysis results can be saved in various formats, including PDF, XLSX, HTML, Text, and RTF, as well as directly to Google Drive or Dropbox.
- **Email integration**: Email data and reports as attachments using Remark's built-in email client, compatible with your SMTP server or Microsoft Outlook®.

For Users of Traditional OMR Systems

For those using traditional OMR scanning systems, the primary difference between traditional and Remark Office OMR scanning lies in the hardware and forms used. Remark Office OMR works with common image scanners, copiers, and mobile scanning apps that can create suitable images (PDF, TIFF, JPG). These scanners can also be used for scanning pictures or text pages.

Conversely, traditional OMR readers are typically associated with standardized testing, pre-printed forms, and number two pencils. Traditional OMR products require users to purchase pre-printed forms made to exact specifications, which are difficult to print using common office equipment.

Remark Office OMR provides both cost savings and flexibility. Forms can be created using any page layout, word processing, or design software, without needing special registration marks or drop-out inks. Users can duplicate forms on a laser printer or copier, and respondents can fill in plain-paper forms using any writing instrument (pen, pencil, marker, etc.).

Who Uses Remark Office OMR?

- Education Professionals for student testing, institutional research, course evaluations, and community surveys
- Marketing Professionals for consumer surveys and customer satisfaction
- Psychology Professionals for testing, assessments, and evaluations
- Government Agencies for data compilation from internal and external sources
- **Healthcare Industry** for customer surveys, patient data, and research
- Pharmaceutical Companies for clinical trials and product evaluation
- **Police Departments** for compliance and community surveys
- Safety Professionals for behavioral based safety observations, audits, checklists, and inspections
- Human Resource Departments for employee surveys, time sheets, and evaluations
- Training Professionals for course/instructor evaluations, assessments, and tests
- Election professionals for union, HOA, corporate, government, and other elections
- And Many More

Helpful links

Our website includes many resources that can help you learn Remark Office OMR. The following are some useful links about Remark Office OMR.

- Remark Office OMR web page
- User stories and case studies
- Sample form files (Word, PDF and Remark Office OMR template files)
- Get a free trial
- Free form review service
- Free training modules
- Subscribe to our YouTube channel

Need a live voice?

Call us: 1.800.858.0860 or +1.610.647.7850

Email: remark@gravic.com

Minimum System Requirements

- Personal computer with 2 GHz or faster processor
- Supported Microsoft Windows® 32-bit and 64-bit desktop operating systems:
 Windows 10 or Windows 11
- .NET 4.8 (or higher) framework
- 2 GB RAM
- 1 GB free fixed disk space
- Screen/monitor resolution of 1024x768 or higher and at least 32-bit color
- Mouse or other pointing device

Recommended optional requirements

- Supported scanner (includes multifunction printer that has scanning capabilities)
- Windows-supported printer
- Internet connection recommended for initial software activation and email functionality
- PDF viewer required to view installed documentation
- Microphone for speech recognition
- Microsoft Outlook can be used for email functionality; if not present an internal Remark Office OMR email client (using your SMTP server) may be used

*The software uses activation for license regulation. If you choose to install on a virtual machine (VM), due to the nature of how virtual environments behave, online activation is required every time the software is run.

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, healthcare, 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 website to learn more about our company, values, and purpose.

Thank you for your interest in Remark Office OMR!

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