



Remark®
Office OMR

11

Whitepaper

For Windows®

The world's most popular
data collection software!

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Try it out!
Free Demo Version
RemarkSoftware.com

Remark Office OMR Overview

Thank you for your interest in Remark Office OMR!

Since 1991, the Remark Team at Gravic, Inc. has been continually developing and enhancing our popular Remark Office OMR software. If you are considering our award-winning product then you are in good company, as our pioneering technology has been used to successfully process over a billion forms by over 100,000 customers from leading universities, schools, businesses, government agencies and other institutions in over 130 countries around the world. Remark Office OMR is the worlds most popular product for collecting data from OMR forms.

So what is OMR? Optical Mark Recognition (OMR) is a technology for reading data from “fill-in-the-bubble” types of forms such as educational tests, surveys, assessments, evaluations, ballots, and many other types of forms used to gather data from respondents. Traditionally, OMR forms were processed using special scanners that required specially printed forms filled in with a number two pencil. The Remark Team set out to optimize OMR scanning and brought this useful technology to the desktop. Over the years, we have listened to the needs of our many customers and have refined our software and added other technologies such as barcode recognition, image clipping, speech recognition for transcribing handwritten responses, and the ability to recognize machine printed text (OCR) and hand printed text (ICR). We have maintained the ease of use for more common uses while adding powerful features for more complex needs. Remark Office OMR is designed to seamlessly fit into your office. Remark works with the latest versions of the Windows operating system, with all the common scanners and printers, and can feed data into any spreadsheet, database or other analysis tool.

Remark Office OMR Forms

With Remark Office OMR, you create and print your own forms. You do not have to buy forms from us and we are not going to tell you how your form should look or what has to be on your form. They are your forms!

It is important though to realize that as you are creating forms, there are things you can do to make your forms as scannable as possible. Designing a good, scannable form is the most important factor in having great success with our software. There are some basic form design guidelines that, if followed, ensures that you get the best recognition results possible. Our guidelines though do not limit you in your imagination and creativity so you can personalize your forms as desired.

Remark Office OMR is a “trainable” software package, so rather than you having to conform to a particular form design, you tell the software what your form looks like and it then can read those forms. Forms can be created in any word processor, form design package, or art program, including: Microsoft Word, Microsoft Excel, Google Docs, Adobe InDesign and many more.

Using Remark Office OMR

There are three basic parts of the Remark Office OMR software. The Data Center is where you will be when you are scanning forms and converting the images to data. Before you can scan forms you will use the Form Template Editor to “teach” Remark about your form. Finally Remark Quick Stats is where you will be able to look at your data in a variety of reports.

Form Template Editor

The form template tells the software where the data areas are on the form and how to read and interpret the data areas. To create a form template, you scan or open an image file containing an unfilled copy of your form into Remark Office. The image of the form appears on the screen. Using your mouse, you show the software the areas you want to process on the form (e.g. groups of questions), and then fill in 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 contain any number of regions and can be up to ninety nine pages in length. In addition to the different types of recognition technologies we support, forms can be set up to use advanced functionality such as the ability to lookup and validate or add data from an external database, setting up advanced “skip-patterns” where certain questions may be ignored based upon answers to other questions, and data transformation where you can format data to match a defined pattern such as a date or some specific ID number such as a social security number.

Remark Office OMR’s Template Editor

Collect and Analyze Data from Plain-Paper Forms

The Data Center

Once you have a form template defined for your form, Remark Office OMR will be able to read your filled out forms. The software reads forms as they are scanned if using a TWAIN compliant scanner, or will read from image files that have already been scanned with a scanner or copier (Tiff, PDF, JPG, BMP, PNG, and PCX/DCX formats are supported). When processing forms, the software can add descriptive data on the fly, or use a database lookup feature to add external information to your data set for more detailed reporting. Reading data is fast, usually a fraction of a second per page (does not include the physical scanning time which depends upon the type of scanner you are using). As data is scanned and processed, it is displayed in a spreadsheet-style grid, one row per form.

As data is processed and your spreadsheet grid grows, you may see some cells in the spreadsheet with a different background color. These are exceptions that were encountered during the processing phase. There are several categories of exceptions which are flagged in this way to alert you of the potential issue and to allow you to review and correct the exception if desired. Often exceptions are the result of improperly filled in forms such as questions that were not answered (blank responses) and cases where multiple responses are marked when they are not allowed. The software provides a Review Exceptions feature that allows you to scroll through the exceptions one at a time where they can be corrected if desired. When in review mode, an image of the exception is displayed on screen and you can optionally correct these exceptions (such as shown in the image below). In addition, the Review Exceptions function will allow you to use the Windows speech-to-text engine to enter qualitative data, such as handwritten comments, using your microphone or headset.

Remark Office OMR uses Gravic's powerful, patented OMR read engine to process your OMR regions. Our recognition engine includes advanced features for recognizing imperfect or degraded forms. The software has the ability to ignore large marks, such as the X character, when someone uses it to cross out an incorrectly marked response rather than using an eraser. Gravic's patented dynamic brightness compensation tool automatically compensates for brightness changes on forms (due to scanner settings or photocopying when using multiple devices). The software can also detect blank pages that are accidentally scanned and can do much more to optimize your results.



Collect and Analyze Data from Plain-Paper Forms

The processed data can be saved to a variety of [output file formats](#), 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
Survey Pro and Statpac	Apian Software survey design and StatPac analysis packages
Custom	Customized text file for virtually any analysis application
Remark	Format for use within the Remark software

Remark Quick Stats

Remark Quick Stats is a built-in analysis package that can be used to tabulate surveys and grade tests. The software provides many standard reports. Reports can be customized to include user specified titles, headers, colors, fonts, and graphics.

For both surveys and tests there is a “Quick” option which uses defaults in order to run your reports, and there is an “Advanced” option where you can create, save and reuse a very customizable set of criteria for creating and running your reports. In most cases, the Quick mode will provide all the detail you need in your analysis of your data.

Survey Tabulation Highlights

- **Quick and easy tabulation.** Using Quick Survey, generate standard reports in one click.
- **Customizable reporting.** Use Advanced Survey to customize the survey analysis process, including creating groups of like questions to compare means and measure against established benchmarks as well as weight importance of questions.
- **Data comparisons.** Compare survey responses across subsets of data.
- **Batch report.** Automatically filter data on specific criteria and produce reports based on the filters (e.g. if evaluating a conference, breaking reports down by session).
- **The ability to exclude NA (non-applicable) responses:** If your answer choices include a non-applicable option (e.g., Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree, NA) and someone chooses NA, you can exclude it from the statistics, but still be able to see how many respondents chose the NA response.
- **Handwritten comments.** A Response Report displays all of the handwritten comments on one easy to read report.
- **Statistics Calculated:**
 - ⇒ 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

Collect and Analyze Data from Plain-Paper Forms

Survey Reports Include:

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

[Item Statistics Report](#) - Displays descriptive statistical information for each question. The statistics are displayed in groups, allowing you to show or hide the groups you need.

[Crosstabulation Report](#) - Provides information about two questions within one chart, allowing you to see a breakdown of responses for two questions simultaneously.

[Comparative Item Report](#) - Compares performance for various demographics included in the survey. Reports individual question information based on questions from the data (e.g., in the case of a course evaluation survey, you could report on instructors, courses, etc.).

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

[Analysis Group Report](#) - Provides overall analysis of each question, along with analysis of questions that are placed in groups. Question groups can be used to view analysis of related questions (e.g., if processing a course evaluation survey, you can view all questions related to the instructor as a question group).

[Response Report](#) - Typically used to provide responses from open-ended questions.

[Integrated Item Analysis Report](#) - Provides easy distribution and viewing of both quantitative data and handwritten responses in one streamlined report.

[Ballot Results Report](#) - Streamlines the tabulation of ballot style responses. It tabulates and displays the choices in order from highest to lowest selection.

Test Grading Highlights

- **Modify your answer key at will.** You can modify your answer key and regrade as often as desired. Your answer key is separate from your data, you *never* have to rescan your test sheets to regrade your test!
- **Quick and easy test grading.** Using Quick Grade, simply scan the answer key with the test answer sheets, click a button and reports are produced.
- **Sophisticated test grading.** Use Advanced Grade to create or reuse an answer key for your test.
- **Question Options.** Questions can include multiple correct answers. You can assign different point values for each question, can throw out a question, can give extra credit questions, and can establish complex partial credit options for any question.
- **Grade Scales.** You can create and specify a grade scale for your tests and can modify it at will.
- **Learning objectives.** Used to break down a test to measure learning on various test concepts and measure against mandated standards. Individual grade scales can be added to each learning objective.
- **Multiple test versions.** Grade multiple versions of a test with multiple answers keys.
- **Scaled scores.** Advanced Grade supports "scaling" a score, whereby you look up grades in an external table (based on total score, percent score or percentile) and then apply the scaled score from the external file. Provides for customizable grading.
- **Supports for rubrics.** A rubric field type allows for collection and reporting of rubric style grades along with the 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.** Reports are available to compare achievement across various groups of students.

Collect and Analyze Data from Plain-Paper Forms

• Statistics Calculated:

- ⇒ For each item Remark Quick Stats calculates: Mean, Variance, Standard Deviation, Standard Error, Min, Max, Range, Median, Skewness, Kurtosis, T-Value, Percentiles,
- ⇒ Confidence Intervals, Percent Correct, Point Biserial Correlation
- ⇒ For each answer choice Remark Quick Stats calculates: Frequencies, Percentages, Point Biserial
- ⇒ 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:

[Test Analysis Report](#) - Provides overall summary information and points out red flags in 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.

[Student Statistics Report](#) - 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](#) - Provides a comparison of information within the data set. For example you can compare schools, instructors, classes, gender, etc.

[Class Frequency Distribution Report](#) - Provides a distribution of the grades for an entire class and test. This report is useful for gaining a quick grasp on class performance.

[Test Statistics Report](#) - Provides basic statistics on the test as a whole and is useful for gaining a quick look at performance and basic statistical analysis.

[Student Response Report](#) - 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.

[Condensed Test Report](#) - 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.

[Item Analysis Reports](#) - 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.

[Changed Answer Reports](#) - 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.

[Student Response Similarities Report](#) - Provides a display of students who have similar responses on the test. This report is useful when concerned that students might be cheating.

[Student Achievement Report](#) - 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.

[Incorrect Response Report](#) - Provides the ability to quickly see which questions were answered incorrectly by which students, along with the distribution of selected answers.

Collect and Analyze Data from Plain-Paper Forms

Remark Office OMR Main Features:

Form Design and Recognition

- ⇒ Allows flexibility in form design. Remark Office OMR forms can be created with any word processor or survey design package and printed on any laser quality printer. **Purchasing expensive, pre-printed forms is not required.**
- ⇒ Patented mark recognition technology allows imperfect forms to be read seamlessly. **No registration marks or drop-out colors are needed.**
- ⇒ Automatically recognizes machine printed text with Optical Character Recognition (OCR).
- ⇒ Recognizes a wide variety of barcodes.
- ⇒ Automatically recognizes handwritten text (ICR) using your Microsoft Azure Computer Vision account. *(Note: Microsoft Azure Computer Vision is a separate charge from Remark Office OMR.)*
- ⇒ Supports advanced data formatting of field data. Use the robust formatting options to make your data look exactly how you desire. Establish your own patterns for commonly used formats such as dates, phone numbers, social security numbers, and more.
- ⇒ Creates fillable PDFs. You can save your templates as fillable PDF files for electronic distribution. Fillable PDF files can be easily distributed to respondents via email or posted on a website, then emailed back to you for quick processing.
- ⇒ Supports associating questions, which allows a question to be linked to a previous question to determine whether the question should be read (useful for skip patterns, ballots and questions with write-in responses).

Scanning and Reading Images

- ⇒ Works directly with most desktop scanners using the TWAIN scanner protocol. An automatic document feeder is recommended. Speed depends on the scanner (typically runs at rated speeds).
- ⇒ Reads image files (TIF, PDF, JPG, BMP, PNG, PCX) created by copiers, other scanners and various mobile scanning apps.
- ⇒ Allows for the correction of exceptions while scanning pages or as an automated post-scanning task. View forms on-screen, eliminating the need to go back to the paper form.
- ⇒ Processes multiple-page forms and double-sided forms. Software supports any page size your scanner can handle.
- ⇒ Effortlessly add data on the fly to your data set when reading forms (e.g. a course identifier, session identifier, location, etc.).
- ⇒ Saves scanned images for response verification, archival or for use by another software program. Images can be saved and archived using advanced naming conventions for easy filing and retrieval.
- ⇒ Validates data against an external database to 1) confirm that recognized data from a field appear in a particular database field and 2) bring in external data to assist with detailed reporting.
- ⇒ Easily sorts forms by allowing users to mix forms of different types into the same batch. Forms can have form, page, and respondent identifiers on them to eliminate the pre-sorting of forms.
- ⇒ Saves handwriting, such as a signature block or comments section, as image snapshots. View the 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 the handwritten comments.
- ⇒ Allows for data validation and transformation. This allows you to validate what is found in your data, turn exception flags on or off, enter new data, or clear data for desired questions. This powerful new tool allows you to transform your data to your specific requirements.
- ⇒ Supports qualitative coding where the user reviews the qualitative responses on-screen and then enters a descriptive code or theme.

Analysis and Data Export

- ⇒ Produces output that can be used with most popular spreadsheet, database, survey design, and statistical programs.
- ⇒ Includes Remark Quick Stats, a built-in analysis component for grading tests and tabulating surveys.
- ⇒ Automatically filters data and generates separate reports determined by fields you select.
- ⇒ Analysis results can be saved to PDF, XLSX, HTML, Text, and RTF file formats, as well as right to Google Drive or Dropbox.
- ⇒ Email data and reports as attachments with Remark's built-in email client in conjunction with your SMTP server or Microsoft Outlook®.

Collect and Analyze Data from Plain-Paper Forms

For users of traditional OMR systems

For anyone using a traditional OMR scanning system, the main difference between the two types of OMR scanning is in the hardware and forms with which they work. Remark Office OMR works with common image scanners, copiers, and mobile scanning apps (anything that can create a suitable image – PDF, TIFF, JPG). These are the type of scanners that can also be used for scanning pictures or pages of text.

On the other hand, traditional OMR readers are commonly associated with standardized testing, pre-printed forms, and number two pencils. When using traditional OMR products, users are tied to purchasing pre-printed forms that are created to very exacting specifications. It is very difficult to print such forms using common office equipment and purchasing these forms is required.

Remark Office OMR offers both cost savings and flexibility. Forms are created in any page layout, word processing, or design software. These forms do not need special registration marks or drop-out inks. The user can duplicate the forms on a laser printer or copier. Respondents can use any writing instrument (pen, pencil, marker, etc.) to fill in their plain-paper forms.

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
- ⇒ **And Many More**

Helpful links

Our website includes many resources that can help you learn the product. The following are some useful links for new users of Remark Office OMR.

- [Free form review service](#)
- [Overview on form design](#)
- [Free training modules](#)
- [Sample form files](#) (Word, PDF and Remark Office OMR template files)
- [Subscribe to our YouTube Channel](#)

Need a live voice?

Call us: 1.800.858.0860 or 1.610.647.7850

Collect and Analyze Data from Plain-Paper Forms

Minimum System Requirements

- Personal computer with 2 GHz or faster processor
- Supported Microsoft Windows® 32-bit and 64-bit desktop operating systems: Windows 8.1, Windows 10
- .NET 4.7.2 (or higher) framework
- Microsoft Visual C++ 2015 Redistributable Package (will be installed if not present)
- 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 2007 or greater 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